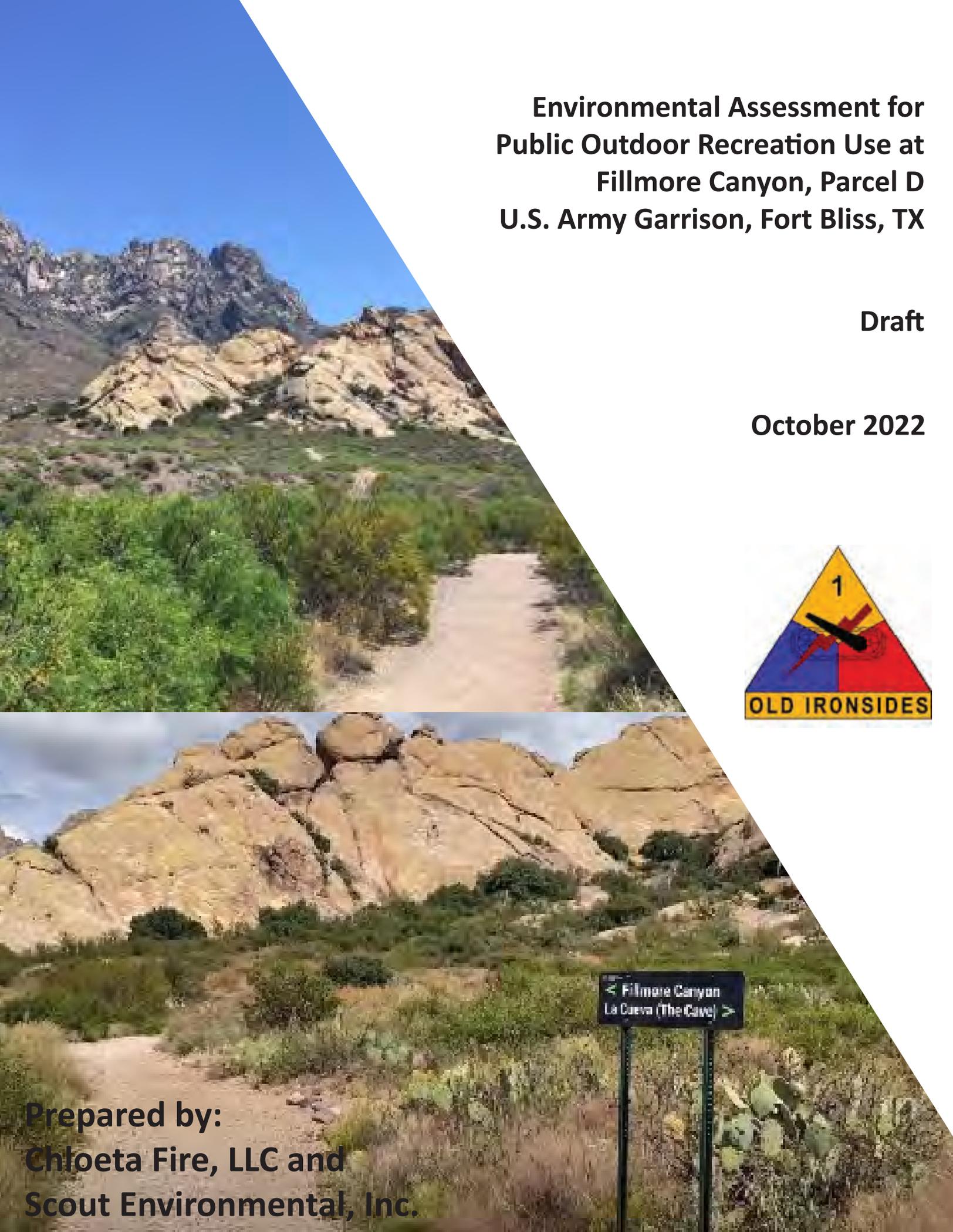


**Environmental Assessment for  
Public Outdoor Recreation Use at  
Fillmore Canyon, Parcel D  
U.S. Army Garrison, Fort Bliss, TX**

**Draft**

**October 2022**



**Prepared by:  
Chloeta Fire, LLC and  
Scout Environmental, Inc.**

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## Draft Finding of No Significant Impact (FONSI)

**Name of the Proposed Action:** Environmental Assessment for the Public Outdoor Recreation Use at Fillmore Canyon, Parcel D, United States (U.S.) Army Garrison, Fort Bliss, Texas.

**Description of the Proposed Action:** U.S. Army Garrison, Fort Bliss, Texas has prepared an Environmental Assessment (EA) to evaluate the potential environmental effects associated with opening Fillmore Canyon, Parcel D, to the public for recreational use. Fillmore Canyon, Parcel D, would be opened for certain recreational activities per 2019 John D. Dingell, Jr. Conservation, Management, and Recreation Act (Public Law [P.L.] 116-9, 2019) (hereinafter, “The Act” or P.L. 116-9). The Act provides that the U.S. Army (Army) shall allow for the conduct of certain recreational activities on approximately 2,035 acres of land generally referred to as “Fillmore Canyon, Parcel D,” subject to military training requirements and public safety considerations. After this EA is complete, a decision will be made whether the Army or the Bureau of Land Management (BLM) will retain administrative jurisdiction.

**Purpose and Need:** The purpose of the Proposed Action is to analyze the likelihood of increasing recreational opportunities for the public and determine which areas are compatible from a safety, environmental and mission impact perspective. The Proposed Action is needed for the Army to comply with Section 1201, 11(D) of P.L. 116-9.

**Environmental Consequences:** The Draft EA assessed potential environmental impacts on the following valued environmental components: biological resources; water resources; earth resources; land use; human health and safety; and cultural resources. Through implementation of best management practices there would be no significant impacts on the environment if the Proposed Action were implemented. Best management practices include developing a recreational plan and coordinating with the BLM whether the Army or BLM has administrative jurisdiction; taking measures to prevent potential damage to biological resources and proactive management measures to control nuisance and invasive species; continuing to monitor water resources to prevent sedimentation/erosion, habitat fragmentation, and protect sensitive areas; monitoring and limiting recreational use to protect earth resources; installing signs to educate recreational users regarding authorized land use and safety measures; limiting the types of recreational activities to improve safety; and implementing procedures to minimize adverse effects to historic properties and continuing consultation with tribes.

**Public Review:** U.S. Army Garrison, Fort Bliss, Texas invites members of the public to comment on the Draft EA prior to document finalization. Hard copies of the Draft EA are available to the public at the following information repositories:

- Las Cruces: Thomas Branigan Memorial Library, 200 E. Picacho Avenue, Las Cruces, New Mexico 88001;
- El Paso: El Paso Public Library Richard Burges Branch, 9600 Dyer St C, El Paso, Texas 79924; and

This document is available electronically on the Fort Bliss environmental website: <https://home.army.mil/bliss/index.php/about/Garrison/directorate-public-works/environmental>

Written comments concerning the Draft EA should be directed to U.S. Army Garrison, Fort Bliss, Texas Environmental Division. All comments must be received no later than 30 days after the draft Finding of No Significant Impact is published to:

U.S. Army Garrison Fort Bliss  
Directorate of Public Works  
Environmental Division  
Attn: NEPA Program Manager  
624 Pleasonton Road  
USAG Fort Bliss, Texas 79916  
email: [usarmy.bliss.id-readiness.mbx.dpw-nepa-support@mail.mil](mailto:usarmy.bliss.id-readiness.mbx.dpw-nepa-support@mail.mil)

**Conclusion:** Based on the information and analysis presented in this EA and on the guidelines for determining the significance of proposed federal actions in 40 Code of Federal Regulations (CFR) 1508.27 and Army guidelines under 32 CFR 651, and review of public agency comments submitted during the 30-day comment period, Fort Bliss has concluded that implementation of the Proposed Action will not result in significant impacts on the quality of human and natural environments. In addition, all applicable federal, state, and local laws and regulations would be followed. For these reasons, a Finding of No Significant Impact is made, thereby making the preparation of an Environmental Impact Statement unwarranted.

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James Brady  
Colonel, U.S. Army  
Garrison Commander

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Date

**DRAFT**

**ENVIRONMENTAL ASSESSMENT FOR PUBLIC OUTDOOR RECREATION USE AT  
FILLMORE CANYON, PARCEL D, U.S. ARMY GARRISON, FORT BLISS, TEXAS**

**Prepared for:**

U.S. ARMY GARRISON FORT BLISS

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Commanding

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Date

## TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS.....	iii
1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION.....	1-1
1.1 Introduction.....	1-1
1.2 Purpose and Need.....	1-5
1.3 Scope and Content of the EA.....	1-6
1.4 Decision(s) to be Made.....	1-6
1.5 Public Participation.....	1-6
2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES.....	2-1
2.1 Proposed Action.....	2-1
2.1.1 Alternative 1.....	2-2
2.1.2 Alternative 2.....	2-2
2.2 No Action Alternative.....	2-2
2.3 Alternatives Eliminated from Further Consideration.....	2-2
3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES.....	3-1
3.1 Valued Environmental Component (VEC) Analysis.....	3-1
3.2 Biological Resources.....	3-3
3.2.1 Affected Environment.....	3-4
3.2.2 Environmental Consequences.....	3-9
3.3 Water Resources.....	3-10
3.3.1 Affected Environment.....	3-11
3.3.2 Environmental Consequences.....	3-13
3.4 Earth Resources.....	3-14
3.4.1 Affected Environment.....	3-14
3.4.2 Environmental Consequences.....	3-20
3.5 Land Use.....	3-21
3.5.1 Affected Environment.....	3-21
3.5.2 Environmental Consequences.....	3-23
3.6 Human Health and Safety.....	3-24
3.6.1 Affected Environment.....	3-24
3.6.2 Environmental Consequences.....	3-27
3.7 Cultural Resources.....	3-27
3.7.1 Affected Environment.....	3-28
3.7.2 Environmental Consequences.....	3-33
4 CUMULATIVE IMPACTS.....	4-1
4.1 Process for Identification of Cumulative Effects.....	4-1
4.2 Scope of Cumulative Impacts Analysis.....	4-1
4.3 Past, Present, and Reasonably Foreseeable Actions.....	4-1
4.4 Cumulative Impact analysis.....	4-2
4.4.1 Biological Resources.....	4-2
4.4.2 Water Resources.....	4-3
4.4.3 Earth Resources.....	4-3
4.4.4 Land Use.....	4-4

4.4.5	Human Health and Safety .....	4-4
4.4.6	Cultural Resources .....	4-4
5	SUMMARY OF POTENTIAL IMPACTS AND MEASURES TO AVOID, MINIMIZE, OR MITIGATE IMPACTS .....	5-1
6	REFERENCES .....	6-1
7	LIST OF PREPARERS .....	7-1

## APPENDICES

APPENDIX A. Final Munitions and Explosives of Concern Probability Assessment (MEC-PA) Fillmore Canyon, Parcel D SDZ .....	A-1
APPENDIX B. Public Participation .....	B-1
APPENDIX C. FY 2022 Natural Resources Evaluation in Fillmore Canyon, Parcel D, Fort Bliss Military Reservation, Doña Ana County, New Mexico .....	C-1

## LIST OF FIGURES

Figure 1-1: Fillmore Canyon, Parcel D EA Vicinity Map .....	1-3
Figure 1-2: Fillmore Canyon, Parcel D EA Project Area .....	1-4
Figure 3-1: Fillmore Canyon, Parcel D Springs .....	3-12
Figure 3-2: Fillmore Canyon, Parcel D NRCS Soil Map Units .....	3-16
Figure 3-3: Fillmore Canyon, Parcel D Topography .....	3-19
Figure 3-4: Fillmore Canyon, Parcel D, Surface Danger Zone, Active/Historical Firing Range Overview .....	3-26

## LIST OF TABLES

Table 3-1: Valued Environmental Components .....	3-1
Table 3-2: Fillmore Canyon, Parcel D Flora with Special Status .....	3-6
Table 3-3: Fillmore Canyon, Parcel D Mammals with Special Status .....	3-7
Table 3-4: Fillmore Canyon, Parcel D Avians with Special Status .....	3-7
Table 3-5: Fillmore Canyon, Parcel D Reptiles with Special Status .....	3-8
Table 3-6: Fillmore Canyon, Parcel D Invertebrates with Special Status .....	3-8
Table 3-7: Fillmore Canyon, Parcel D Soil Units and Erodibility Factors .....	3-17
Table 3-8: FBTC Land Use Categories .....	3-22
Table 3-9: FBTC Land Use Category E .....	3-23
Table 3-10: National Register of Historic Places (NRHP) Eligibility Recommendations .....	3-30
Table 4-1: Cumulative Action Evaluation .....	4-2
Table 5-1: Summary of Impacts and BMPs Under the Proposed Action .....	5-1

## LIST OF PHOTOGRAPHS

Photo 1-1: 2019 John D. Dingell, Jr. Conservation, Management, and Recreation Act, Section 1201, 11(D) "Parcel D" (P.L. 116-9, 2019) .....	1-2
Photo 1-2: Fillmore Canyon, Parcel D timeline and NEPA actions .....	1-5

**ABBREVIATIONS AND ACRONYMS**

ACHP	Advisory Council on Historic Preservation
AR	Army Regulation
Army	United States Army
BLM	Bureau of Land Management
BMP(s)	Best Management Practice(s)
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FBTC	Fort Bliss Training Complex
FONSI	Finding of No Significant Impact
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resource Management Plan
ITAM	Integrated Training Area Management Plan
IWFMP	Integrated Wildland Fire Management Plan
JLTV	Joint Light Tactical Vehicle
MEC	Munitions and Explosives of Concern
MEC-PA	Munitions and Explosives of Concern Probability Assessment
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NMBGMR	New Mexico Bureau of Geology & Mineral Resources
NMDA	New Mexico Department of Agriculture
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PA	Programmatic Agreement
P.L.	Public Law
ROI	Region of Influence
SDZ	Surface Danger Zone
SHPO	State Historic Preservation Office
SOP(s)	Standard Operating Procedure(s)
U.S.	United States
USC	United States Code
USFWS	United States Fish and Wildlife Service
UXO	Unexploded Ordnance
VEC	Valued Environmental Component
WSMR	White Sands Missile Range

# 1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

## 1.1 Introduction

This Environmental Assessment (EA) evaluates the potential environmental effects associated with opening Fillmore Canyon, Parcel D, to the public for recreational use. Fillmore Canyon, Parcel D would be opened for certain recreational activities per 2019 John D. Dingell, Jr. Conservation, Management, and Recreation Act (Public Law [P.L.] 116-9, 2019) (hereinafter, “The Act” or P.L. 116-9). See excerpted language from The Act (Photo 1-1). The Act provides that the United States (U.S.) Army (Army) shall allow for the conduct of certain recreational activities on approximately 2,035 acres of land generally referred to as “Fillmore Canyon, Parcel D,” subject to military training requirements and public safety considerations.

Figure 1-1 provides a view of the proposed Fillmore Canyon, Parcel D boundary within the vicinity of Fort Bliss. Figure 1-2 provides a zoomed in view of the proposed Fillmore Canyon, Parcel D area. Note that a portion of the area is part of Bureau of Land Management (BLM) Organ Mountains-Desert Peaks National Monument and is not part of this EA.

Established in 1849, Fort Bliss is a multi-mission Army installation located in west Texas and southern New Mexico. Fort Bliss covers approximately 1.1 million acres used for training and maneuvers by the Army and other users (Figure 1-1). Fillmore Canyon, Parcel D is located in the northwest portion of Fort Bliss (Figure 1-1 and Figure 1-2). Currently Fillmore Canyon, Parcel D is categorized and used by Fort Bliss for military training consisting of on-road vehicle maneuver, dismounted maneuver, and aircraft activities. Fillmore Canyon, Parcel D has limited access to any Fort Bliss Training Area or range due to extremely rugged terrain (see para. 3.2.1, U.S. Army, 2021).

The intent of The Act is to open Fillmore Canyon, Parcel D (2,035 acres) for public recreation. Section 1201, 11(D) of The Act requires the Secretary of the Army to provide a plan, “consistent with the primary military mission of the parcel” for public recreational activities, “to the maximum extent practicable,” to protect the public safety and the safety of military members training.

The area has long been viewed as a potentially attractive hiking and recreation area by the local New Mexico and Texas public. Trespassing on Fillmore Canyon, Parcel D has been a persistent issue over time and occurs almost daily. Trespassing is a particular concern because there are active ranges adjacent to Fillmore Canyon, Parcel D, which results in operational security and safety concerns. In addition, trespassing also poses a threat to natural and cultural resources.

A non-intrusive Munitions and Explosives of Concern (MEC) Probability Assessment (MEC-PA) was conducted January 23 – February 4, 2022, as part of the Fillmore Canyon EA (see Appendix A). The MEC-PA was conducted in accordance with U.S. Army Corps of Engineers Engineer Manual 385-1-97 Explosives Safety and Health Requirements Appendix Z. The focus of the MEC-PA was on an area identified as a firing range surface danger zone (SDZ) located within the historic Doña Ana Range Complex. This area is approximately 583 acres of Fillmore Canyon, Parcel D’s 2,035 acres.

**Photo 1-1: 2019 John D. Dingell, Jr. Conservation, Management,  
and Recreation Act, Section 1201, 11(D) “Parcel D” (P.L. 116-9, 2019)**

**PUBLIC LAW 116–9—MAR. 12, 2019**

(C) **PARCEL C.**—The approximately 1,297 acres of land generally depicted as “Parcel C” on the map entitled “Organ Mountains Area” and dated September 21, 2016, is withdrawn in accordance with subparagraph (A), except that the land is not withdrawn from disposal under the Act of June 14, 1926 (commonly known as the “Recreation and Public Purposes Act”) (43 U.S.C. 869 et seq.).

(D) **PARCEL D.**—

(i) **IN GENERAL.**—The Secretary of the Army shall allow for the conduct of certain recreational activities on the approximately 2,035 acres of land generally depicted as “Parcel D” on the map entitled “Organ Mountains Area” and dated September 21, 2016 (referred to in this paragraph as the “parcel”), which is a portion of the public land withdrawn and reserved for military purposes by Public Land Order 833 dated May 21, 1952 (17 Fed. Reg. 4822).

(ii) **OUTDOOR RECREATION PLAN.**—

(I) **IN GENERAL.**—The Secretary of the Army shall develop a plan for public outdoor recreation on the parcel that is consistent with the primary military mission of the parcel.

(II) **REQUIREMENT.**—In developing the plan under subclause (I), the Secretary of the Army shall ensure, to the maximum extent practicable, that outdoor recreation activities may be conducted on the parcel, including hunting, hiking, wildlife viewing, and camping.

(iii) **CLOSURES.**—The Secretary of the Army may close the parcel or any portion of the parcel to the public as the Secretary of the Army determines to be necessary to protect—

(I) public safety; or

(II) the safety of the military members training on the parcel.

(iv) **TRANSFER OF ADMINISTRATIVE JURISDICTION; WITHDRAWAL.**—

(I) **IN GENERAL.**—On a determination by the Secretary of the Army that military training capabilities, personnel safety, and installation security would not be hindered as a result of the transfer to the Secretary of administrative jurisdiction over the parcel, the Secretary of the Army shall transfer to the Secretary administrative jurisdiction over the parcel.

(II) **WITHDRAWAL.**—On transfer of the parcel under subclause (I), the parcel shall be—

(aa) under the jurisdiction of the Director of the Bureau of Land Management; and

(bb) withdrawn from—

(AA) entry, appropriation, or disposal under the public land laws;

(BB) location, entry, and patent under the mining laws; and

(CC) operation of the mineral leasing, mineral materials, and geothermal leasing laws.

**PUBLIC LAW 116–9—MAR. 12, 2019**

(III) **RESERVATION.**—On transfer under subclause (I), the parcel shall be reserved for management of the resources of, and military training conducted on, the parcel in accordance with a memorandum of understanding entered into under clause (v).

(v) **MEMORANDUM OF UNDERSTANDING RELATING TO MILITARY TRAINING.**—

(I) **IN GENERAL.**—If, after the transfer of the parcel under clause (iv)(I), the Secretary of the Army requests that the Secretary enter into a memorandum of understanding, the Secretary shall enter into a memorandum of understanding with the Secretary of the Army providing for the conduct of military training on the parcel.

(II) **REQUIREMENTS.**—The memorandum of understanding entered into under subclause (I) shall—

(aa) address the location, frequency, and type of training activities to be conducted on the parcel;

(bb) provide to the Secretary of the Army access to the parcel for the conduct of military training;

(cc) authorize the Secretary or the Secretary of the Army to close the parcel or a portion of the parcel to the public as the Secretary or the Secretary of the Army determines to be necessary to protect—

(AA) public safety; or

(BB) the safety of the military members training; and

(dd) to the maximum extent practicable, provide for the protection of natural, historic, and cultural resources in the area of the parcel.

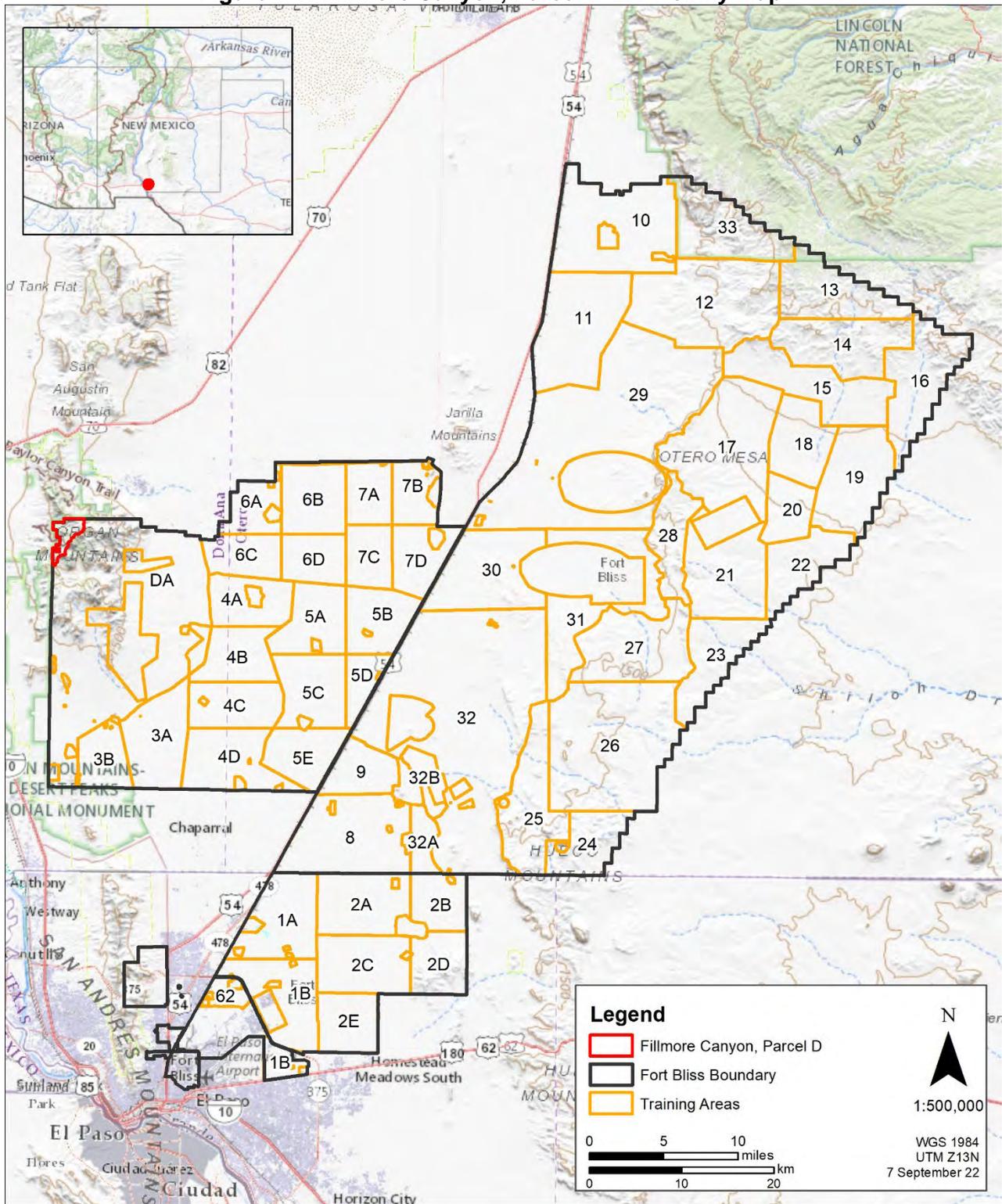
(vi) **MILITARY OVERFLIGHTS.**—Nothing in this subparagraph restricts or precludes—

(I) low-level overflights of military aircraft over the parcel, including military overflights that can be seen or heard within the parcel;

(II) the designation of new units of special airspace over the parcel; or

(III) the use or establishment of military flight training routes over the parcel.

Figure 1-1: Fillmore Canyon, Parcel D EA Vicinity Map

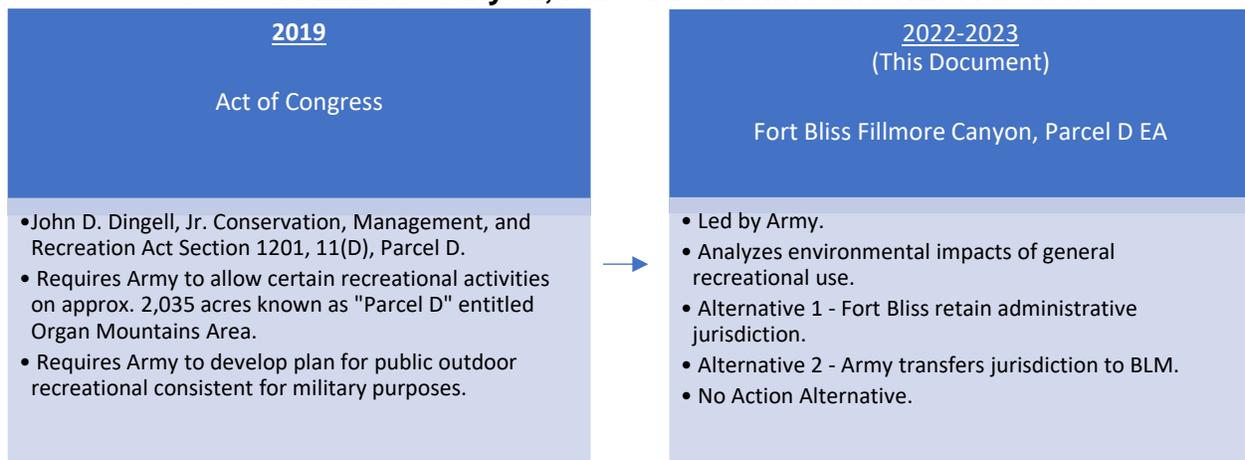




This EA has been prepared to fulfill the requirements of the National Environmental Policy Act (NEPA) in accordance with the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA, 40 Code of Federal Regulations (CFR) 1500 to 1508 and 32 CFR 651, (Army Regulation [AR] 200-2), Environmental Analysis of Army Actions (U.S. Army, 2002), and Army policy (U.S. Army, 2004 and 2017).

This EA analyzes the environmental impact of general recreational use of Fillmore Canyon, Parcel D. BLM will be a cooperating agency on this EA. After this EA is complete, a decision will be made whether the Army or BLM will retain administrative jurisdiction. The following illustrates the Fillmore Canyon, Parcel D timeline.

**Photo 1-2: Fillmore Canyon, Parcel D timeline and NEPA actions**



## 1.2 Purpose and Need

The purpose of the Proposed Action is to analyze the likelihood of increasing recreational opportunities for the public and determine which areas are compatible from a safety, environmental and mission impact perspective. The Proposed Action is needed for the Army to comply with Section 1201, 11(D) of P.L. 116-9.

Fort Bliss and the BLM Las Cruces District agreed to a transfer of administration and withdrawal to protect Fort Bliss' southern and western Doña Ana Range boundary from incompatible development. Noise levels projected off the installation by the U.S. Army Public Health Command are incompatible with residential development and other land uses such as schools and medical facilities (U.S. Army, 2021). The Army agreed to return approximately 2,500 acres of previously withdrawn land in the extreme northwest corner of the installation (Fillmore Canyon, Parcel D) to the public domain and BLM management. In exchange, BLM agreed to withdraw approximately 35,000 acres south and west of Fort Bliss from future disposal considerations. This agreement was then enacted by Congress in the 2019 John D. Dingell, Jr. Conservation, Management, and Recreation Act (P.L. 116-9, 2019).

P.L 116-9 directed the Army to “develop a plan for public outdoor recreation on the parcel that is consistent with the primary military mission of the parcel [...], and ensure, to the maximum extent

practicable, that outdoor recreation activities may be conducted on the parcel, including hunting, hiking, wildlife viewing, and camping.” (Section 1201, 11 (D)(ii)(I), P.L. 116-9, 2019).

This EA will analyze the potential for significant adverse environmental effects as well as any safety concerns and/or mission interference from allowing public access for certain recreational activities in Fillmore Canyon, Parcel D.

### **1.3 Scope and Content of the EA**

Per CEQ’s updated NEPA regulations which went into effect May 2022, this EA considers the potential impacts of the Proposed Action and alternatives on the potentially affected environment and the degree of the effects or impacts of the action. Effects or impacts means changes to the human environment from the Proposed Action or Alternatives that are reasonably foreseeable and include the following:

1. Direct effects, which are caused by the action and occur at the same time and place.
2. Indirect effects, which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.
3. Cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

The analysis will be based upon impacts to environmental resource areas. Specific environmental resource areas analyzed in detail within this EA include biological resources, water resources, earth resources, land use, human health and safety, cultural resources, and cumulative impacts.

The Army’s decision is whether to implement one of the Proposed Alternatives or the No Action Alternative. The Army would issue a Finding of No Significant Impact (FONSI) if the selected alternative would result in no significant impact to human or environmental health. If the selected alternative results in a significant impact, the Army would prepare an Environmental Impact Statement (EIS).

### **1.4 Decision(s) to be Made**

The Fort Bliss Garrison Commander is the proponent for the Proposed Action. If no significant environmental impacts are determined based on the evaluation of impacts in this EA, a FONSI would be signed by the Garrison Commander. If it is determined that the Proposed Action would have significant environmental impacts, the action would be modified and mitigated to the level of no significant impact or a Notice of Intent would then be published, leading to the preparation of an EIS.

### **1.5 Public Participation**

To facilitate the analysis and the decision-making process, the Army maintains a policy of open communication with interested parties and invites public participation. The Army urges all federal and state agencies, public and private organizations, and members of the public that have a potential interest in the Proposed Action, including minority, low-income, disadvantaged, and

Native American tribes to participate in the Army's NEPA and decision-making processes, as guided by CEQ regulations at 40 CFR Parts 1500-1508 and AR at 32 CFR Part 651.

The Draft EA and Draft FONSI will be made available to federal, state, and local agencies, Native American tribes, and the public for review and comment for 30 days. Appendix B includes the distribution list of agencies that will be e-mailed the Notice of Availability and an electronic copy of the Draft EA.

Fort Bliss will publish a Notice of Availability for the Draft EA and Draft FONSI in the following newspapers:

- El Paso Times;
- Las Cruces Sun-News (only available digitally on Saturdays); and
- El Diario.

Fort Bliss will also make the Draft EA available for online viewing at <https://home.army.mil/bliss/index.php/about/Garrison/directorate-public-works/environmental> and at the following libraries:

- Las Cruces: Thomas Branigan Memorial Library, 200 E. Picacho Avenue, Las Cruces, New Mexico 88001; and
- El Paso: El Paso Public Library Richard Burges Branch, 9600 Dyer St C, El Paso, TX 79924.

Following the 30-day review period, the Army will address all relevant comments received. If the Army identifies any significant impacts during the review of comments, the Army would prepare a Notice of Intent and commence the EIS process. If the EA does not identify significant impacts, the Army would finalize the EA and prepare and sign a FONSI.

## 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This chapter describes the Proposed Action and the alternatives. This chapter also describes the location and area under consideration, as well as the timing of the Proposed Action. Additionally, this chapter provides the screening criteria used by the Army to develop the range of considered alternatives and concludes with identifying the decision the Army will make.

To address the purpose and need, this EA analyzes two alternatives and the No Action Alternative. (Consideration of the No Action Alternative is mandated in CEQ 40 CFR Parts 1500-1508 and Environmental Analysis of Army Actions 32 CFR Part 651.34).

The following screening criteria have been established to identify alternatives that would meet the purpose and need for the action. To be considered a reasonable alternative, the Proposed Action must meet the four screening criteria:

1. Mission Compatibility – Public recreational activities must be compatible with the military mission, be it inside Fillmore Canyon, Parcel D or on adjacent properties to include White Sands Missile Range (WSMR).
2. Environmental Factors – Public recreational activities must not compromise the integrity of the natural environment and must provide for acceptable accommodation of historic, cultural, biological, and natural resources.
3. Safety – Public recreational activities must ensure that members of the public are not exposed to MEC and danger from munitions to include unexploded ordnance (UXO). Public recreational activities must not interfere with the military mission or jeopardize the personal safety of the public when military training is being conducted within Fillmore Canyon, Parcel D or on adjacent lands and overhead airspace. Recreational activities must not impact installation operational security requirements.
4. Public Use – Must maximize public recreational opportunities within Fillmore Canyon, Parcel D and consider ease of access for all members of the public desiring to use the property.

While Congress mandated the recreational use of Fillmore Canyon, Parcel D, this EA will help to determine the potential for significant adverse environmental effects as well as any safety concerns and/or mission interference from allowing public access for recreational activities in Fillmore Canyon, Parcel D.

### 2.1 Proposed Action

Based on the screening criteria, two alternatives would meet the mission compatibility needs, environmental factors, safety and MEC factors, and public use goals.

Under the Proposed Action, either the Army or BLM would control Fillmore Canyon, Parcel D and would have the following in common:

- No additional parking or construction of new facilities is currently anticipated. As the area is remote it is anticipated that recreational users would use existing BLM parking areas.
- Any additional signage or fencing would be determined later as part of the Army or BLM recreational plan as appropriate.

- Certain recreational activities would be prohibited as described in The Act. The use of all-terrain vehicles and utility task vehicles would also be prohibited.

The Proposed Action analyzed in this EA is the public use for certain recreational activities within Fillmore Canyon, Parcel D. From this initial screening performed in this EA, any identified potential adverse impacts or restrictions would be examined in detail depending on the administrative alternative selected. Ultimately the selected administrator of Fillmore Canyon, Parcel D would work with stakeholders to define the types and locations of certain recreational activities within Fillmore Canyon, Parcel D.

### **2.1.1 Alternative 1**

Under Alternative 1, Fort Bliss would retain administrative jurisdiction of Fillmore Canyon, Parcel D and develop a recreation plan designating specific areas that are available for public recreation and the types of recreational activities that are permissible based on compatibility with the military mission. The Army would continue to use Fillmore Canyon, Parcel D for training activities (on-road vehicle maneuver, dismounted maneuver, and aircraft) and ensure compatibility and coordination with recreational use.

Under Alternative 1, the public would be able to access Fillmore Canyon, Parcel D for certain recreation activities as described in The Act.

### **2.1.2 Alternative 2**

Under Alternative 2, Fort Bliss would transfer administrative jurisdiction of Fillmore Canyon, Parcel D to the BLM. The Army would need to request permission from BLM to use Fillmore Canyon, Parcel D for training pursuant to a Memorandum of Understanding (MOU) which would be negotiated in accordance with P.L. 116-9.

Under Alternative 2, the public would be able to access Fillmore Canyon, Parcel D for certain recreation activities as described in The Act.

## **2.2 No Action Alternative**

The No Action Alternative refers to the continuation of existing conditions without implementation of the Proposed Action or proposed alternatives. Under the No Action Alternative public access would continue to be prohibited and the Army would not conform with P.L. 116-9. Therefore, the No Action Alternative would not meet the purpose and need for the Proposed Action.

## **2.3 Alternatives Eliminated from Further Consideration**

The purpose and need statement served as a basis to identify potential alternatives to carry forward for environmental analysis. The Army did not consider potential alternatives for other areas of Fort Bliss that would meet the purpose and need, given the specific Congressional mandate for the Proposed Action.

### 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter presents a description of the environmental resources and baseline conditions that could be affected from implementation of the alternatives. It also presents an analysis of the potential effects of each alternative to each environmental resource area. The affected environment has been determined using the criteria in NEPA, CEQ, and the Army NEPA Guidance Manual (U.S. Army, 2007).

The action area is defined as the area of analysis that could be affected directly or indirectly by a Proposed Action, and not merely the immediate impact area involved in the action

Specific affected environment definitions are provided for each resource area carried forward for detailed analysis.

#### 3.1 Valued Environmental Component (VEC) Analysis

This EA applies a method described in the NEPA Analysis Guidance Manual used to rate VECs typically addressed in Army NEPA analyses (U.S. Army, 2007). This analytical process allows a level of consistency in evaluating impacts and comparing impacts across installations to help with Army-wide decision-making. It also advocates a process for focusing analysis on areas where impacts are most likely to occur, considering the type of actions involved in a geographic context. Participants included subject matter experts at Fort Bliss who have extensive knowledge of the various resources on the installation.

Table 3-1 summarizes the degree to which each VEC would potentially be affected by the Proposed Action. Possible ratings for each VEC range from low (L), moderate (M), to high (H). VECs rated low indicate that potential impacts to those resource areas were determined to be negligible or nonexistent so they were not analyzed in detail in this EA. Although not a specific VEC, Climate Change is an important environmental factor. In this case, the proposed alternatives and potential effects on the various VECs are not expected to result in substantive changes to the climate.

**Table 3-1: Valued Environmental Components**

VEC	Rating	Rationale/Special Considerations
Biological Resources	M	The Proposed Action may have different impacts on how biological resources are managed, which species are prioritized, and what standard operating procedures (SOPs) to implement.
Water Resources	M	The Proposed Action may have different impacts on how water resources are managed and what considerations may affect nearby springs.
Earth Resources	M	The Proposed Action may have impacts to soil and soil erosion and what SOPs or best management practices (BMPs) may be needed to ensure earth resources remain viable for mission readiness and recreational use and the ability to support biological communities.
Land Use	M	The Proposed Action would change the existing recreational land use designation for Fillmore Canyon, Parcel D from "Off-Limits; No Hunting or Recreation" at any time to "May be Closed to Hunting or Recreation" at any time and may require deconflicting of military use and recreational use.

VEC	Rating	Rationale/Special Considerations
Hazardous Materials and Wastes	L	Hazardous materials are substances that cause human physical or health hazards (29 CFR 191.1200). Materials that are physically hazardous include combustible and flammable substances, compressed gases, and oxidizers. Health hazards are associated with materials that cause acute or chronic reactions, including toxic agents, carcinogens, and irritants. Potential MEC are covered under human health and safety. As the Proposed Action does not include use, transport, or disposal of hazardous materials and wastes, this resource area is not carried forward for further evaluation.
Air Space	L	Management and control of airspace above Fillmore Canyon, Parcel D would not be affected, nor would aircraft operations be included in the Proposed Action. The military would continue to train in the overlying airspace and any recreational drone activities would continue to be restricted. If the BLM is the managing entity, then they would need to restrict drone activities as well to ensure pilot safety. Therefore, this resource area is not carried forward for further evaluation.
Human Health and Safety	M	The Proposed Action may have impacts on human health and safety and SOPs or BMPs may be needed to ensure continued recreational and military health and safety.
Air Quality and Greenhouse Gases	L	It is not anticipated that any additional air pollutants, dust, or greenhouse gases would be generated if the Proposed Action were implemented. Opening Fillmore Canyon, Parcel D up to the public for recreation, which prohibits use of vehicles, would not change existing air quality in the region. Because there would be no impacts to air quality and greenhouse gases, this resource area is not carried forward for further evaluation.
Noise	L	Noise generally refers to an unwanted sound often creating an annoyance or is capable of causing harm. Opening Fillmore Canyon, Parcel D to the public for recreational use would not introduce any new sources of noise. Recreational vehicle use would be prohibited and the isolated location of Fillmore Canyon, Parcel D would not likely incur an additional influx of visitors to cause more noise. Because the noise environment would not be impacted, this resource area is not carried forward for further evaluation.
Cultural Resources	M	Direct and indirect impacts within Fillmore Canyon, Parcel D could occur from recreational uses such as camping, hiking, and biking. These impacts could include disturbing known and unknown sites as well as increasing the potential for theft of cultural sites.
Socioeconomics and Environmental Justice	L	Based on recent census data within a five-mile radius of Fillmore Canyon, Parcel D, the percent of minority or low-income communities is below the threshold for defining an environmental justice community (Environmental Protection Agency, 2022; U.S. Census Bureau, 2022). Children could be present in Fillmore Canyon, Parcel D if it is opened to the public for recreation. The development and implementation of a recreation plan would decrease and mitigate risks to the public and children. Implementation of the Proposed Action would not disproportionately affect minority or low-income populations or affect the health and safety

VEC	Rating	Rationale/Special Considerations
		of children. Therefore, this resource area is not carried forward for further evaluation.
Transportation	L	Transportation is defined as the movement of goods and individuals from place to place and the associated infrastructure. In general, transportation refers to air, water, and ground vehicles and the services that make use of these infrastructures. Under the Proposed Action, no new roads or trails would be constructed, and recreational vehicles would be prohibited in Fillmore Canyon, Parcel D. It is assumed that there would not be a noticeable increase in recreators due to Fillmore Canyon, Parcel D's isolated location and rugged terrain. Visitors would use existing trails, wildlife tracks, or traverse cross country. Therefore, no impacts to transportation networks or traffic would occur as a result of implementing the Proposed Action. Therefore, this resource area is not carried forward for further evaluation.
Utilities	L	Fillmore Canyon, Parcel D is a remote area used for military training. There are no existing utilities within Fillmore Canyon, Parcel D. Utilities, such as water, wastewater, and electricity, that service the Doña Ana Range are located to the south of Fillmore Canyon, Parcel D at the Doña Ana Range Camp. Implementation of the Proposed Action would not require the use of utilities and would not alter utility demand. Therefore, this resource area is not carried forward for further evaluation.

## Notes:

L rating = negligible or minor impact anticipated.

M rating = moderate impact anticipated (less than significant).

H rating = significant impact potential anticipated (likely to be mitigated to less than significant).

### 3.2 Biological Resources

Biological resources consist of the collective native or naturalized vegetation, wildlife, and associated habitats. Existing information on vegetation and wildlife and their associated habitat types in the vicinity of the proposed sites were reviewed, with particular emphasis on the presence of any species listed as threatened or endangered by federal or state agencies to assess their sensitivity to the effects of the Proposed Action. For this EA, biological resources are divided into four areas: protected species, vegetative communities, wildlife communities, and invasive species.

Currently, many of the proposed recreational activities are occurring within the project area. These activities are occurring without any boundaries or limitations, meaning users may be going into sensitive ecosystems, interacting and impacting threatened and endangered species and sensitive habitat. These actions are largely unknown, as they are technically illegal and should not be occurring. Impacts from users can include the inadvertent introduction of invasive species from their vehicles or the tread of their shoes, or directly bringing outside species into the area.

Another concern within Fillmore Canyon, Parcel D is the potential for wildfires caused by recreationalists. Users in the areas, especially if in unknown areas, may cause inadvertent impacts to biological communities and wildlife by starting fires. These fires could begin from a variety of sources including campfires, cigarettes, sparks from equipment, and other causes.

### 3.2.1 Affected Environment

#### 3.2.1.1 Protected Species

##### *Regulatory Setting*

The Endangered Species Act (ESA) mandates that all federal agencies consider the potential effects of their actions on species listed as federally threatened or endangered. Section 7 of the ESA requires federal agencies that fund, authorize, or carry out an action to ensure that their action is not likely to jeopardize the continued existence of any federally listed threatened or endangered species (including plant species) or result in the destruction or adverse modification of designated critical habitats. The law also prohibits any action that causes a “taking” of any listed species of endangered fish or wildlife. Likewise, import, export, interstate, and foreign commerce of listed species are all generally prohibited.

The Bald and Golden Eagle Protection Act (BGEPA) makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any Bald Eagle or Golden Eagle or parts thereof.

Species with protective status are protected based on regulations such as those listed below:

- Bald and Golden Eagles, as protected under the BGEPA (16 U.S. Code [USC] § 17 668 [1972]);
- Rare and endangered plants species by the New Mexico State Forestry Division’s Endangered Plant Program;
- Protected species under the Migratory Bird Treaty Act (16 USC §§ 703-712 [2004]);
- Threatened or endangered under the federal ESA, 16 USC § 9 1531 et seq.) by the U.S. Fish and Wildlife Service (USFWS); and
- Threatened or endangered wildlife species under the New Mexico Wildlife Conservation Act (17-11 2-40.1 New Mexico Statutes Annotated [1978]) by the New Mexico Department of Game and Fish.

##### Threatened and Endangered Species

The States of New Mexico and Texas, in coordination with the USFWS list threatened, endangered, and species of concern flora and fauna species that are known to occur or have the potential to occur at Fort Bliss. Fort Bliss has further identified and classified Locally Important Natural Resources for protection. Locally Important Natural Resources include Black Grama Grasslands, Sand Sagebrush Communities, Shinnery Oak Islands, and arroyo-riparian drainages and playas (U.S. Army, 2010). Detailed information regarding threatened and endangered species across Fort Bliss, the federal and state listed status, as well as known occurrences are analyzed within the Fort Bliss Army Growth and Force Structure Realignment EIS (hereinafter referred to as the “Grow the Force EIS”) (U.S. Army, 2010), and the Fort Bliss Integrated Natural Resource Management Plan (INRMP) (U.S. Army, 2021).

In May 2022, Fort Bliss conducted a Natural Resources Evaluation for Fillmore Canyon, Parcel D (hereinafter referred to as “the Natural Resources Evaluation”) (see also Appendix C) and identified 60 species that are classified as threatened or endangered animals, federally listed

plants, listed by the state of New Mexico, listed as BLM-New Mexico Sensitive Species, or on the watch list. Habitat assessments and habitat mapping for each of these 60 species located within the Fillmore Canyon, Parcel D project area are detailed within the Natural Resources Evaluation (Appendix C). A brief summation for each of the various vegetative and wildlife communities are provided below in Sections 3.2.1.2 Vegetative Communities and 3.2.1.3 Wildlife Communities.

### Golden Eagles

Golden eagles occur throughout southern New Mexico and Fort Bliss and use many of the areas considered in the analysis. Golden Eagles are the largest bird of prey in North America and use a wide variety of habitats for foraging and breeding. Golden Eagles may either be permanent residents or migrants throughout New Mexico. Habitat associations include open expanses dominated by short vegetation, interspersed mountain ranges, rolling hills, or other similar topographic features. Availability of prey, elevated perches, and topographic reliefs for perches, nesting, and roosting places are the most critical habitat components.

No observations of golden eagles were made during field surveys of the project area. No ideal nesting cliff or rock outcrops were observed or documented. Cliffs were either easily accessible to predators or too visible. Results for the survey noted that the canyons surveyed are popular for hikers and human activity, likely because they are easily accessible. It was noted that these human activities might be a deterrent for establishing nests or long-term activity.

### **3.2.1.2 Vegetative Communities**

Fort Bliss lies within the Chihuahuan Desert ecoregion (as defined by The Nature Conservancy). This ecoregion is known for its high level of biodiversity and endemism (restriction in distribution to a particular locality or region) which is largely a result of the variable topographic relief and climatic gradients (Van Devender, 1986; Allen et al, 1999).

Fillmore Canyon, Parcel D is entirely within the Organ Mountains. The vegetation of the Organ Mountains varies depending on the micro conditions of a site including slope, elevation, and rock outcrops. Moisture availability is driven by the above factors and as a result, four vegetation zones exist in the Organ Mountains (from lowest elevation to highest): Upper Desert Grassland, Savanna and Woodland, Chaparral, and Deciduous Woodland (Appendix C).

Based on Fort Bliss Integrated Wildland Fire Management Plan (IWFMP), most fires spread across Fort Bliss through grass fuels inter-mixed with desert shrubs (U.S. Army, 2020). Within Fort Bliss, there are five natural (historical) fire regimes. These five regimes are based on average number of years between fires combined with the severity of the fire on the dominant overstory vegetation. The five standard fire regimes were developed primarily for forests, shrublands, and prairie grasslands where natural vegetative succession is easily measured and wildfires burn in ways that are predictable in terms of severity and frequency.

A fire history of the Fillmore Canyon, Parcel D area was completed using ponderosa tree ring analysis. It was determined that the area had a historic fire return interval of only 2.4 years prior to 1850. Fire scars within the tree rings show that between 1850 and 1874 the fire return interval was 3.5 years. Importantly, since 1874 there were no fire scares documented until 1994 (U.S. Army, 2020). In 1994, a wildfire burned approximately 50 percent of the forested areas in the

Organ Mountains with a moderate to high severity. Another fire occurred in 2011 that was less severe but did burn an entire mature ponderosa pine stand within Fillmore Canyon.

A combination of Muldavin et al. (1996) and other models for describing the vegetative communities for Fort Bliss were used to describe the vegetative communities in the Natural Resources Evaluation. The Natural Resources Evaluation provides the complete list and graphical representation of the 16 land vegetation types with a full description and acreage within the project area as Table 3-2 (see also figures in Appendix C).

The Natural Resources Evaluation identified 14 floral species with a special status. Of the 14 species, only eight have the necessary habitat requirements within the Organ Mountains. As such, only the eight species are listed below in Table 3-2. The complete list of flora with special status, detailed species descriptions, and habitat requirements can be found within the Natural Resources Evaluation (see Appendix C).

**Table 3-2: Fillmore Canyon, Parcel D Flora with Special Status**

Species	Observed in Survey	INaturalist Observed	Potential Habitat (Acres)
Crested Coralroot ( <i>Hexalectris spicata</i> )	No	No	1,021
Nodding Cliff Daisy ( <i>Perityle cernua</i> )	Yes	No	23
Organ Mountain Foxtail Cactus ( <i>Coryphantha organensis</i> )	Yes	Yes	1,424
Organ Mountain giant hyssop ( <i>Agastache pringlei</i> var <i>verticillate</i> )	Yes	No	846
Organ Mountain evening primrose ( <i>Oenothera organensis</i> )	Yes	Yes	637
Organ Mountain Indian Paintbrush ( <i>Castilleja organorum</i> )	Yes	Yes	1,077
Organ Mountain Figwort ( <i>Scrophularia laevis</i> )	Yes	Yes	942
Standley's whitlowgrass ( <i>Draba standleyi</i> )	Yes	Yes	3

### 3.2.1.3 Wildlife Communities

The Organ Mountains has several sensitive and endemic species within them. These include the Organ Mountain Colorado Chipmunk (*Neotamias quadrivittatus australis*) and five species of land snails. The region is known for having a large elevation range, is rugged, and lacks roadways (U.S. Army, 2021). A complete listing of all faunal species found on Fort Bliss can be found in the INRMP, Appendix D, Results of Planning Level Surveys (U.S. Army, 2021).

#### Mammals

The Natural Resources Evaluation analyzed seven mammalian species. The observations and results are listed below in Table 3-3. Complete species descriptions and habitat requirements can be found within the Natural Resources Evaluation (see Appendix C).

**Table 3-3: Fillmore Canyon, Parcel D Mammals with Special Status**

Species	Observed in Survey	INaturalist Observed	Potential Habitat (Acres)
Arizona black-tailed Prairie Dog ( <i>Cynomys ludovicianus arizonensis</i> )	No	No	None
Mexican Desert Bighorn Sheep ( <i>Ovis canadensis mexicana</i> )	No	No	1,032
Gray-footed chipmunk ( <i>Neotamias canipes sacramentosis</i> )	No	No	None
Mexican Wolf ( <i>Canis lupus baileyi</i> )	No	No	1,021
Organ Mountain Colorado Chipmunk ( <i>Neotamias quadrivittatus australis</i> )	Yes	Yes	844
Spotted Bat ( <i>Euderma maculatum</i> )	No	No	1,659
Townsend's Big-eared bat ( <i>Corynorhinus townsendii</i> )	No	No	1,659

### Birds

The project areas associated with the Proposed Action cover a wide range of vegetative communities and habitat associations. As such, a variety of birds protected by the Migratory Bird Treaty Act are expected to occur within these sites. Protocols and procedures for the protection of migratory birds are discussed in the INRMP (U.S. Army, 2021), Grow the Force EIS (U.S. Army, 2010), and the Mission and Master Plan Programmatic EIS (U.S. Army, 2000).

The Natural Resources Evaluation identified 31 special status avian species. Of the 31 species, only 21 have the necessary habitat requirements within the Organ Mountains. Further, only six of those 21 species have confirmed observations within Fillmore Canyon, Parcel D. As such, only the six observed species are listed below in Table 3-4. The complete list of birds with special status, detailed species descriptions, and habitat requirements can be found within the Natural Resources Evaluation (see Appendix C).

**Table 3-4: Fillmore Canyon, Parcel D Avians with Special Status**

Species	Observed in Survey	INaturalist Observed	Potential Habitat (Acres)
Black-chinned Sparrow ( <i>Spizella atrogularis</i> )	Yes	Yes	46
Canyon Towhee ( <i>Melospiza fusca</i> )	Yes	Yes	1,840
Grace's Warbler ( <i>Setophaga graciae</i> )	Yes	No	1,024
Gray Vireo ( <i>Vireo vicinior</i> )	Yes	N/A	1,613
Peregrine Falcon ( <i>Falco peregrinus</i> )	Yes	Yes	2,033
Virginia's Warbler ( <i>Leiothlypis virginiae</i> )	Yes	No	1,613

### Reptiles

The habitat of Fort Bliss supports a diverse range of herpetofauna. The Natural Resources Evaluation identified two reptilian species. The observations and results are listed below in Table 3-5. Complete species descriptions and habitat requirements can be found within the Natural Resources Evaluation (see Appendix C).

**Table 3-5: Fillmore Canyon, Parcel D Reptiles with Special Status**

Species	Observed in Survey	INaturalist Observed	Potential Habitat (Acres)
Gray-banded Kingsnake ( <i>Lampropeltis alterna</i> )	Yes	No	42
Mottled Rock Rattlesnake ( <i>Crotalus lepidus lepidus</i> )	Yes	No	132

### Invertebrates

Invertebrates play a major role in the structural and functional role of desert ecosystems. Invertebrates serve as a major food source for reptiles, amphibians, and birds, soil aeration, decomposition, pollination, and soil movement.

The Organ Mountains and Bishop's Cap have endemic snail species (*Ashmunella spp.*) (Metcalf, 1984; Metcalf and Smartt, 1997). During the monsoon season in the Chihuahuan Desert an assortment of ephemeral invertebrates (primarily larvae and small shrimp-like crustaceans) hatch in the playas and reproduce before the water dries up. In turn, this invertebrate fauna provides important food for adult and larval toads, salamanders, and some birds (MacKay et al., 1990).

The Natural Resources Evaluation identified six invertebrate species. The observations and results are listed below in Table 3-6. Complete species descriptions and habitat requirements can be found within the Natural Resources Evaluation (Appendix C). Worth noting, that of the six species with a conservation rank, the project area only has habitat for three of the invertebrates, however, Fort Bliss historical records show four species with confirmed observations. Importantly, the Boulder Canyon Woodlandsnail (*Ashmunella auriculata*) has potential habitat but has not been documented or observed in the project area. In contrast, the Beasley Woodland snail (*Ashmunella beasleyi*) and Franklin Mountain Talussnail (*Sonorella metcalfi*) do not have suitable habitat present, but have been observed.

**Table 3-6: Fillmore Canyon, Parcel D Invertebrates with Special Status**

Species	Observed in Survey	INaturalist Observed	Potential Habitat (Acres)
Beasley Woodland snail ( <i>Ashmunella beasleyi</i> )	Yes	No	None
Boulder Canyon Woodlandsnail ( <i>Ashmunella auriculata</i> )	No	No	892
Franklin Mountain Talussnail ( <i>Sonorella metcalfi</i> )	Yes	No	None
Maple Canyon Talussnail ( <i>Sonorella todseni</i> )	No	No	None
Organ Mountain Talussnail ( <i>Sonorella orientis</i> )	Yes	No	892
Organ Mountain Woodland Snail ( <i>Ashmunella organensis</i> )	Yes	Yes	892

#### **3.2.1.4 Invasive Species**

The State of New Mexico, under the administration of the New Mexico Department of Agriculture (NMDA), has designated numerous invasive weeds as noxious. Noxious in this context means plants not native to New Mexico, targeted for management and control, and that have a negative impact on the economy or the environment (NMDA, 2020).

There are seven identified species considered noxious that are known to occur on Fort Bliss. African Rue is the only actively controlled invasive species on Fort Bliss. It invades disturbed sites and once successfully established can spread and outcompete native grasses (U.S. Army, 2021).

Russian thistle (*Salsola tragus*), salt cedar (*Tamarix ramosissima*), malta starthistle (*Centaurea melitensis*), johnsongrass (*Sorghum halepense*), bermudagrass (*Cynodon dactylon*), and kochia (*Bassia scoparia*), are documented on disturbed ground and exists throughout Fort Bliss.

Currently, Fillmore Canyon, Parcel D has one documented invasive species, Lehmann Lovegrass (*Eragrostis lehmanniana*) found in 2016 as noted within the Natural Resources Evaluation (Appendix C). The Grow the Force EIS (U.S. Army, 2010), and INRMP (U.S. Army, 2021) do not have documented invasives for Fillmore Canyon, Parcel D. General management decisions and control measures for invasive species are detailed in the INRMP (U.S. Army, 2021).

### **3.2.2 Environmental Consequences**

#### **3.2.2.1 Alternative 1**

Under Alternative 1, Fort Bliss would continue managing the biological resources within the project area. Surveys for migratory birds, golden eagles, and threatened and endangered species would continue on a periodic basis. Surveys for invasive species and noxious weeds would also continue. Active partnerships, especially with the BLM would still be necessary in the implementation of this Proposed Action.

There is a possibility that recreational users would eventually introduce invasive species into the area by entering Fillmore Canyon, Parcel D for recreational use such as hunting, hiking, wildlife viewing, and camping. Most of the known invasive and noxious weeds that may occur within Fort Bliss opportunistically take hold in disturbed areas. Limiting recreational areas to known trails and parking areas would also limit the overall disturbance to the area. Prohibiting any use of all-terrain or utility task vehicles would minimize potential impacts to biological resources. The known population of Lehmann Lovegrass (*Eragrostis lehmanniana*) should be documented and monitored for spread. Lehmann Lovegrass is known to readily reseed itself and outcompete native grasses after disturbances. Fort Bliss would reduce the potential for the introduction and spread of invasive species by providing informational signage about invasive species and preventive measures (e.g., cleaning boots prior to entry).

Providing defined areas to hike, park, and generally recreate would create a concentration of use that would concentrate impacts to these areas. Although this concentration would be expected to be more confined, it could be planned and managed to avoid areas of sensitive habitat, sensitive species, and closure areas if monitoring or mitigation measures are needed. Allowing users to utilize any part of Fillmore Canyon, Parcel D for recreation may disperse the overall impacts across the landscape but would make the amount of monitoring required greater.

Another reason to define recreation would be to confine areas where wildfire ignition could begin. As documented within the IWFMP, the fire return interval for Fillmore Canyon, Parcel D is historically between two and four years prior to 1874. With such a frequent return interval it is expected that the biological resources have evolved with a frequent fire regime. Areas adjacent to recreational activities should be monitored and have specific fire management plans to ensure fuel loads do not increase to a point where a large and severe fire can spread.

It is noted in the IWFMP that large fires in the area have been largely limited already due to limited fuel loads and that existing fuel types are generally resilient to low intensity fires (U.S. Army, 2020). The fuel loads are being managed through grazing, previous fires, and drought. It is further noted that ammunition restrictions are also partially responsible for low number of wildfires. Based on these observations in the IWFMP, these actions are currently limiting large scale wildfires. If Fort Bliss can maintain the cumulative approach to wildfire management in Fillmore Canyon, Parcel D there would be no significant impacts anticipated on biological resources due to fires from recreational users.

Adding Fillmore Canyon, Parcel D as a recreational component would be of minimal change to existing biological resource management, especially when considering the full extent of Fort Bliss. Any recreational hunting would need to follow Fort Bliss hunting procedures to ensure no impacts to biological resources. Furthermore, the activities would be consistent with the INRMP (U.S. Army, 2021). Therefore, implementation of Alternative 1 would not result in significant impacts to biological resources.

### **3.2.2.2 Alternative 2**

Implementation of Alternative 2 would transfer management of biological resources within Fillmore Canyon, Parcel D to the BLM. The BLM does have existing capacity and experience to manage this area, but it would be a new complement to their management responsibilities.

Fort Bliss has ongoing and recently completed surveys that would be transferred to BLM, but a Fort Bliss representative may be necessary to adequately handle the transition of data, local knowledge, and other pertinent information. Implementing a MOU between Fort Bliss and the BLM and establishing monitoring and management responsibilities for the project area would be a necessary step.

Therefore, implementation of Alternative 2 would not result in significant impacts to biological resources.

### **3.2.2.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not occur and there would be no change to existing conditions. Public access would continue to be prohibited and the Army would not conform with P.L. 116-9. Therefore, implementation of the No Action Alternative would not result in significant impacts to biological resources.

## **3.3 Water Resources**

Surface and groundwater resources within Fort Bliss are limited due to the arid nature of the region, excessively drained soils, and high evaporation rates. The water resources that do exist within the region are structurally complicated and biologically diverse per Appendix C. Human-driven activities can result in long-term impacts to water resources through rutting and other erosional processes.

Currently, many of the proposed recreational activities are occurring within the project area. These activities are occurring without any boundaries or limitations, meaning users may be entering

sensitive stream ecosystems. These actions are largely unknown, as they are technically illegal and should not be occurring. User impacts can include damage causing erosion, sedimentation, and/or entrenchment of existing streams and runoff. Pollution from users, including littering, illegal dumping, pet-waste, and other behavior related issues are also of concern to water resources.

### **3.3.1 Affected Environment**

Water resources within Fillmore Canyon, Parcel D were evaluated in the Natural Resources Evaluation (Appendix C). A team determined the location of natural springs within the project area (Figure 3-1). Three natural springs were identified, documented, and quantified by various metrics.

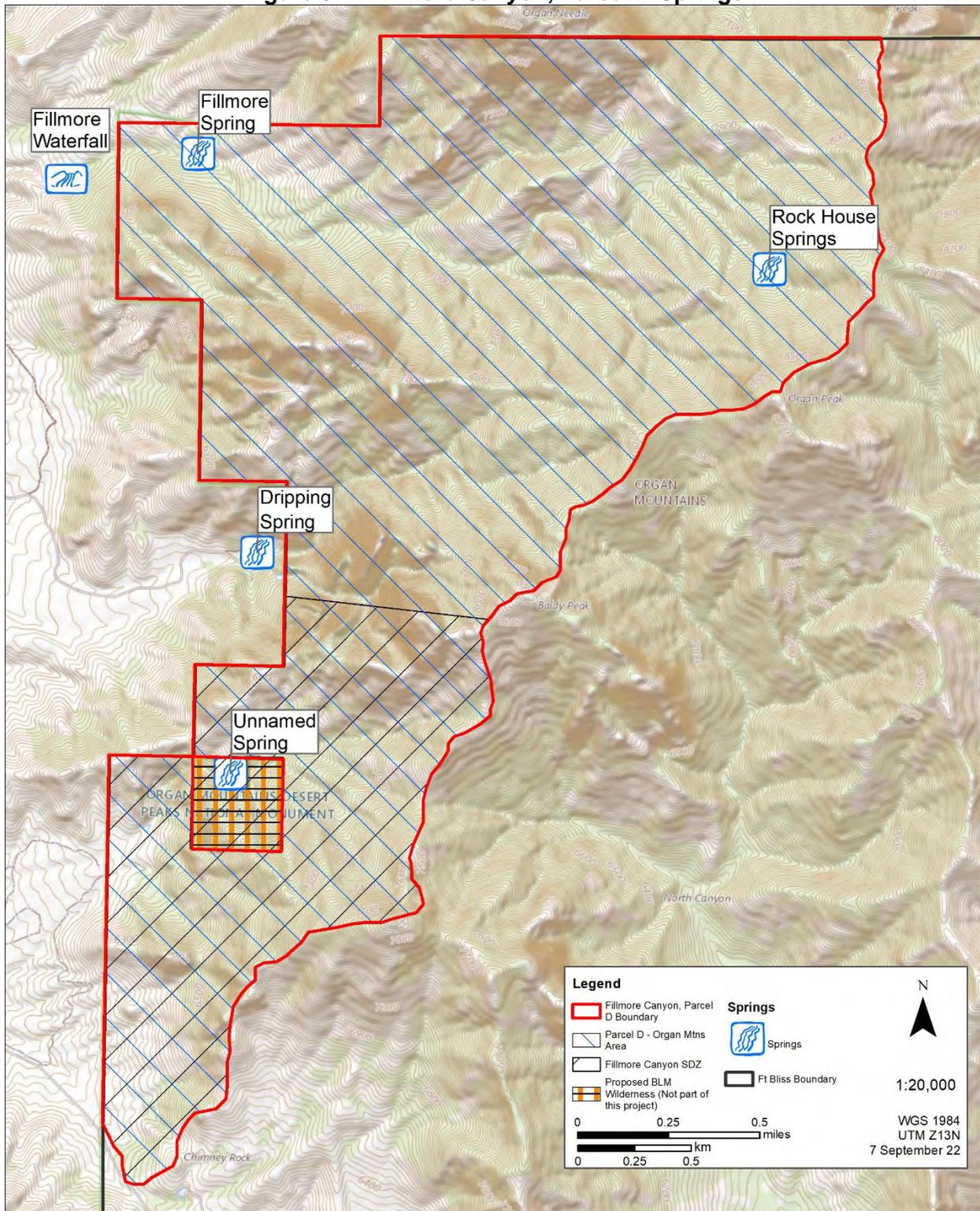
The three springs, Rock House Springs, Fillmore Spring, and unnamed spring were found to have little to no flowing water during the site visit. It was determined that they were all intermittent or rhythmic springs per Appendix C.

The unnamed spring originates within the proposed BLM wilderness area that is not part of this project. Therefore, it was excluded from further analysis.

Rock House Springs is located within an area of the project area defined by extreme topography. It would be highly unlikely for users to enter this area.

Fillmore Spring is located near the northeast corner of Fillmore Canyon, Parcel D. During the site visit it was found to have a slight flow that reaches Fillmore Waterfall, generally west and outside the bounds of Fillmore Canyon, Parcel D. This area is relatively accessible, especially compared to the other two springs.

Figure 3-1: Fillmore Canyon, Parcel D Springs



### **3.3.2 Environmental Consequences**

#### **3.3.2.1 Alternative 1**

Implementation of Alternative 1 allows Fort Bliss to continue managing the water resources within the project area.

Fort Bliss would have to incorporate recreational management into Fillmore Canyon, Parcel D. Allowing recreational activities within the project area could create impacts on water resources and their surrounding environment. The impacts include erosional damage, sedimentation, and pollution.

Similar to biological resources, limiting recreational areas to known trails and parking areas would also limit the overall impact to water resources and their surrounding area. Providing defined recreational areas creates a concentration of use that would also have a greater concentration of impacts to those areas. Although this concentration would be expected to be more confined, it could be planned and managed to avoid impacts to any accessible springs. It would also make the area for monitoring and mitigation for issues such as erosion and sedimentation easier to identify. Lastly, by Fort Bliss deciding where trails and recreational infrastructure should be would allow for the potential minimization of habitat fragmentation. Pollution is also easier to manage with the addition of trash cans, signage, and volunteer groups. By limiting recreational areas and limiting the types of recreational activities in those areas it would minimize any potential impacts to water resources.

Allowing users to utilize any part of Fillmore Canyon, Parcel D for recreation may disperse the overall impacts across the landscape but would make the amount of monitoring required by Fort Bliss greater. Dispersed recreation can also lead to greater habitat fragmentation because a greater number of social trails and areas would be used across the landscape.

The surveys for the three streams in the Natural Resources Evaluation was fairly preliminary. There are issues related to soil erodibility if trails are developed, even socially. The Natural Resources Conservation Service (NRCS) results of soil erodibility are provided in Section 3.4, Earth Resources, but there is a significant percentage either not rated or rated as severe related to trails and erodibility. Therefore, a more comprehensive survey should be completed to ensure sensitive areas are protected through signage, closures, or avoidance in infrastructure.

Adding Fillmore Canyon, Parcel D as a recreational component would be of minimal change to existing water resources especially when considering the full extent of existing management responsibilities across Fort Bliss. Fort Bliss has the existing capacity and SOPs to absorb this added management responsibility. Active partnerships, especially with the BLM would still be necessary in the implementation of this Proposed Action. Therefore, implementation of Alternative 1 would not result in significant impacts to water resources.

#### **3.3.2.2 Alternative 2**

Implementation of Alternative 2 would transfer management of water resources within Fillmore Canyon, Parcel D to the BLM. The BLM has existing capacity and experience to manage these resources, but these areas would represent new resources in their management responsibilities.

Fort Bliss has ongoing and recently completed surveys, such as the Natural Resources Evaluation, that would be transferred to BLM, but a Fort Bliss representative may be necessary to adequately handle the transition of data, local knowledge, and other pertinent information. Implementing an MOU between Fort Bliss and the BLM and establishing responsibilities for the project area would be a necessary step.

Therefore, implementation of Alternative 2 would not result in significant impacts to water resources.

### **3.3.2.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not occur and there would be no change to existing conditions. Public access would continue to be prohibited and the Army would not conform with P.L. 116-9. Therefore, implementation of the No Action Alternative would not result in significant impacts to water resources.

## **3.4 Earth Resources**

Earth resources are generally dependent upon a variety of factors, including geologic formations, soil structure and composition, climate, topography, and vegetative cover. The structure and composition refer to the physical features of soil, such as compaction, moisture, and composition, based on the bedrock material and mineral deposits. Climactic soil erosion effects primarily revolve around the abundance and intensity of precipitation in each environment. Topographic descriptions are typically in respect to the elevation, slope, aspect, and surface features (e.g., surface roughness) found within a given area. Vegetative cover is an interface between the atmosphere and soil surface influencing the overall permeability and potential runoff.

This analysis focuses primarily on the geology, soils, topography, and soil erodibility within Fillmore Canyon, Parcel D. Detailed and full descriptions of the Fort Bliss geology, soils, topography, and soil erodibility can be found in the Fort Bliss INRMP, Section 2.2 Physical Environment and Appendix C (U.S. Army, 2021). Discussion of impacts to earth resources related to fire are included, and a more extensive discussion can be found within the IWFMP (U.S. Army, 2020).

### **3.4.1 Affected Environment**

#### **3.4.1.1 Geology – USGS Map**

Fort Bliss is generally located within the Tularosa-Hueco Basin; a large inter-montane closed basin. Elevations range from approximately 3,800 feet (1,158 meters) on the basin floor to 8,800 feet (2,682 meters) in the Organ Mountains. The basin is between the Franklin and Organ mountains west and the Hueco and Sacramento mountains east. Fort Bliss is part of the Basin and Range Province and the north portion of the Chihuahuan Desert.

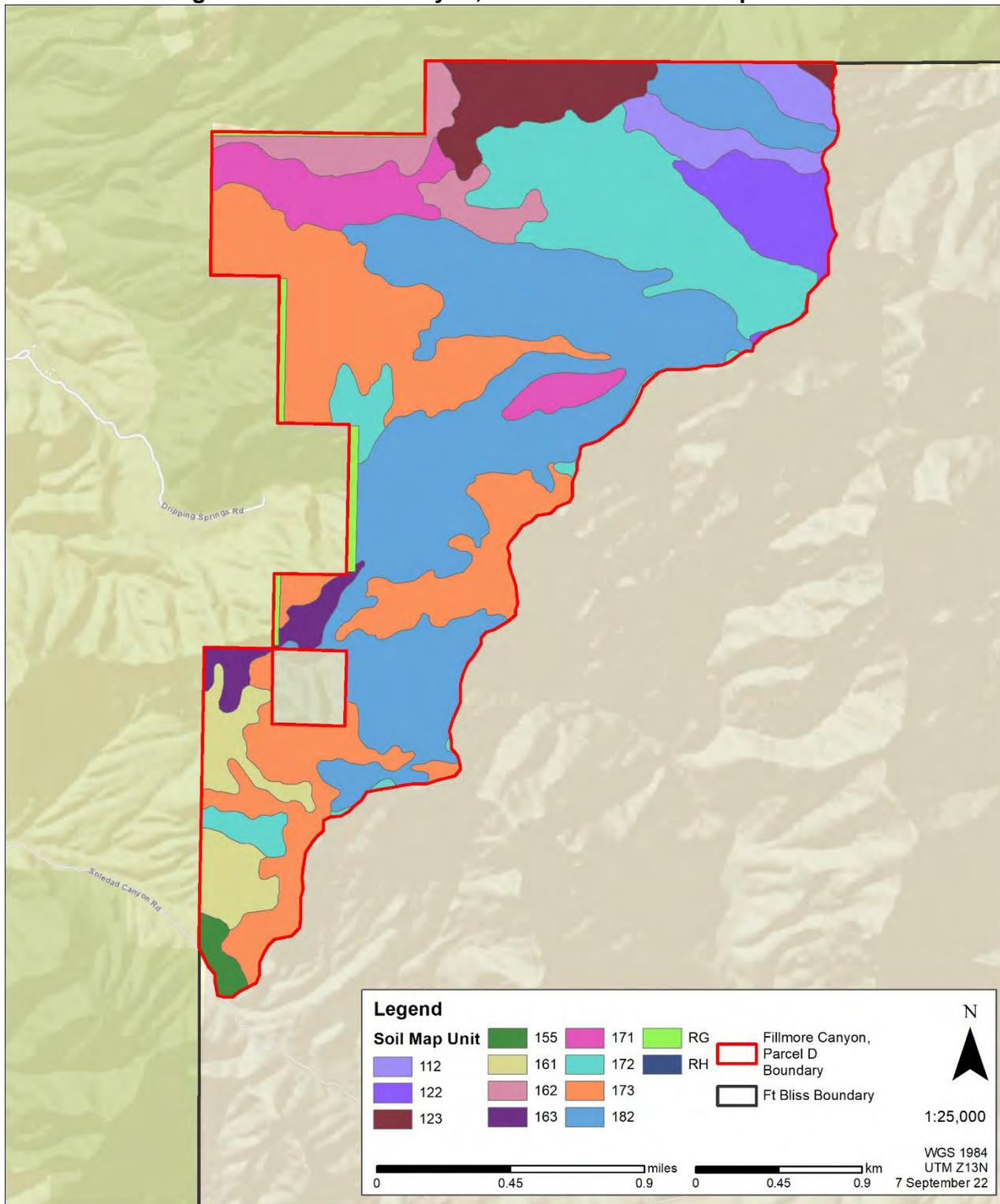
The 2003 Geologic Map of New Mexico (New Mexico Bureau of Geology & Mineral Resources [NMBGMR], 2003) was used to determine and describe the geographic regions of the Proposed Action. Based on the NMBGMR map, it was determined that Fillmore Canyon, Parcel D is

comprised of seven unique geologic map units. A more complete regional geologic history of Fort Bliss is detailed in the INRMP (U.S. Army, 2021).

#### **3.4.1.2 Soils**

The U. S. Department of Agriculture Web Soil Survey of the project area indicates a total of 13 mapped soil units from two unique soil survey areas. See Figure 3-2.

Figure 3-2: Fillmore Canyon, Parcel D NRCS Soil Map Units



### 3.4.1.3 Soil Erodibility

The most critical effect on soils would be the potential for increased soil erosion (water and wind) as a result of increases in vehicle traffic during off-road maneuvering activities (U.S. Army, 2010). Soil erosion from wind, water, and road use is a concern due to its impacts on the surrounding plant communities and the resulting cost of road maintenance. Importantly, off-road maneuvering of vehicles will not occur in Fillmore Canyon, Parcel D. As such, the following analysis is primarily concerned with erosion caused from wind and water.

Fires (both prescribed and wildland fires) do have impacts on earth resources, but it was noted in the IWFMP that within the Fillmore Canyon, Parcel D area that fires did not contribute to soil erosion. In fact, it is noted that fires-maintained vegetation that provides structural support to the soils in the region (U.S. Army, 2020; Muldavin et al, 1996). Therefore, fire impacts on soil erodibility were not considered further in this analysis.

The NRCS uses several factors to evaluate soil erodibility (NRCS, 2021): Road and trail erosion hazard ratings are based on soil erosion factor K, slope, and content of rock fragments. The erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Table 3-7 provides a summary of the soil erodibility for the soil types present within Fillmore Canyon, Parcel D.

None of the soil units have erodibility ratings in both categories that would make them susceptible to general erosional concerns. Eight of the soils (representing 67.9 percent of Fillmore Canyon, Parcel D) have a rating of severe for erosion related to roads and trails. Importantly, four (representing 31.4 percent of the area) are not rated for road and trail erosional hazards.

**Table 3-7: Fillmore Canyon, Parcel D Soil Units and Erodibility Factors**

Map Unit Name	Map Unit Symbol	Acres in AOI	Percent of AOI	Erosion Hazard (Road, Trail)	K factor, Whole Soil
Aguja-Rock outcrop complex, 35 to 65 percent slopes	182	662.2	32.4%	Severe	0.1
Rock outcrop-Arbol complex, 65 to 90 percent slopes	173	476.7	23.3%	Not Rated	Not Rated
Arbol extremely gravelly loam, 35 to 65 percent slopes	172	302.3	14.8%	Severe	0.1
Thaad extremely gravelly loam, 15 to 35 percent slopes	171	107.7	5.3%	Severe	0.05
Rock outcrop-Rotagilla complex, 65 to 90 percent slopes	123	97.2	4.8%	Not Rated	Not Rated
Silktassel very gravelly loam, 35 to 65 percent slopes	162	87.1	4.3%	Severe	0.15

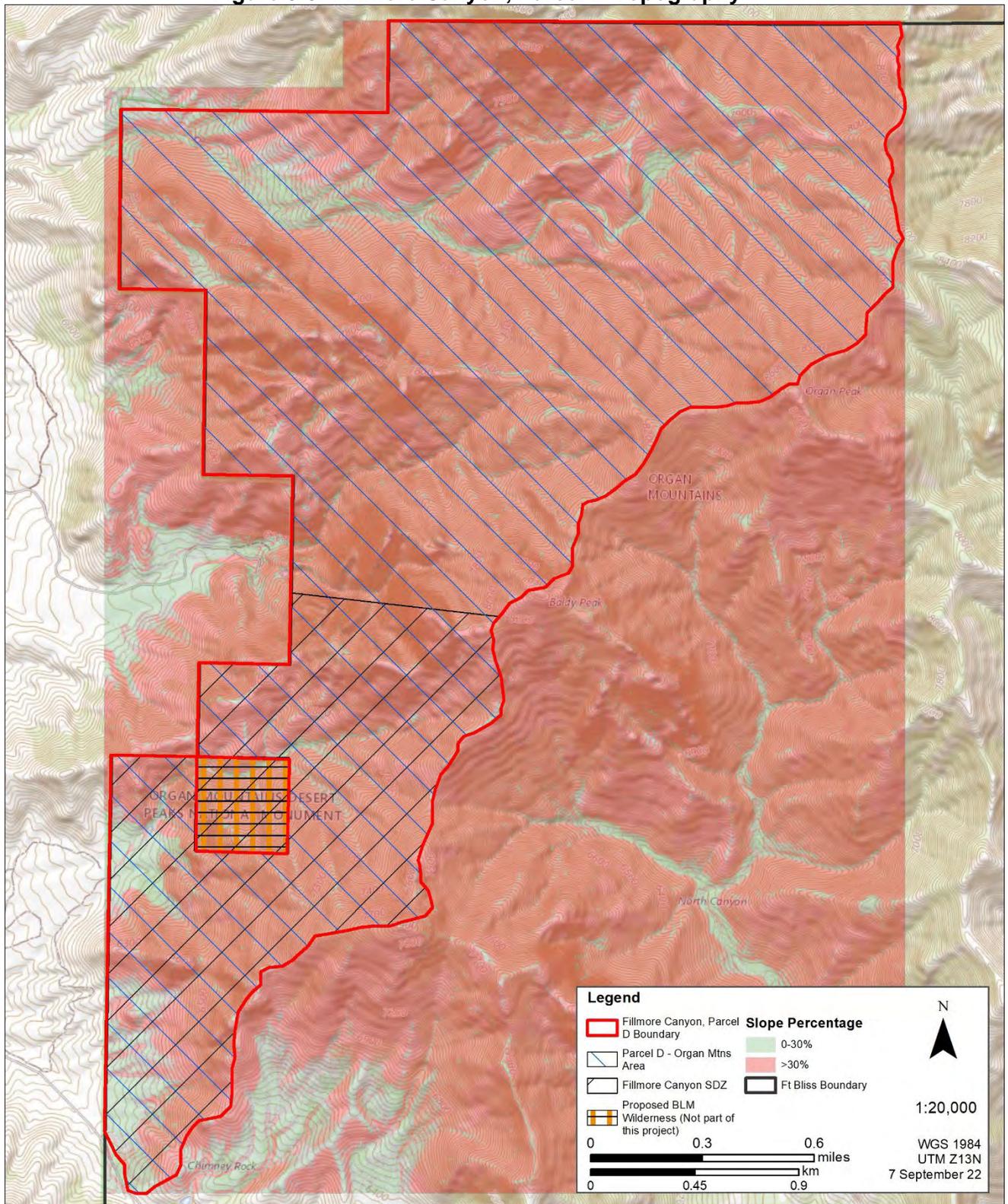
Map Unit Name	Map Unit Symbol	Acres in AOI	Percent of AOI	Erosion Hazard (Road, Trail)		K factor, Whole Soil
Rotagilla very gravelly loam, 35 to 65 percent slopes	122	83.2	4.1%	Severe		0.1
Tuftuff extremely gravelly loam, 15 to 35 percent slopes	161	81.6	4.0%	Severe		0.1
Rock outcrop-Siltassel complex, 65 to 95 percent slopes	112	67.3	3.3%	Not Rated		Not Rated
Brewster very gravelly loam, 35 to 65 percent slopes	163	35.1	1.7%	Severe		0.1
Enash very gravelly loam, three to eight percent slopes	155	15.8	0.8%	Moderate		0.1
Rock outcrop-Argids association	RG	26.8	1.3%	Severe		0.17
Rock outcrop-Argids, cool, association MLRA 42	RH	1.0	0.0%	Not Rated		Not Rated

#### 3.4.1.4 Topography

The Organ Mountains are situated between the Rio Grande Valley to the west, Tularosa Basin to the east, San Andres range to the north, and the Franklin Range south. Elevations within Fillmore Canyon, Parcel D range from approximately 6,050 feet (1,845 meters) near Dripping Springs to 8,800 feet (2,700 meters) near the Organ Needle peak.

The entire project area can generally be described as having extreme terrain with over 91 percent of the total having a slope greater than 30 percent. Figure 3-3 displays a topographic base map for Fillmore Canyon, Parcel D with an overlay of slope percentage delineated between less than 30 percent or greater than 30 percent slope.

Figure 3-3: Fillmore Canyon, Parcel D Topography



### **3.4.2 Environmental Consequences**

#### **3.4.2.1 Alternative 1**

Implementation of Alternative 1 allows Fort Bliss to continue managing the general earth resources within the project area. Fort Bliss would have to incorporate recreational management into this area. This would include evaluating actions such as ensuring users are not within areas of extreme topography and risking unsafe conditions. Other issues may include user-generated erosion. There are soil units that are not rated by NRCS related to the two erosional metrics analyzed. Areas where soils are not rated, topography is generally steep, and users will be present should be actively monitored to ensure user generating erosion is not occurring.

Topography is considered one of the three legs of the fire triangle and can largely influence fire behavior. It is also a physical feature that Fort Bliss cannot control. Steep slopes, such as the slopes noted in Fillmore Canyon, Parcel D, are susceptible to large and intense fires that can spread rapidly (U.S. Army, 2020). Fire management plans for the region must utilize treatments measures such as mechanical thinning or prescribed fire to ensure if fires do occur, they remain at a relatively low intensity.

Fort Bliss currently manages some areas for recreational opportunities, and as such, already has the existing capacity and SOPs to absorb this added management responsibility. Active partnerships with the BLM would still be necessary for the implementation of this Proposed Action since there are shared borders that allow for easy cross-access.

If trails are established in a vegetation zone as part of a recreational plan, these areas should be monitored for user created impacts, as well as impacts that may occur after weather events. By limiting recreational areas and limiting the types of recreational activities in those areas (and including guidance regarding disturbing the ground) it would minimize any potential impacts to earth resources.

Fort Bliss pivoting to a recreational component for this area would be of minimal change to the existing management regime, especially when considering the full extent of Fort Bliss. Therefore, implementation of Alternative 1 would not result in significant impacts to earth resources.

#### **3.4.2.2 Alternative 2**

Implementation of Alternative 2 would transfer management of earth resources within Fillmore Canyon, Parcel D to the BLM. The BLM does have existing capacity and experience to manage this area, but it would be a new complement to their management responsibilities.

Fort Bliss has ongoing and recently completed surveys that would be transferred to BLM, but a Fort Bliss representative may be necessary to adequately handle the transition of data, local knowledge, and other pertinent information. Implementing an MOU between Fort Bliss and the BLM and establishing responsibilities for the project area would be a necessary step.

Therefore, implementation of Alternative 2 would not result in significant impacts to earth resources.

### 3.4.2.3 No Action Alternative

Under the No Action Alternative, the Proposed Action would not occur and there would be no change to existing conditions. Public access would continue to be prohibited and the Army would not conform with P.L. 116-9. Therefore, implementation of the No Action Alternative would not result in significant impacts to earth resources.

## 3.5 Land Use

Land use and its associated attributes addressed in this EA include current and historic land use, general use patterns, and recreational use plans. The Proposed Action is primarily concerned with the land use designation for recreation changing from “Off-Limits; No Hunting or Recreation” at any time to “May be Closed to Hunting or Recreation” at any time.

### 3.5.1 Affected Environment

#### 3.5.1.1 Fort Bliss On Station Land Use

##### Recreational Land Use

Non-military uses are allowed on Fort Bliss, provided they do not conflict with military uses or pose safety risks to the public. While allowed, the Fillmore Canyon, Parcel D falls within the area of Fort Bliss currently designated as “Off-Limits; No Hunting or Recreation at any time.” The findings of the MEC-PA, as well as discussions with Fort Bliss and BLM staff indicated members of the public are using the area for hiking and other recreational activities. While recreational use is documented in the area, it is unmanaged by Fort Bliss since that is not how the area is designated. The INRMP notes that multiple existing trails start in adjacent BLM land and cross the boundary into Fort Bliss (U.S. Army, 2021).

Changing the recreational land use designation would allow for users to legally use the area. A consequence of this change would be the requirement for the managing agency to develop recreational plans for use. This can create hazards in a variety of areas including biological, hydrological, health and safety, and others addressed throughout this EA.

##### Current Land Use

The MEC-PA report found that the Fillmore Canyon, Parcel D SDZ is not currently used for munitions live fire training but is within the restricted land area underlying the Anti-Aircraft Range of Fort Bliss (U.S. Army, 2022a). The public does not currently have legal access to Fillmore Canyon, Parcel D for recreational activities. Social trails and other evidence of use were documented in the MEC-PA. This use is currently uncontrolled by Fort Bliss and is technically trespassing. Live fire, while permitted is unlikely to be a risk to recreational users due to Fort Bliss deconflicting military training with recreational use. Potential hazards related to UXO are discussed in Section 3.6, Human Health and Safety.

##### Military Land Use Designation

Several plans direct the land use planning and management process on Fort Bliss, including the Range Complex Master Plan, Real Property Master Plan, INRMP, Integrated Cultural Resources

Management Plan (ICRMP), Integrated Training Area Management Plan (ITAM), and ITAM Range and Training Land Assessment Plan.

The objectives of these plans are to manage installation resources to provide the optimum environment that sustains the military mission; develop, initiate, and maintain progressive programs for land management and utilization; and maintain, protect, and improve environmental quality, aesthetic values, and ecological relationships. The primary results of these objectives are reduced environmental damage and effective land rehabilitation, reduced costs for land management and environmental compliance, and enhanced land stewardship (U.S. Army, 2010).

Land Use Categories are determined by the collection of military uses that occur on a particular area of the Fort Bliss Training Complex (FBTC). The project areas associated with the Proposed Action fall under the FBTC Land Use Category E. Table 3-8 provides the military uses that are part of each FBTC Land Use Category across the entirety of Fort Bliss. Table 3-9 then details the specific descriptions of FBTC Land Use Category E as defined in the Grow the Force EIS (U.S. Army, 2010).

**Table 3-8: FBTC Land Use Categories**

FBTC Land Use Category	Military Uses											
	Off-Road Vehicle Maneuver: Heavy	Off-Road Vehicle Maneuver: Light	On-Road Vehicle Maneuver	Dismounted Maneuver	Aircraft Operations	Controlled FTX	Mission Support Facilities	Live-Fire	SDZ / Safety Footprint	Surface Impact	Range Camps	Environmental Management
A	●	●	●	●	●	●	●	●	●	●	●	●
B		●	●	●	●	●	●	●	●	●	●	●
C			●	●	●	●	●	●	●			●
D			●	●	●		●	●	●			●
E			●	●	●			●	●			●
F			●	●	●	●			●			●
G			●	●	●				●			●
WSA/ACEC				●	●				●			●
Impact Areas					●				●	●		
Range Camps					●		●		●		●	●

Legend: WSA/ACEC = Wilderness Study Area/Area of Critical Environmental Concern; FTX = Field Training Exercise

**Table 3-9: FBTC Land Use Category E**

<b>Military Use</b>	<b>Description</b>
On-Road Vehicle Maneuver	Use of wheeled or tracked vehicles on existing roads.
Dismounted Maneuver	Space for ground units to practice movements and tactics. Different unit types may work in support of one another (combined arms), or a unit may operate on its own to practice a specific set of tasks. The "Dismounted" designation refers to areas where maneuvers are restricted to foot traffic only. This category includes fixed sites (e.g., bivouac, assembly, command, logistic support), limited digging (e.g., fighting positions), and other miscellaneous training activities.
Aircraft Operations	Fixed-wing and rotary-wing overflights and air-to-air training.
Live-Fire	Firing of individual and crew-served weapons systems (surface-to-surface, surface-to-air, and air-to-surface); launch sites and firing points; laser certified ranges; etc. These activities occur under controlled conditions.
SDZ/Safety Footprint	Target debris areas and safety footprints for weapons and laser use.
Environmental Management	Environmental management and training area maintenance activities; conservation efforts.

### 3.5.2 Environmental Consequences

Actions that would lead to significant land impacts include those that would: 1) be inconsistent or in noncompliance with applicable use plans or policies; 2) preclude the viability of an existing use activity; 3) preclude continued use or occupation of an area; 4) be incompatible with adjacent or vicinity use to the extent that public health or safety is threatened; or 5) conflict with range planning criteria established to ensure the safety and protection of human life and property.

#### 3.5.2.1 Alternative 1

Under Alternative 1, Fort Bliss would retain administrative jurisdiction of Fillmore Canyon, Parcel D and develop a recreation plan designating specific areas that are available for public recreation and the types of recreational activities that are permissible based on compatibility with the military mission.

Fort Bliss retaining administrative jurisdiction allows for greater internal control of mission readiness, mission planning, and mission training. It also makes decision-making relative to when the area would be open and closed generally easier since Fort Bliss knows the general period, frequency, and duration of training operations.

The Army would continue to use Fillmore Canyon, Parcel D based on the FBTC Land Use Category E and would ensure compatibility and coordination with recreational use. The public would be able to access Fillmore Canyon, Parcel D for certain recreational activities. The largest hazard to public users presented by military use would be through live-fire. As mentioned above the area is not currently used for munitions live fire training but is within the restricted land area underlying the Anti-Aircraft Range of Fort Bliss.

Coordination with BLM and other relevant partners would still be required, but recommendations and decisions would be generated by Fort Bliss and therefore more likely to complement ongoing and future operations.

Therefore, implementation of Alternative 1 would not result in significant impacts to land use.

### **3.5.2.2 Alternative 2**

Under Alternative 2, Fort Bliss would transfer jurisdiction of Fillmore Canyon, Parcel D to the BLM. The Army would need to request permission from BLM to use Fillmore Canyon, Parcel D for training pursuant to a MOU which would be negotiated in accordance with P.L. 116-9.

Under Alternative 2 the public would be able to access Fillmore Canyon, Parcel D for certain recreational activities.

The BLM obtaining jurisdiction of the Fillmore Canyon, Parcel D would allow for the Army to pivot away from recreational responsibilities for the area and allow the BLM to control the decision-making. This pivot allows the Army to maintain focus on mission readiness, planning, and training for the area.

A direct impact would be a greater need for coordination and communication between Fort Bliss and the BLM to ensure military operations and training exercises are able to proceed as planned. It would also be critical for alerts, closures, and other pertinent information to be relayed to the public and relevant partners.

The BLM does have greater overall experience than the Army in managing recreational lands such as the Fillmore Canyon, Parcel D, and therefore may have more effective recreational SOPs and BMPs. The BLM also has existing lands with developed trails directly adjacent to Fillmore Canyon, Parcel D. These trails extend into Fort Bliss and would be easy to survey for safety concerns and open for use. Since the BLM already manages the other portions of the trail, they may be more efficient in implementing the land use designation for recreation. Therefore, implementation of Alternative 2 would not result in significant impacts to land use.

### **3.5.2.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not occur and there would be no change to existing conditions. Public access would continue to be prohibited. Therefore, implementation of the No Action Alternative would not result in significant impacts to land use but would not conform with P.L. 116-9.

## **3.6 Human Health and Safety**

Human health and safety issues addressed include ground and explosive safety considerations. Explosive safety considerations involve the historic use of ordnance in Fillmore Canyon, Parcel D.

### **3.6.1 Affected Environment**

The affected environment is the 2,035-acre Fillmore Canyon, Parcel D located in the northwest corner of Fort Bliss in New Mexico (see Figure 1-2). There are numerous hiking trails within the southern portion of the Fillmore Canyon, Parcel D currently being used by the public, and access to the area is currently uncontrolled.

All current use of this area by the public is technically trespassing; however, the northern portion of the Fillmore Canyon, Parcel D is largely inaccessible due to the extreme terrain, and generally not accessed by the public (U.S. Army, 2022a).

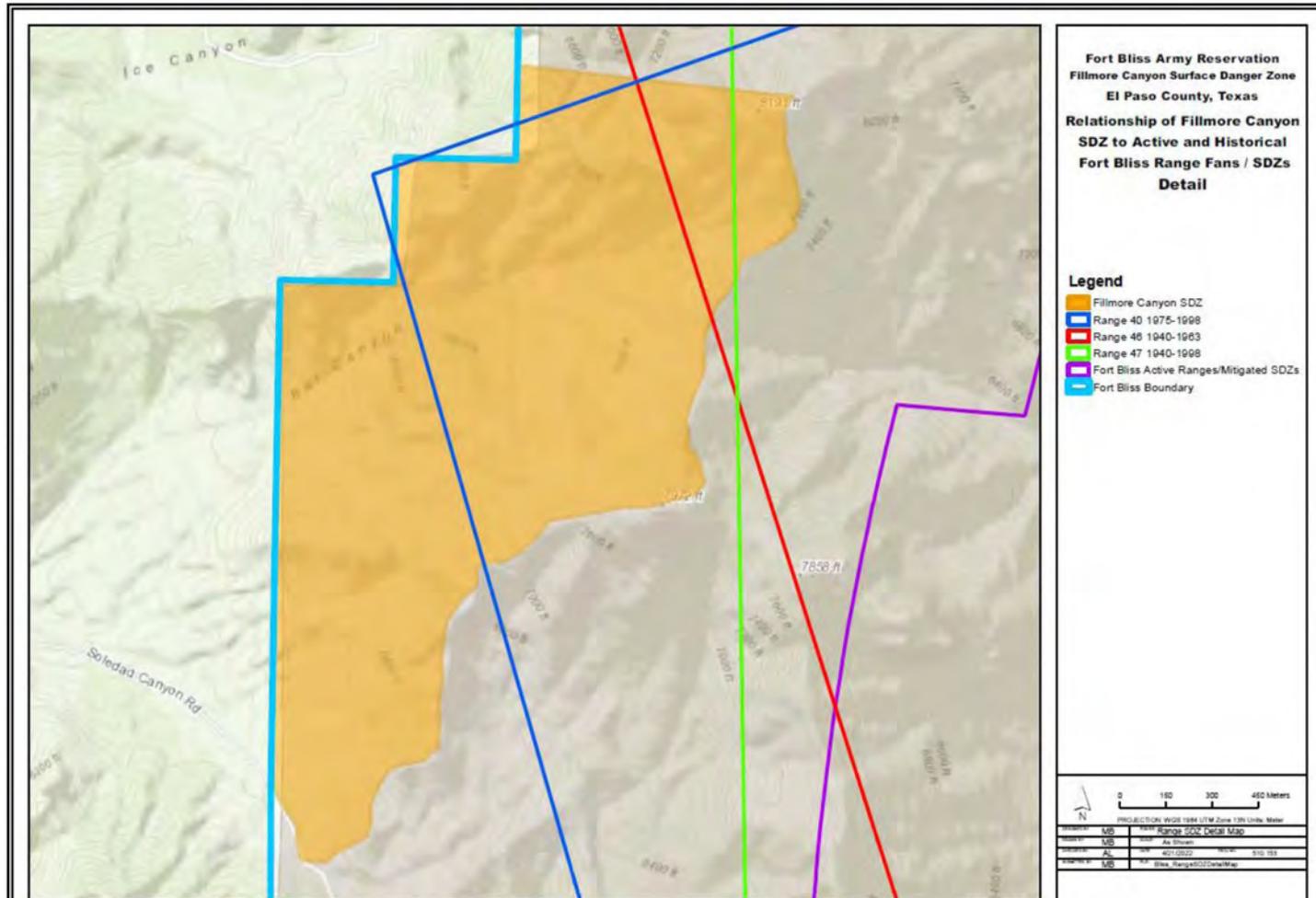
Another safety concern is the lack of emergency services in the area from both Fort Bliss and BLM.

Historically, the northern portion of Fillmore Canyon, Parcel D was not identified as being used for weapons training; however, the southern portion of Fillmore Canyon, Parcel D includes an area of 583 acres of the Fillmore Canyon, Parcel D, SDZ. Currently, the Fillmore Canyon, Parcel D SDZ is not used for munitions live fire training. The nearest active SDZs are located approximately 1/3 mile east of the Fillmore Canyon, Parcel D SDZ (U.S. Army, 2022a).

A MEC-PA was conducted in 2022 and is found in Appendix A. Historically, several range boundaries (Range 40, 46, and 47) primarily overlapped the Area A of the Fillmore Canyon, Parcel D SDZ; however, these overlaps were buffer areas (i.e., not impact areas). Figure 3-4 shows the range boundaries and years of use (see also Appendix A). Buffer areas are set up to extend enough distance from the actual impact area to ensure personnel safety; however, the chance of encountering UXO in a buffer area is minimal. Munitions used in the three ranges included small arms and projectiles to mortars, artillery, and missiles. By 1998, operations on the three ranges ceased and range clearances in the impact areas were conducted (U.S. Army, 2022a).

In January/February 2022, fieldwork was conducted by UXO specialists to obtain visual data to support MEC-PA determinations and recommendations. Assisted by metal detectors, Area A of the Fillmore Canyon, Parcel D SDZ was surveyed. Due to the rough terrain and lack of trails, just the southern portion of the Fillmore Canyon, Parcel D SDZ was accessible to evaluate. Appendix A provides details on the fieldwork protocols and detailed information on the findings. In summary, the MEC-PA analysis indicated that Area A (to the north) has a low potential for explosive hazards and that Area B (to the south) has no probability of encountering munitions or explosives of concern.

**Figure 3-4: Fillmore Canyon, Parcel D, Surface Danger Zone, Active/Historical Firing Range Overview**



Note: Figure excerpted from the MEC-PA (See Appendix A, Figure 4-1). SDZ=Surface Danger Zone. The existing pie-shaped boundaries of the SDZs within Fillmore Canyon, Parcel D extend partially past the boundaries of Fort Bliss. Due to the topography and elevation of Fillmore Canyon, Parcel D munitions are unlikely, if not physically unable to reach these outer limits of the SDZ due to the extremely steep topography with large elevation relief. While the SDZ boundary does officially extend outside the boundary of Fort Bliss, the operational area for the SDZs is functionally well within the boundaries of Fort Bliss. These conclusions were validated through the surveys conducted in the MEC PA.

### **3.6.2 Environmental Consequences**

Adverse impacts to health and safety would occur if the implementation of the Proposed Action resulted in a substantial increase in risk to the health and safety of the public. Explosive safety constitutes the primary issue under the Proposed Action; however, accessibility to emergency services is limited, again due to the isolated and extreme terrain. No other health or safety concerns would occur resulting from the public gaining lawful access to Fillmore Canyon, Parcel D.

#### **3.6.2.1 Alternative 1**

Currently, visitors occasionally walk the trails in the southern portion, but as mentioned above, they would be considered trespassers. Under Alternative 1, Fillmore Canyon, Parcel D would officially be open to the public and under the management of Fort Bliss. If Alternative 1 is selected, the Army would then create and implement a recreational plan to determine the extent of recreational uses and safety procedures to ensure public health and safety. Direct impacts to the public would be considered minor due to the low (Area A) and no probability (Area B) of encountering MEC in Fillmore Canyon, Parcel D.

By limiting recreational areas and limiting the types of recreational activities in those areas and providing signage and education information it would minimize any potential impacts to human health and safety.

In addition, when turned over to the public, determine the targeted land use/recreational areas, considering future access and intrusive activities along with potential hazards remaining from past military actions, to conduct additional MEC surveys.

Therefore, implementation of Alternative 1 would not result in significant impacts to human health and safety.

#### **3.6.2.2 Alternative 2**

Impacts under Alternative 2 would be the same as those described under Alternative 1. Therefore, implementation of Alternative 2 would not result in significant impacts to human health and safety.

#### **3.6.2.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not occur and there would be no change to existing conditions. Public access would continue to be prohibited and the Army would not conform with P.L. 116-9. Therefore, implementation of the No Action Alternative would not result in significant impacts to human health and safety.

### **3.7 Cultural Resources**

Archaeological resources consist of the material remains of prehistoric and/or historic human activity. The Archaeological Resources Protection Act of 1979 defines archaeological resources as “pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items” (16 USC 470bb).

Architectural resources also include manmade structures including, but not limited to, standing buildings, dams, bridges, and canals. Under the National Historic Preservation Act of 1966 (NHPA) (16 USC 470 et seq.), only architectural resources older than 50 years are considered for protection; however, younger structures can be afforded the same protection under special circumstances.

Traditional cultural properties may include archaeological resources, architectural resources, topographic features, plant and animal habitat, and any other inanimate object deemed essential to the continuance of a traditional culture by Native Americans and other groups.

The NHPA provides for establishment of the National Register of Historic Places (NRHP), an official list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture. Section 106 of the NHPA requires federal agencies with jurisdiction over a proposed federal project to consider the undertaking's effect on cultural resources listed or eligible for listing in the NRHP and affords the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) opportunity to comment with regard to the undertaking.

The process of agency review and assessment of the effect of an undertaking on cultural resources is set forth in the implementing regulations formulated by the ACHP (36 CFR 800, Protection of Historic Properties). Other applicable laws and guidelines include but are not limited to the following:

- Executive Order 11593, Protection and Enhancement of Cultural Environment (16 USC 470 [Supp. 1, 1971]);
- Native American Graves Protection and Repatriation Act (25 USC 3001 – 3013);
- Determination of Eligibility for Inclusion in the NRHP (36 CFR 63);
- Recovery of Scientific, Prehistoric, and Archaeological Data (36 CFR 66);
- Curation of Federally Owned and Federally Administered Archaeological Collections (36 CFR 79); and
- Department of Defense Directive 4710.1, Archeological and Historic Resources Management.

In New Mexico, the director of the New Mexico Historic Preservation Division of the Department of Cultural Affairs represents the SHPO. Compliance with the NHPA is an ongoing process for undertakings at Fort Bliss.

### **3.7.1 Affected Environment**

Fort Bliss manages cultural resources associated with all prehistoric and historic periods recognized in south-central New Mexico and western Texas. The *Fort Bliss Texas and New Mexico, Mission and Master Plan, Programmatic Environmental Impact Statement* (U.S. Army, 2000) describes in detail the cultural history of Native Americans and post-contact inhabitants in the region. The ICRMP for Fort Bliss (U.S. Army, 2022c) also contains detailed information about the history of Fort Bliss. Both documents are incorporated herein by reference and can be found at <https://home.army.mil/bliss/index.php/about/Garrison/directorate-public-works/environmental>.

The affected environment is the 2,035-acre Fillmore Canyon, Parcel D located in the northwest corner of Fort Bliss in New Mexico (see Figure 1-2). As mentioned earlier, there are numerous hiking trails within the southern portion of the Fillmore Canyon, Parcel D currently being used illegally by the public, and access to the area is currently uncontrolled. In fact, one homestead site was spray painted and Fort Bliss had to remediate this damage. All current use of this area by the public is technically trespassing; however, the northern portion of the Fillmore Canyon, Parcel D is largely inaccessible due to the extreme terrain, and generally not accessed by the public (U.S. Army, 2022a).

In 2017, Fort Bliss, the New Mexico and Texas SHPOs, and the ACHP signed a Programmatic Agreement (PA). That agreement was amended in 2018, and the amended PA details how Fort Bliss will meet its cultural resources requirements under Sections 106 and 110 of the NHPA. The PA streamlines compliance under Section 106, outlining undertakings that do not require project-by-project review by SHPOs; however, 36 CFR Part 800 is followed when addressing Section 106 with federally recognized tribes. More detailed discussion of Fort Bliss' compliance under Section 106 and the PA is provided in the ICRMP (U.S. Army, 2022c) and not repeated here. The PA includes SOPs that provide for consistent, day-to-day management of mission undertakings carried out on the installation that may affect historic properties, including those resulting from the Proposed Action.

Numerous archaeological investigations throughout the central basin landform, in which Parcel D is located, of the greater Hueco Bolson, Tularosa Basin, and surrounding areas have encountered sites spanning the range of cultural/temporal periods from Paleoindian through Protohistoric occupations. Between 1994 and 1995 (Faunce, 1997) the Fort Bliss Directorate of the Environment and Wendy Lopez & Associates, Inc. of Dallas, Texas conducted surveys. This survey included the assessment of 343 archaeological sites across the military base and included a boulder with historic graffiti inscribed into the rock surface; this site was recommended as not eligible for inclusion in the NRHP (Faunce, 1997). In late 1996, Fort Bliss conducted surveys in portions of Parcel D and identified possible findings dating from prehistoric to historic (Bowman et al. 1996). In 2018 (Graves and Condon, 2018), sites were revisited and again found to support findings dating from prehistoric to historic. The 2018 survey investigated 636 acres in the Doña Ana Range covering 30 linear miles of the military base boundary. This investigation resulted in the documentation and NRHP evaluation of six archaeological sites. Four new sites were documented, and two previously recorded sites were updated. Four of the sites met the eligibility thresholds for both evaluation tiers and are recommended eligible for inclusion in the NRHP under Criterion D of 36 CFR 60.4 and the remainder did not meet the eligibility thresholds and thus are not eligible (Graves and Condon, 2018).

The 2017-2021 ICRMP provides a detailed cultural history of Fort Bliss and its surrounding environment, including the variety of types of sites that are known or can be expected within the Installation (U.S. Army, 2022c).

Fort Bliss consults with federally recognized Native American tribes regarding the management of cultural resources. Fort Bliss consults with seven federally recognized Native American tribes (Comanche Nation of Oklahoma, Fort Sill Apache Tribe, Kiowa Tribe of Oklahoma, Mescalero Apache Tribe, Pueblo of Isleta, White Mountain Apache Tribe, Ysleta del Sur Pueblo).

Establishing a comprehensive agreement regarding the inadvertent discovery and unintentional excavation of Native American human remains and cultural items is an on-going effort between Fort Bliss and said tribes (U.S. Army, 2022c).

From November 2021 through April 2022, Fort Bliss archaeologists and architectural historians conducted a cultural resources survey of approximately 82 acres (out of the 2,035 acres of Fillmore Canyon, Parcel D) (U.S. Army, 2022b). Eleven known cultural properties (ranging from prehistoric to historic) within Fillmore Canyon, Parcel D were revisited and evaluated. These efforts were undertaken to identify sites for eligibility under the NRHP. The NRHP-eligibility evaluation for Criterion A through D of historic properties are defined as follows:

- A. Sites that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Sites that are associated with the lives of persons significant in our past; or
- C. Sites that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Sites that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

The sites evaluated by the Fort Bliss archaeologists were also evaluated using the Fort Bliss Significance and Research Standards in which sites were investigated to determine if they retained chronological and geomorphic integrity (Tier 1), as well as having statistically appropriate artifact sample sizes and/or other data directly associated with any temporally definable historic contexts (Tier 2). Tier 1 and Tier 2 of the Significance Standards mainly apply to prehistoric sites.

Table 3-10 lists the temporal affiliation and recommendation for NRHP eligibility of the 11 sites.

**Table 3-10: National Register of Historic Places (NRHP) Eligibility Recommendations**

Temporal Affiliation	NRHP Eligibility Recommendations
Unknown Prehistoric	NE; no longer extant
Historic/Modern	NE (Downgrade)
U.S. Territorial (1846-1912)	NE; IO
U.S. Territorial to WWII (1846-1945)	E; Criteria A, D
Historic	NE; not located
U.S. Territorial/WWII (1846-1946) Fillmore Spring	NE; (Downgrade)
U.S. Territorial (1846-1912)	NE; Destroyed
Unknown Prehistoric (Rock Shelter)	NE (Downgrade)
Residential (Simmers Homestead)	E; Criteria A, D
Cold War (1970-1989)	E; Criteria A, C, and D
Cold War (1945-1989)	NE
*E=Eligible; NE=Not Eligible; IO=Isolated Occurrence	

At least four sites were either not located, destroyed, and/or no longer met site criteria. Recent investigations made a good faith effort of surveying the surrounding area, although difficult given the landscape.

- A lithic flake and a historic miscellaneous artifact were located in the vicinity of the site; however, no other cultural features were located or identified. As such, the site no longer meets site criteria requirements and therefore was recommended not eligible for listing in the NRHP.
- Another site was a historic-era inscription associated with mining activities. The site was previously assigned to the U.S. Territorial to Statehood/WWII component. No other cultural materials, artifacts, or features were located near the inscription. As such, the site should be an Isolated Occurrence as it did not meet site criteria and therefore was not eligible for listing in the NRHP.
- Previously identified as a trash scatter, another site was assigned a historic component. However, recent investigations did not locate historic artifacts near the site datum. The area has been impacted by water run-off and had most likely displaced the historic-era artifacts. The site no longer met site criteria requirements and therefore was recommended not eligible for listing in the NRHP.
- Previously identified as a mining camp and assigned a U.S. Territorial to Statehood/WWII component, this site was destroyed in the 1990s. Correspondence from Fort Bliss Staff to New Mexico Historic Preservation Division stated the site had been destroyed by modern mining activities as evidenced by numerous sleeping bags, digging tools, and other miscellaneous camping equipment. The site was not eligible for listing to the NRHP.

Another three previously recorded sites had been recommended eligible for listing in the NRHP. Based on the previous and more recent investigation results the sites were recommended not eligible for listing in the NRHP.

- One site was previously assigned an Unknown Prehistoric component and U.S. Territorial to Statehood/WWII component. Previous investigations identified modern hearth features and a shovel test into a “pithouse” yielded a radiocarbon date of post-1950s. Less than 10 lithic artifacts were located within the site boundaries. None were diagnostic or associated with features. The lithic artifacts did not meet the Tier 1 and/or Tier 2 requirements. The five features were associated with historic/modern mining activities. The “pithouse” feature appeared more like a prospector pit/modern trash pit. The hearth feature was modern with evidence of recent use.
- At a second site, previous site visits identified evidence of modern camping, along with graffiti on the walls of the rock shelters. Diagnostic artifacts were not identified. As such, this site lacked potential to yield chronometric data as well as geomorphic integrity. Based on the results from previous investigations, it was recommended not eligible for listing.
- The third site, Fillmore Spring, was previously assigned a U.S. Territorial to Statehood/WWII component. The site was associated with mining, cattle, and ranching activities. The site was previously recommended eligible for listing in the NRHP under Criterion D. More recent investigations conducted extensive research of the area and exhausted further information potential. In addition, the site had been significantly modified to accommodate modern cattle ranching activities. Based on the results it was recommended not eligible.

One site was an aviation wreckage that occurred in April 1951. After extensive discussion with New Mexico Historic Preservation Division, it was determined that the wreckage location be documented as an archaeological site. Previous news articles and government-furnished summary reports of the event provided information about the wreckage. Because of its remote location and safety concerns for more recent investigators, the site was not revisited. The location was not associated with significant events, persons, or unique designs, and additional information had been exhausted with the news articles and government summary of the event. The site was recommended not eligible for listing in the NRHP.

Another three sites were assigned to the U.S. Territorial to Statehood/WWII and Cold War components. Two sites contained enough historic information to meet the eligibility requirements for Criteria A and D. One site contained enough historic information to meet the eligibility requirements for Criteria A, C, and D.

- One site was previously recommended not eligible for listing in the NRHP. The site was identified as a Check Dam and assigned to the U.S. Territorial to Statehood/WWII component. Recent investigations included extensive archival research of the area and its early settlers. Results of the research clarified that the site is a permanent dam as opposed to a temporary check dam. The dam represents early attempts to control water for mining, ranching, and subsistence. The unique design was the same as that used at Dripping Spring, just downslope from a similar site. The site was recommended not eligible for listing in the NRHP.
- A second site was identified as a residential location, specifically the Simmers Homestead. The site was previously assigned a U.S. Territorial to Statehood/WWII component. The site was recommended eligible for listing in the NRHP under Criterion D. Recent investigations included extensive archival research. The homestead was originally owned by John A. Simmers. Mr. Simmers arrived in the region to help alleviate his tuberculosis symptoms. At the local level, the site met the requirements for Criterion A for its association with the large-scale tuberculosis sanatorium movement in the West that greatly defined the history and development of New Mexico, the trends of homestead construction in the Organ Mountains, and settlement in New Mexico for ranching operations and profitable business ventures. It also met the requirements for Criterion D for its potential to provide further information on the 19th and 20th century use of Bar Canyon, the presence, businesses, and associations of other homesteaders, and the post-WWII military acquisition of the area, which could contribute to the understanding of the evolution of Fort Bliss' boundary lines in New Mexico. The site was recommended eligible for listing in the NRHP under Criteria A and D.
- The third site was the Atmospheric Sciences Laboratory Organ Peak Research Station. The research station and all associated features were recommended for historic district status. The site was assigned a Cold War cultural component and recommended eligible for listing in the NRHP under Criteria A, C, and D. Under Criterion A, the site met the national level themes of science, military history, and education. The district was associated with multiple experiments overseen by the Lab and WSMR between the years of 1970 and 1977, making this the recommended Period of Significance. No historically significant persons are known to be associated with this research station. As a result, this

site was not eligible under Criterion B. The site was eligible under Criterion C, on the local level, for embodying a distinctive method of construction. While parabam astrodomes were relatively common, the construction of this research station solely depended on the CH-54B helicopter to bypass the difficult and remote landscape of the Organ Mountains. This construction approach was uncommon in the region and wholly unique to the Organ Mountains. Finally, the site was also eligible under Criterion D, on the national level, for the potential to yield additional information pertaining to the historical themes of science, military history, and education.

### **3.7.2 Environmental Consequences**

Direct and indirect impacts could occur to cultural sites from unrestricted recreational activities such as camping, hiking, and biking activities, as well as vandalism, in Fillmore Canyon, Parcel D. Known cultural sites could be disturbed or robbed and unknown sites could be disturbed, unearthed, and subjected to potential theft.

#### **3.7.2.1 Alternative 1**

Under Alternative 1, adherence to existing conservation protocols identified in the Fort Bliss ICRMP, PA, and other environmental protection plans could avoid and minimize impacts to less than significant.

Fort Bliss is consulted with SHPO and received SHPO comments on the Fillmore Canyon, Parcel D Cultural Resources Survey and NRHP Evaluation of 11 Sites in Fillmore Canyon, Parcel D in July 2022 (U.S. Army, 2022b). Three sites are recommended Eligible for NRHP, four sites were either not located, destroyed, and/or no longer had met site criteria. The remaining four were determined Not Eligible for inclusion in the NRHP.

SHPO recommends any future recordings/visits to rock shelter sites include formal testing to verify the depth of deposits and to assure there are no buried archaeological deposits in the shelters and recommended that the slopes of the shelters should be tested too. SHPO concurred that site integrity as described suggests Not Eligible for inclusion in the NRHP.

Further mitigation measures for the three sites eligible for listing in the NRHP might include educating the public, this could be done by requiring recreationalists to register with Fort Bliss and providing information on how to minimize their impact on cultural resources and how to report any damage or findings if discovered. Signage may also reduce potential for looting/damage.

By limiting recreational areas and limiting the types of recreational activities in those areas (and including guidance regarding disturbing the ground) it would minimize any potential impacts to cultural resources.

The Fort Bliss ICRMP, PA, and its SOPs would ensure that a process is in place to avoid, reduce, or mitigate adverse effects to cultural resources. Continued consultation with tribes would avoid and reduce adverse effects to Traditional Cultural Properties and sacred sites.

Therefore, implementation of Alternative 1 would not result in significant impacts to cultural resources.

### **3.7.2.2 Alternative 2**

Under Alternative 2, BLM would be responsible for oversight and management of cultural resources. The BLM already has management responsibility for adjacent Organ Mountains-Desert Peaks National Monument and therefore, has a system in place to protect and conserve cultural resources. Adherence to these protocols would help ensure that significant impacts are avoided or minimized.

The BLM recreational plan would be developed, implemented and procedures followed to avoid, reduce, or mitigate adverse cultural resource impacts. Similar to Alternative 1, BLM would need to limit recreational areas and limit the types of recreational activities (including limiting ground disturbance). Continued consultation with tribes would avoid and reduce potential adverse effects to Traditional Cultural Properties and sacred sites.

Therefore, implementation of Alternative 2 would not result in significant impacts to cultural resources.

### **3.7.2.3 No Action Alternative**

Under the No Action Alternative, the Proposed Action would not occur and there would be no change to existing conditions. Public access would continue to be prohibited and the Army would not conform with P.L. 116-9. Therefore, implementation of the No Action Alternative would not result in significant impacts to cultural resources.

## 4 CUMULATIVE IMPACTS

This section presents cumulative effects. Each resource area was evaluated to identify the direct and indirect environmental impacts of their actions. The 2022 updated CEQ NEPA regulations require federal agencies to address cumulative impacts related to their proposed actions. A cumulative impact is defined in the 2022 updated CEQ regulations as “effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.” 40 CFR 1508.1 (g)(3). This section describes the process used to identify potential cumulative impacts related to the Proposed Action at Fort Bliss and discusses those impacts for each of the resources addressed in Chapter 3.

### 4.1 Process for Identification of Cumulative Effects

CEQ has published guidance for assessing cumulative impacts in *Considering Cumulative Effects under the National Environmental Policy Act* (January 1997). The process outlined by CEQ includes: identifying significant cumulative effects issues, establishing the relevant geographic and temporal (time frame) extent of the cumulative effects analysis, identifying other actions affecting the resources of concern, establishing the cause and effect relationship between the proposed actions and the cumulative impacts, determining the magnitude and significance of the cumulative effects, and identifying ways in which the agency’s proposal might be modified to avoid, minimize, or mitigate significant cumulative impacts.

### 4.2 Scope of Cumulative Impacts Analysis

The scope of the cumulative impacts analysis involves both the geographic extent of the effects and the time frame in which the effects could be expected to occur. For this EA, the study area delimits the geographic extent of the cumulative impacts analysis. In general, the study area would include those areas previously identified in Chapter 3 for the respective resource areas. The time frame for cumulative impacts centers on the timing of the Proposed Action.

Another factor influencing the scope of cumulative impacts analysis involves identifying other actions to consider. Beyond determining that the geographic scope and time frame for the actions interrelate to the Proposed Action, the analysis employs the measure of “reasonably foreseeable” to include or exclude other actions. For the purposes of this analysis, public documents prepared by federal, state, and local government agencies form the primary sources of information regarding reasonably foreseeable actions. Documents used to identify other actions include notices of intent for EISs and EAs, management plans, land use plans, and other planning related studies.

### 4.3 Past, Present, and Reasonably Foreseeable Actions

This section will focus on past, present, and reasonably foreseeable future projects at and near the Proposed Action locale. In determining which projects to include in the cumulative impacts analysis, a preliminary determination was made regarding the past, present, or reasonably

foreseeable action. Specifically, it was determined if a relationship exists such that the affected resource areas of the Proposed Action (included in this EA) might interact with the affected resource area of a past, present, or reasonably foreseeable action. If no such potential relationship exists, the project was not carried forward into the cumulative impacts analysis. In accordance with CEQ guidance (CEQ, 2005), these actions considered but excluded from further cumulative effects analysis are not catalogued here as the intent is to focus the analysis on the meaningful actions relevant to informed decision-making. Projects included in this cumulative impacts analysis are listed in Table 4-1 and briefly described in the following subsections.

**Table 4-1: Cumulative Action Evaluation**

Action	Level of NEPA Analysis Completed
<b>Past Actions</b>	
McGregor Range, New Mexico Land Withdrawal Renewal Legislative EIS	EIS completed in 1999
JLTV Family of Vehicles, Programmatic EA	EA completed 2015
EA for the Unmanned Aerial Systems Training Complex at Fort Bliss, Texas and New Mexico	EA completed 2013
<b>Present and Reasonably Foreseeable Future Actions</b>	
White Phosphorous Boxes EA	Conceptual stage
2019 Army Modernization Strategy: Investing in the Future Programmatic EAs and EISs (multiple documents Multi-Domain Task Force Programmatic EA, M-Shorad Programmatic EA, Iron Dome Defense System - Army Programmatic EA, ERCA Programmatic EIS)	Development stage
EA for the Renewal of McGregor Range Land Withdrawal.	Development stage

#### 4.4 Cumulative Impact analysis

Where feasible, the cumulative impacts were assessed using quantifiable data; however, for many of the resources included for analysis, quantifiable data is not available and a qualitative analysis was undertaken. In addition, where an analysis of potential environmental effects for future actions has not been completed, assumptions were made regarding cumulative impacts related to this EA/EIS where possible. The analytical methodology presented in Chapter 3, which was used to determine potential impacts to the various resources analyzed in this document, was also used to determine cumulative impacts.

##### 4.4.1 Biological Resources

Biological resources would be impacted on a small scale by allowing recreation in the project area but would not impact the ability to maintain existing vegetation and wildlife communities. Recreational users may cause wildfires in the area that would impact vegetation and wildlife. As described in the IWFMP, Fort Bliss is actively managing this area to allow for low intensity fires through various methods (U.S. Army, 2020). If these measures are continued, it would be anticipated that if a fire occurred in the area, it would be of relatively low intensity. Vegetation communities would be anticipated to recover quickly as documented in past fires in the area. Low

intensity burns also allows wildlife to be able to flee the area before being overtaken by the fire. Therefore, recreational users in the area may cause individual mortality, but population-level impacts are not anticipated.

Implementation of the Proposed Action would have small-scale impacts on vegetative and wildlife communities based on which agency ultimately gains jurisdiction of the Fillmore Canyon, Parcel D. Environmental management priorities, SOPs, BMPs, and agency guidelines differ between Fort Bliss and the BLM, and therefore would likely result in different, albeit minimal differences in management implementation.

When combined with the effects of other past, present, and foreseeable project activities, implementation of the Proposed Action is unlikely to have any additional cumulative effect on vegetative or wildlife populations, including threatened and endangered species, and migratory birds.

#### **4.4.2 Water Resources**

Water resources would be impacted on a localized scale by allowing recreation in the project area but would not impact the existing streams or their associated ecosystems. Recreational users in the area may cause localized erosion, sedimentation, and pollution, but these are anticipated to be minimal.

Implementation of the Proposed Action would have small-scale impacts on the stream banks and stream channels surrounding the three springs based on which agency ultimately gains jurisdiction of the Fillmore Canyon, Parcel D. These issues can all be limited and managed through better surveys and a Management Plan that actively works to avoid areas of severe erosion risk, steep topographic relief, and provides users with defined use areas near water resources. Environmental management priorities, SOPs, BMPs, and agency guidelines differ between Fort Bliss and the BLM, and therefore would likely result in different management and monitoring implementation.

When combined with the effects of other past, present, and foreseeable project activities, implementation of the Proposed Action is unlikely to have any additional cumulative effect on water resources.

#### **4.4.3 Earth Resources**

The Proposed Action would have localized and short-term effects on earth resources. Effects would be primarily limited to the transfer of information and ultimately how management and monitoring decisions are implemented and vary between the Army and the BLM.

Through effective coordination, cooperation, and planning between the Army and the BLM, ongoing military readiness, operations, and training are not anticipated to be significantly impacted regardless of the alternatives. Therefore, when combined with the effects of other past, present, and foreseeable project activities, implementation of the Proposed Action is unlikely to have any additional cumulative effect on earth resources.

#### **4.4.4 Land Use**

Land use would be impacted by the implementation of the Proposed Action because the recreational land use would change from “Off-Limits; No Hunting or Recreation” at any time to “May be Closed to Hunting or Recreation” at any time. This change would be minor, and impacts are anticipated to largely revolve around partnership and coordination demands between the Army and the BLM. There are also anticipated impacts between either agency and recreational users as rules, standards, and limitations are implemented within Fillmore Canyon, Parcel D.

Importantly, ongoing military readiness, operations, and training are not anticipated to be significantly impacted regardless of the alternatives. Therefore, when combined with the effects of other past, present, and foreseeable project activities, implementation of the Proposed Action is unlikely to have any additional cumulative effect on land use.

#### **4.4.5 Human Health and Safety**

Cumulative impacts to health and human safety from past, present, and future actions within the Region of Influence (ROI) would be less than significant because it is not anticipated that there would be any marked increases to health and safety risks. Therefore, implementation of the Proposed Action when considered with the past, present, and reasonably foreseeable future projects, would not result in any impacts within the ROI.

#### **4.4.6 Cultural Resources**

For cumulative impacts to cultural resources, the ROI includes Fillmore Canyon, Parcel D. Under Alternative 1, Fort Bliss’ PA and its SOPs would continue to avoid, reduce, or mitigate adverse cumulative effects to historic properties. Under Alternative 2, similar management and protection procedures would be followed by the BLM to avoid, reduce, or mitigate adverse cultural resources impacts. Under either alternative, both the Army and BLM would continue to conduct consultation with interested tribes to address potential impacts in Fillmore Canyon, Parcel D to Traditional Cultural Properties and sacred sites. Fort Bliss and BLM would continue to work with tribes to avoid, reduce, or mitigate adverse effects so that cumulative effects are considered less than significant. Therefore, implementation of the Proposed Action in conjunction with other past, present, and foreseeable actions could result in cumulative adverse impacts to cultural resources.

## 5 SUMMARY OF POTENTIAL IMPACTS AND MEASURES TO AVOID, MINIMIZE, OR MITIGATE IMPACTS

This chapter summarizes the potential impacts to the resource areas analyzed in detail. For each resource area, Table 5-1 identifies applicable BMPs that Fort Bliss or BLM would implement to avoid or minimize impacts of the Proposed Action.

BMPs are standard practices that are implemented as part of the Proposed Action to minimize or avoid adverse impacts. Mitigation measures are specific actions that would rectify or compensate for unavoidable adverse environmental effects that could be significant without mitigation. No mitigation measures have been currently identified.

The No Action Alternative would represent no change in the current operational environment of Fort Bliss. Existing conditions and existing management measures would persist.

**Table 5-1: Summary of Impacts and BMPs Under the Proposed Action**

Impact Summary	BMP/Mitigation
<b>Biological Resources</b>	
No significant impact is anticipated on biological resources	<ul style="list-style-type: none"> <li>• Continue tracking active Golden Eagle nests or nestlings, or determination of any seasonal wildlife restrictions per the Grow the Force EIS BMPs.</li> <li>• Measures to prevent wildlife damages to property or negative human/wildlife interactions would be taken, including not feeding, watering, harassing, collecting, possessing, harming, disturbing, or destroying wildlife or their parts including but not limited to snakes, bats, birds, nests, eggs, or nestlings.               <ul style="list-style-type: none"> <li>• Informational signage to educate and inform users on appropriate ways to interact with wildlife in the area.</li> </ul> </li> <li>• Maintain and promote partnerships with agencies and groups involved in migratory bird conservation.</li> <li>• Monitor user areas for invasive species and noxious weeds. If any are discovered, global positioning systems coordinates would be taken and reported back to Fort Bliss Environmental Division for follow-up action.</li> <li>• Develop and adopt proactive management measures to control the proliferation of nuisance and invasive species:               <ul style="list-style-type: none"> <li>• Boot cleaning stations in parking areas to limit the spread of invasive species and noxious weeds.</li> <li>• Informational signage to educate on invasive species.</li> </ul> </li> </ul>
<b>Water Resources</b>	
No significant impact is anticipated on water resources	<ul style="list-style-type: none"> <li>• Monitor known streams for sedimentation and erosion caused by users or trails.</li> <li>• Minimize habitat fragmentation where possible and promote the natural connectivity of water resources to other important habitats.</li> <li>• Conduct a more comprehensive survey to ensure sensitive areas are protected through signage, closures, or avoidance in infrastructure.</li> </ul>

Impact Summary	BMP/Mitigation
<b>Earth Resources</b>	
No significant impact is anticipated on earth resources	<ul style="list-style-type: none"> <li>• Monitor designated hiking, parking, and day use areas for erosional damage.</li> <li>• Monitor hiking areas after storms for erosional damage or sedimentation.</li> <li>• Prepare site-specific sediment and erosion control plans for all earth-moving projects such as parking lots of trail development. Repair and improve trail segments subject to erosion as needed.</li> <li>• Use fire management plans for the region to utilize treatment measures to ensure if fires do occur they remain at a relatively low intensity.</li> <li>• If trails are established in a vegetation zone as part of a recreational plan, these areas should be monitored for user created impacts as well as impacts that may occur after weather events.</li> </ul>
<b>Land Use</b>	
Recreational land use designation would change, but no significant impact is anticipated on physical land use	<ul style="list-style-type: none"> <li>• Post signs on roads used for operations to ensure recreational land users are aware of ongoing operations and evacuation orders.</li> <li>• Minimize habitat fragmentation and promote the natural connectivity of habitats when considering recreational infrastructure.</li> <li>• Maintain and promote partnerships with agencies (BLM particularly) and other groups involved in recreation activities.</li> </ul>
<b>Human Health and Safety</b>	
Impacts would not be significant	<ul style="list-style-type: none"> <li>• Post signs on roads used for operations to ensure recreational land users are aware of ongoing operations.</li> <li>• Deconflict military training and recreational use in advance and follow Fort Bliss procedures after military training.</li> <li>• Limit the types of recreational activities such as hiking, hunting (following Fort Bliss hunting requirements), biking, and camping. Prohibit recreational vehicles on trails and recreational areas.</li> <li>• Inform recreational users that any recreational drone use must adhere to Federal Aviation Administration and Army procedures.</li> <li>• Post signs and inform recreational users of limited accessibility to emergency services.</li> <li>• When turned over to the public, determine the targeted land use/recreational areas, considering future access and intrusive activities along with potential hazards remaining from past military actions, to conduct additional MEC surveys.</li> </ul>
<b>Cultural Resources</b>	
Less than adverse effects to cultural resources	<ul style="list-style-type: none"> <li>• Limit recreational activities such as hiking to existing trails and activities such as camping and hunting.</li> <li>• Prohibit recreational vehicles on trails and recreational areas.</li> <li>• Post signs and provide educational material to inform about cultural resources and reduce the potential for looting/damage.</li> <li>• Adhere to existing conservation protocols established by the Fort Bliss ICRMP, PA, and SOPs to avoid, reduce, or mitigate adverse effects to cultural resources.</li> <li>• Continue consultation with tribes to avoid and reduce adverse effects to Traditional Cultural Properties and sacred sites.</li> </ul>

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