

ENVIRONMENTAL ASSESSMENT

EMPIRE CHALLENGE EVENTS AT FORT HUACHUCA, ARIZONA

Prepared for:



Environmental and Natural
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Fort Huachuca, Arizona

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HOW THIS ENVIRONMENTAL ASSESSMENT IS ORGANIZED

The EXECUTIVE SUMMARY briefly describes the Proposed Action and alternatives. Impacts and conclusions are summarized.

ACRONYMS AND ABBREVIATIONS

- SECTION 1 PURPOSE AND NEED discusses the purpose and need for the Proposed Action, the regulatory background surrounding this project, and the scope of this Environmental Assessment.
- SECTION 2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES discusses the Proposed Action and alternatives addressed in this Environmental Assessment.
- SECTION 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES describes the existing environment within the Region of Influence. It also provides a comparison of environmental consequences associated with the alternative. Conservation and mitigation measures are also addressed in this section.
- SECTION 4 FINDINGS AND CONCLUSIONS
- SECTION 5 REFERENCES provides bibliographical information for sources cited in the text of this Environmental Assessment.
- SECTION 6 LIST OF PREPARERS AND CONTRIBUTORS
- SECTION 7 DISTRIBUTION LIST
- SECTION 8 LIST OF INDIVIDUALS AND AGENCIES CONSULTED

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FORT HUACHUCA, ARIZONA**

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July 2011

FORMAT PAGE

EXECUTIVE SUMMARY

Fort Huachuca is a military installation encompassing 73,142 acres located in the City of Sierra Vista, Cochise County, Arizona. The Installation is located approximately 75 miles southeast of Tucson and 63 miles northeast of Nogales, Arizona. The southernmost boundary of the Installation is approximately 8 miles from the international border with Mexico. Fort Huachuca is divided into an East Reservation (28,544 acres) and West Reservation (44,598 acres) by State Highway 90. The East Reservation includes the East Range, which consists almost entirely of open/operational areas. The West Reservation includes the West Range, South Range, Cantonment Area, and Libby Army Airfield.

Fort Huachuca is a Joint Department of Defense (DoD) Installation supporting approximately 60 deployable and non-deployable tenant organizations. The overall mission of Fort Huachuca is to provide equitable, effective, and efficient management of the Installation to support mission-readiness and execution; provide an electromagnetic testing environment; enable the well-being of soldiers, civilians, and family members; improve the Army's aging infrastructure; and preserve the environment.

United States Joint Forces Command (USJFCOM) or a subsequent proponent proposes to return to Fort Huachuca on an annual basis to conduct a live and virtual capabilities demonstration currently known as the Empire Challenge (EC) although its name may change in the future. This Environmental Assessment (EA) provides an in-depth evaluation of environmental impacts that may result from this annual event at Fort Huachuca.

There are five phases for execution of a typical EC event including: pre-deployment, deployment, execution, redeployment, and after action review. Each of these phases is explored in detail in this EA.

The Proposed Action involves conducting the EC events to test 30 or more capabilities on an annual basis at Fort Huachuca under limited time and space constraints. Under this Alternative, EC events are restricted in and near potentially sensitive areas and during certain times of the year. Sensitive areas include archaeological sites and certain habitat areas. Sensitive times of the year include certain species breeding and migration timeframes as well as weather seasons. Each year, EC events will be programmed to meet the current EC Task Force testing needs. The Proposed Action will set the limits of the operation and the extent to which these new events can move or expand within the Fort boundaries based on environmental compatibilities and/or limitations identified during event planning stages and in consultation with the Environmental and Natural Resource Division (ENRD) at Fort Huachuca. Resource avoidance or mitigation measures would be included in each year's operational orders and Event programming and therefore considered a part of the Proposed Action. All proposed EC events would be conducted following the Standard Operating Procedures identified in the 2010 Fort Huachuca Integrated Natural Resource Management Plan (INRMP) (USAGFH 2010).

The No Action Alternative represents the status quo and serves as a baseline or benchmark to be used when compared with the Proposed Action. Under the No Action Alternative, EC events within the boundaries of Fort Huachuca would not occur as currently proposed. Joint and coalition warfighting technology testing associated with EC may not occur within the Fort Huachuca environment. Economic benefits to the local economy as a result of Empire Challenge would also be lost with under the No Action Alternative.

A summary of the potential impacts and measures to minimize adverse impacts is provided in Table EX-1. Adverse impacts associated with implementing the Proposed Action at Fort Huachuca, Arizona, would be local in context and of a very temporary nature, most spanning approximately 14 days each year. Implementation of the Proposed Action would also have direct, beneficial impacts to the local economy. Based on the analysis contained herein, it is the conclusion of this EA that neither the implementation of the Proposed Action nor the No Action Alternative would constitute a major federal action with significant impact on human health or the environment. It is recommended that a Finding of No Significant Impact be issued to complete the NEPA documentation process.

Table EX-1. Summary of Potential Impacts and Measures to Minimize Impacts for the Proposed Action

Resource Area	Level of Anticipated Impact			Summary of Potential Impacts and Measures to Minimize Impacts
	Significant	Less than Significant	No Impact	
Land Use		X		Events conducted during each of the five phases, (Section 2), are similar to operations being conducted at Fort Huachuca and within the surrounding restricted airspace on a daily basis. EC events have the potential to temporarily impact public access to the Fort's recreational activities including hiking, horseback riding, picnicking, and hunting.
Biological Resources		X		Minor loss of ground cover and disturbance to wildlife near EC activities may result. All proposed EC activities would be conducted following the Standard Operating Procedures identified in the 2010 Fort Huachuca INRMP. The Event site selection process will include a review of the Potential Sensitive Areas Map (Figure 2.1-1) in an attempt to avoid impacting any known resources. All use of aircraft during the EC event is required to be conducted at elevations greater than 1,000 ft AGL in environmentally sensitive areas, therefore no impacts to the Mexican spotted owls or lesser long-nosed bats are anticipated.
Cultural Resources		X		All proposed EC events would be conducted following the Standard Operating Procedures identified in the Fort Huachuca ICRMP. Proposed EC events would be evaluated on an individual basis by ENRD during event planning stages to ensure compliance with all applicable laws and regulations.

Resource Area	Level of Anticipated Impact			Summary of Potential Impacts and Measures to Minimize Impacts
	Significant	Less than Significant	No Impact	
Soils		X		Events that have the potential to impact soil erosion include improper maintenance of existing dirt roads in advance of the EC events, deployment of test vehicles and equipment to the various ranges, as well as overland foot traffic of EC participants. EC test vehicles would only be permitted on roads and in areas previously disturbed by other events, minimizing the chance for erosion on other parts of the Fort. Range Control will limit test vehicles from travelling on dirt roads immediately following a rain storm to cut down on rutting.
Air Quality		X		Potential minor air quality impacts associated with the Proposed Action may result from emissions generated by additional flights and increased vehicle and portable generator use.
Hydrology and Water Resources		X		Minor temporary impacts to floodplains may occur due to dirt road maintenance and use in the East Range. Minor soil movement into water crossings would occur, which would potentially cause additional amounts of soil to be transported downstream. The Deployment, Execution, and Redeployment Phases would require increased use of water supplies as personnel arrive at Fort Huachuca, conduct the Events, and pack up and move out. This temporary increase in population would increase water demands both on the Fort properties and within surrounding communities.
Visual Resources		X		EC events being conducted in the open grasslands of the East and West Range, or the mountainous areas of the South Range, are very similar to daily testing and training activities. The temporary increase in activities would result in minimal impacts to visual resources at the Fort and within surrounding communities.
Noise		X		Noise impacts on biological resources from EC-related aircraft operations will be negligible because flight operations will be conducted at elevations no less than 1,000 feet AGL in environmentally sensitive areas. The Fort has adopted policies calling for take-off and landing approaches to be modified to avoid flying at low levels over agave management areas. The discharge of various weapons should not cause any noise impacts as Fort Huachuca's weapons ranges are well away from any sensitive receptors. The vehicles associated with EC will be using existing roads and streets along with remote roads located on the Fort.
Socioeconomics		X		Short-term beneficial impacts will result from the increase in lodging, restaurant, and retail sales in Sierra Vista and within Cochise County. There would be no disproportionate adverse environmental or health effects on low income or minority populations.
Transportation and Circulation		X		The anticipated impact to traffic and circulation within the Fort and surrounding communities would be temporary. A temporary increase of truck traffic that would be necessary to set up EC event areas in the Cantonment Area or the East, South, or West Ranges would result. Morning and afternoon commute traffic would increase. Local traffic related to serving personnel, such as food catering and servicing of portable toilets, would also increase. Airfield traffic would temporarily increase during the same three phases as large transport aircraft bring equipment, operations are executed with various sizes of aircraft, and equipment is returned to the large transport aircraft for departure. Restricted airspace may temporarily affect aircraft that typically use the airspace.

Resource Area	Level of Anticipated Impact			Summary of Potential Impacts and Measures to Minimize Impacts
	Significant	Less than Significant	No Impact	
Utilities		X		The temporary increase in population and equipment testing during three phases of the Event will require increased use of electricity, natural gas, solid waste service, potable water supplies, and wastewater treatment facilities as personnel arrive at Fort Huachuca, conduct the Event, and pack up and move out. Solid waste generated by an EC event would contribute to the total amount of solid waste generated by the Fort's daily operations. Potable water use would be increased and the amount of water recharged at the waste water treatment plant should increase in proportion to the potable water used. The Fort Huachuca wastewater treatment facility is currently underutilized and other utilities are appropriately sized to allow for fluctuations in use due to the anticipated yearly training events hosted at Fort Huachuca.
Hazardous and Toxic Substances		X		Potential impacts from the use of hazardous and toxic substances during the Proposed Action include accidental spills of hazardous materials or POLs and litter being left behind by EC participants. All participants will be required to receive ITAM training prior to using any of the Fort's Ranges.
Health and Human Safety		X		Because the Proposed Action will bring additional personnel onto the Post, there is the potential to have an increase in the number of accidents or traffic related incidents. During the previous EC, the Fort Huachuca Fire Department had additional crews on-post and an additional ambulance and crew was brought in from off-post, but the Police Department did not deviate from its normal staffing levels. All EC participants will be required to receive ITAM training, which includes the proper procedures for both managing and preventing fire, prior to using any of the Fort's Ranges.

EC-Empire Challenge; **INRMP**-Integrated Natural Resource Management Plan; **AGL**-above ground level; **ICRMP**-Integrated Cultural Resources Management Plan; **ENRD**-Environmental and Natural Resources Division; **SR**-State Route; **POL**-Petroleum, Oils, and Lubricants; **ITAM**-Integrated Training Area Management;

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Purpose and Need for Action.....	1
1.2	Regulatory Framework	3
1.3	Use of this Environmental Assessment.....	4
1.4	Public Participation Opportunities	4
2.0	DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES	5
2.1	Annual Empire Challenge Events (Proposed Action)	5
2.2	No Action Alternative	8
2.3	Alternatives Considered But Eliminated From Consideration	8
3.0	AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	11
3.1	Introduction.....	11
3.2	Land Use	12
3.2.1	Affected Environment.....	12
3.2.2	Environmental Consequences	18
3.3	Biological Resources	19
3.3.1	Affected Environment.....	19
3.3.2	Environmental Consequences	22
3.4	Cultural Resources	24
3.4.1	Affected Environment.....	24
3.4.2	Environmental Consequences	25
3.5	Soils	26
3.5.1	Affected Environment.....	26
3.5.2	Environmental Consequences	27
3.6	Air Quality.....	28
3.6.1	Affected Environment.....	28
3.6.2	Environmental Consequences	30
3.7	Hydrology and Water Resources	31
3.7.1	Affected Environment.....	31
3.7.2	Environmental Consequences	35
3.8	Visual Resources.....	36

3.8.1	Affected Environment.....	36
3.8.2	Environmental Consequences	38
3.9	Noise	38
3.9.1	Affected Environment.....	38
3.9.2	Environmental Consequences	40
3.10	Socioeconomics	41
3.10.1	Affected Environment.....	41
3.10.2	Environmental Consequences	43
3.11	Transportation and Circulation.....	44
3.11.1	Affected Environment.....	44
3.11.2	Environmental Consequences	47
3.12	Utilities.....	48
3.12.1	Affected Environment.....	48
3.12.2	Environmental Consequences	49
3.13	Hazardous and Toxic Substances	50
3.13.1	Affected Environment.....	50
3.13.2	Environmental Consequences	52
3.14	Human Health and Safety	53
3.14.1	Affected Environment.....	53
3.14.2	Environmental Consequences	54
4.0	FINDINGS AND CONCLUSIONS.....	57
5.0	REFERENCES	61
6.0	PREPARERS AND CONTRIBUTORS	67
7.0	DISTRIBUTION LIST.....	69
8.0	LIST OF INDIVIDUALS AND AGENCIES CONSULTED	71

LIST OF FIGURES

Figure 1.1-1. Regional Location Map	2
Figure 2.0-1. Operational Areas Map	7
Figure 2.1-1. Potential Sensitive Areas Map (Representative)	9
Figure 3.1-1. Training Area Map	13
Figure 3.1-2. Cantonment Area Land Use.....	15
Figure 3.1-3. Range Utilization.....	17

LIST OF TABLES

Table 3.2-1. Federally Protected Species Occurring On or Near Fort Huachuca.....	20
Table 4-1. Summary of Potential Impacts and Measures to Minimize Impacts for the Proposed Action	57

LIST OF APPENDICES

Appendix A. Agency Letters.....	A-1
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FORMAT PAGE

LIST OF ACRONYMS AND ABBREVIATIONS

ACUB	Army Compatible Use Buffer Program
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
AEI	Air Emissions Inventory
AF	acre feet
AFA	acre-feet annually
AGL	above ground level
AICUZ	Air Installation Compatible Use Zone
AIRFA	American Indian Religious Freedom Act
AMA	Agave Management Area
AMSL	above mean sea level
AR	Army Regulation
ARFF	Airport Rescue Firefighting
ARPA	Archaeological Resources Protection Act
AT/FP	anti-terrorism/force protection
BGEPA	Bald and Golden Eagle Protection Act
C4ISR	Command, Control Communication, Computer, and Intelligence, Surveillance, and Reconnaissance
CAA	Clean Air Act
CDNL	C-weighted day night level
CECOM	Communications Electronic Command
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH ₄	methane
CLFR	Combat Live-fire Range
CO	carbon monoxide
CO ₂ e	equivalent carbon dioxide
CWA	Clean Water Act
DA	Department of the Army
dB	decibel
dBA	A-weighted decibel

DNL	day-night decibel
DoD	Department of Defense
DPTMS	Directorate of Plans, Training, Mobilization, and Security
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
DZ	Drop Zone
EA	Environmental Assessment
EC	Empire Challenge
EIS	Environmental Impact Statement
EM	Electromagnetic
ENRD	Environmental and Natural Resources Division
EO	Executive Order
EPG	Electronic Proving Ground
ESA	Endangered Species Act
ET	evapotranspiration
FAA	Federal Aviation Administration
FD	Fire Department
FEMA	Federal Emergency Management Agency
FIC	Facility Incident Commander
FLPMA	Federal Land Protection and Management Act
FNSI	Finding of No Significant Impact
FOB	Forward Operating Base
ft	feet
FTE	Full-time equivalent
GHG	Greenhouse Gas
GPCD	gallons per capita per day
GSHP	ground source heat pump
HAP	Hazardous Air Pollutant
HAZMAT	hazardous materials
HFC	hydrofluorocarbons
HMCC	Hazardous Material Control Center
HMMP	Hazardous Materials Management Program

HMMWV	High Mobility Multipurpose Wheeled Vehicle
HWAP	Hazardous Waste Accumulation Point
HWU	Huachuca Water Umbel
ICRMP	Integrated Cultural Resources Management Plan
IEWTD	Intelligence Electronic Warfare Test Directorate
IMCOM	Installation Management Command
INRMP	Integrated Natural Resource Management Plan
IPRs	In-progress Reviews
ISCP	Installation Spill Contingency Plan
ITAM	Integrated Training Area Management
IWFMP	Integrated Wildland Fire Management Plan
JITC	Joint Interoperability Test Command
kW	kilowatt
LAAF	Libby Army Airfield
LLNB	Lesser long-nosed bat
LOS	Level of Service
LUPZ	Land Use Planning Zone
MOUT	Military Operations on Urban Terrain
MRR	Mandatory Reporting Rule
MT	metric ton
MW	megawatt
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NETCOM	Network Enterprise Technology Command
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NOX	nitrogen
NRHP	National Register of Historic Places

ODS	ozone depleting substance
OPORD	Operation Order
OSHA	Occupational Safety and Health Administration
PAC	Protected Activity Center
Pb	lead
PFC	perfluorocarbons
PK15	peak sound pressure level
PM ₁₀	particulate matter, fine
POL	Petroleum, Oils, and Lubricants
PPE	personal protective equipment
PSD	Prevention of Significant Deterioration
psi	pounds-per-square-inch
QI	Qualified Individual
RCRA	Resource Conservation and Recovery Act
RPMP	Real Property Master Plan
SCBA	Self-contained Breathing Apparatus
SF ₆	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SO ₂	sulfur dioxide
SPCCP	Spill Prevention Control and Countermeasures Plan
SPRNCA	San Pedro Riparian National Conservation Area
TCC	Test Control Complex
TNC	The Nature Conservancy
tpy	tons per year
TSD	treatment, storage, and disposal
TSP	total suspended particulate
U.S.	United States
UAS	Unmanned Aerial Systems
UASTB	Unmanned Aerial System Training Battalion
USAEPG	U.S. Army Electronic Proving Ground
USAICoE	U.S. Army Intelligence Center of Excellence
USC	U.S. Code

USD(I)	Under Secretary of Defense for Intelligence
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USJFCOM	United States Joint Forces Command
USPB	Upper San Pedro River Basin
USPP	Upper San Pedro Partnership
VOC	volatile organic compound
VTCs	Video Teleconferences
WWTP	Wastewater Treatment Plant

FORMAT PAGE

1.0 INTRODUCTION

Fort Huachuca is a military installation encompassing 73,142 acres located in the City of Sierra Vista, Cochise County, Arizona. The Installation is located approximately 75 miles southeast of Tucson and 63 miles northeast of Nogales, Arizona (Figure 1.1-1). The southernmost boundary of the Installation is approximately 8 miles from the international border with Mexico. Fort Huachuca is divided into an East Reservation (28,544 acres) and West Reservation (44,598 acres) by State Highway 90. The East Reservation includes the East Range, which consists almost entirely of open/operational areas. The West Reservation includes the West Range, South Range, Cantonment Area, and Libby Army Airfield.

Fort Huachuca is a Joint Department of Defense (DoD) Installation supporting approximately 60 deployable and non-deployable tenant organizations. The overall mission of Fort Huachuca is to provide equitable, effective, and efficient management of the Installation to support mission-readiness and execution; provide an electromagnetic testing environment; enable the well-being of soldiers, civilians, and family members; improve the Army's aging infrastructure; and preserve the environment.

United States Joint Forces Command (USJFCOM) or a subsequent proponent proposes to return to Fort Huachuca on an annual basis to conduct a live and virtual capabilities demonstration currently known as the Empire Challenge (EC), although its name may change in the future. This Environmental Assessment (EA) provides an in-depth evaluation of environmental impacts that may result from this annual event at Fort Huachuca.

1.1 Purpose and Need for Action

EC is an annual joint and coalition Command, Control, Communication, Computer, and Intelligence, Surveillance, and Reconnaissance (C4ISR) interoperability demonstration sponsored by the Under Secretary of Defense for Intelligence (USD(I)). EC showcases emerging C4ISR capabilities, and provides vital lessons learned to improve joint and combined C4ISR interoperability to support warfighters. EC involves several facilities throughout the United States. Fort Huachuca was selected as a venue because it has a high desert environment similar to Afghanistan. Fort Huachuca's infrastructure, special use airspaces, ranges, services and command, control, communications, computers, and intelligence support capabilities enhance the potential for a successful EC testing event.

The different EC events are based on real-world environments and are required to test selected C4ISR technologies and their applicability to warfighter needs in conditions similar to combat locations. The events require simulation of Combined Task Force conditions in an operational representative live-fly environment as well as conventional operations scenarios, which Fort Huachuca's airspace and sophisticated electronic equipment can accommodate.

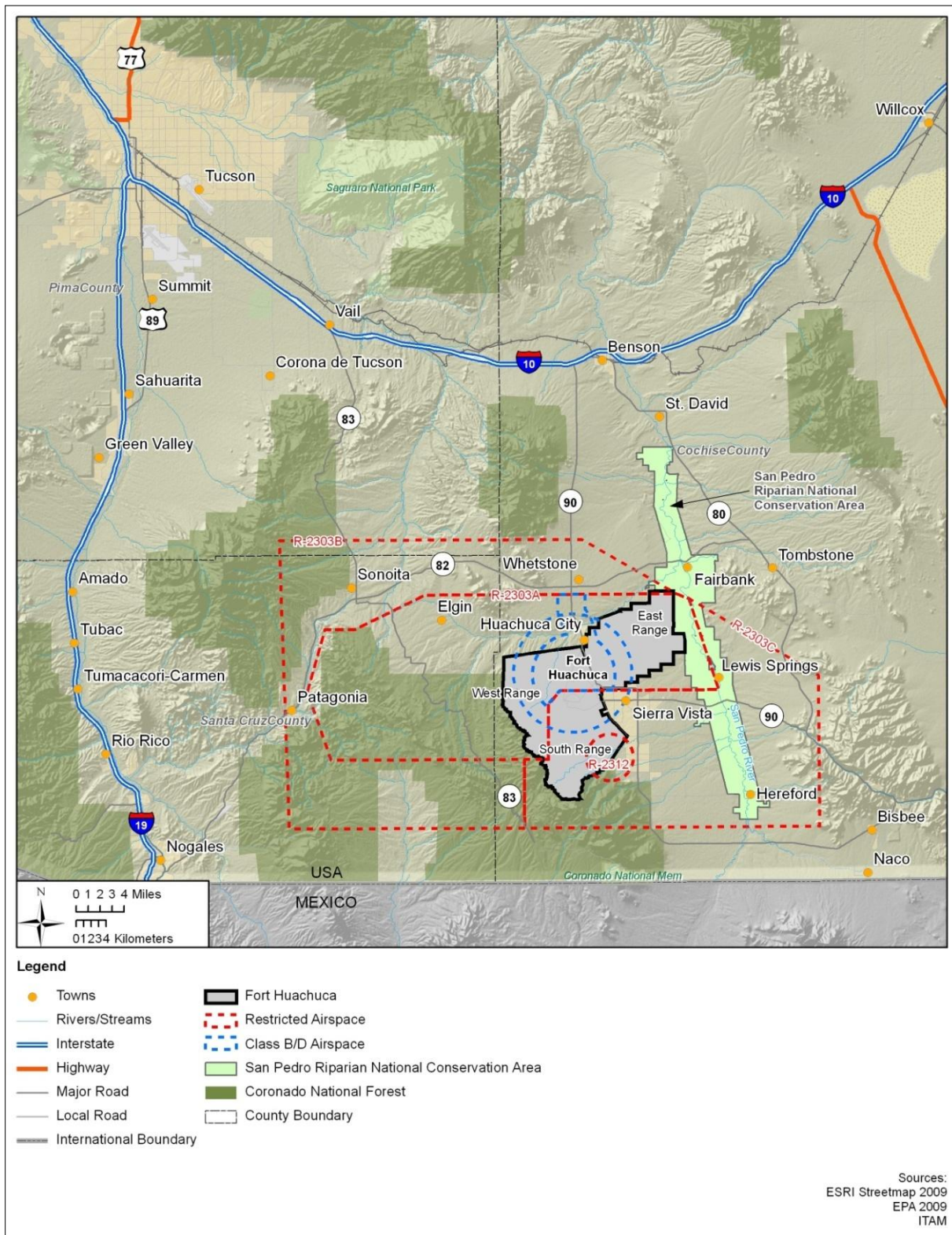


Figure 1.1-1. Regional Location Map

Ground vehicles and personnel will be distributed in selected areas of an urban environment in different configurations as part of the various scenarios. Part of the scenario objectives is to observe personnel in a high clutter area, which Fort Huachuca's Cantonment provides. To conduct this scenario an event area needs an adjacent urban landscape to test/confirm the ability to communicate and pass simulated intelligence and operational data in support of the simulated operations. Fort Huachuca's Cantonment provides the testing environments needed to enhance operational readiness.

Implementation of the Proposed Action at Fort Huachuca would provide a better understanding of warfighting needs and capabilities in an environment similar to combat locations.

1.2 Regulatory Framework

Congress enacted the National Environmental Policy Act (NEPA) in 1969 with accompanying regulations requiring Federal Agencies to consider potential impacts before taking actions that may impact the environment. The NEPA process is not intended to fulfill the specific requirements of other environmental statutes and regulations. However, the process is designed to provide the decision maker with an overview of the major environmental resources that may be affected, the interrelationship of these resources, and potential impacts to the natural and human environment. The NEPA process:

- Integrates other environmental processes;
- Summarizes technical information;
- Documents analyses and decisions;
- Interprets technical information for the decision-maker and public;
- Helps to identify potential alternatives to the Proposed Action; and
- Assists the decision-maker in selecting a preferred action.

NEPA is intended to be incorporated in the early stages of the decision making process to ensure planning and decisions reflect environmental values, avoid delays later in the process, and minimize potential impacts to the natural and human environment.

In addition to NEPA, this EA has been prepared in compliance with two Department of the Army (DA) regulations that provide guidance for environmental analyses:

- 32 Code of Federal Regulations (CFR) Part 651, Environmental Analysis of Army Actions dated 29 March 2002, is designed to provide policy, responsibilities, and procedures for integrating environmental considerations into Army planning and decision making. It establishes criteria for determining which of five review categories a particular action falls into, and thus, what type of environmental document should be prepared. If the Proposed Action is not covered adequately in any existing EA or Environmental Impact Statement (EIS) and cannot be categorically excluded from NEPA analysis, then a separate NEPA analysis must be completed prior to the commitment of resources (personnel, funding, or equipment) to the Proposed Action;

- Army Regulation (AR) 200-1, Environmental Protection and Enhancement dated December 2007, describes DA responsibilities, policies, and procedures to preserve, protect, and restore the quality of the environment. The regulation incorporates a wide range of applicable statutory and regulatory requirements.

1.3 Use of this Environmental Assessment

This EA analyzes and documents the potential environmental effects associated with the Proposed Action and the No Action Alternative. Fort Huachuca will use this EA to determine if a Finding of No Significant Impact (FNSI) is appropriate or if a Notice of Intent (NOI) to prepare an EIS should be issued for the execution of the EC events on Fort Huachuca beginning in 2012.

1.4 Public Participation Opportunities

In keeping with established Army policy to provide a transparent and open decision-making process, Fort Huachuca will make this EA and draft decision document available to applicable federal and local agencies and the general public for review and comment. A Notice of Availability (NOA) will be published in the *Sierra Vista Herald* newspaper and a copy of the EA will be made available to the general public on the internet at <http://www.army-nepa.info> and at the following library:

Sierra Vista Public Library
2600 E. Tacoma Street
Sierra Vista, Arizona 85635

Comments must be postmarked within 30 days of the publishing date of the NOA to be considered during the NEPA process. Comments should be submitted to:

Wes Culp, NEPA Coordinator
3040 Butler Road, Building 22526
Fort Huachuca, Arizona 85613
wesley.b.culp.civ@mail.mil
Phone: (520) 533-1863

A final decision document in the form of a FNSI or a NOI to complete an EIS may be issued upon completion of the 30-day review period and evaluation of comments received during that period.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Annual Empire Challenge Events (Proposed Action)

EC is proposed to return to Fort Huachuca on an annual basis to conduct live and virtual capabilities demonstrations. Operational support required to conduct an annual EC will necessitate additional resources at Fort Huachuca during the Event time frame including: support vehicles, fuel supplies, power supply, communications equipment and lines, traffic control, security measures, temporary structures (portable towers, tents, etc.), portable toilets, field generators and lights, dumpsters, communications support, lightning shelters, parking in the cantonment and on the ranges, road maintenance and repair, billeting, food services, increased flights at Libby Army Airfield (LAAF) and Hubbard Landing Strip, use of existing training sites and areas, water consumption, office space demands, plus other miscellaneous logistical and operational support needs.

There are five phases for execution of a typical EC event including: pre-deployment, deployment, execution, redeployment, and after action review. The 2010 and 2011 EC Operation Orders (OPORDs) were reviewed to determine a typical list of associated events.

Pre-deployment begins at the conclusion of the previous year's EC and includes a series of conferences and in-progress reviews (IPRs). Typical events include communication between all invited operations, communication about mission analysis, identification of all requirements, and approval of the EC for the specified year. The OPORD is developed in this phase.

Environmental screening and various site preparation tasks take place in this phase, in some cases including unexploded ordnance surveys and removal, necessary brushing or clearing of lands to be used in the field, and various road maintenance activities. Requested sites are discussed and visited to understand existing site constraints and required upgrades. All elements of the site are checked for mitigation requirements and deconflicted with existing operations at Fort Huachuca. Most of the meeting events will be conducted via teleconferences or held within existing Army facilities.

Deployment begins the week the capabilities equipment starts arriving in force, typically 2 weeks before Execution. During this second phase, capabilities are deployed to designated Forward Operating Bases (FOBs) across the Installation and they begin setting up/testing equipment in the field. Additional aircraft required for an EC event start arriving during this phase. Deployment typically requires as many as 15 tractor trailers full of equipment to be delivered to each FOB. The vehicles will be traveling over existing paved and unpaved roads on the South and West Ranges. On the East Range, these vehicles must travel over unpaved roads to set up bases in more remote areas.

Execution is the live operations phase involving the actual EC simulated warfighting events where security badges are issued, vehicles are registered, and the scenarios are conducted. This is a distributed event with fixed exercise dates. During this phase, all operations must follow a checklist to operate in the field. Checklists are based on Fort Huachuca Regulation 385-8 (Range and Training Area Operations), 15 March 2001 and Army Regulation 385-63 (Range Safety), 19 May 2003. The sites are monitored daily by the Training Division and Range Control,

Directorate of Plans, Training, Mobilization and Security (DPTMS) and Environmental and Natural Resources Division, Directorate of Public Works (DPW).

A typical Execution phase for an EC is 14 days. Daily activities include several synchronization meetings and video teleconferences (VTCs) with USD(I). A typical Execution includes the following events:

- Compound operations include approximately 900 United States and Coalition Soldiers participating at Fort Huachuca during the 14 days. Out of the total participants, approximately two-thirds are placed in existing buildings with the remaining third placed in the field. The existing buildings typically used are already designated for use by the Electronic Proving Ground (EPG), Intelligence Electronic Warfare Test Directorate (IEWTD), Joint Interoperability Test Command (JITC) and the Test Control Complex (TCC). The Event usually includes a Media Day and two Distinguished Visitor Days (approximately an additional 100 observers).
- Air operations start at a slow pace as aircraft arrive during the deployment, but by the Execution Phase, all aircraft have arrived and are flying daily missions. Typically there are 24 aircraft for a total of approximately 950 scheduled flight hours during the 14 days of operations. All flights (manned or unmanned) are required to be conducted at elevations greater than 1,000 feet above the terrain in environmentally sensitive areas. A variety of manned and unmanned aircraft are typically involved with any EC event.
- Ground operations involving 200-300 of the participants are conducted in any number of Training Areas (Figure 2.0-1). Northern areas of the East Range typically include several operations. These sites test various communication/electronic equipment, and tracking operations. The South Range areas of Garden Canyon at lower elevations, FOBs Danger and Dagger, Battle Lab Area, Urban Ops site, and Site Boston including surrounding areas are utilized for testing operations. At lower elevations on the West Range, including the Split Rock area, Black Trail Canyon, Site Maverick, and training area Kilo are utilized for convoy scenarios where teams are sent on a specified route where they are tracked. Other operations typically conducted involve tracking horseback riders, motorcycle riders and even cyclists traveling in the foothills.

Redeployment begins the day after the Execution concludes and lasts approximately 1 week as participants clean and pack out their equipment. The same number of vehicles used in the Deployment Phase is used in the Redeployment Phase. Most of the vehicles would remain parked at the sites through the Execution Phase.

After Action Review follows Redeployment and includes collection of comments and lessons learned as well as their submittal for inclusion into a joint document. After Action Review is typically required to be published within 2 months after Redeployment is completed.

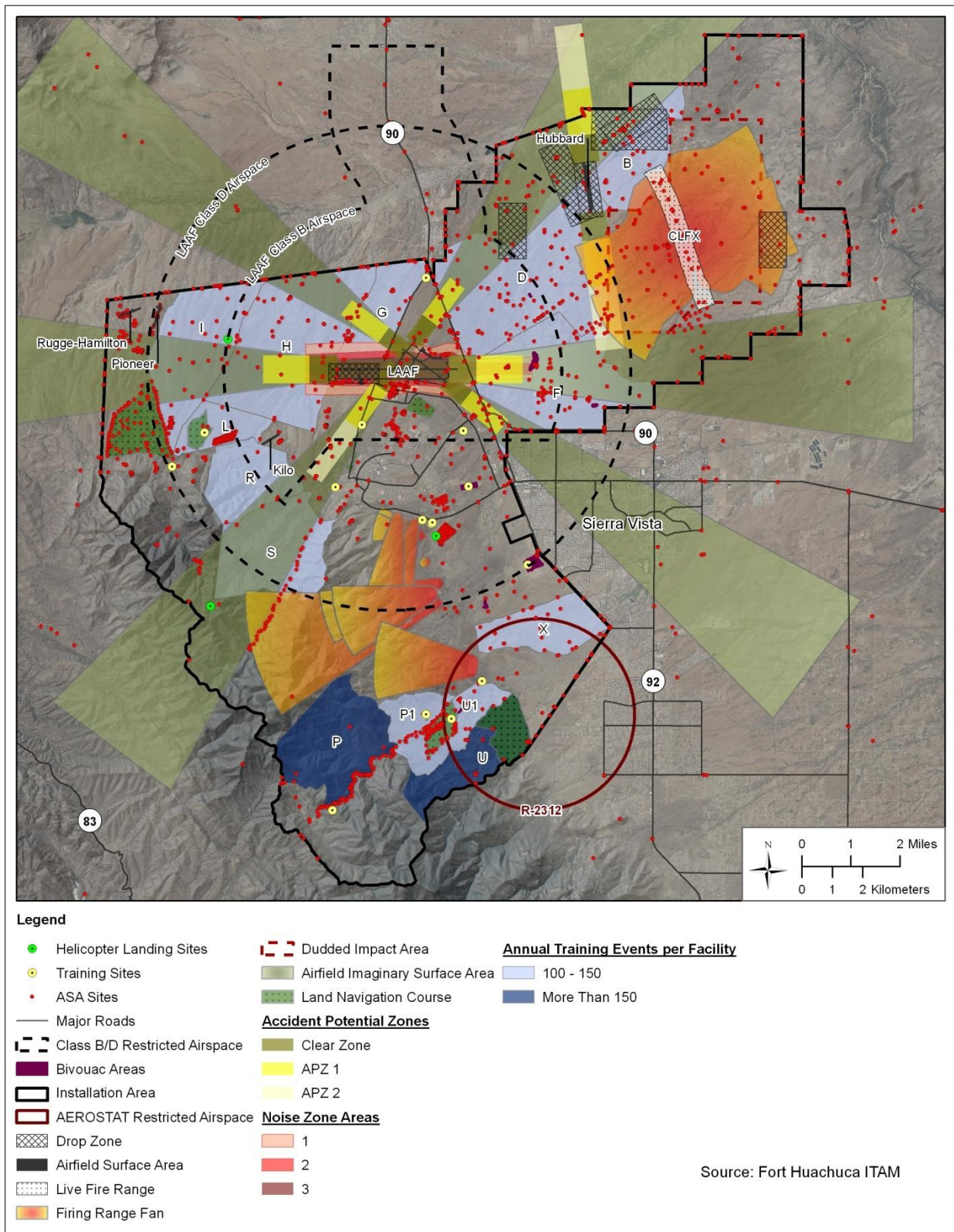


Figure 2.0-1. Operational Areas Map

The Proposed Action involves conducting the EC events to test 30 or more capabilities on an annual basis at Fort Huachuca under limited time and space constraints. Under this Alternative, EC events are restricted in and near potentially sensitive areas (Figure 2.1-1). Sensitive sites include archaeological sites, nesting areas, and critical habitat. Sensitive times of the year for flora and fauna species will be considered during Event planning and programming. Each year, EC events will be programmed to meet the current testing needs. This alternative will set the limits of the operation and the extent to which these new events can move or expand within the Fort boundaries based on environmental and natural resource compatibilities and/or restrictions. Conservation measures or other Event-specific mitigation required to avoid impacts to sensitive species or areas would be identified by the ENRD during the planning stages and incorporated within the Event programming.

2.2 No Action Alternative

The No Action Alternative is required under the Council of Environmental Quality (CEQ) regulations implementing NEPA, and serves as a baseline or benchmark to be used when compared with the Proposed Action. Under the No Action Alternative, EC would not be conducted within the boundaries of Fort Huachuca as currently proposed.

2.3 Dismissed Alternatives

EC has been held at Naval Air Weapons Station China Lake, California, in previous years and the requests for operations may have outgrown the ability of China Lake's infrastructure and facilities to support such an action. Due to a recent shift in warfighting conditions away from desert climates, China Lake no longer simulates the preferred battle environment. The mountainous and topographically diverse terrain at Fort Huachuca better simulate the contemporary warfighting environment.

Another alternative that did not include sensitive area and resource avoidance was evaluated but dismissed as not reasonable due to Fort Huachuca's commitment to the protection of its special status resources and stewardship of its testing and training lands.

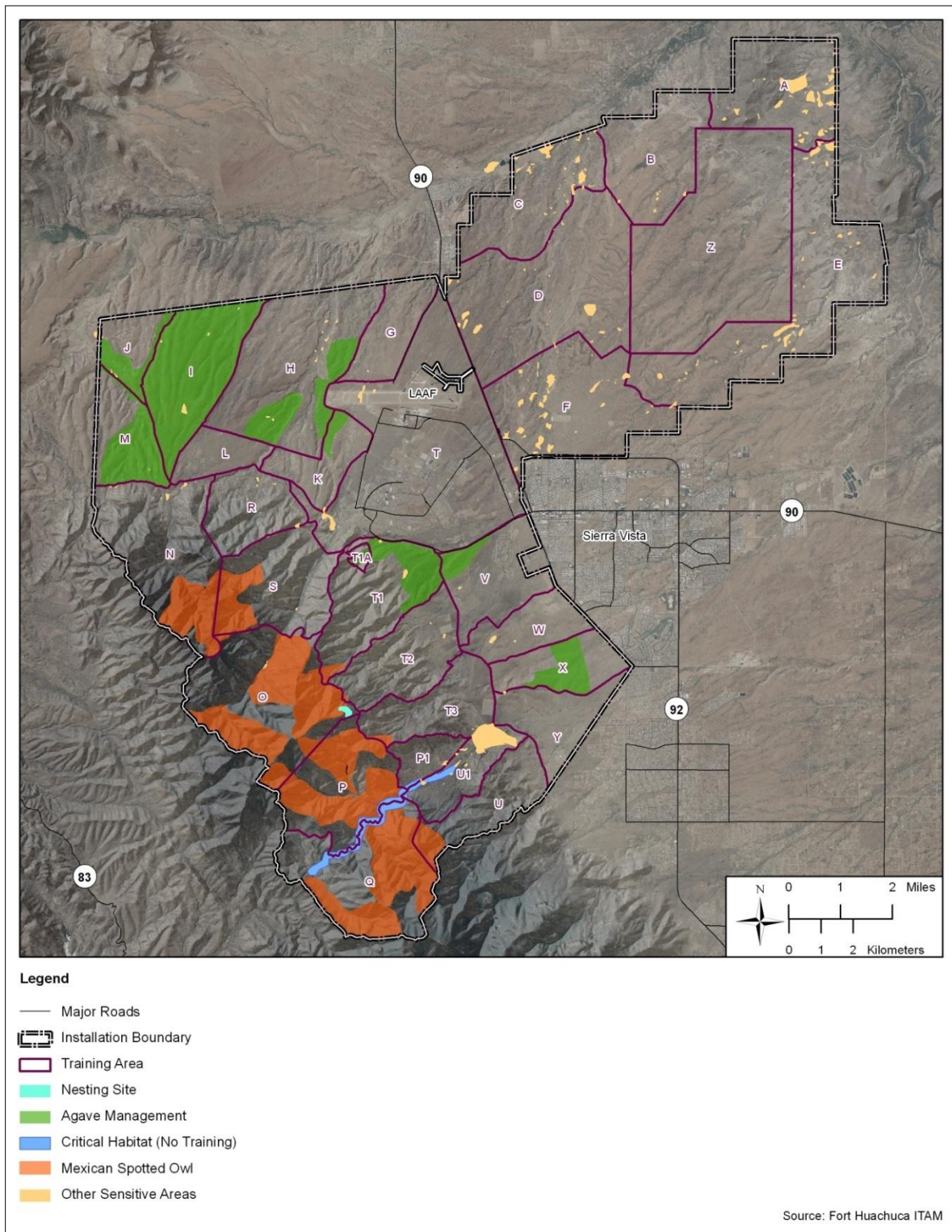


Figure 2.1-1. Potential Sensitive Areas Map (Representative)

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3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

Section 3 describes conditions of, and possible impacts to, environmental resources potentially affected by the Proposed Action and alternatives. The description of existing conditions provides a baseline understanding of the resources from which any changes that may be brought about by the implementation of an alternative can be identified and evaluated.

Following the description of environmental resources potentially affected, the potential changes or impacts to the resources are then described as environmental consequences. As stated in CEQ Guidelines, 40 CFR 1508.14, the “human environment potentially affected” is interpreted comprehensively to include the natural and physical resources and the relationship of people with those resources. The term “environment” as used in this report encompasses all aspects of the physical, biological, social, and cultural surroundings. In compliance with guidelines contained in NEPA and CEQ regulations, the description of the affected environment focuses only on those aspects potentially subject to impacts.

Finally, cumulative impacts for the resource area are addressed. Cumulative impacts are defined in the CEQ regulations (40 CFR 1500-1508) as those impacts attributable to the Proposed Action combined with other past, present, or reasonably foreseeable future impacts regardless of the source. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. However, in order to be considered a cumulative impact, the effects must:

- Occur in a common locale or region;
- Not be localized (i.e., they would contribute to effects of other actions);
- Impact a particular resource in a similar manner; and
- Be long-term (short-term impacts would be temporary and would not typically contribute to significant cumulative impacts).

Analysis of cumulative impacts requires the evaluation of a broad range of information that may have a relationship to the Proposed Action and alternatives. A good understanding of the politics, sociology, economics, and environment of the region are key to this analysis, as is an accurate evaluation of factors that contribute to cumulative impacts.

During the initial scoping for this EA, which included a review of previous NEPA documentation and their findings related to the proposed action, the following environmental resources or areas of consideration were found not likely to be affected by the Proposed Action or subject to only negligible and clearly non-significant impacts:

- Topography and Geology

As such, these environmental resources or areas of consideration are not further evaluated in this EA.

3.2 Land Use

3.2.1 Affected Environment

The affected environment is the Fort Huachuca Military Installation which is located in the City of Sierra Vista, Cochise County, Arizona. The Installation is operated by the U.S. Army Installation Management Command (IMCOM) West, and is home to many tenants, including the Unmanned Aerial System Training Battalion (UASTB), U.S. Army EPG, U.S. Army Intelligence Center of Excellence (USAICoE), U.S. Army Communications Electronic Command (CECOM), Network Enterprise Technology Command (NETCOM), JITC, IEWTD, and many other smaller organizations.

Fort Huachuca is located in the southwestern portion of Cochise County, which covers approximately 6,219 square miles and is comprised of diverse topography, climate and ecological communities. More than 90 percent of Cochise County is designated as rural area and agriculture remains the dominant land use (Parsons 2007).

The Installation encompasses 73,142 acres, which is divided into the East Reservation (28,544 acres) and the West Reservation (44,598 acres) by State Highway 90. Land uses within these two reservations are generally classified as either open/operational or developed areas. The ranges are further divided into 32 training areas depicted with alpha numeric assignments as shown in Figure 3.1-1. The East Reservation includes the East Range, multiple EPG test facilities, Hubbard Landing Strip and the Convoy Live Fire Range (CLFR). The West Reservation includes the West Range, South Range, Cantonment Area, LAAF, the Black Tower UASTB complex, Military Operations on Urban Terrain (MOUT) sites and numerous electronic test facilities. The land use map (Figure 3.1-1) shows the location of the Cantonment Area, each of the ranges, LAAF, Black Tower Complex and the Hubbard Landing Strip.

East Range

Figure 3.1-1, Training Areas Map, shows the East Range which makes up the entire East Reservation and covers 28,544 acres of land. Approximately 13,463 of these acres consist of public domain land that has been withdrawn from public use for military purposes pursuant to the Order of the Secretary of Interior (Public Land Order 1471, 22 August 1957). The Resource Management Plan of the Safford District of the Bureau of Land Management identifies this land as being managed for military purposes and provides for resource management coordination with the Fort consistent with the requirements of the Federal Land Protection and Management Act (FLPMA) (BLM 1991).

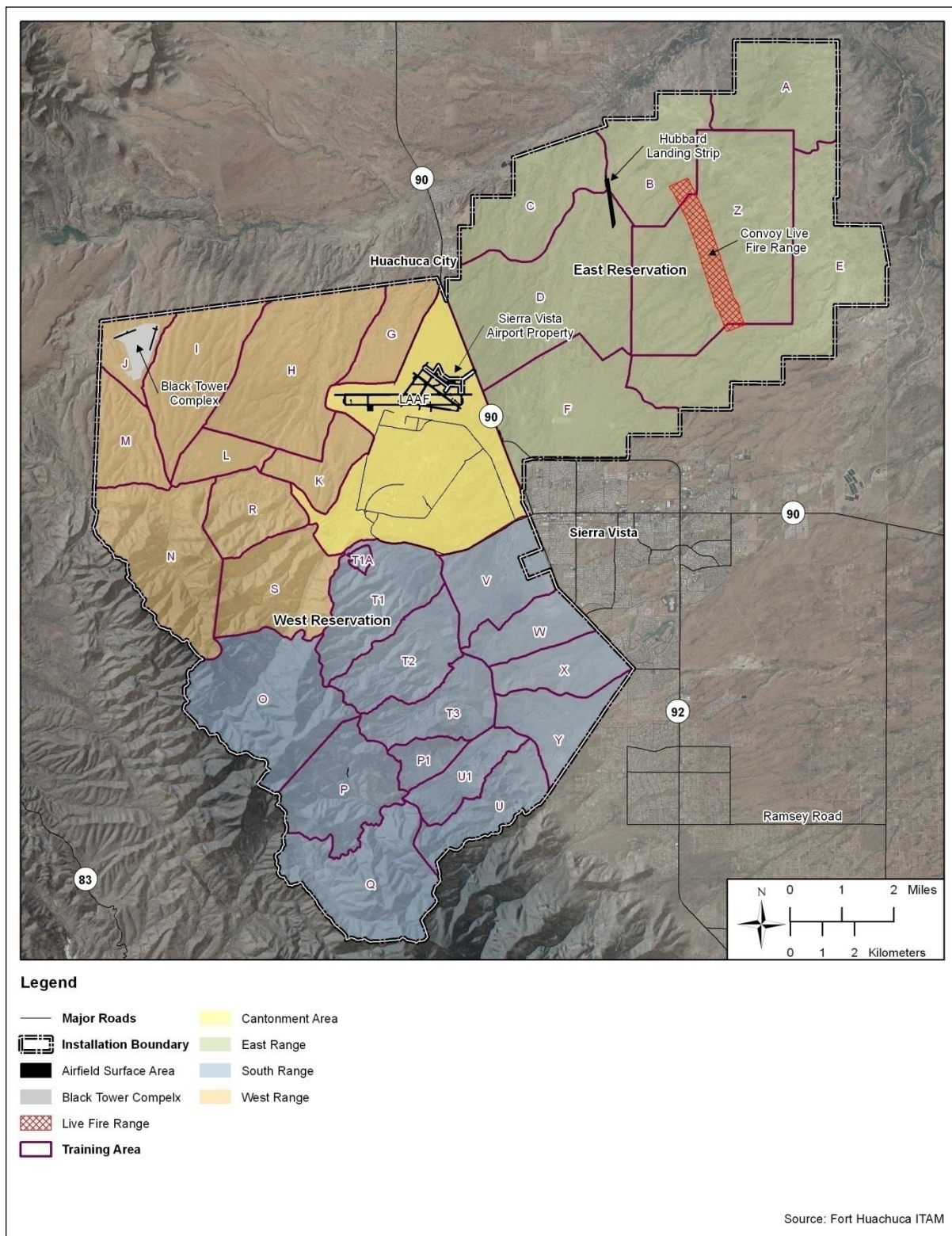


Figure 3.1-1. Training Area Map

The East Range is divided into Training Areas Alpha, Bravo, Charlie, Delta, Echo, Foxtrot, and Zulu. A demolition range, CLFR, a tactical assault landing strip, impact area, and six Drop Zones (DZ) are located within the training areas on the East Range. When live-fire exercises occur, training events can be restricted in training areas Alpha, Echo, Delta and Bravo, depending on the exercise. Impact Area Zulu is a 6,954-acre plot that was historically used for various types of self-propelled artillery and mortars and is always closed to training activities other than CLFR (USAGFH 2009b). Weapons, intelligence training, and electronics testing are conducted outside Impact Area Zulu.

Cantonment Area

The Cantonment Area is located in the West Reservation and accounts for approximately 8 percent of the Installation's total area (Figure 3.1-2). An updated Real Property Master Plan (RPMP) establishes Fort Huachuca's long-range vision for sustainable future development over the 20-year planning horizon and guides development decisions toward improvements that sustainably enhance the long-term capabilities of the Installation (USACE 2008). The RPMP focuses on the Cantonment Area and is intended to guide growth and development in light of changing command goals, mission objectives, and policies (USACE 2008).

According to TM 5-803-1, *Installation Master Planning Technical Manual*, an installation's land area can be classified into as many as 16 land use categories that are functional in nature, have a common purpose, and define significant land uses. Each land use category is represented on Figure 3.1-2 by a color according to Army standards.

LAAF is located in the northernmost corner of the Cantonment Area and is used for aviation-related training. Support facilities include a flight control tower, navigational aids building, airfield operations building, and an airfield fire and rescue station. Maintenance facilities and the City of Sierra Vista Municipal Airport air terminal are located on the north side of the airfield. Storage buildings are located along the southern side of the main runway and within the operational land use zone (USAGFH 2009b). LAAF, included in the airfield land use category, occupies roughly 17.9 percent of the cantonment.

West Range

The West Range, which includes approximately 16,000 acres, is located in the West Reservation, and is used primarily for intelligence training and equipment testing. Activities include tactical training, UAS operations at the Black Tower complex, and electronics and communications testing. There are no live-fire ranges located on the West Range. Special use regulations apply for training conducted in portions of the West Range where protected agave management areas are located. Some areas of the West Range are restricted for wildlife habitat management and outdoor recreational activities.

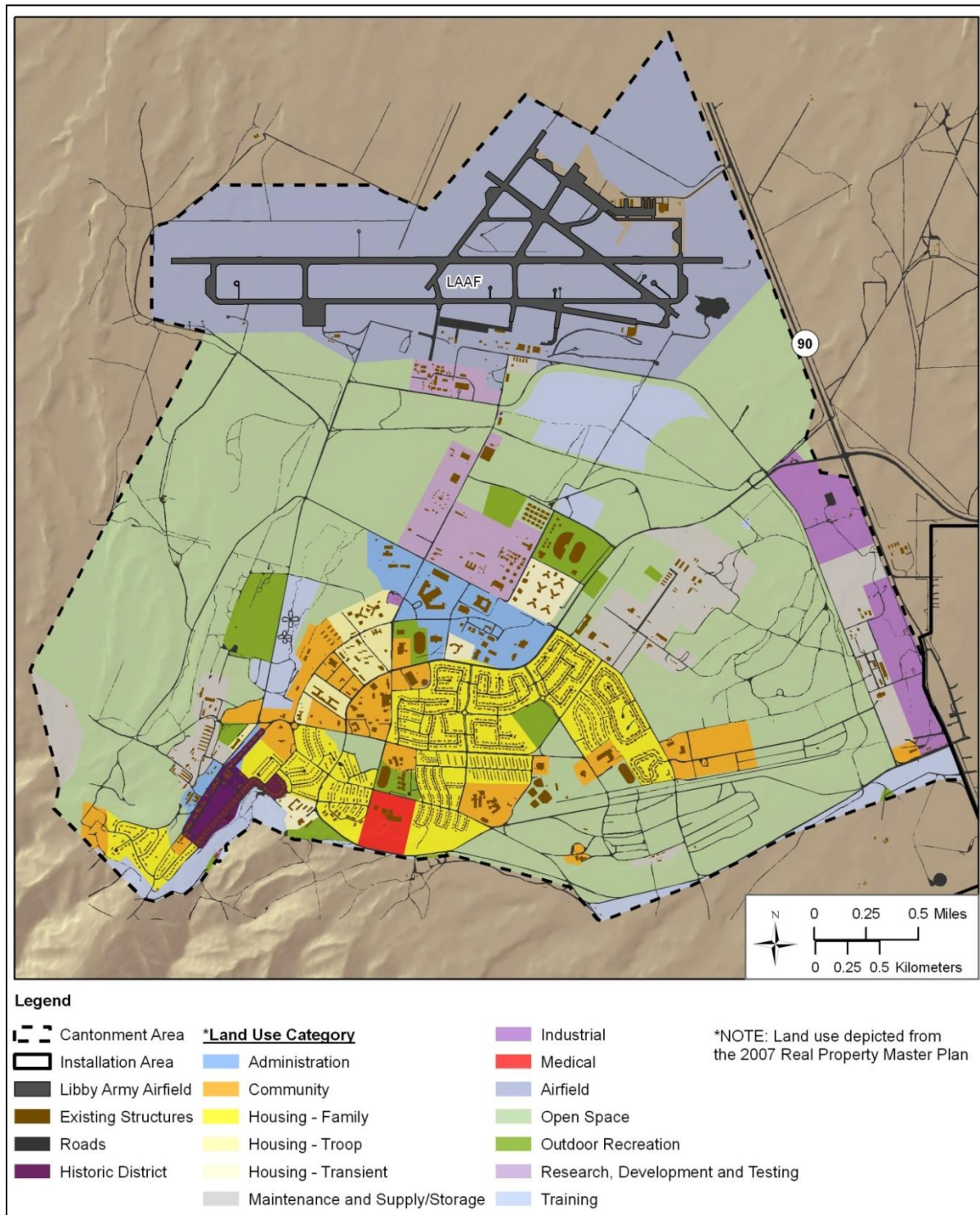


Figure 3.1-2. Cantonment Area Land Use

The West Range is divided into Training Areas Golf, Hotel, India, Juliet, Kilo, Lima, Mike, November, Romeo, and Sierra. Training activities that occur on the West Range include intelligence and communications training and testing activities; patrolling and tactics training; land navigation; setting up bivouacs containing sleeping, mess, and other related facilities for the execution of field training exercises; helicopter landing; and recreational activities including hiking, horseback riding, picnicking, and hunting. The Black Tower UASTB Complex is located in Training Area Juliet.

South Range

The South Range, which includes approximately 23,000 acres, is located in the West Reservation, (Figure 3.1-1) and is primarily used for intelligence training and equipment testing. The South Range contains the majority of small arms firing ranges and is used for various training exercises, such as rappelling and land navigation. Some areas of the South Range are restricted for special status species and other wildlife habitat management and outdoor recreational activities.

The South Range is divided into Training Areas Oscar, Papa, Quebec, Tango, Uniform, Victor, Whiskey, X-Ray, and Yankee and also includes firing ranges and several impact areas. Training activities that occur on the South Range include land navigation; intelligence and communications training and testing activities; patrolling and tactics training; setting up bivouacs containing sleeping, mess, and other related facilities for the execution of field training exercises; live fire training; helicopter landing; and recreational activities including picnicking, hunting, and golf (USAGFH 2009a).

A U.S. Air Force (USAF) Aerostat Surveillance Balloon became operational in the southern portion of the South Range in 1987. The blimp-type balloon is ground tethered and is an aerial platform for radar equipment used to detect low-flying aircraft illegally entering the U.S. (USAGFH 2009b). The radar data is for U.S. Customs, the DoD, and the Federal Aviation Administration (FAA). This system is in operation within approximately 23 acres of the South Range. Airspace within certain portions of the South Range is restricted for aerostat activities only (USAGFH 2009b).

Range Utilization

Amongst other factors, the varying topography, isolation and unique electromagnetic testing environment make Fort Huachuca an ideal electronics and communications technology testing platform. The FY2009 range scheduling information for each training area was summed to represent an overall count of annual training events in each area (Figure 3.1-3). Within each training area, it is important to note that no distinction was made between event type or training facility. With more than 25 events per year in each training area, the East and West Reservation are heavily utilized. Lower elevation portions of training areas Papa and Uniform located in the South Range receive the most use with more than 150 events annually.

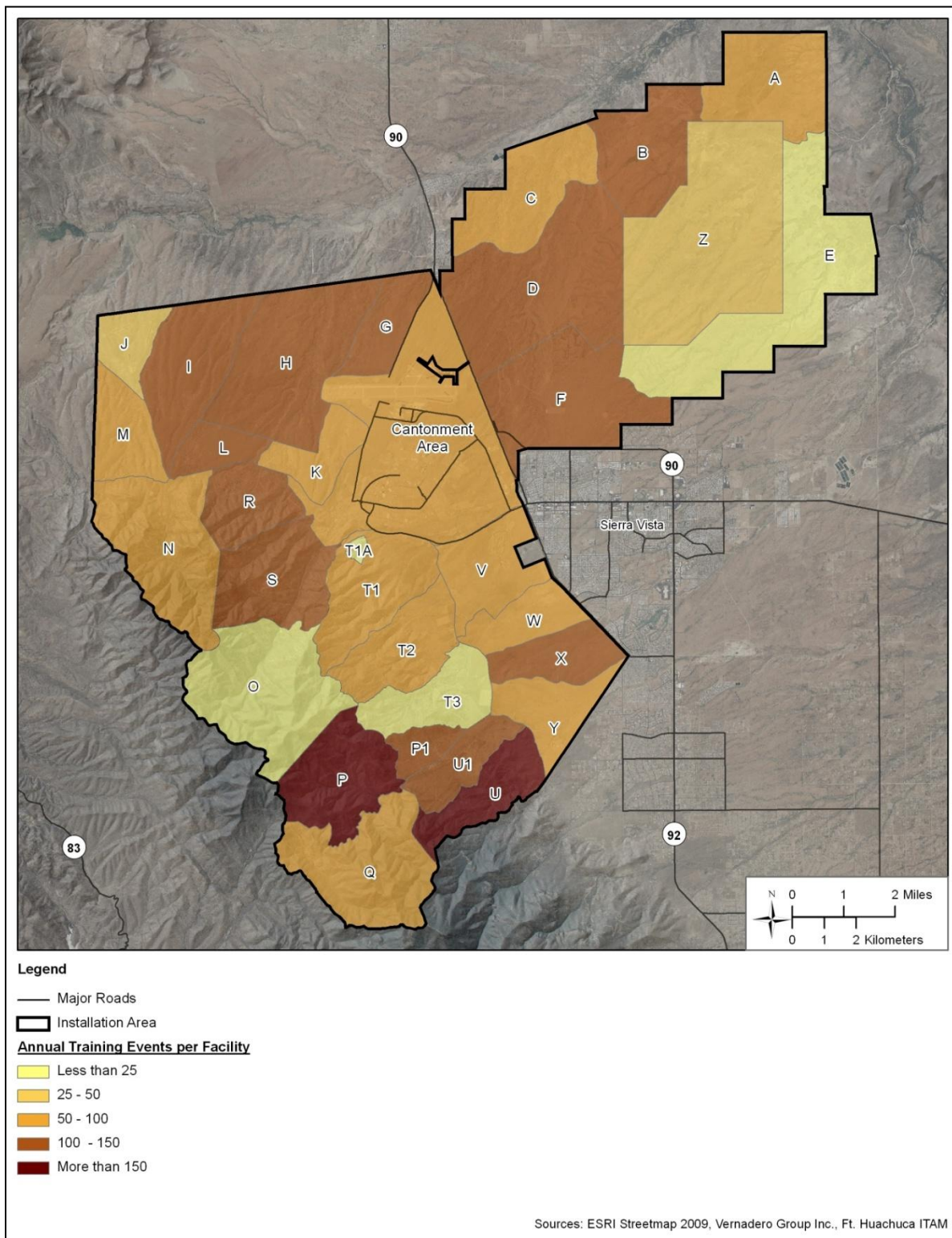


Figure 3.1-3. Range Utilization

Restricted Air Space

The restricted air space surrounding Fort Huachuca is a vital resource for military missions at Fort Huachuca and other military installations in Arizona and also for the aviation needs of other organizations and agencies. The restricted air space extends well beyond Installation boundaries and supports aviation missions associated with Fort Huachuca's LAAF, approaches to the Hubbard Landing Strip, and UAS training (Parsons 2007).

3.2.2 Environmental Consequences

Proposed Action

As the EC events closely mirror the day-to-day usage of Fort Huachuca, implementation of the Proposed Action is not anticipated to result in any significant direct or indirect impacts to land use on Fort Huachuca or in the surrounding community. As shown by the FY2009 range utilization report, daily training and testing make up the bulk of the daily activities on Fort Huachuca's ranges. While the intensity of testing by EC participants may increase day-to-day testing operations at the Fort, the overall land use of the various testing ranges at Fort Huachuca will remain unchanged.

Events conducted during each of the five phases (Section 2), are similar to operations being conducted at Fort Huachuca and within the surrounding restricted airspace on a daily basis. For example, on the West Range, EC events are expected to include various convoy and test tracking scenarios. As shown in Figure 2.0-1, the West Range includes the Land Navigation Course, located in training areas India and Lima. These training areas are two of the most heavily utilized training areas in the West Range.

It should be noted that under the Proposed Action, all resources of the Fort, including the R2303 restricted airspace, may be fully utilized. EC events have the potential to temporarily impact public access to the Fort's recreational activities including hiking, horseback riding, picnicking, and hunting. If training areas in the East, South or West Range are being utilized by EC participants, the nearby recreation areas may be temporarily closed.

No Action Alternative

The EC events would be conducted elsewhere under the No Action Alternative, therefore there would be no significant direct or indirect impact to land use at Fort Huachuca.

Cumulative Impacts

The increased testing activity brought about by EC operations may temporarily limit the execution of other testing or training events on Fort Huachuca. These temporary limitations would be managed by Fort Huachuca Range Control to ensure no overall loss of testing or training capacity that would be detrimental to accomplishing the Fort's primary tenant missions. Temporary loss of access to recreational amenities on Fort Huachuca would not result in any long term degradation or reduction in public access once the EC events are completed. Due to

minimal chance for either of the alternatives to result in adverse impacts to land use, no cumulative land use impact on Fort Huachuca or within the region is anticipated.

3.3 Biological Resources

3.3.1 Affected Environment

Vegetation

A total of 12 plant communities have been documented on Fort Huachuca that vary according to gradient, moisture regime, and elevation. These are shrubland, open grassland, mesquite-grass savanna, oak-grass savanna, pine woodlands, mesquite woodlands, oak woodlands, mixed woodlands, deciduous woodlands, mahogany woodlands, pinyon-juniper woodlands, and urban and built land (USAIC & FH 2006a). The dominant plant communities at Fort Huachuca are mesquite-grass savanna (14,182 acres), shrub-grassland (12,295 acres), and oak woodland (11,509 acres). The dominant vegetation types in the eastern portions of the South Range are open grassland and mesquite-grass savanna at elevations ranging from approximately 4,200 to 5,100 feet above mean sea level (AMSL). Woodlands dominate the upper elevations of the South Range between 5,200 and 7,200 feet AMSL. Vegetation on the West Range is similar to that of the South Range, with open grassland occurring on the lower portions of the range in the north and east, transitioning through oak-grass savanna to oak and mixed woodlands in the south and west.

The East Range consists primarily of shrublands of the Chihuahuan desert scrub type, ranging in elevation from 3,900 to 4,400 feet AMSL. Portions of the Cantonment Area that are not considered urban or built-up land consist of shrub-grassland and shrubland. The desert scrub community was historically desert grassland but was altered by livestock overgrazing prior to government ownership. Since 1960, when the Army fenced the East Range, the area has been improving, but bushy and non-native species have largely replaced the natural desert grassland. Lehmann lovegrass (*Eragrostis lehmanniana*), an introduced, invasive annual grass indicative of disturbance, is abundant within most mesquite grassland vegetation associations on the East Range (USAGFH 2009a).

Wildlife

A variety of fauna including mammals, reptiles, birds, fish, amphibians, and invertebrates are present at Fort Huachuca. Of the almost 500 species of birds found in southeast Arizona, approximately 313 species occur on Fort Huachuca (Taylor 1995, Ireland 1981).

Approximately 18 species of reptiles, 18 species of small terrestrial mammals, 5 species of large mammals, 18 species of bats, 6 species of amphibians, and more than 180 species of invertebrates have been documented on Fort Huachuca (Sam Houston State University 1996, Bailowitz and Upson 1997, USAGFH 2010). Non-native fish are the only fish species that have been documented on Fort Huachuca since 1893 due to stocking and introductions for recreational fishing. These fish include rainbow trout (*Oncorhynchus mykiss*), bullhead (*Ameiurus spp.*), channel catfish (*Ictalurus punctatus*), largemouth bass (*Micropterus*

salmoides), bluegill (*Lepomis macrochirus*), and redear sunfish (*L. microlophus*) (Sam Houston State University 1996).

Special Status Species

The federal Endangered Species Act (ESA) protects federally listed animal and plant species and their critical habitats. The U.S. Fish and Wildlife Service (USFWS) maintain a listing of species that are considered threatened, endangered, proposed, or candidates under the ESA. An endangered species is defined as any species in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species likely to become an endangered species in the foreseeable future. Candidate species are those that the USFWS has enough information on file to propose listing as threatened or endangered, but listing has been precluded by other agency priorities. Although Fort Huachuca is not required by the ESA to consider candidate species, AR 200-1 requires the Army to consider candidate species in all actions that may affect them. The Bald and Golden Eagle Protection Act (BGEPA) provides federal protection to bald and golden eagles, including their parts, nests, or eggs. Ten federally protected species have been documented on Fort Huachuca and are listed in Table 3.2-1. The species are described in detail in the Fort Huachuca *Integrated Natural Resource Management Plan (INRMP)* (USAGFH 2010).

Table 3.2-1. Federally Protected Species Occurring On or Near Fort Huachuca

Common Name	Scientific Name	Status
Huachuca water umbel	<i>Lilaeopsis schaffneriana</i> var. <i>recurva</i>	Endangered
Lemmon fleabane	<i>Erigeron lemmonii</i>	Candidate
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA ¹
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Threatened
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Candidate
Lesser long-nosed bat	<i>Leptonycteris yerbabuenae</i>	Endangered
Sonora tiger salamander	<i>Ambystoma mavortium stebbinsi</i>	Endangered
Arizona treefrog ²	<i>Hyla wrightorum</i>	Candidate
Chiricahua leopard frog	<i>Lithobates chiricahuensis</i>	Threatened
Huachuca springsnail	<i>Pyrgulopsis thompsoni</i>	Candidate
Southwestern willow flycatcher ³	<i>Empidonax traillii extimus</i>	Endangered

¹ Federally protected under the Bald and Golden Eagle Protection Act

² Huachuca/Canelo population

³ Occurs on SPRNCA, but not on Fort Huachuca. It could potentially occur on Fort Huachuca if habitat improves.

Habitat for Other Protected Species

Critical habitat is a specific geographic area deemed essential for the conservation of a threatened or endangered species and that may require specific management and protection. Critical habitat may include areas that are not currently occupied by the species but are needed for its recovery (USFWS 2002). On-post, 368 acres of critical habitat is designated for Huachuca Water Umbel (HWU) along 3.8 miles of the Garden Canyon watershed.

Twelve Mexican spotted owl Protected Activity Centers (PACs) on Fort Huachuca encompass approximately 6,719 acres of contiguous high quality MSO habitat that is currently occupied by owls, or that was occupied in the recent past. PACs generally incorporate nest sites, several roost sites, and highly used foraging areas. The intention of the creation of these PACs was not to permanently set aside these lands, but to protect this habitat until it can be demonstrated that quality replaceable habitat can be created through active management (USFWS 1995).

LLNBs feed solely upon the pollen and nectar of Palmer's agave late in the summer after saguaro and organ pipe cactus stop flowering. It is their only source of food in the United States in the late summer and early fall (Sidner 2006). Fort Huachuca created Agave Management Areas (AMAs) in the 1990s to protect the feeding habitat of the endangered lesser long-nosed bat (LLNB). AMAs are located on the South and West Ranges where abundant Palmer's agave stands are found. Maintaining a sufficient number of self-sustaining natural populations of Palmer's agave is a primary goal of AMAs (ENRD 2006a). 6,209 acres of AMAs are set aside on-post.

Wetlands and Aquatic Habitat

The U.S. Congress enacted the Clean Water Act (CWA) in 1972 to restore and maintain the chemical, physical, and biological integrity of the Nation's waters (33 U.S.C. 1251 et seq.). Section 404 of the Clean Water Act delegates jurisdictional authority over wetlands to the Corps of Engineers and the EPA. Waters of the U.S. protected by the CWA includes rivers, streams, and estuaries, as well as most ponds, lakes, and wetlands. The Corps of Engineers and the EPA jointly define wetlands as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions". Wetlands on Fort Huachuca are primarily associated with streams and ponds.

Fort Huachuca contains 64 acres of wetlands and 770 acres of riparian habitat (USACE 2008). Most of the wetlands on Fort Huachuca are palustrine unconsolidated bottom wetlands (65 percent) or palustrine emergent wetlands (13 acres). The predominant riparian type is emergent alkali sacaton (188 acres). Garden, Huachuca, and McClure Canyons support most of the riparian habitat at Fort Huachuca.

3.3.2 *Environmental Consequences*

Proposed Action

Implementation of the Proposed Action on Fort Huachuca is not anticipated to result in any significant impact to biological resources. EC organizers are required by the Environmental and Natural Resources Division (ENRD) to take natural resources into account during event planning and activities would be programmed to avoid sensitive areas as necessary.

All proposed EC activities would be conducted following the Standard Operating Procedures identified in the 2010 Fort Huachuca INRMP (USAGFH 2010). The Fort would carefully consider all natural resources during the Pre-deployment Phase. The Event site selection process will include a review of the Potential Sensitive Areas Map (Figure 2.1-1) in an attempt to avoid impacting any known resources.

Aerial Operations

Use of aircraft, manned and unmanned, is typically involved with any EC event. Aircraft overflights on Fort Huachuca have the potential to adversely impact two protected sensitive species, the lesser long-nosed bat and the Mexican spotted owl. Multiple studies of low-level aircraft overflights have been conducted on raptors, with many focused on spotted owls. Wildlife are known to respond to low-level aircraft overflights in a multitude of ways. The primary concern stemming from these flights are that their responses may reduce the wildlife's fitness or ability to survive, reproduce, or care for their young (NPS 1994).

Studies involving low level military jet flights (500 feet [ft] above ground level [AGL]) on Mexican spotted owls and lesser long-nosed bats have shown limited responses. Mexican spotted owls respond in similar ways to naturally occurring events such as thunderclaps, while lesser long-nosed bats show a depressed level of flights for 30 minutes after exposure, but no acute reaction such as startle responses (Johnson & Reynolds 2002, Dalton & Dalton 1993). Unmanned Aerial Systems (UASs) are generally small and produce a low intensity noise that is not expected to elicit a response from lesser long-nosed bats. UASs will produce a smaller response from spotted owls than from helicopters or fixed-wing aircraft (Howell 1992, USFWS 2007). Foraging bats are likely drawn to the Agave Management Area located near the Black Tower UAS facility. The Fort has adopted policies calling for nocturnal flights of UAS to be above 500 ft AGL when bats typically nurse their young (July 1 - October 31), and for take-off and landing approaches to be modified to avoid flying at low levels over agave management areas (USFWS 2007).

All use of aircraft during the EC events is required to be conducted at elevations greater than 1,000 ft AGL in environmentally sensitive areas, therefore no impacts to the Mexican spotted owls or lesser long-nosed bats are anticipated.

Ground Operations

Approximately 10 acres of land that is considered non sensitive (does not fall within critical habitat, PACs, or AMAs) may be grubbed or cleared in preparation for use during EC events. This grubbing or clearance will result in a minor loss of groundcover or disturbance within the site. Areas to be grubbed or cleared will be evaluated by ENRD prior to any work in order to avoid potential impacts to sensitive habitat or resources as necessary.

Invasive species are transmitted through known pathways, including air, water, and as stowaways on vehicles, equipment, clothing, etc. (NISC 2005). Sixteen invasive non-native plant species have been documented on the Fort since 2006, including Bermuda grass (*Cynodon dactylon*) and watercress (*Nasturtium officinale*) (USAGFH 2009). The Proposed Action may result in a minor impact to vegetation and wildlife from the risk of increased spread of invasive species onto Fort Huachuca through the use of imported vehicles and equipment. EC events also have the potential to transport invasive species from one location on Fort Huachuca to another, and off-post upon completion of exercise. Washing imported vehicles prior to deployment into training areas and again upon exit of the installation is a recommended method to help keep invasive species from spreading.

EC events in the western portions of the South and West Ranges are close in proximity to protected species such as the Mexican spotted owl, Arizona tree frog, lesser long-nosed bat, and their habitat. Within the western portions of these ranges, Garden, Sawmill, McClure, Huachuca, Blacktail, Sheelite, and Ramsey Canyons also support sensitive rare plants and wildlife such as the Huachuca springsnail, Huachuca water umbel, Lemmon fleabane, and the Sonora tiger salamander. Alteration of habitat or water flow in these areas could be detrimental to the species that depend upon this habitat. Testing near water sources in these areas could also affect water quality and cause adverse impacts to aquatic species (USAGFH 2010).

The Fort maintains critical habitat within Garden Canyon for HWU and restricts training within this area. Roads are closed and barriers are installed to prevent vehicle traffic in the immediate watersheds of HWU populations to prevent erosion that could result in scouring or sedimentation of downstream umbel populations (ENRD 2006b). Protected areas for Mexican spotted owls and agave management units that contain foraging areas for lesser long-nosed bats have seasonal limitations for use during breeding and brooding seasons for these species. The Fort has placed awareness signs and maintains boulders around ponds that are habitat for Sonora tiger salamander. It is illegal to collect, transport, or release salamanders on the Installation (USFWS 2007).

No suitable nesting habitat or habitat for wintering birds exists on Fort Huachuca for the Bald Eagle, the Southwestern Willow Flycatcher, or the Yellow-Billed Cuckoo, so the Proposed Action is not likely to impact these species. Chiricahuan leopard frogs have not been identified on the facility even though potential habitat exists.

Trampling of vegetation at ASA Test sites as well as the presence of personnel may affect wildlife in multiple ways. Habitat modification through soil compaction, tunnels and burrows

being collapsed, or loss of vegetation for food or shelter may occur. Disturbance caused by the presence of humans and vehicles may lead to an increase of excitement or stress, a changing of normal essential activities (animals becoming more vigilant due to human presence as opposed to feeding or sleeping,) severe exertion, or displacement (Hammit and Cole 1987.) Wildlife may flush from an area leaving young exposed or leave territories vulnerable to competitors or predators. This is similar to the responses from recreation activities (Huckelberry 2001).

Despite the potential risk of accidental or unintentional disturbance to biological resources during EC events, these events are similar in nature to daily use of Fort Huachuca by recreationalists and other military testing and training activity and are not expected to result in any significant adverse impacts.

No Action Alternative

Under the No Action Alternative, EC would not occur as proposed. The implementation of the No Action Alternative would not impact biological resources on Fort Huachuca.

Cumulative Impacts

Threats to regional biological resources resulting from the conversion of rangelands to residential and commercial uses and the resulting incompatibilities between man and nature are expected to continue in and around Fort Huachuca. Several federal and state agencies in addition to numerous non-governmental organizations are active in the protection and conservation of special status and wildlife species in the area. Fort Huachuca is committed to the stewardship of biological resources on-post and off-post and is actively engaged in regional partnerships to mitigate potential impacts resulting from its ongoing mission. Due to the temporary and limited duration of EC events, and the limited potential for these actions to negatively influence biological resources, no cumulative impact on biological resources is anticipated to result from implementation of any of the alternatives.

3.4 Cultural Resources

3.4.1 Affected Environment

Cultural resources is a broad term that includes all aspects of human activities, including material remains of the past and the beliefs, traditions, rituals and cultures of the present. As mandated by law, all federal installations and personnel must participate in the preservation and stewardship needs of archaeological and cultural resources and must consider potential impacts to these resources prior to any installation undertaking. Resources include historic properties as defined by the National Historic Preservation Act (NHPA), cultural items as defined by the Native American Graves Protection and Repatriation Act (NAGPRA), archaeological resources as defined by the Archaeological Resources Protection Act (ARPA), sacred sites as defined by Executive Order (EO) 13007, to which access is provided under the American Indian Religious Freedom Act (AIRFA), significant paleontological items as described by 16 U.S. Code (USC)

431-433 (Antiquities Act of 1906) and collections as defined in 36 CFR 79, Curation of Federally Owned and Administrated Archaeological Collections (DA 2007).

As of January 2011, 50,607 acres of Fort Huachuca had been surveyed by Fort Archeologists or other designated representatives, accounting for roughly 69 percent of the Installation. Two archaeological sites, the Garden Canyon Site and the Garden Canyon Pictographs Site, are listed in the National Register of Historic Places (NRHP). Five sacred sites have been identified on Fort Huachuca by federally recognized Indian tribes, including: the Garden Canyon Site, the Garden Canyon Pictographs Site, the Rappel Cliffs Rockshelter Site, the Apache Flats and the Apache Scout Camp (USAGFH 2008b). The “Old Post” of Fort Huachuca is listed in the NRHP and as a National Historic Landmark (NHL) District. The “Old Post” area includes 57 acres and contains 86 buildings, two sites and two structures. There are 122 buildings and structures located outside of the NHL that are considered historic.

The known cultural sites, which include all historic buildings and structures, and prehistoric and archaeological sites, are located throughout the Installation on all three ranges and within the Cantonment Area. The majority (397) of the cultural sites are located on the East Range, 58 are located on the South Range, 90 on the West Range, and 18 in the Cantonment Area.

The NHPA of 1966 and AR 200-1 constrain land uses and development where cultural resources are affected. The Fort Huachuca Integrated Cultural Resources Management Plan (ICRMP) (USAGFH 2008b) guides the Installation’s cultural resources management program. Specific guidance and procedures for managing and maintaining historic buildings is provided in TM 5-801-1, Historic Preservation Administrative Procedures, and TM 5-801-2, Historic Preservation Maintenance Procedures.

Fort Huachuca is steward to an abundance of cultural and archaeological resources. Implementation of the ICRMP ensures that current management complies with applicable laws and regulations while combining with public interests to promulgate a plan of action that sacrifices neither the integrity of the Installation’s mission nor that of the archaeological and cultural resources. Many requirements include consultation with affected parties before a planned action, as well as allowing maximum time for treatment efforts, alternative plans, or avoidance actions to be implemented. Determination of effects and decisions regarding appropriate treatment are specific to individual actions.

3.4.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to impact any known cultural resource on Fort Huachuca. All proposed EC events would be conducted following the Standard Operating Procedures identified in the Fort Huachuca ICRMP. Proposed EC event sites would be evaluated on an individual basis by ENRD during event planning stages to ensure compliance with all applicable laws and regulations, including but not limited to NHPA, NAGPRA, ARPA, AIRFA, and AR 200-1. The Event site selection process will include a review

of the Potential Sensitive Areas Map (Figure 2.1-1) which includes cultural resources, in order to avoid impacting any known resources. More detailed information that is available to the ENRD is also reviewed for possible conflicts.

Should previously undiscovered archaeological materials be encountered during any phase of the EC, testing activities would cease, ENRD would be contacted, and the site would be protected until an evaluation had been completed.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not conduct EC events as proposed. The No Action Alternative would have no impact on cultural resources at Fort Huachuca.

Cumulative Impacts

The Sierra Vista and San Pedro River Basin have a rich and diverse cultural history. A large number of cultural sites have been identified, many of which are located on Fort Huachuca. Many of these sites and properties are currently being preserved as well as registered through national programs. Within Fort Huachuca, the ICRMP as well as State Historic Preservation Officer (SHPO) dictate the treatment and preservation of all cultural resources. Due to minimal chance for either of the alternatives to impact cultural resources, no cumulative impact on cultural resources at Fort Huachuca or within the region is anticipated.

3.5 Soils

3.5.1 Affected Environment

Fort Huachuca has a diverse assortment of soil types. This diversity is directly related to differences in climate, parent material and topography at the Installation. The soils exhibit wide variations in depth, texture, and chemical properties. Roughly 30 percent of the soils are less than 2 feet in depth over bedrock (USAGFH 2010).

Many soils in the hilly and mountainous areas, particularly on the South and West Ranges, are shallow, with steep slopes; these soils tend to have a low available infiltration capacity and are susceptible to erosion. The soils types and erosion characteristics for the East Range pose a management challenge because they are easily eroded due to high salt and gypsum content. These qualities leave the soil prone to gully and piping erosion and are corrosive in nature. Disturbance to the surface of the soils and removal of vegetation can increase susceptibility to erosion. In many areas, the topsoil has eroded away, making it difficult to re-establish vegetation. Incising of drainages has occurred towards the San Pedro River within the East Range to the point where the elevation of the drainages is even with the elevation of the river in areas. This is a problematic situation because during rains or times when higher water levels are present, stormwater backs up into the drainages. Under these conditions, erosion occurs at an accelerated rate, resulting in the formation or extension of gullies and extensive loss of soils (Vernadero 2009).

The soil of the Cantonment Area consists of alluvial fan soils. Almost one-quarter of the post land area has deep red clay soils that have a slow water transmission rate and tend to be poorly drained. They become very slippery when wet and are susceptible to compaction. Other properties of soils on the Installation influencing land use and management are gravelly or rocky soils, soils with hard pans and deep, droughty, sandy soils (USAGFH 2004).

3.5.2 Environmental Consequences

Proposed Action

Impacts to soil resulting from the Proposed Action will be less than significant and temporary in nature. EC events have the potential to cause soil erosion from improper maintenance of existing dirt roads in advance of the EC events, deployment of test vehicles and equipment to the various ranges, as well as overland foot traffic of EC participants.

Improper maintenance of existing dirt roads made in preparation for the EC has the potential to impact soil erosion through improper grading and inadequate usage of drainage features. Range Control supervises maintenance operations to ensure grading achieves the desired slope and drainage materials are used where appropriate.

EC test vehicles would only be permitted on roads and in areas previously disturbed by other events, minimizing the chance for erosion on other parts of the Fort. Range Control will limit test vehicles from travelling on dirt roads immediately following a rain storm to cut down on rutting (USAGFH 2010a).

Any disturbance caused by foot traffic will be minimal because it would not be intense enough to disturb the root system of the existing vegetation and lead to new erosive conditions

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not host the EC as proposed and there would be no impact to soils at Fort Huachuca.

Cumulative Impacts

Soils in the Sierra Vista region continue to evolve. Over time, vegetation has changed due to range animal grazing practices and as grasslands are invaded by various species of shrubs and trees. Efforts are currently underway to reestablish various grassland species and preserve soils that support those plant species. Future urban growth and continued use of lands, may, to varying degrees, require vegetation removal, concentration of stormwater, and soil disturbance. Natural changes in environments would continue to act on soils along with the urban induced changes.

Within Fort Huachuca's boundaries, Range Control works to minimize soil erosion due to Army actions by implementing proper dirt road maintenance and vegetation management in open areas. Additionally, the Integrated Training Area Management (ITAM) program conducts regular

inspections and range improvement projects across Fort Huachuca to mitigate the impact of testing and training on the natural environment. No cumulative impact to soils is anticipated from implementing the Proposed Action.

3.6 Air Quality

3.6.1 Affected Environment

Fort Huachuca is located in the Southeast Arizona Air Quality Control Region, which includes Cochise, Graham, Greenlee, and Santa Cruz Counties. The region benefits from favorable wind patterns and a lack of major pollutant sources (e.g., heavy industry and fossil fuel power plants) (JITC 2004). A region is either in “attainment” or “nonattainment” of the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act (CAA). Depending on the pollutant and averaging time, nonattainment status is classified as Extreme, Severe, Serious, Moderate, Marginal, and Submarginal (listed most significant to least significant). Fort Huachuca has been in attainment of the NAAQS since inception of the monitoring programs.

Fort Huachuca and the immediate vicinity lies within an attainment area and is not subject to a general conformity analysis, which only applies to Federal actions on property that lies within a nonattainment area.

In the past, Fort Huachuca’s annual emissions of oxides of nitrogen (NO_x) and carbon monoxide (CO) have exceeded established Major Source emissions thresholds of 100 tons per year (tpy) set by Arizona Department of Environmental Quality (ADEQ) and the EPA. Although Fort Huachuca has many emission sources, the Fort’s current annual emissions fall far below the 100 tpy threshold that would classify it as a Title V Major Source, which is the most highly regulated permit. Staying under the Major Source threshold qualifies Fort Huachuca for a Class II synthetic minor air permit, which was issued in 2006 (AANG 2009) and must be renewed every 5 years. A synthetic minor permit, as defined by Arizona Administrative Code Title 18, Chapter 2, Section 306.01 (R18-2-306.01), includes voluntarily accepted emissions limitations, controls, or other requirements (for example, a cap on production rates or hours of operation, or limits on the type of fuel) meant to reduce the potential to emit to a level below the major source threshold.

A key condition for synthetic minor status requires limiting the amount of fuel burned by heaters, furnaces, and boilers in order to ensure NO_x emissions would remain below the major source threshold. Fort Huachuca has agreed to lower its annual NO_x emissions by limiting the use of backup generators from an annual maximum of 500 hours to 250 hours.

As part of Fort Huachuca’s regulatory reporting requirements, a comprehensive air pollution emissions statement, known as an Air Emissions Inventory (AEI), must be prepared annually. The AEI evaluates sources which emit any single regulated air pollutant in a quantity greater than 1 tpy or the amount listed in R18-2-101, whichever is less, as well as sources that emit any combination of regulated air pollutants in a quantity greater than 2.5 tons per year (R18-2-327). The AEI quantifies emissions from seven criteria pollutants, including total suspended

particulate (TSP), NO_x, PM₁₀, VOCs, SO₂, lead (Pb), and CO. Additionally, the AEI includes annual emissions of hazardous air pollutants (HAPs) and ozone depleting substances (ODS).

Sources that emit criteria pollutants, HAPs, or ODS at Fort Huachuca include:

- Gas fired boilers, heaters, and hot water heaters;
- Generators;
- Fuel storage and dispensing operations;
- Paint spray booth operations;
- Abrasive blasting operations;
- Firing range operations;
- Chillers, air conditioners, and refrigeration units;
- Welding operations;
- Wastewater treatment operations;
- Pesticide, herbicide, rodenticide, and insecticide usage;
- Degreasing operations;
- Miscellaneous chemical usage; and
- Other sources (Versar 2010).

Greenhouse Gas Emissions

Although the subject of global warming due to man-made production and release of Greenhouse Gasses (GHGs) is still under debate, the EPA made an endangerment finding stating that “current and projected concentrations of the six key well-mixed greenhouse gases (CO₂, CH₄, N₂O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) in the atmosphere threaten the public health and welfare of current and future generations” (EPA 2011). This finding has opened the door for the regulation of GHG emissions published in 75 FR 31514, which led to what is known as the prevention of significant deterioration (PSD) & Title V GHG Tailoring Rule (FR 2010). For the purposes of PSD and Title V, this rule has set a major source threshold of 100,000 tpy equivalent carbon dioxide (CO₂e) and a 75,000 tpy CO₂e significance level (FR 2010).

In addition, on 22 September 2009, the Administrator of the USEPA signed the Final Mandatory Reporting of GHG Rule, known as the Mandatory Reporting Rule (MRR). The final rule was published in the Federal Register (40 CFR Part 98) on 30 October 2009. The final rule requires reporting of GHG emissions from large sources, which are those sources that emit 25,000 metric tons (MT) CO₂e or more per year. With the exception of electric generating and cogeneration plants, all stationary facilities that emit more than 25,000 metric tons of CO₂e per year are considered covered and must report.

As of the writing of this EA, Fort Huachuca has not prepared a GHG inventory, but the work has been contracted and is scheduled for completion in January 2012. While Fort Huachuca emits GHGs, based on the data in the most recent AEI it is unlikely that it will meet the requirements outlined in the Tailoring Rule. The Tailoring Rule requirements only relate to permitting or the

25,000 tpy threshold established by the MRR. Subpart C of the MRR addresses stationary fuel combustion sources including boilers, heating units, and water heaters, (heating units), but does not specifically mention any other emission sources. It is therefore assumed that the approximately 13,400 tpy of CO₂e emitted by the Fort's heating units will produce the vast majority of GHG emissions emanating from the Installation.

3.6.2 Environmental Consequences

Proposed Action

Potential air quality impacts from increased air and ground vehicle traffic will not be significant because they will be temporary in nature, limited, and will not cause or create a situation whereby the local air quality region would not contribute to any violation of the NAAQS for any criteria pollutant.

While the events of the EC will not differ that much from the typical day to day activities that occur on Fort Huachuca, there will be a slight increase in intensity for a period of less than 1 month. Potential air quality impacts associated with the Proposed Action may result from emissions generated by additional flights and increased vehicle and portable generator use.

Potential air quality impacts may result from the burning of fossil fuels. As noted in Section 2, an estimated 950 total hours of aircraft flight time is associated with the EC. However, approximately 400 hours are attributed to different aerostats, which burn fossil fuels at a lesser rate to power the onboard electronics equipment, leaving 550 hours of additional flight time associated with aircraft that could impact air quality. The additional flights associated with the Proposed Action will be temporary in nature, taking place over approximately 14 days, and minor in comparison with current air traffic at LAAF, which managed approximately 134,000 operations in FY09.

Additionally, rides to and from training areas will be pooled as much as possible (USAGFH 2010a). Portable generators that burn fossil fuels are not considered to have a significant impact on air quality.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not host the EC events as proposed and there would be no impact to air quality at Fort Huachuca.

Cumulative Impacts

Air quality in the Sierra Vista area has consistently been within attainment of the NAAQS. Future air quality will likely be influenced by the development of areas surrounding Sierra Vista and Fort Huachuca. Urban development has tended to expand in areas surrounding Sierra Vista, which inherently brings about various types of air pollution sources. Continued air quality monitoring by ADEQ, voluntary reduction of emissions under the Class II synthetic minor air permit, annual preparation of an AEI, and continued Greenhouse Gas monitoring help to keep

future air quality surrounding the Fort within attainment of the NAAQS. Given these air quality monitoring mechanisms, and the short duration of EC events, it is unlikely that the implementation of any of the alternatives would result in any contribution to cumulative impacts to air quality.

3.7 Hydrology and Water Resources

3.7.1 Affected Environment

Floodplains

Floodplains within Fort Huachuca are not represented on Federal Emergency Management Agency (FEMA) maps. However, available data indicates that a network of floodplains surrounds the main developed area within the Cantonment, with as many as 80 buildings on the Installation within a floodplain (USACE 2008). Most of the floodplains are located in open space, training areas, or recreation areas. The RPMP identifies the need for an updated study and delineation of floodplains so that appropriate avoidance and mitigation measures can be taken to prevent issues with land development within affected areas.

Groundwater

The Arizona Department of Water Resources (ADWR) has divided the Upper San Pedro River Basin (USPB) into subwatersheds to better define and manage available water resources. Fort Huachuca, Sierra Vista and most of the San Pedro Riparian National Conservation Area (SPRNCA) occur within the Sierra Vista subwatershed. The boundaries of the subwatershed are the International Border on the south, Mule Mountains on the east, Huachuca and Mustang mountains on the west and State Route 82 on the north (USAGFH 2004).

The regional and the floodplain aquifers provide groundwater within the USPB. The regional aquifer is located within the upper and lower basin fill and, to a lesser extent, the Pantano Formation. The floodplain aquifer is generally recharged by stormwater runoff and discharge from the regional aquifer. In some reaches of the San Pedro River, recharge occurs through the stream channel.

Groundwater is believed to move from the valley margins towards the San Pedro River. However, an exception to this may occur near Fort Huachuca and Sierra Vista well fields where water is believed to flow towards a cone of depression where drawdowns up to 75 feet deep have been reported (USAIC & FH 2006a).

Groundwater within the USPB is potable. Wells within the basin are used to meet all the water needs of the communities within the basin, which is depleting groundwater supplies. Groundwater level declines between 1990 and 2001 for the Fort Huachuca-Sierra Vista area have averaged about 0.5 to 0.6 feet per year, while the Fort Huachuca-Huachuca City area showed a decline between about 0.1 and 0.5 feet per year (USDI and USPP 2008). Potable water quality and services are addressed in Section 3.12, *Utilities*.

The declines in groundwater have had an adverse impact on the San Pedro River and the associated riparian habitat. In an effort to reduce the impacts associated with regional groundwater withdrawal, Fort Huachuca has implemented a broad spectrum of water conservation, recharge and reuse measures (USAIC & FH 2006a). It has been estimated that on-post pumping comprises only 5 percent of the basin-wide groundwater pumping and is responsible for 31 percent of baseflow capture, 3 percent of evapotranspiration (ET) capture, and 4 percent of total storage depletion in the basin. It was also estimated that for off-post groundwater pumping, Fort Huachuca comprised 19 percent of the total pumping while providing 65 percent of total baseflow capture and 7 percent of the ET capture.

Artificial aquifer recharge is one component of this conservation program. In 2005 it resulted in the recharge of approximately 426 acre-feet (AF) of treated effluent from the Fort's Wastewater Treatment Plant (WWTP) (USAIC & FH 2006a). One AF is equivalent to 325,851 gallons; to put this volume in perspective, 426 AF is equivalent to 138,812,526 gallons of treated effluent. Stormwater recharge during 2006 was estimated at 185 AF (USDI and USPP 2008). The total net effect of all the combined efforts initiated by Fort Huachuca has reduced the net groundwater consumption by approximately 2,272 acre-feet annually (AFA) or 71 percent since 1989 (USAIC & FH 2006b).

More efficient water use is also occurring both on the Fort and in the surrounding communities. Annual pumping from Fort Huachuca production wells decreased from a high of 3,200 AF in 1989 (USAIC & FH 2006a) to a low of approximately 1,126 AF in 2008 (USAGFH 2009). Annual pumping in 2009 was 1,222 AF (Runyon 2010). Fort Huachuca has also increased the amount of water recharged to the regional aquifer each year since 2005 through construction of effluent recharge facilities and detention basins (USAGFH 2010).

More efficient water use has decreased the amount of water used by Sierra Vista from 191 gallons per capita per day (GPCD) in 2000 to 156 GPCD in 2005, which equates to a 2 percent decrease in pumping (USAIC & FH 2006a). The GPCD has continued to go down as 2008 records show a 105 GPCD use (Western Resource Advocates 2009).

Measures that the Fort has implemented to accomplish water efficiency and savings include fixture upgrades (e.g. replacement of high water use plumbing fixtures with low water use fixtures), facility infrastructure removal/consolidation (e.g. demolition of facilities), aggressive leak detection and repair, water conservation education, xeriscaping including the use of artificial turf, replacing natural turf areas with gravel, and implementation of a strict landscaping watering policy in the military family housing area.

The Fort has entered into agreements and partnerships with other groups and agencies for the purpose of reducing water use in the USB. Agricultural pumping has decreased as a result of the retirement of agriculture associated with creation of the SPRNCA and through the purchase of conservation easements by Fort Huachuca in partnership with The Nature Conservancy (TNC). In addition, Fort Huachuca is an active member of the Upper San Pedro Partnership, a consortium of 21 agencies that collaborates to meet water needs in the region while protecting the San Pedro River (USACE 2008).

Surface Water

Fort Huachuca is located within the Sierra Vista subwatershed of the USBP (U.S. Geological Survey [USGS] Cataloging Unit: 15050202). The headwaters of the San Pedro River are located in Mexico. The river flows north through Arizona for approximately 100 miles before converging with the Gila River. The SPRNCA encompasses approximately 40 miles of the Upper San Pedro River (USACE 2008). To the north of Fort Huachuca is the Babocomari River which sustains a perennial flow in two reaches totaling 12 miles (USDI and USPP 2008). This river drains the Mustang Mountains, Canelo Hills, and the north end of the Huachuca Mountains and carries this water to its confluence with the San Pedro River.

A majority of the surface water features on Fort Huachuca are ephemeral streams that consist of dry washes, arroyos, or continuous and discontinuous gullies. Ephemeral streams are usually dry and only flow in response to precipitation that is significant enough to achieve runoff conditions. Ephemeral streams on Fort Huachuca are typically narrow channels with a sand and gravel layer at the bottom of the channel. Some of these channels are deeply entrenched. The channels serve to carry runoff to larger drainage systems (USAGFH 2000).

Fort Huachuca has approximately 4.5 miles of perennial streams, 3.5 miles that occur in Garden Canyon and another 0.75 miles in Huachuca Canyon. Minor lengths of perennial reaches also occur in McClure and Blacktail Canyons. The perennial streams are typically fed by one or more of the Installation's 39 springs (USACE 2008). In addition, there are 16 ponds covering approximately 32 acres on Fort Huachuca. Most of the ponds are dry and only retain water during heavy rains. No surface water is used to meet Fort Huachuca's water needs.

The alluvial fans south of the Babocomari River Valley within the West Range are dissected by three major drainages: Blacktail Canyon, Slaughterhouse Canyon and Huachuca Canyon. Within the East Range, the primary drainage is Soldier Creek. These drainages are intermittent and flow in response to rainfall. Huachuca Canyon Creek serves as a major stormwater interceptor for Huachuca Canyon and the Fort's Cantonment Area (USAGFH 2004). Figure 3.6-2 depicts the surface waters located on Fort Huachuca.

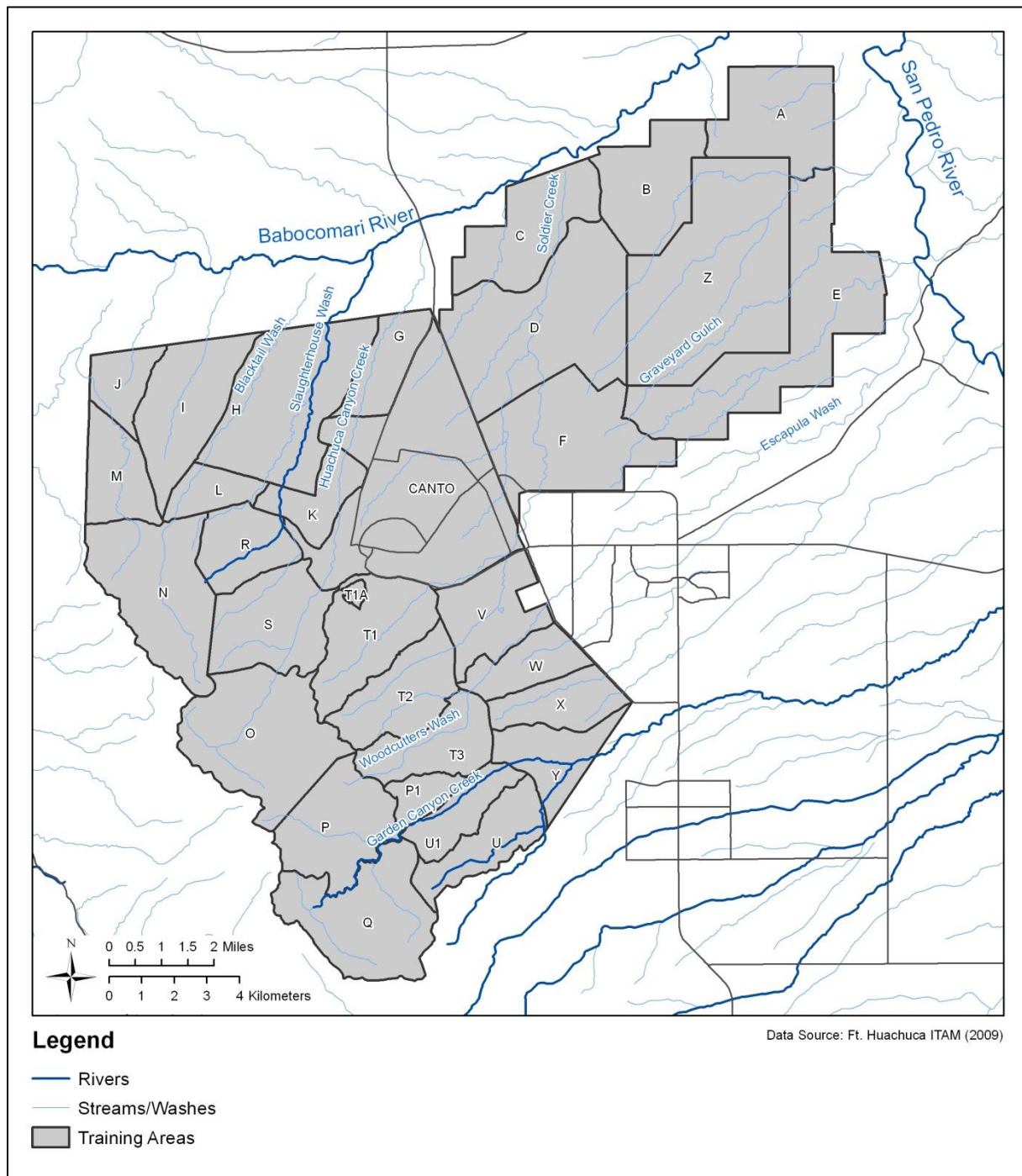


Figure 3.6-2. Surface Waters of Fort Huachuca

Measurements of surface water flows in the San Pedro River (Charleston gauge) from 1913 to 2002 show that flow has decreased more than 60 percent from 57,700 to 22,000 AFA (USDI and USPP 2008). Surface flows are seasonal and are most notably affected by near-stream groundwater withdrawal more so than weather combined with changes in riparian (USDI and USPP 2008). Thomas and Pool also noted that groundwater pumping from the regional aquifer at a distance from the river was not a major factor in the declines in surface flow as this effect was ruled out based on the seasonal change in the streamflow and the year-round pumping from the regional aquifer (USDI and USPP 2008). However, based on the principals of hydrology, withdrawals from the aquifer will eventually result in changes in natural inflows or outflows and the form these changes take will likely depend on where in the pumping is occurring (USDI and USPP 2008).

3.7.2 Environmental Consequences

Proposed Action

No significant impacts to floodplains, groundwater, or surface water are anticipated as a result of implementing the Proposed Action. However, some minor temporary impacts are anticipated.

The RPMP identifies that development/operations within a floodplain should be avoided and mitigated if necessary. While no events or construction are proposed within floodplains, implementation of the Proposed Action would result in minor temporary indirect impacts to floodplains due to dirt road maintenance and use in the East Range. Minor soil movement into water crossings would occur, which could potentially cause additional amounts of soil to be transported downstream—more than would be transported under natural conditions—if events were held during rainy seasons.

Off-post water usage would also increase due to the increase in population brought in by the EC event. Surrounding lodging facilities would potentially be filled by this population increase and dining facilities would be providing service.

While increased withdrawals are expected on and off Fort Huachuca due to population fluctuations, it is also anticipated more water will be sent to the Fort Huachuca wastewater treatment facility for treatment and recharge, offsetting a portion of the temporary additional groundwater withdrawal. The Fort Huachuca Water Resource Management Plan anticipates an 88 percent return of used on-post water to the wastewater treatment facility (USAGFH 2001).

Water would also be used for surface application as a dust palliative for EC events conducted in areas accessed by dirt roads, mainly the East Range. This impact would be minor in context and intensity. Water needed during this Event would be trucked in from on-post water services and the application of water would discontinue at the end of the Event, consequently the impact would also cease.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not conduct the EC events as proposed. The No Action Alternative would have no impact on hydrology or water resources.

Cumulative Impacts

Groundwater depletion in and around Sierra Vista has been a major issue. Conservation efforts have brought groundwater withdrawals to a lower number. However, the recharge quantities still do not equal withdrawal quantities. Fort Huachuca has joined efforts with surrounding communities and partnerships/consortiums to implement water resource management and conservation strategies for the Sierra Vista Subwatershed of the USBP.

Surface water in the San Pedro River has changed from constantly flowing water to an intermittent flow regime with seasonal appearances and disappearances of surface water due to the regional climate variation and the timing of water use by humans along the river. While Fort Huachuca does not use any surface water to meet its needs, it has steadily decreased groundwater usage and manages its water resources in an effort to mitigate potential effects of groundwater pumping. This effort works to achieve sustainable water usage to support ecosystem health, conservation of special status species and mission sustainability. Army Regulation 200-1 and the Fort Huachuca INRMP set goals for groundwater and surface water conservation as well as floodplain usage. The Upper San Pedro Partnership (USPP), of which Fort Huachuca is a member, has defined strategies to attain sustainable yields of groundwater withdrawals in the Sierra Vista Subwatershed as well as water supply augmentation alternatives.

Due to the temporary and limited duration of EC testing events, and the limited potential for these actions to negatively influence hydrology and water, no cumulative impact to water resources is anticipated to result from implementation of any of the alternatives.

3.8 Visual Resources

3.8.1 Affected Environment

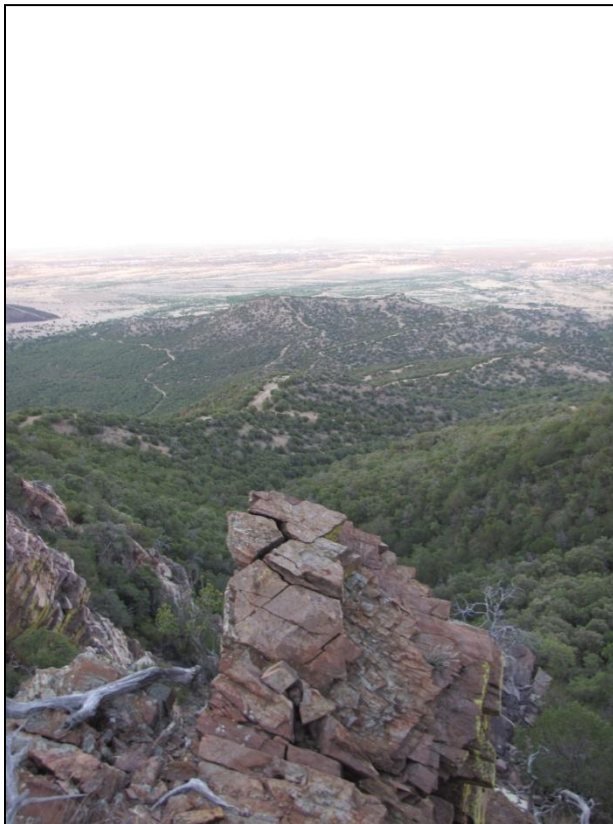
Much of Fort Huachuca outside the Cantonment Area consists of approximately 68,000 acres of open space training and testing areas bordered by mountainous terrain (Figure 3.7-1).

The South and West Ranges are mostly open grasslands and mountainous terrain. The ranges are located in the foothills of the Huachuca Mountains, which serve as the Installation boundary for the Western Reservation. Some areas within the South Range are restricted land use areas to maintain wildlife habitat and provide outdoor recreational space. There is minimal military development within the South and West Ranges, providing the City of Sierra Vista and the Cantonment Area with a natural view of the Huachuca Mountains. Most training activity in the West and South Range involves electronics testing, intelligence, UAS operations and small arms firing ranges. There is little urban development located to the north, west or south of the West Reservation.

The East Range consists primarily of open rangelands and grasslands and is used for range and training exercises (Figure 3.7-2). This is the only area on the Installation used for convoy live-fire exercises. Portions of the East Range are visible from the City of Sierra Vista, located south of the East Range, and from Huachuca City, located northwest of the East Range.

The developed area of the Installation is primarily located in the Cantonment Area, and accounts for more than 5,000 acres of the Fort. Development here is guided by the Installation Design Guide to ensure that buildings and structures are uniform in construction and conform to the overall aesthetics of the area.

Approximately 110 acres in the Cantonment Area are dedicated to the “Old Post Area,” which is designated as a National Historic Landmark. There are many significant buildings in the Historic District, including the Pershing House, an adobe building constructed in 1884; the Post Commander's quarters; the "Old Post" Barracks, built in 1882-1883 (Figure 3.7-3); Leonard Wood Hall, a large two-storied building used as the hospital; and the Fort Huachuca Historical Museum, an adobe and stone building originally used as the post chapel (NPS 2011). Fort Huachuca relishes its history and strives to keep the Historic District maintained as a reminder of days gone by.



**Figure 3.7-1. South Range,
Mountainous Terrain**



**Figure 3.7-2. East Range, Open
Grassland/Shrubland**



**Figure 3.7-3. The Old Post Barracks are
Part of Fort Huachuca's Historic District**

3.8.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant impact to visual resources. EC events being conducted in the open grasslands of the East and West Range, or the mountainous areas of the South Range, are very similar to daily testing and training activities. The Proposed Action includes the use of other aerostat balloons in addition to the existing Aerostat Surveillance Balloon mentioned in Section 3.1. Due to the increase of aerostat operations during the EC events, there is a potential for temporary visual resource impacts. The temporary visual resource impacts are likely to be observed by neighboring Sierra Vista residents and users of nearby recreational facilities. Increased EC activity of other fixed-wing aircraft may also pose a temporary visual impact. All temporary visual impacts are likely experienced by affected parties on a daily basis under normal Fort testing and training operations, and are a result of being within close proximity of an active military installation.

Any EC testing equipment that may be deployed near the National Historic Landmark, "Old Post Area" would have a temporary impact to immediately surrounding visual resources. Since a majority of the EC events are to be conducted in various training areas outside of the Cantonment Area, the Proposed Action is not anticipated to result in any impact to the visual resource condition of this National Historic Landmark.

No Action Alternative

Since the no action alternative involves the EC events to be conducted elsewhere, there would be no impact to visual resources at Fort Huachuca.

Cumulative Impacts

Pristine high desert views in the Sierra Vista area have diminished over time as urban development views have emerged. The State of Arizona in general consists of high aesthetic views that continue to be influenced by human activity. Throughout the state and concentrated along the southern border, more military and law enforcement personnel and equipment can be observed within natural environments due to illegal alien activity and national terrorism threats. It can be anticipated that views throughout the state will continue to change as the human population and its interactions change.

Due to the temporary and limited duration of EC testing events, and the limited potential for these actions to negatively influence visual resource conditions, no cumulative impact to visual resources is anticipated to result from implementation of any of the alternatives.

3.9 Noise

3.9.1 Affected Environment

Noise, by definition, is sound that is loud or unpleasant or that causes a disturbance. When sound interrupts daily activities such as sleeping or conversation, it becomes noise. The degree

to which noise will become disruptive is dependent on the way that it is perceived by the receptors (people) living or working in the affected area. Noise is measured in decibels (dB) with zero being least perceptible sound to more than 130 dB at which noise becomes a health hazard. Because the human ear is more sensitive to certain ranges of the sound spectrum, a weighted scale has been developed to more accurately reflect what the human ear perceives. These measurements are adjusted into units known as A-weighted decibels (dBA) (USAGFH 2000).

According to AR 200-1 (DA 2007), sensitivity to noise varies by the time of day, with receptors being more sensitive at night. To reflect this sensitivity, ambient noise measurements are normally adjusted by adding 10 dB to actual measurements between the hours of 2200 and 0700. Decibel levels adjusted in this way are known as day-night decibel measurements (DNL). Averaging noise levels over a protracted time period does not generally adequately assess the probability of noise complaints coming from receptors in the nearby community. Therefore, the risk of noise complaints from large caliber impulsive noise resulting from testing and training activities (e.g., machine gun, mortars and demolition events), in terms of either peak sound pressure level (PK 15 (met)) or C-weighted day night level (CDNL) must also be assessed (DA 2007).

Table 3.8-1, summarizes decibel levels associated with four different noise zones (Land Use Planning Zone (LUPZ), Zone I, Zone II, and Zone III). Each zone is defined according to allowable noise limits, which increase in intensity from LUPZ to Zone III. Typically, land uses, such as housing, schools, and medical facilities are located within the LUPZ and noise Zone I, but construction of these uses is strongly discouraged in Zones II and III (DA 2007).

Table 3.8-1. Noise Limits for Noise Zones

Noise Zone	Noise Limits (dB)		
	Aviation ADNL	Impulsive CDNL	Small Arms PK 15 (met)
LUPZ	60 – 65	57 – 62	N/A
Zone I	< 65	< 62	< 87
Zone II	65 – 75	62 – 70	87 – 104
Zone III	> 75	> 70	> 104

dB- decibel; **LUPZ**- land use planning zone; **ADNL**- A-weighted day-night levels; **CDNL**- C-weighted day-night levels; **PK 15(met)**- Single event peak level exceeded by 15% of events; **N/A**- Not Applicable

Chapter 14 of AR 200-1 (DA 2007) outlines the major goals of the Army's noise program, which include:

- a. Control operational noise to protect the health and welfare of people, on- and off-post, impacted by all Army produced noise, including on- and off-post noise sources.
- b. Reduce community annoyance from operational noise to the extent feasible, consistent with Army training and materiel testing mission requirements.

- c. Actively engage local communities in land use planning in areas subject to high levels of operational noise and a high potential for noise complaints.

Activities that have the potential to produce noise at Fort Huachuca include construction, military and private vehicle use, aircraft operations, weapons discharge, and dismounted training (USACE 2008).

Construction activities can generate noticeable levels of noise. A single item of construction equipment may generate noise levels of 80 to 90 dBA at a distance of 50 feet. Numerous equipment items operating concurrently can produce relatively high noise levels within several hundred feet of active construction sites. Locations more than 1,000 feet from construction sites seldom experience significant levels of construction noise (USACE 2008).

Military vehicles use a mixture of public roads, on-post roads, and military vehicle trails and vehicle type and speed influence noise levels produced. Vehicle speeds are relatively low on unpaved roads during vehicle maneuvers. Noise levels generated by High Mobility Multipurpose Wheeled Vehicle (HMMWVs) and two-axle military trucks are comparable to noise from medium trucks (about 65 to 70 dBA at 50 feet). Multi-axle heavy trucks would generate noise levels comparable to other heavy duty trucks (about 78 to 80 dBA at 50 feet). On average, peak noise levels drop by 15 dBA at a distance of 500 feet from the travel path (USACE 2008).

Noise related airfield operations at LAAF are addressed by the Air Installation Compatible Use Zone (AICUZ) program. Fixed-wing manned flight operations produce the most prominent noises, while UASs generate relatively little noise. UAS support equipment and increased traffic to and from training and testing locations are also sources of noise relating to aviation activities. Activities associated with operating UASs tend to occur in and over sparsely populated areas, which reduces the number of receptors exposed to any level of noise caused by the events.

Noise impacts from weapons discharge at the live fire ranges are minimal to the human environment because of their remote location at the Fort away from any noise-sensitive land uses. In addition, dismounted training and testing activities, which include the use of generators, can result in short-term and localized noise. Noise associated with the portable generators used can be as loud as 80 dB (Mayberry 2010).

3.9.2 Environmental Consequences

Proposed Action

No significant adverse noise impacts are anticipated as a result of implementing the Proposed Action. Although the events conducted during the Proposed Action will not be a large departure from the typical day to day activities that occur on Fort Huachuca, there will be a slight increase in intensity for a period of less than 14 days. Noise associated with the Proposed Action has the potential to affect both civilian and military occupants of Fort Huachuca, as well as wildlife in the vicinity. The primary noise producing events associated with the Proposed Action are flight operations, vehicle traffic, and weapons discharge.

The vehicles associated with the EC will be using existing roads and streets along with remote roads located on the Fort.

Noise impacts to Biological Resources from aircraft associated with the Proposed Action will be minor because flight operations will be conducted at elevations no less than 1,000 feet above the ground in environmentally sensitive areas (USAGFH 2010a). As detailed in Section 3.2.2, the Fort has adopted policies calling for take-off and landing approaches to be modified to avoid flying at low levels over agave management areas (USFWS 2007).

The discharge of various weapons should not cause any noise impacts as Fort Huachuca's weapons ranges are well away from any sensitive receptors.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not host the EC events as proposed, therefore there would be no noise impacts at Fort Huachuca.

Cumulative Impacts

Noises in and around Sierra Vista have steadily increased as the community has grown into a small city supported by an active military installation. Noises associated with Fort Huachuca have grown as more units relocate to this area and more testing and training operations occur including increased aircraft flights. AR 200-1 outlines the Army's noise program and the requirements for working with local communities through the AICUZ program and the Army Compatible Use Buffer Program (ACUB) to locate appropriate land uses in more noise intensive areas. Most of the noises created by military vehicles are comparable to typical existing civilian traffic noises. Operations that require equipment with increased noise levels, such as generators, are typically in more remote areas that are further away from adjacent populations. Due to the temporary and mobile nature of the proposed noise associated with EC testing events, it can be anticipated that none of the alternatives would result in any cumulative noise impact.

3.10 Socioeconomics

3.10.1 Affected Environment

Socioeconomic resources are defined as basic attributes associated with the human environment, primarily population and economic activity. Population encompasses the magnitude, characteristics, and distribution of people, while economic activity refers to employment distribution, business growth, and individual income. The Region of Influence subject to this analysis includes Cochise and Santa Cruz Counties.

Fort Huachuca is located in the City of Sierra Vista, Cochise County, Arizona. Sierra Vista is the largest city in the county with a population of 37,775 in 2000 (U.S. Census 2000) and a population in April 2010 of 43,888 (Arizona Department of Commerce 2011). U.S. Census 2000 data shows that the total population for Cochise County was 117,755, which had increased to 131,346 in April 2010 (Arizona Department of Commerce 2011). Both the City and the County's

economy heavily rely on Fort Huachuca. The Installation has historically been and is currently the single largest employer in Cochise County. Other major employers within the City include General Dynamics Information Technology, Sierra Vista School District, Sierra Vista Regional Health Center, and ManTech Telecommunications and Information Systems Corp (CER 2011). The Town of Huachuca City is also located within Cochise County and is closely tied economically to Fort Huachuca. The population for the Town was 1,853 in April 2010 (Arizona Department of Commerce 2011).

Santa Cruz County, located west of Fort Huachuca, is the smallest county in Arizona with a U.S. Census 2000 population of 38,381 and 47,420 in April 2010 (Arizona Department of Commerce 2011). The City of Nogales, located in Santa Cruz County, is a major point of entry along the International Border with Mexico. The Department of Homeland Security is the largest employer in the County, due to its location along the International Border. Tourism and cross-border commerce contribute largely to Santa Cruz County's economy, and communities are recognized for their natural and scenic beauty and historic landmarks (JLUS 2007).

According to the Fort Huachuca Post Population Count, the Installation had 14,585 full-time employees as of September 2010. Of that, 2,313 were permanent military personnel, 3,773 civilian personnel (full time equivalent [FTE]), 3,218 students (FTE), and 4,920 contractors (Mulhern 2011). Historically, the Installation's population has fluctuated by about 3,000 personnel to meet changing mission requirements and account for training cycles.

As of December 2010 the national unemployment rate was 9.4 percent. The industries most affected in Arizona by the recession were construction, professional and business services, and trade, transportation, and utilities. Arizona's unemployment rate was 9.4 percent in December 2010. Cochise County's unemployment rate was 8.1 percent for 2010. The City of Sierra Vista's employment rate is strongly tied to Fort Huachuca both as an employer of city residents and as indirect supporter of area businesses, like hotels and restaurants, which employ residents. While some missions will change over time, employment at Fort Huachuca is predicted to remain constant or increase slightly. The City's unemployment rate for the year 2010 was 4.8 percent, much lower than the county, state, and national average (CER 2011).

According to the CER, the City of Sierra Vista serves a commercial market of more than 110,000 people. Sierra Vista contains a number of large retail stores, restaurants, and hotels. In 2008, 179 businesses existed inside the City whose primary business was retail trade and 104 businesses whose primary business was food service or accommodation (hotels). Retail sales in Sierra Vista were \$445,602,571 during the first 11 months of 2010, which was down by 1.9 percent in inflation-adjusted terms, compared to the same period during 2009. This followed a 1.4 percent annual decline in 2009 and a 6.6 percent decline in 2008. Restaurant and bar receipts during the same period of 2010 were \$64,337,615, up 2.5 percent from the year before and accounted for 53.9 percent of the county wide total. Hotel sales were \$23,516,909, up 10.3 percent for the same period over 2009 figures and accounted for 55.9 percent of the county wide total. This increase was due to new hotels opening in Sierra Vista during 2010 (CER 2011).

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, ensures fair treatment and meaningful involvement of all people regardless of race, color, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fort Huachuca is not located in an area that has a disproportionately high concentration of minority or low income populations.

3.10.2 Environmental Consequences

Proposed Action

The Proposed Action would not result in any negative socioeconomic or environmental justice impacts. Short-term beneficial impacts would result from the increase in lodging, restaurant, and retail sales in Sierra Vista and within Cochise County. The 2011 government daily per diem rate for lodging for Sierra Vista is \$81. The EC events have approximately 1,000 participants which create a potential to contribute at least \$81,000 daily in lodging sales to the Sierra Vista and Cochise County economies. According to the 2011 Sierra Vista Economic Outlook produced by CER, the 2010 EC events resulted in an 18 percent increase in lodging sales in Sierra Vista for July 2010 and 46 percent increase in August 2010. The 2011 government daily per diem rate for meals and incidentals for Sierra Vista is \$46. This means that EC events have the potential to contribute at least \$46,000 daily in restaurant and retail sales to the Sierra Vista and Cochise County economies. The beneficial impacts would be temporary and would discontinue at the completion of the EC events. Activities associated with the EC are not anticipated to result in a change in the number of permanent additions in the current workforce and would have no direct long term impact on population, demographics, employment, housing, or demand on community services.

There would be no disproportionate adverse environmental or health effects on low income or minority populations as a result of the Proposed Action. No environmental justice impacts are anticipated.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not host the EC events as proposed. Implementation of the No Action Alternative would have a direct and minor impact to socioeconomics. The No Action Alternative would not include approximately 1,000 participants traveling to and staying in the Fort Huachuca area and therefore, would not result in any beneficial impact to the local economy.

Cumulative Impacts

Implementation of the Proposed Action, when considered with the growth of the surrounding community, would provide minor beneficial cumulative impacts. The EC events would take place each year, resulting in minor beneficial cumulative impacts to the local economy in the form of revenue generated. Since the Proposed Action and alternatives would have no adverse impact on population, demographics, employment, housing, or demand on community services, no adverse cumulative impact is anticipated.

3.11 Transportation and Circulation

3.11.1 Affected Environment

The main highway access to Fort Huachuca is State Highway 90 (SR90), which divides the Installation into the East and West Reservations. The East Gate and its control point are located on Hatfield Road, west of its intersection with SR90. The Main Gate is located west of the intersection of Buffalo Soldier Trail and Fry Blvd., a commercial roadway that runs through the City of Sierra Vista. Access to the East Range via the Coronado Gate or City Gate is made from SR90.

Level of Service (LOS) is used to provide a "qualitative" evaluation based on certain "quantitative" calculations, which are related to empirical values. The LOS a road provides describes the operational conditions within a traffic stream, generally using such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS is measured by a ratio comprised of the traffic volume to road capacity. LOS results are presented on a qualitative scale from A (best) to F (worst).

The 2010 Northwest Cochise County Long-Range Transportation Plan Final Report recommends widening SR 90 to six lanes with bicycle and pedestrian improvements integrated from the Interstate 10 interchange south to the Post Ranch Road intersection (Cochise County 2010). The SR90 interchange with Interstate 10 has been funded and is under construction. The 2040 Final Recommended Alternative in the 2010 Northwest Cochise County Long-Range Transportation Plan Final Report identifies the ultimate LOS anticipated for SR90 as LOS C from Interstate 10 south to Post Ranch Road and LOS D for the remain southern portion of SR90.

The West Gate is located on the Installation's West Range. The West Gate provides access to individuals who live west of the Installation, preventing them from having to drive approximately 30 minutes around the Installation to use the Main or East gates (USACE 2007). A North Gate also exists on the Installation but is not in use.

Improvement projects identified in the RPMP for the Main, East, and West gates have recently been completed. The improvements brought gates into compliance with anti-terrorism force protection (AT/FP) requirements and increased the number of inbound and outbound lanes to help with the flow of traffic onto and off of the Installation. Commercial truck traffic is now rerouted from the Main to the East Gate to improve traffic flow and lessen risks at the Main Gate. Reconfiguration of the East Gate allowed Brainard Road North to be open during high traffic periods in the morning and open both directions when the East Gate barrier, located at the original old guard house, is closed for holidays and weekends.

The existing road network (Figure 3.10-1) on Fort Huachuca provides access to all operational and residential areas on the Installation. There are approximately 200 miles of paved roadways, 130 miles of gravel roads, and 150 miles of firebreak roads and trails located on the Installation. The overall condition of the roadway system is good (USACE 2007) and adequately serves approximately 15,405 people living and/or working on the Installation.

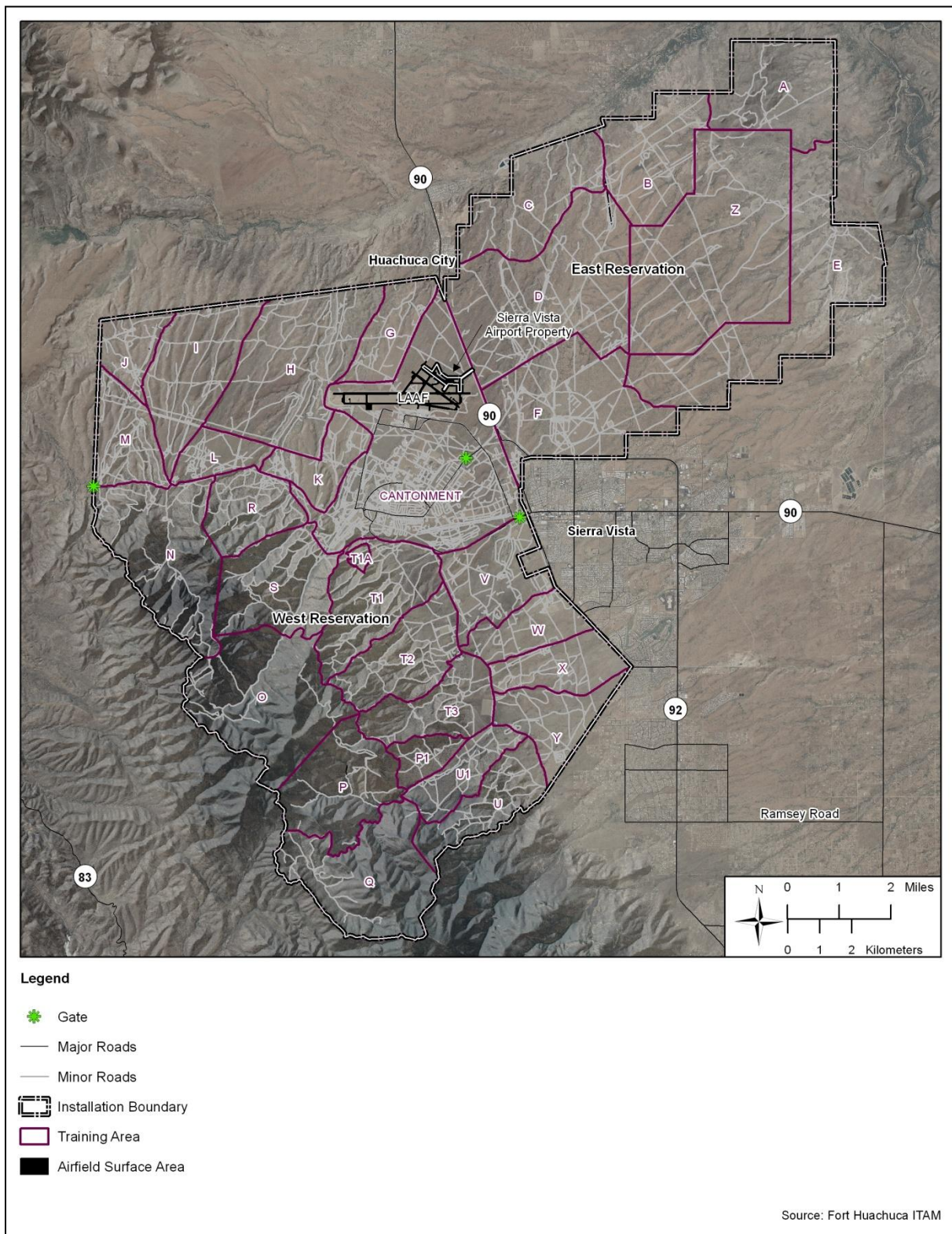


Figure 3.10-1. Fort Huachuca Roadway Network

Traffic studies have shown that traffic volumes are greatest during two, hour-long periods in the morning and evening as people report to and from work, with peak hours occurring between 0645-0745 and 1600-1700. A third peak travel time occurs around 1200 as a result of lunch hour traffic. Overall, the Installation has little to no congestion and minimal delays (USACE 2007).

Primary roads are the main routes that connect the Cantonment Area with the off-post transportation network and provide access between different land uses on the Installation. The primary roads carry the highest traffic volumes and often allow for higher travel speeds. Primary roads within the Installation include Allison Road, Hatfield Street, Lawton Road, Smith Avenue, Squire Avenue, and Winrow Avenue. Winrow Avenue provides the main access to and from the Main Gate. Installation traffic is controlled at intersections using a variety of means, including traffic circles, stop signs, and traffic signals (USACE 2007).

Roads serving the training areas within the three ranges are mostly unpaved. Due to the erosive character of the soils on the Fort, the condition of the unpaved roads varies, and in some cases, the roads are severely eroded. In addition, a number of roads within the ranges have been closed, but have not been rehabilitated. These roads channel surface runoff in some cases and gullying and headcutting are occurring.

Military vehicles use a combination of public roads, Installation roads, and military vehicle trails. Vehicle convoys using public roads typically are limited to no more than 24 vehicles in a group. Vehicles within a convoy group (also called convoy serials) usually are spaced about 165 to 330 feet apart. Convoy serials occur at least 15 to 30 minutes apart. These convoy procedures reduce noise levels and prevent the convoy vehicles from dominating local traffic flow for long periods of time (USACE 2008).

Airfield activities primarily occur at LAAF/Sierra Vista Municipal Airport which has three intersecting runways (Runway 08/26, Runway 12/30, and Runway 03/21). Runway 08/26 is the primary runway, accounting for about 90 percent of total operations. Occasional general aviation arrivals and departures use Runway 12. Additionally, the airfield also has four helipads along Taxiway P (West, Charlie, Delta, and Echo). LAAF/Sierra Vista Municipal Airport operates Monday through Friday 07:00 to 23:00 and other times via NOTAM. Outside of these hours, the airfield is uncontrolled but open. With the exception of R-2312, the restricted airspace is controlled only during these hours. During monsoon season, the operating hours change to avoid late afternoon thunderstorms and high winds. There were a total of 133,887 operations for FY09, of which 98,074 (73 percent) operations were military and 35,813 (27 percent) were civilian traffic.

Other airfield activities occur on the range and training lands outside of the Cantonment Area and include operations at Hubbard landing strip on the East Range, Rugge-Hamilton and Pioneer landing strips on the West Range, and a few helipads used primarily for emergencies such as firefighting (USACE 2008).

3.11.2 Environmental Consequences

Proposed Action

Ground and air traffic and circulation on the Fort and within the surrounding communities would experience temporary minor impacts from additional ground vehicle and aircraft operations.

The temporary increase of truck traffic that would be necessary to set up EC event areas in the Cantonment Area or the East, South, or West Ranges would result in a temporary minor adverse impact. This impact would begin with the Deployment phase, peak with the Execution Phase and be reduced following the Redeployment Phase. The intensity of the impact would correlate to the size of the EC event. Most of the traffic activity would be within the Fort boundaries.

Morning and afternoon commute traffic would increase. Local traffic related to serving personnel, such as food catering and servicing of portable toilets, would increase. Local lunch and night traffic would increase as visitors patronize local businesses for lodging, meals, and shopping. No new roads would be required. However, existing minor dirt roads would require upgrades and maintenance in preparation for and during the events.

Airfield traffic would temporarily increase during the same three phases as large transport aircraft bring equipment, operations are executed with various sizes of aircraft, and equipment is returned to the large transport aircraft for departure. A temporary and minor increase in air traffic and air space restrictions are anticipated during the EC Deployment, Execution, and Redeployment Phases. Restricted airspace may temporarily affect aircraft that typically use the airspace. The 24 additional aircraft and approximately 950 scheduled flight hours during the 14 days of EC operations would not jeopardize the estimated 140,000 operations that occur annually within Fort Huachuca special use airspace.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not conduct the EC event as proposed. The No Action Alternative would have no direct or indirect adverse impacts on transportation and circulation.

Cumulative Impacts

Events associated with the Proposed Action are not anticipated to contribute to any permanent cumulative impacts to regional transportation. The Proposed Action would result in only a temporary impact due to Event traffic. The capacity of SR 90 and other regional roads are adequate to accommodate future EC events.

3.12 Utilities

3.12.1 Affected Environment

Tucson Electric Power supplies electrical power to Sierra Vista, Fort Huachuca and the surrounding area. Sulphur Springs Valley Electric Cooperative is contracted to provide service for electric systems on the Fort. The Installation is served by six underground distribution circuits, which transfer to overhead poles. The existing distribution system adequately supports the current and future needs of the Installation (USACE 2008). Existing renewable energy systems located on the Fort include solar hot water heaters; photovoltaic flat panels and combined integrated systems; daylighting; photovoltaic parking lot lighting; solar walls; a methane digester processor; a wood chip burner; ground source heat pumps (GSHPs) at new barracks; a 10 kilowatt (kW) wind tower; and a 1 megawatt (MW) wind turbine.

Natural Gas is provided to the Installation by Southwest Gas. Gas is delivered via two 400 pounds-per-square-inch (psi) supply lines. Distribution throughout the Installation is conducted by lines owned and operated by Fort Huachuca. Gas lines on the Installation are 60 psi supply lines. The system capacity is adequate to support current demands (Miller 2011).

Solid waste accumulated at the Installation is transported off-post and primarily disposed of at the Huachuca City landfill. A small amount of solid waste is directed to the Elfrida landfill, which is also located in Cochise County. In addition to these landfills, there is a County operated landfill located in Huachuca City. Fort Huachuca operates a recycling program for paper, aluminum cans and newspaper (USACE 2008).

The source of potable water supply at Fort Huachuca is groundwater from the Sierra Vista subwatershed regional aquifer. Fort Huachuca's water system is operated and maintained by an Installation service contractor. There are eight operational groundwater production wells on the Installation. Water is treated prior to entering the supply lines and the quality of the water is generally suitable for all uses. The greatest demand on the water supply comes from the Installation's housing area.

The Fort Huachuca wastewater collection and treatment system is operated and maintained by an Installation service contractor under the direction of Fort Huachuca DPW staff. Installation wastewater is directed to a single treatment facility. Most wastewater naturally flows to the treatment facility; however some areas, such as a small portion of the housing in the southeastern Cantonment Area, require wastewater to be pumped through a lift station. After treatment, wastewater is directed to seven effluent recharge basins located on the East Range or reused as irrigation water for the golf course. The current wastewater system at Fort Huachuca is adequate for current flows and could handle up to six times the amount of wastewater (USACE 2008). As the use of water on the Fort decreases, the amount of wastewater reaching the Fort's WWTP and ultimately the recharge basins also decreases.

3.12.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant impact to utilities at Fort Huachuca. Three phases will potentially temporarily impact utilities at Fort Huachuca. The temporary increase in population and equipment testing during three phases of the Event will require increased use of electricity, natural gas, solid waste service, potable water supplies, and wastewater treatment facilities as personnel arrive at Fort Huachuca, conduct the Event, and pack up and move out. Impact would begin with the Deployment phase, peak with the Execution Phase and be reduced following the Redeployment Phase. The intensity of the impact would correlate to the size of the EC event.

Solid waste generated by an EC event would contribute to the total amount of solid waste generated by the Fort's daily operations. However, 50 percent of the waste generated would be recycled in accordance with Army regulations. Potable water use would be increased and the amount of water recharged at the waste water treatment plant should increase in proportion to the potable water used. The Fort Huachuca wastewater treatment facility is currently underutilized and other utilities are appropriately sized to allow for fluctuations in use due to the anticipated yearly training events hosted at Fort Huachuca.

No new utilities will be installed. Potable water and sewer would be readily available in the Cantonment Area, but not within all of the Ranges. Field generators, portable toilets, dumpsters, and portable potable water will be used in areas with no utilities.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not conduct the EC event as proposed. The No Action Alternative would not result in any impacts to utilities.

Cumulative Impacts

The utilities in the Sierra Vista area are consistent with growing small to medium sized communities. In recent years advanced alternate technologies such as solar, wind, and ground source heat exchange have become a focus and an essential endeavor on DoD facilities. Fort Huachuca may be reaching its electrical maximum for the service lines in place, which makes the option of receiving alternative energy more favorable. The DoD has set a goal of receiving 25 percent of its energy from renewable sources by 2025.

The most pressing growth restrictive utility in the area is potable water supply. Both Sierra Vista and Fort Huachuca have implemented water use reduction measures. Fort Huachuca has implemented a variety of water efficiency efforts ranging from removing buildings from service to retrofitting remaining buildings with new, low-flow fixtures and fittings. Fort Huachuca has also implemented various water conservation efforts ranging from implementing wastewater effluent landscape irrigation systems to rooftop rainwater catchment and reuse systems.

Due to the temporary nature of the EC event, solid waste disposal and utility demands related to the Proposed Action are not anticipated to result in significant cumulative impacts to regional utilities.

3.13 Hazardous and Toxic Substances

3.13.1 Affected Environment

Hazardous Materials

Hazardous materials (HAZMAT) is a term referring to any item or agent (biological, chemical, and physical) that has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. Across the Army, the Hazardous Material Management Program (HMMP) is used to integrate the accountability for HAZMAT into day-to-day decision-making, planning, operations, and compliance across all Army missions, activities, and functions. The HMMP policies, including its objectives and goals, are set forth in AR 200-1 (DA 2007). A complete list of federally-recognized hazardous substances as well as their reportable quantities is provided in 40 CFR Part 302.4 (40 CFR 302.4). There are many other substances, which are not on this list that may be considered hazardous according to their ignitability, corrosivity, reactivity, or toxicity as defined by 40 CFR 261.20-24.

The Hazardous Material Control Center (HMCC) stores a variety of hazardous materials such as paints, lubricants, epoxies, solvents, sealants, adhesives, greases, cleaners, cements, thinners, etc, for issue and receipt from end users.

The EC also features the use of an increased number of aerostat balloons, which have the potential to spill petroleum, oils or lubricants (POLs) if they crash. In the May 2011 crash of a USAF Aerostat being operated at Fort Huachuca, approximately 50 gallons of fuel and lead battery acid spilled from on-board equipment, forcing the cleanup of several residential areas surrounding the Fort.

Hazardous Waste

There are numerous constraints associated with the collection, treatment, storage, transportation, and disposal of hazardous waste. The Resource Conservation and Recovery Act (RCRA) is the primary regulatory driver for HW management on the Installation. The goal of RCRA is:

- To protect human health and the environment from the potential hazards of waste disposal;
- To conserve energy and natural resources through waste recycling and recovery;
- To reduce the amount of waste generated; and
- To ensure that wastes are managed in an environmentally sound manner.

Fort Huachuca is an EPA-registered large quantity generator, which is defined as any source that generates 1,000 kilograms per month or more of hazardous waste, more than 1 kilogram

per month of acutely hazardous waste, or more than 100 kilograms per month of acute spill residue or soil. Vehicle and aircraft maintenance activities produce the majority of hazardous wastes generated at Fort Huachuca; however, facility maintenance may also contribute to the total. Hazardous substances typically associated with these operations such as fuels, antifreeze, paints, cleaners and petroleum, oil and lubricants (POL) are stored, transported and disposed of in accordance with applicable laws and regulations. The Hazardous Waste Management Program at Fort Huachuca complies with Occupational Safety and Health Administration (OSHA) hazardous communications standards; USACE Safety and Health Requirements Manual (EM 385-1-1), Section 14; the Installation Spill Contingency Plan (ISCP); the Installation Hazardous Waste Management Plan; Department of Transportation regulations; and the DPW Environmental Office (USACE 2008).

The Fort operates one 90-day accumulation area (Building 90403) regulated by 40 CFR 262.34(a), approximately 20 satellite accumulation areas regulated by 40 CFR 262.34(c), and a HMCC. The 90-day area may store accumulated hazardous wastes for up to 90 days before having it hauled off to an approved treatment, storage, and disposal (TSD) facility. Satellite areas may accumulate up to 55 gallons of hazardous waste, or 1 quart of acute hazardous waste, in containers that are located at or near the point of generation and are under the control of the operator. The HMCC provides a process for collecting and withdrawing usable hazardous materials from around the Installation. Frequent inspections of these different facilities are conducted by the DPW Environmental Office as well as state and federal regulatory agencies. The Defense Reutilization and Marketing Office (DRMO) provides contract service to transport and dispose of hazardous waste off-post.

The Hazardous Waste Accumulation Points (HWAPs) store a variety of hazardous waste for up to 90 days, which include oil contaminated soil, rags absorbents, batteries, mercury containing lamps and equipment, P-listed waste and containers, etc, awaiting disposal through DRMO.

Petroleum, Oil, and Lubricants

POL is a broad term that includes petroleum, oil, and lubricants used at Fort Huachuca. Facilities that store, transport, dispose of, or utilize POLs at the Fort are strictly regulated by Federal and DoD regulations. The fundamental purpose of Federal and DoD regulations is to prevent or limit the accidental release of POL materials to surface water, groundwater, or soils at Fort Huachuca. Specific areas of regulatory focus are spill prevention plans, POL transfer operations, POL storage in containers, and used oil. The policy defined by AR 200-1 requires Fort Huachuca to “manage tank systems used to store oil and hazardous substances in an environmentally safe manner, prevent spills of these substances, and rapidly respond to spills.” Among other things, AR 200-1 requires the development of an ISCP as well as a Spill Prevention Control and Countermeasures Plan (SPCCP) for storage tank systems that hold POLs or hazardous substances. Response resources for Fort Huachuca are mobilized at the direction of the Qualified Individual (QI) or Facility Incident Commander (FIC). However, location and personal protective equipment (PPE) requirements will dictate which unit initially responds and completes the response action.

Only the Fort Huachuca Fire Department HAZMAT spill team will respond to incidents that requires Self-Contained Breathing Apparatus (SCBA) or Level A PPE. The DPW contractor responsible for the operation of water and waste water treatment is also authorized to respond to a chlorine gas release with SCBA. It is the responsibility of the Fire Chief, in coordination with the Fort Huachuca Industrial Hygienist, to upgrade or downgrade PPE.

Incident response priorities are established using prudent spill response procedures. Fort Huachuca's priorities are to protect against loss of life, fire/explosion, and release transport, respectively. All unit hazardous material coordinators are responsible for making all necessary emergency equipment available for the response action.

Spills may occur from mobile units such as fuel tanker trucks, trucks with fuel pods, or trucks carrying hazardous material/waste as well as aircraft that are parked, landing, or taking off. Any spills occurring from mobile units and aircraft must call 911 immediately. Response strategies involving these types of mobile units are handled in the following manner:

- Truck incidents – Incident most likely to be as a road side accident involving an overturned vehicle. Response by the Fire Department (FD) and the FD HAZMAT unit for initial containment and fire suppression. Additional containment and clean-up by the DPW contractor.
- Aircraft incident – Initial response conducted by the Airport Rescue Firefighting (ARFF) crew located at Fire Station #3 with support from the FD HAZMAT unit for initial containment and fire suppression. Additional containment and clean-up by the DPW contractor.
- UASs – all incident response, clean-up and investigation is conducted by the Garrison Response Team. Additional containment and clean-up by the DPW contractor.

3.13.2 Environmental Consequences

Proposed Action

Conducting the Proposed Action on Fort Huachuca is not anticipated to result in any significant impact resulting from the use of hazardous or toxic substances. Potential impacts from the use of hazardous and toxic substances during the Proposed Action include accidental spills of hazardous materials or POLs and litter being left behind by EC participants. However, all participants will be required to receive ITAM training prior to using any of the Fort's Ranges (USAGFH 2010a). ITAM training includes the proper procedures for handling hazardous materials, including POLs, preventing and cleaning up spills, and managing litter. If by chance, litter or trash is left behind during the Proposed Action, it will be collected at the conclusion of the Event (USAGFH 2010a). In the event of an aerostat crash or other accidental spillage of diesel fuel or battery acid, Fort Huachuca and City of Sierra Vista (if spill occurs outside of Installation boundary) emergency service providers will respond and work to limit public exposure to the spilled hazardous materials. Once any potential accident site is protected for health and human safety, Fort Huachuca would work to clean up any remaining materials or

contamination in accordance with State and federal hazardous materials cleanup and remediation laws and regulations.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not host the EC as proposed, therefore there would be no impacts from hazardous or toxic substances at Fort Huachuca.

Cumulative Impacts

The quantity of hazardous and toxic substances stored and used in the Sierra Vista area and on Fort Huachuca have grown over the years as the city has grown. Today, Fort Huachuca has a Hazardous Waste Management Program along with several other hazardous materials handling programs and manuals to direct the use of these materials. Additionally, Fort Huachuca has a Hazardous Materials Control Center to keep track of materials and remove them safely from on-Post. Accident spills of any size are expected no matter how many manuals and policies are in place, but materials and guidelines for dealing with the spills are more sophisticated and efficient today than in the past. In addition, today's guidelines for handling hazardous materials are more proactive and equipment more appropriate for the required action, leading to fewer accidents.

Due to the extensive policies and procedures in place for potential spills and mishandling of hazardous and toxic substances, it is anticipated that the alternative would not have an adverse cumulative impact.

3.14 Human Health and Safety

3.14.1 Affected Environment

Health and safety services can be obtained both on Fort Huachuca and within the surrounding communities. Law enforcement is provided by community police forces and the Arizona Department of Public Safety, which is a state-wide law enforcement agency. On Fort Huachuca, the law enforcement division of the Directorate of Public Safety has primary responsibility for the enforcement of rules and regulations and the security of the Installation (USAGFH 2004).

Medical services on Fort Huachuca can be received at the Raymond W. Bliss Army Health Center. This center provides services to active and retired military personnel and their families. Services include primary care, internal medicine, general surgery clinic including outpatient services, orthopedics, physical therapy, optometry (active duty only) and preventive medicine. (U.S. Army Medical Department 2009). Accidents or illness requiring emergency room treatment are handled at the Sierra Vista Regional Health Center, or other local medical emergency clinics as necessary. This facility has an 88-bed acute care center, is staffed by 70 active, 37 courtesy and 9 Allied Health physicians and serves more than 7,600 patients annually (SVRHC 2011). More serious cases requiring emergency medical evacuation are sent to Tucson. The trip to Tucson by air takes approximately 12 minutes (USAGFH 2004).

Agreements between Fort Huachuca, Sierra Vista, Cochise County and the U.S. Forest Service (USFS) are in place to provide mutual assistance. The Sierra Vista Fire Department has three fire stations (City of Sierra Vista 2009). Various fire district responds to calls occurring in the county and can provide additional assistance to other agencies when needed. The Fry Fire District has one station located within Sierra Vista and two additional stations in outlying areas within the county (Fry Fire District 2009). Fort Huachuca also has three stations. Personnel from these stations respond to emergencies on the Fort, at LAAF, and in the surrounding area.

The USFS operates and maintains additional fire suppression facilities that are available to respond to forest and range fires within the Coronado National Forest, including lands within Fort Huachuca, pursuant to a cooperative agreement between the Installation and the USFS. The USFS has established a fire protection unit at LAAF and other units are stationed adjacent to Fort Huachuca (USAGFH 2004).

Fort Huachuca and the surrounding area have an active fire regime and wildland fires occur regularly. Fire management on the Fort is directed to meet the goals and objectives identified in the Fort Huachuca Integrated Wildland Fire Management Plan (IWFMP) (USAIC & FH 2006a). These goals include protecting life as the highest priority, protecting the Installation and personal property, managing fire to support military training, managing fire to protect natural and cultural resources and coordinating fire operations with neighboring land owners. The plan addresses the management of both wildfires and prescribed burns as well as the treatment of areas supporting sensitive resources (natural and cultural). Fort Huachuca, the USFS, and the National Parks Service are also working together on the Huachuca FireScape Project. This project coordinates fire and fuel reduction activities between the three agencies. This project is intended to increase fire management flexibility, efficiency, and consistency across about 400,000 acres of adjoining federal land (USDA Forest Service 2009).

Range Control is responsible for coordinating and regulating activities on the ranges, supported by Law Enforcement Division and Fire Department. Ranges are secured and patrolled by Law Enforcement, while the Fire Department is responsible for fighting and extinguishing range fires and the scheduling of prescribed burns in conjunction with the ENRD. In addition, the Directorate of Installation Support assists in maintaining fire breaks. Range Control regulations and standard operating procedures identify allowable range practices and precautions that must be taken (USAGFH 2004).

3.14.2 Environmental Consequences

Proposed Action

Conducting the Proposed Action on Fort Huachuca is not anticipated to result in any significant impact resulting to health and safety services. The primary impacts to Fort Huachuca's health and safety resources stemming from the Proposed Action relates the capacity of the various emergency service departments and fires from field events. Because the Proposed Action will bring additional personnel onto the Post, there is the potential to have an increase in the number of accidents or traffic related incidents. During the previous EC, the Fort Huachuca Fire

Department had additional crews on-post and an additional ambulance and crew was brought in from off-post, but the Police Department did not deviate from its normal staffing levels (Shears 2011).

Fire caused by the use of generators and cigarette smoking also have the potential to impact health and safety during the Proposed Action. As mentioned previously, all EC participants will be required to receive ITAM training, which includes the proper procedures for both managing and preventing fire, prior to using any of the Fort's Ranges (USAGFH 2010a). Because the Proposed Action is temporary in nature, lasting less than one month, and the proper procedures are in place to manage the increase in personnel, it is reasonable to assume that there will be no significant adverse impacts to local or regional health and safety resources.

Additional use of aerostat vehicles during EC events increases the risk of either an on-post or off-post crash in the City of Sierra Vista. Health and safety risks associated with a potential aerostat crash include injury from falling debris as well as exposure to the release of diesel fuel and battery acid from onboard equipment. A recent aerostat crash in May 2011 demonstrates the potential for this type of accident. Given the smaller size of aerostat vehicles used during EC events as compared to the USAF aerostat in operation at Fort Huachuca, and the short-term nature of EC events, risks to human health and safety associated with such equipment are anticipated to be minor.

No Action Alternative

Under the No Action Alternative, Fort Huachuca would not host the EC as proposed and there would be no impact to Fort Huachuca's health and safety resources.

Cumulative Impacts

Human health and safety services have increased over the years as Sierra Vista and surrounding communities have agreed to provide mutual support with fire and other emergency situations. Better routine medical services and emergency medical services are available for both civilians and military personnel. Serious emergency medical services still require evacuation to Tucson. However, today the trip only takes 12 minutes by air versus a longer time by ground transport. The area is not seen as a hub for specialty medical services and will probably remain at the current level of service. Occasionally, training events held by Fort Huachuca require additional emergency crews. These additional support units are typically brought from off-Post areas to ensure adequate emergency support.

Safeguards of military and civilian personnel are taken seriously and field operating procedures are dictated both verbally and provided in written form prior to any field action. With these guidelines in place and the additional medical support provided, it is anticipated that the Proposed Action would have no cumulative impacts on health and safety resources.

FORMAT PAGE

4.0 FINDINGS AND CONCLUSIONS

A summary of the potential impacts and measures to minimize adverse impacts is provided in Table 4-1. Adverse impacts associated with implementing the Proposed Action at Fort Huachuca, Arizona, would be local in context and of a very temporary nature, most spanning approximately 14 days each year. Implementation of the Proposed Action would also have direct, beneficial impacts to the local economy.

Based on the analysis contained herein, this EA concludes that neither the implementation of the Proposed Action nor the No Action Alternative would constitute a major federal action with significant impact on human health or the environment. It is recommended that a FNSI be issued to complete the NEPA documentation process.

Table 4-1. Summary of Potential Impacts and Measures to Minimize Impacts for the Proposed Action

Resource Area	Level of Anticipated Impact			Summary of Potential Impacts and Measures to Minimize Impacts
	Significant	Less than Significant	No Impact	
Land Use		X		Events conducted during each of the five phases (Section 2), are similar to operations being conducted at Fort Huachuca and within the surrounding restricted airspace on a daily basis. EC events have the potential to temporarily impact public access to the Fort's recreational activities including hiking, horseback riding, picnicking, and hunting.
Biological Resources		X		Minor loss of ground cover and disturbance to wildlife near EC activities may result. All proposed EC activities would be conducted following the Standard Operating Procedures identified in the 2010 Fort Huachuca INRMP (USAGFH 2010). The Event site selection process will include a review of the Potential Sensitive Areas Map (Figure 2.1-1) in an attempt to avoid impacting any known resources. All use of aircraft during the EC event is required to be conducted at elevations greater than 1,000 ft AGL in environmentally sensitive areas therefore no impacts to the Mexican spotted owls or lesser long-nosed bats are anticipated.
Cultural Resources		X		All proposed EC events would be conducted following the Standard Operating Procedures identified in the Fort Huachuca ICRMP. Proposed EC events would be evaluated on an individual basis by ENRD during event planning stages to ensure compliance with all applicable laws and regulations.
Soils		X		Events that have the potential to impact soil erosion include improper maintenance of existing dirt roads in advance of the EC events, deployment of test vehicles and equipment to the various ranges, as well as overland foot traffic of EC participants. EC test vehicles would only be permitted on roads and in areas previously disturbed by other events, minimizing the chance for erosion on other parts of the Fort. Range Control will limit test vehicles from travelling on dirt roads immediately following a rain storm to cut down on rutting.
Air Quality		X		Potential minor air quality impacts associated with the Proposed Action may result from emissions generated by additional flights and increased vehicle and portable generator use.

Resource Area	Level of Anticipated Impact			Summary of Potential Impacts and Measures to Minimize Impacts
	Significant	Less than Significant	No Impact	
Hydrology and Water Resources		X		Minor temporary impacts to floodplains may occur due to dirt road maintenance and use in the East Range. Minor soil movement into water crossings would occur, which would potentially cause additional amounts of soil to be transported downstream. The Deployment, Execution, and Redeployment Phases would require increased use of water supplies as personnel arrive at Fort Huachuca, conduct the Events, and pack up and move out. This temporary increase in population would increase water demands both on the Fort properties and within surrounding communities.
Visual Resources		X		EC events being conducted in the open grasslands of the East and West Range, or the mountainous areas of the South Range, are very similar to daily testing and training activities. The temporary increase in activities would result in minimal impacts to visual resources at the Fort and within surrounding communities.
Noise		X		Noise impacts on biological resources from EC-related aircraft operations will be negligible because flight operations will be conducted at elevations no less than 1,000 feet AGL in environmentally sensitive areas. The Fort has adopted policies calling for take-off and landing approaches to be modified to avoid flying at low levels over agave management areas. The discharge of various weapons should not cause any noise impacts as Fort Huachuca's weapons ranges are well away from any sensitive receptors. The vehicles associated with EC will be using existing roads and streets along with remote roads located on the Fort.
Socioeconomics		X		Short-term beneficial impacts will result from the increase in lodging, restaurant, and retail sales in Sierra Vista and within Cochise County. There would be no disproportionate adverse environmental or health effects on low income or minority populations.
Transportation and Circulation		X		The anticipated impact to traffic and circulation within the Fort and surrounding communities would be temporary. A temporary increase of truck traffic that would be necessary to set up EC event areas in the Cantonment Area or the East, South, or West Ranges would result. Morning and afternoon commute traffic would increase. Local traffic related to serving personnel, such as food catering and servicing of portable toilets, would also increase. Airfield traffic would temporarily increase during the same three phases as large transport aircraft bring equipment, operations are executed with various sizes of aircraft, and equipment is returned to the large transport aircraft for departure. Restricted airspace may temporarily affect aircraft that typically use the airspace.
Utilities		X		The temporary increase in population and equipment testing during three phases of the Event will require increased use of electricity, natural gas, solid waste service, potable water supplies, and wastewater treatment facilities as personnel arrive at Fort Huachuca, conduct the Event, and pack up and move out. Solid waste generated by an EC event would contribute to the total amount of solid waste generated by the Fort's daily operations. Potable water use would be increased and the amount of water recharged at the waste water treatment plant should increase in proportion to the potable water used. The Fort Huachuca wastewater treatment facility is currently underutilized and other utilities are appropriately sized to allow for fluctuations in use due to the anticipated yearly training events hosted at Fort Huachuca.

Resource Area	Level of Anticipated Impact			Summary of Potential Impacts and Measures to Minimize Impacts
	Significant	Less than Significant	No Impact	
Hazardous and Toxic Substances		X		Potential impacts from the use of hazardous and toxic substances during the Proposed Action include accidental spills of hazardous materials or POLs and litter being left behind by EC participants. All participants will be required to receive ITAM training prior to using any of the Fort's Ranges.
Health and Human Safety		X		Because the Proposed Action will bring additional personnel onto the Post, there is the potential to have an increase in the number of accidents or traffic related incidents. During the previous EC, the Fort Huachuca Fire Department had additional crews on-post and an additional ambulance and crew was brought in from off-post, but the Police Department did not deviate from its normal staffing levels. All EC participants will be required to receive ITAM training, which includes the proper procedures for both managing and preventing fire, prior to using any of the Fort's Ranges.

EC-Empire Challenge; **INRMP**-Integrated Natural Resource Management Plan; **AGL**-above ground level; **ICRMP**-Integrated Cultural Resources Management Plan; **ENRD**-Environmental and Natural Resources Division; **SR**-State Route; **POL**-Petroleum, Oils, and Lubricants; **ITAM**-Integrated Training Area Management;

FORMAT PAGE

5.0 REFERENCES

- AANG (Arizona Air National Guard). 2009.** *Final Environmental Assessment for Proposed MQ-1 Predator Beddown at Fort Huachuca*. Air National Guard Readiness Center Environmental Division. February 2009.
- Arizona Department of Commerce. 2011.** April 1, 2010 *Population for Arizona's Counties, Incorporated Places, and Balance of County*. Released 10 March 2011.
- Bailowitz and Upson. 1997.** *Fort Huachuca, Arizona Butterfly List*. [Accessed online 22 December 2009]
<http://www.naba.org/chapters/nabasa/Fort%20Huachuca%20Butterfly%20List%20-%20page%201.html>
- BLM (Bureau of Land Management) 1991.** *Final Safford District Resource Management Plan and Environmental Impact Statement*. Department of the Interior, BLM. [Accessed online on 27 October 2011]
http://www.blm.gov/az/st/en/info/nepa/environmental_library/arizona_resource_management/safford_rmp.html.
- CER (Cochise College Center for Economic Research). 2011.** *Sierra Vista Economic Outlook 2011*. Released April 2011.
- City of Sierra Vista. 2009.** *Sierra Vista Fire Department Locations*. [Accessed online April 27, 2011] <http://www.sierravistaaz.gov/departments/division.php?fDD=12-114>.
- Dalton and Dalton. 1993.** *Assessment of the impacts of low level military aircraft on *Leptonycteris curasoae*, an endangered bat, at Organ Pipe Cactus National Monument, Arizona*. Report to Luke Air Force Base, AZ and Organ Pipe Cactus National Monument, Ajo, AZ.
- DA (Department of the Army). 2007.** *Army Regulation 200-1, Environmental Protection and Enhancement*. Headquarters, Department of the Army, Washington D.C., 2007.
- ENRD (Environmental and Natural Resources Division). 2006a.** *Programmatic Biological Assessment for Ongoing and Future Military Operations and Activities at Fort Huachuca, Arizona*. December 2006.
- ENRD (Environmental and Natural Resources Division). 2006b.** *Endangered Species Management Plan for the Huachuca Water Umbel (*Lilaeopsis schaffneriana* ssp. *recurva*)*. December 2006.
- EPA (Environmental Protection Agency). 2011.** [Accessed online on April 25, 2011.] <http://www.epa.gov/highwp1/scientific.html>. February 9, 2011.
- Fry Fire District. 2009.** *Fry Fire Department Locations*. [Accessed online April 27, 2011] <http://www.fryfiredistrict.com/fryfiredistrict/>.
- FR (Federal Register). 2010.** 75 FR 31514 – *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*. June 3, 2010.

- Hammit and Cole. 1998.** *Wildland Recreation: Ecology and Management*. John Wiley & Sons, Inc., 1998.
- Howell, D.J. 1992.** *The effects of UAV testing on Leptonycteris curasoae at Fort Huachuca, Arizona*. Report to Fort Huachuca, Arizona. Contract No. DATM01-91-C-0002. 13pp + appendices.
- Huckelberry, C. 2001.** *Recreation Impacts in Eastern Pima County - Draft*. [Online] March 2001. [Accessed: June 16, 2011.] www.pima.gov/cmo/sdcp/reports%5Cd17%5C065REC.PDF
- Ireland, W. 1981.** *Birds of Fort Huachuca (an informational checklist) compiled by William R. Ireland, Wildlife Biologist*. Published by Game and Fish Management Section, Fort Huachuca; 1981, 48 pp.
- JITC (Joint Interoperability Test Command). 2004.** *Future Development Master Plan*. Prepared for Environmental and Natural Resources Division. May 2004.
- JLUS. 2007.** *Fort Huachuca Joint Land Use Study*. Arizona Military Regional Compatibility Project. Arizona Department of Commerce. June 2007.
- Johnson and Reynolds. 2002.** *Responses of Mexican spotted owls to low-flying military jet aircraft*. U.S. Forest Service Research Note RMRS-RN-12. Rocky Mountain Research Station. 2002.
- Mayberry. 2010.** *Sound Level Comparison for Honda Generators*. [Accessed online April 28, 2011] 2010.
- Miller. (Personal Communication). 2011.** Personal Communication between Heather Kinkade (Vernadero Group) and Melissa Miller, Southwest Gas Industrial Gas Engineer. April 2011.
- Mulhern. (Personal Communication). 2011.** Vernadero Group, Incorporated, Personal Communication with Kimberlee K. Mulhern, Chief Fort Huachuca Environmental and Natural Resources Division. May, 2011.
- NBER 2011.** (Socioeconomics pg 42) Accessed online 04 May 2011. <http://www.nber.org>
- NISC (National Invasive Species Council). 2005.** *National Invasive Species Council Pathways Work Team, Focus Group Conference Report and Pathways Ranking Guide June 21-22, 2005*. Washington DC.
- NPS (National Park Service) 1994.** *Report to Congress: report on the effects of aircraft overflights on the National Park system*. USDI, National Park Service, Washington DC. [Accessed online May 4, 2011] <http://www.nonoise.org/library/npreport/intro.htm>.
- NPS (National Park Service) 2011.** National Register of Historic Places. [Accessed online April 27, 2011. Cited: April 27, 2011] <http://www.nps.gov/nr/travel/amsw/sw3.htm>.
- Parsons. 2007.** *Fort Huachuca Joint Land Use Study, Arizona Military Regional Compatibility Project*. [Accessed online on 27 April 2011]

http://www.azcommerce.com/doclib/commasst/ft%20huachuca/ft%20_huachuca_jlus_fin_al_report.pdf.

Runyon. (Personal Communication). 2010. Vernadero Group, Incorporated, Personal Communication between Heather Kinkade (Vernadero Group) and Thomas Runyon, Fort Huachuca Environmental and Natural Resources Division. September, 2010.

Sam Houston State University. 1996. *Fish and Wildlife Section for the Integrated Natural Resources Management Plan*. Draft. Sam Houston State University, Department of Biological Sciences, Huntsville, Texas.

Shears (PC) 2011. Vernadero Group, Incorporated, Personal Communication with Ollie Shears Emergency Services Officer, Fort Huachuca, Arizona regarding impacts of EC10 on the Fort's Emergency Services, May 2011.

Sidner, R. 2006. *Sixteenth Annual Monitoring of the Endangered Lesser Long-Nosed Bat (Leptonycteris curasoae) and Other Bat Species and Bat Roosts on the Fort Huachuca Military Installation, Cochise County, Arizona, June-November 2005*.

SVRHC (Sierra Vista Regional Health Center). 2011. *Sierra Vista Regional Health Center – About Us*. [Accessed online April 27, 2011] <http://www.svrhc.org/aboutsvrhc.htm>.

Taylor, R. 1995. *A Birder's Guide to Southeastern Arizona*. American Birding Association, Inc., Colorado Springs, Colorado.

U.S. Army Medical Department. 2009. *Raymond W. Bliss Army Health Center, General Information*. [Accessed online April 27, 2011] <http://rwbach.huachuca.amedd.army.mil/gen-info.html>.

U.S. Census Bureau. 2000. [Accessed Online 22 April 2011] www.census.gov/main/www/cen2000.html.

USACE (United States Army Corps of Engineers). 2007. *Fort Huachuca Real Property Master Plan Update*. Prepared by Michael Baker Jr. under contract to Sacramento District. 2007.

USACE (United States Army Corps of Engineers). 2008. *Fort Huachuca Real Property Master Plan Update*. Prepared by Michael Baker Jr. under contract to Sacramento District. 2008.

USAGFH (United States Army Garrison Fort Huachuca). 2000. *Comprehensive Unmanned Aerial Vehicle Testing and Training at Fort Huachuca, Arizona*. Environmental and Natural Resources Division. Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona. 2000.

USAGFH (United States Army Garrison, Fort Huachuca). 2001. *U.S. Army Water Resource Management Plan, Part 1 for Fort Huachuca, Arizona*. Prepared by Engineering and Environmental Consultants, Inc.

USAGFH (United States Army Garrison Fort Huachuca). 2004. *Programmatic Environmental Assessment Future Development Plan, U.S. Army Intelligence Center, Fort Huachuca*.

Environmental and Natural Resources Division. Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona. November 2004.

USAGFH (United States Army Garrison Fort Huachuca). 2008a. Archaeological Survey of 1,798 Acres in the West Range, Fort Huachuca, Cochise County, Arizona. Prepared by SWCA Environmental Consultants. Dec 2008.

USAGFH (United States Army Garrison Fort Huachuca). 2008b. Integrated Cultural Resources Management Plan for Fort Huachuca Military Reservation, Cochise County, Arizona. Prepared for: U.S. Army Garrison and Engineering and Environmental Consultants, Inc., Prepared by: SWCA Environmental Consultants. Revised July 2008.

USAGFH (United States Army Garrison Fort Huachuca). 2009. *Fort Huachuca's Monthly Water Pumpage - 1982 to 2009 Report.* Real Property Office, Fort Huachuca, Arizona. 2009.

USAGFH (United States Army Garrison Fort Huachuca). 2009a. *Final Environmental Assessment for the Integrated Natural Resource Management Plan and Real Property Master Plan – DRAFT.* Environmental and Natural Resources Division, Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona. 2009.

USAGFH (United States Army Garrison Fort Huachuca). 2010. *Integrated Natural Resources Management Plan Update.* Contract W9124A-08-D-0002 Task Order 3. Environmental and Natural Resources Division, Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona.

USAGFH (United States Army Garrison Fort Huachuca). 2010a. *Record of Environmental Consideration, Empire Challenge 10, Tiered off Existing NEPA Document, Fort Huachuca, Arizona.* Environmental and Natural Resources Division, Directorate of Public Works. U.S. Army Garrison, Fort Huachuca, Arizona.

USAIC & FH (United States Army Intelligence Center and Fort Huachuca). 2006a. *Fort Huachuca Integrated Wildland Fire Management Plan.* U.S. Army Intelligence Center and Fort Huachuca, Arizona. Brooke Gebow, University of Arizona and TNC, and Jim Hessel, Fort Huachuca, Environmental and Natural Resources Division.

USAIC & FH (United States Army Intelligence Center and Fort Huachuca). 2006b. *Programmatic Biological Assessment for Ongoing and Future Military Operations and Activities at Fort Huachuca, Arizona.* Environmental and Natural Resources Division, Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona.

USDI (United States Department of Interior) and USPP (Upper San Pedro Partnership). 2008. *Water Management of the Regional Aquifer in the Sierra Vista Subwatershed, Arizona – 2007 Report to Congress.* Prepared in consultation with the Secretaries of Agriculture and Defense and in cooperation with the Upper San Pedro Partnership in response to Public Law 108-136, Section 321. U.S. Geological Survey, Reston, Virginia. [Accessed online 26 October 2009]
<http://www.uspppartnership.com/docs/Sec3212007Rep011309.pdf>. 2008.

USFWS (United States Fish and Wildlife Service). 1995. *Recovery plan for the Mexican spotted owl: Vol. I.* Albuquerque, New Mexico. 172 pp.

USFWS (United States Fish and Wildlife Service). 2002. *Critical Habitat-What is it?* [Online] February 2002. [Accessed June 16, 2011.]
www.fs.fed.us/r9/wildlife/tes/docs/esa.../critical_habitat.pdf

Vernadero (Vernadero Group Inc.). 2009. *East Range Watershed Rehabilitation Implementation Program*, Fort Huachuca, Arizona. December 2009.

Versar Inc. 2010. *2009 Air Emissions Statement and Regulatory and Compliance Report, Fort Huachuca, Arizona.* Prepared for Environmental and Natural Resources Division, Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona. October 2010.

Western Resource Advocates. 2009. *Arizona Water Meter: A Comparison of water Conservation Programs in 15 Arizona Communities.* Scottsdale, Arizona

FORMAT PAGE

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FORMAT PAGE

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Conservation Area
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Bureau of Reclamation
300 W. Congress FB37
Tucson, AZ 85701

Coronado National Forest
Sierra Vista Ranger District
5990 S. Hwy 92
Hereford, AZ 85615

Environmental Protection Agency,
Region 9
Office of Federal Activities
75 Hawthorne Street
San Francisco, CA 94105

National Park Service
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United States Fish and Wildlife Service
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United States Geological Survey
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Fort Sill Apache Tribe
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Apache, Oklahoma 73006

Gila River Indian Community
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Sacaton, Arizona 85247

Hopi Tribe
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Mescalero Apache Tribe
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Mescalero, New Mexico 88340

Pascua Yaqui Tribe
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Zuni Tribal Council
P.O. Box 339
Zuni, New Mexico 87327

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Maricopa Indian Community
10005 E. Osborn
Scottsdale, Arizona 85256

San Carlos Apache Tribe
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San Carlos, Arizona 85550

Tohono O'Odham Nation
P.O. Box 837
Sells, Arizona 85634

White Mountain Apache Tribe
P.O. Box 1150
Whiteriver, Arizona 85941

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Arizona Department of
Environmental Quality
1110 W. Washington Street
Phoenix, Arizona 85007

Arizona Department of Water Resources
3550 N. Central Avenue
Phoenix, Arizona 85012

Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086

Arizona Game and Fish Department
Tucson Regional Office
555 N. Greasewood Road
Tucson, Arizona 85745

Arizona State Land Department
1616 West Adams
Phoenix, Arizona 85007

Arizona State Parks
State Historical Preservation Officer
1300 West Washington
Phoenix, Arizona 85007

Local Governments

City of Bisbee
118 Arizona St.
Bisbee, AZ 85603

City of Sierra Vista
1011 N. Coronado Drive

Sierra Vista, AZ 85635

Cochise County Board of Supervisors
1415 Melody Lane
Building G
Bisbee, AZ 85603

City of Tombstone
PO Box 339
Tombstone, AZ 85638

Town of Huachuca City
500 N. Gonzales Blvd
Huachuca City, AZ 85616

Hereford Natural Resources Conservation
District
P.O. Box 3361
Sierra Vista, Arizona 85636

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Center for Biological Diversity
PO Box 1178
Flagstaff, Arizona 86002-1178

Huachuca Audubon Society
PO Box 63
Sierra Vista, Arizona 85636

Sierra Vista Chamber of Commerce
21 E. Wilcox Dr.
Sierra Vista Arizona 85635

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2600 E. Tacoma Street
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1510 E. Fort Lowell
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FORMAT PAGE

Appendix A. Agency Letters



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Bureau of Land Management
San Pedro National Riparian Conservation Area
1763 Paseo San Luis
Sierra Vista, Arizona 85635

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

The EA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing August 28, 2011. Please submit any written comments to Mr. Wes Culp, NEPA Coordinator, U.S. Army Garrison, ATTN: IMWE-HUA-PWB, 3040 Butler Road, Building 22526, Fort Huachuca, Arizona 85613-7010. Comments must be postmarked or received by September 26, 2011 to be considered during the NEPA process.

If you have any questions or concerns, please contact Wes Culp, NEPA Coordinator, by telephone at (520) 533-1863 or by e-mail at wesley.b.culp.civ@mail.mil.

A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Bureau of Reclamation
300 W. Congress FB37
Tucson, Arizona 85701

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Coronado National Forest
Sierra Vista Ranger District
5990 S Hwy 92
Hereford, Arizona 85615

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Environmental Protection Agency, Region 9
Office of Federal Activities
75 Hawthorne Street
San Francisco, California 94105

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

National Park Service
Coronado National Memorial
4101 East Montezuma Canyon Road
Hereford, Arizona 85615

Dear Sir or Madam:

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

United States Air Force
ACC AMIC/PCEV, Attn: Ms. Murray
11817 Canon Boulevard, Suite 306
Newport News, Virginia 23606

Dear Ms. Murray:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 19 2011

United States Fish and Wildlife Service
Arizona Ecological Services, Tucson Suboffice
201 North Bonita
Suite 141
Tucson, Arizona 85745

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

United States Fish and Wildlife Service
2321 W. Royal Palm Road
Suite 103
Phoenix, Arizona 85021

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

United States Geological Survey
520 N. Park Avenue
Suite 221
Tucson, Arizona 85719

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Dr. Robin Silver, Conservation Chair
The Center for Biological Diversity
P. O. Box 1178
Flagstaff, Arizona 86002-1178

Dear Dr. Silver:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Huachuca Audubon Society
P.O. Box 63
Sierra Vista, Arizona 85636

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Sierra Vista Chamber of Commerce
21 E. Wilcox Drive
Sierra Vista, Arizona 85635

Dear Sir or Madam:

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If you have any questions or concerns, please contact Wes Culp, NEPA Coordinator, by telephone at (520) 533-1863 or by e-mail at wesley.b.culp.civ@mail.mil.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

The Nature Conservancy
1510 E. Fort Lowell
Tucson, Arizona 85719

Dear Sir or Madam:

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Ms. Cathy Brownell, Library Administrator
Sierra Vista Public Library
2600 E. Tacoma Street
Sierra Vista, Arizona 85635

Dear Ms. Brownell:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

It is required that the EA and supporting documents be made available during a 30-day public review and comment period. We respectfully request that your library serve as the public review location for these documents during this review period. A Notice of Availability is scheduled to be published in the Sierra Vista Herald on August 28, 2011 naming your library as the public review location for these documents. As such, documents must remain available for public review from August 28, 2011 through September 26, 2011.

Public comments will be received and considered for up to 30-days from the date of the public notice. Written comments should be submitted to Mr. Wes Culp, NEPA Coordinator, U.S. Army Garrison, ATTN: IMWE-HUA-PWB, 3040 Butler Road, Building 22526, Fort Huachuca, Arizona 85613-7010. Comments must be postmarked or received by September 26, 2011 to be considered.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

City of Bisbee
118 Arizona Street
Bisbee, Arizona 85603

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Chuck Potucek, City Manager
City of Sierra Vista
1011 N. Coronado Drive
Sierra Vista, Arizona 85635

Dear Mr. Potucek:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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If you have any questions or concerns, please contact Wes Culp, NEPA Coordinator, by telephone at (520) 533-1863 or by e-mail at wesley.b.culp.civ@mail.mil.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Cochise County Board of Supervisors
1415 Melody Lane
Building G
Bisbee, Arizona 85603

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

City of Tombstone
P.O. Box 339
Tombstone, Arizona 85638

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

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A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Rachel Thomas
Hereford Natural Resources Conservation District
P.O. Box 3361
Sierra Vista, Arizona 85636

Dear Ms. Thomas:

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Town of Huachuca City
500 N. Gonzales Boulevard
Huachuca City, Arizona 85616

Dear Sir or Madam:

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

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REPLY TO
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DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Arizona Department of Environmental Quality
1110 W. Washington Street
Phoenix, Arizona 85007

Dear Sir or Madam:

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure

Karen Collins

Subject: FW: Environmental Assessment for Empire Challenge events (UNCLASSIFIED)

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

From: Wendy S. LeStarge [mailto:LeStarge.Wendy@azdeq.gov]
Sent: Thursday, September 15, 2011 11:27 AM
To: Culp, Wesley B USA CIV (US)
Cc: Linda C. Taunt
Subject: Environmental Assessment for Empire Challenge events

On behalf of Linda Taunt, Deputy Division Director of the Water Quality Division, Arizona Department of Environmental Quality:

Thank you for the opportunity to comment on the Environmental Assessment and Draft Finding of No Significant Impact for the annual Empire Challenge events at Fort Huachuca. The Arizona Department of Environmental Quality, Water Quality Division does not see any impacts related to water quality. We appreciate the opportunity to assist in the review of this Environmental Assessment.

Wendy LeStarge

Environmental Rules Specialist

Arizona Department of Environmental Quality

Water Quality Division

(602) 771-4836

Classification: UNCLASSIFIED

Caveats: NONE



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Henry R. Darwin
Director

September 13, 2011

Mr. Wes Culp
NEPA Coordinator
U.S. Army Garrison
ATTN: IMWE-HUA-PWB
3040 Butler Road, Building 22526
Fort Huachuca, AZ 85613-7010

RE: Fort Huachuca: Scoping Letter for the Empire Challenge Events

Dear Mr. Culp:

The ADEQ Air Quality Division has reviewed your letter, dated August 18, 2011, concerning the Scoping Letter for the Fort Huachuca Empire Challenge Events. Your main project is not located in a nonattainment area or a maintenance area regulated for air pollutants. As described, it may have a de minimis impact on air quality. Disturbance of particulate matter and is anticipated during the events. Considering prevailing winds, to comply with other applicable air pollution control requirements and minimize adverse impacts on public health and welfare, the following information is provided for consideration:

REDUCE DISTURBANCE of PARTICULATE MATTER DURING EVENTS

This action, plan or activity may temporarily increase ambient particulate matter (dust) levels. Particulate matter 10 microns in size and smaller can penetrate the lungs of human beings and animals and is subject to a National Ambient Air Quality Standard (NAAQS) to protect public health and welfare. Particulate matter 2.5 microns in size and smaller is difficult for lungs to expel and has been linked to increases in death rates; heart attacks by disturbing heart rhythms and increasing plaque and clotting; respiratory infections; asthma attacks and cardiopulmonary obstructive disease (COPD) aggravation. It is also subject to a NAAQS.

The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off the construction site:

- I. Site Preparation and Construction
 - A. Minimize land disturbance;
 - B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air;

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

- C. Cover trucks when hauling soil;
 - D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
 - E. Stabilize the surface of soil piles; and
 - F. Create windbreaks.
- II. Site Restoration
- A. Revegetate any disturbed land not used;
 - B. Remove unused material; and
 - C. Remove soil piles via covered trucks.

The following rules applicable to reducing dust during construction, demolition and earth moving activities are enclosed:

- ☐ Arizona Administrative Code R18-2-604 through -607
- ☐ Arizona Administrative Code R18-2-804

Should you have further questions, please do not hesitate to call me at (602) 771-2375, or Lhamo LeMoine at (602) 771-2373.

Very truly yours,



Diane L. Arnst, Manager
Air Quality Planning Section

Enclosures (2)

cc: Bret Parke, EV Administrative Counsel
Lhamo LeMoine, Administrative Secretary
File No. 266788

ARTICLE 8. EMISSIONS FROM MOBILE SOURCES (NEW AND EXISTING)

R18-2-801. Classification of Mobile Sources

- A. This Article is applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations.
- B. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-801 renumbered to Section R18-2-901, new Section R18-2-801 renumbered from R18-2-601 effective November 15, 1993 (Supp. 93-4).

R18-2-802. Off-road Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. Off-road machinery shall include trucks, graders, scrapers, rollers, locomotives and other construction and mining machinery not normally driven on a completed public roadway.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-802 renumbered to Section R18-2-902, new Section R18-2-802 renumbered from R18-2-602 effective November 15, 1993 (Supp. 93-4).

R18-2-803. Heater-planer Units

No person shall cause, allow or permit to be emitted into the atmosphere from any heater-planer operated for the purpose of reconstructing asphalt pavements smoke the opacity of which exceeds 20%. However three minutes' upset time in any one hour shall not constitute a violation of this Section.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-803 renumbered to Section R18-2-903, new Section R18-2-803 renumbered from R18-2-603 effective November 15, 1993 (Supp. 93-4).

R18-2-804. Roadway and Site Cleaning Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

R18-2-805. Asphalt or Tar Kettles

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any asphalt or tar kettle smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the operation of an asphalt or tar kettle without minimizing air contaminant emissions by utilizing all of the following control measures:
 1. The control of temperature recommended by the asphalt or tar manufacturer;
 2. The operation of the kettle with lid closed except when charging;
 3. The pumping of asphalt from the kettle or the drawing of asphalt through cocks with no dipping;
 4. The dipping of tar in an approved manner;
 5. The maintaining of the kettle in clean, properly adjusted, and good operating condition;
 6. The firing of the kettle with liquid petroleum gas or other fuels acceptable to the Director.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-805 renumbered to Section R18-2-905, new Section R18-2-805 renumbered from R18-2-605 effective November 15, 1993 (Supp. 93-4).

c. If the burning would occur at a solid waste facility in violation of 40 CFR 258.24 and the Director has not issued a variance under A.R.S. § 49-763.01.

E. Open outdoor fires of dangerous material. A fire set for the disposal of a dangerous material is allowed by the provisions of this Section, when the material is too dangerous to store and transport, and the Director has issued a permit for the fire. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The Director shall permit fires for the disposal of dangerous materials only when no safe alternative method of disposal exists, and burning the materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts that will endanger health or safety.

F. Open outdoor fires of household waste. An open outdoor fire for the disposal of household waste is allowed by provisions of this Section when permitted in writing by the Director or a delegated authority. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The permittee shall conduct open outdoor fires of household waste in an approved waste burner and shall either:

1. Burn household waste generated on-site on farms or ranches of 40 acres or more where no household waste collection or disposal service is available; or
2. Burn household waste generated on-site where no household waste collection and disposal service is available and where the nearest other dwelling unit is at least 500 feet away.

G. Permits issued by a delegated authority. The Director may delegate authority for the issuance of open burning permits to a county, city, town, air pollution control district, or fire district. A delegated authority may not issue a permit for its own open burning activity. The Director shall not delegate authority to issue permits to burn dangerous material under subsection (E). A county, city, town, air pollution control district, or fire district with delegated authority from the Director may assign that authority to one or more private fire protection service providers that perform fire protection services within the county, city, town, air pollution control district, or fire district. A private fire protection provider shall not directly or indirectly condition the issuance of open burning permits on the applicant being a customer. Permits issued under this subsection shall comply with the requirements in subsection (D)(3) and be in a format prescribed by the Director. Each delegated authority shall:

1. Maintain a copy of each permit issued for the previous five years available for inspection by the Director;
2. For each permit currently issued, have a means of contacting the person authorized by the permit to set an open fire if an order to extinguish open burning is issued; and
3. Annually submit to the Director by May 15 a record of daily burn activity, excluding household waste burn permits, on a form provided by the Director for the previous calendar year containing the information required in subsections (D)(3)(e) and (D)(3)(f).

H. The Director shall hold an annual public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.

I. Nothing in this Section is intended to permit any practice that is a violation of any statute, ordinance, rule, or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-802, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 10 A.A.R. 388, effective March 16, 2004 (Supp. 04-1).

R18-2-603. Repealed

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-803, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4). Repealed effective October 8, 1996 (Supp. 96-4).

R18-2-604. Open Areas, Dry Washes, or Riverbeds

A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.

B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.

C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-608. Mineral Tailings

No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

Historical Note

Section R18-2-608 renumbered from R18-2-408, new Section R18-2-408 adopted effective November 15, 1993 (Supp. 93-4).

R18-2-609. Agricultural Practices

A person shall not cause, suffer, allow, or permit the performance of agricultural practices outside the Phoenix and Yuma planning areas, as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210, including tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-609 renumbered from R18-2-409 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 6 A.A.R. 2009; effective May 12, 2000 (Supp. 00-2). Amended by final rulemaking at 11 A.A.R. 2210, effective July 18, 2005 (Supp. 05-2).

R18-2-610. Definitions for R18-2-611

The definitions in Article 1 of this Chapter and the following definitions apply to R18-2-611:

1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM₁₀ emissions from a regulated agricultural activity.
5. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
6. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
7. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Maricopa PM₁₀ nonattainment area.
8. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
9. "Committee" means the Governor's Agricultural Best Management Practices Committee.
10. "Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.
11. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
12. "Cropland" means land on a commercial farm that:
 - a. Is within the time-frame of final harvest to plant emergence;
 - b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
 - c. Is a turn-row.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Arizona Department of Water Resources
3550 N. Central Avenue
Phoenix, Arizona 85012

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca. A copy of the EA and supporting documents are enclosed.

The EA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing August 28, 2011. Please submit any written comments to Mr. Wes Culp, NEPA Coordinator, U.S. Army Garrison, ATTN: IMWE-HUA-PWB, 3040 Butler Road, Building 22526, Fort Huachuca, Arizona 85613-7010. Comments must be postmarked or received by September 26, 2011 to be considered during the NEPA process.

If you have any questions or concerns, please contact Wes Culp, NEPA Coordinator, by telephone at (520) 533-1863 or by e-mail at wesley.b.culp.civ@mail.mil.

A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086

Dear Sir or Madam:

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

REGION V, 555 N. GREASEWOOD ROAD, TUCSON, AZ 85745

GOVERNOR

JANICE K. BREWER

COMMISSIONERS

CHAIRMAN, ROBERT R. WOODHOUSE, ROLL

NORMAN W. FREEMAN, CHINO VALLEY

JACK F. HUSTED, SPRINGVILLE

J.W. HARRIS, TUCSON

ROBERT E. MANSELL, WINSLOW

DIRECTOR

LARRY D. VOYLES

DEPUTY DIRECTORS

GARY R. HOVATTER

BOB BROSCHEID



September 26, 2011

Wes Culp
NEPA Coordinator
U.S. Army Garrison
ATTN: IMWE-HUA-PWB
3040 Butler Road, Building 22526
Fort Huachuca, AZ 85613-7010

Dear Mr. Culp:

The Arizona Game and Fish Department (Department) appreciates this opportunity to comment on the **Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the Empire Challenge Events at Fort Huachuca**. Given the short duration (2 weeks deployment, 2 weeks execution, and 1 week redeployment) of this proposed annual event, the existing activities on the Fort, and the wildlife conservation measures contained within the Fort Huachuca Integrated Natural Resource Management Plan (INRMP), the Department concurs with the FONSI.

We would however like to point out a few editorial comments regarding the EA:

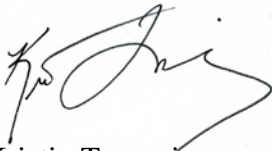
- Add "ASA" to list of acronyms
- Multiple references to the INRMP's Standard Operating Procedures (SOPs) are made in the document. Including the wildlife-specific SOPs in the EA would present a more complete description of the wildlife conservation measures in place and in turn present a more complete picture to the reader
- "USFWS 2007" is missing from the References section, therefore the reader is left to make an assumption as to what reference this may actually be
- It is stated that no Chiricahua leopard frogs have been identified on the facility, but it's not clear whether or not protocol-level surveys were ever conducted
- We agree with the recommendation of "washing imported vehicles prior to deployment into training areas and again upon exit of the installation" as a means of minimizing the spread of noxious weeds. However, there is no mention of the means by which this recommendation is to be conveyed to Empire Challenge participants. Such recommendations may best be disseminated via event information materials/procedures
- The EA states that there are seasonal limitations for use of Mexican spotted owl protected areas and agave management areas (AMA) during breeding and brooding seasons for the

owl and the lesser long-nosed bat, however without specifying what those restrictions are, we are unable to adequately evaluate such measures. It may be assumed these measures are detailed within the INRMP or perhaps the USFWS Biological Opinion for the INRMP, but without inclusion of these measures within the EA, the reader cannot make an evaluation.

- Federally protected species occurring on or near Fort Huachuca are referenced in Table 3.2-1 and purportedly “described in detail” in the INRMP, however this information gives no indication of measures in place to protect these species from Empire Challenge activities.

Thank you again for the opportunity to review the EA and Draft FONSI. If you have any questions regarding our comments, please contact me at 520-388-4447 or kterpening@azgfd.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristin Terpening', is written over a light gray rectangular background.

Kristin Terpening
Habitat Specialist
Arizona Game and Fish Department
Region V (Tucson)

cc: Laura Canaca, Project Evaluation Program, AGFD



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Arizona Game and Fish Department
Tucson Regional Office
555 N. Greasewood Road
Tucson, Arizona 85745

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Arizona State Land Department
1616 West Adams
Phoenix, Arizona 85007

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Mr. James W. Garrison
Arizona State Parks
State Historical Preservation Officer
1300 West Washington
Phoenix, Arizona 85007

Dear Mr. Garrison:

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure



REPLY TO
ATTENTION OF

SHPO-2011-1155(94146) MIR
DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Mr. James W. Garrison
Arizona State Parks
State Historical Preservation Officer
1300 West Washington
Phoenix, Arizona 85007

Received
9-23-11
K. Mulhern

RECEIVED

AUG 24 2011

ARIZONA STATE PARKS/SHPO

Dear Mr. Garrison:

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Kimberlee K. Mulhern

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

Enclosure

We look forward to your Agency's
Section 106 compliance consultation
with our office. Thank you,

Ann G. Howard 9/19/11
for S.H.P.O.

IMWE-HUA-PWB Read File



DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Louis Manuel, Chairman
Ak-Chin Indian Community
42507 West Peters and Nall Road
Maricopa, Arizona 85239

Dear Chairman Manuel:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

The EA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing August 28, 2011. Please submit any written comments to Mr. Wes Culp, NEPA Coordinator, U.S. Army Garrison, ATTN: IMWE-HUA-PWB, 3040 Butler Road, Building 22526, Fort Huachuca, Arizona 85613-7010. Comments must be postmarked or received by September 26, 2011 to be considered during the NEPA process.

A copy of this letter has been provided with the enclosure to the tribal personnel indicated below. If you have any questions or concerns, please contact Wes Culp, NEPA Coordinator, by telephone at (520) 533-1863 or by e-mail at wesley.b.culp.civ@mail.mil.

A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Caroline Antone, Cultural Resources Program Manager, Ak-Chin Indian Community, Ak-Chin Him-Dak Eco Museum Road, Maricopa, Arizona 85239



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Jeff Houser, Chairman
Fort Sill Apache Tribe
Route 2, Box 121
Apache, Oklahoma 73006

Dear Chairperson Houser:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Leland Michael Darrow, Historian



REPLY TO
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DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

William R. Rhodes, Governor
Gila River Indian Community
P.O. Box 97
Sacaton, Arizona 85247

Dear Governor Rhodes:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Barnaby Lewis, THPO, Cultural Resource Management Program, Gila River Indian Community,
Department of Land and Water Resources, P.O. Box 2140, Sacaton, Arizona 85247



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Leroy Shingoitewa, Chairman
The Hopi Tribe
P.O. Box 123
Kykotsmovi, Arizona 86039

Dear Chairman Shingoitewa:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Leigh Kuwanwisiwma, Director of Cultural Preservation Office



DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Carleton Naiche-Palmer, President
Mescalero Apache Tribe
P.O. Box 227
Mescalero, New Mexico 88340

Dear President Naiche-Palmer:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Holly Houghten, Tribal Historic Preservation Officer, Resource Management and Protection



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Peter Yucupicio, Chairman
Pascua Yaqui Tribe
7474 S. Camino De Oeste
Tucson, Arizona 85746

Dear Chairman Yucupicio:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Rolando Flores, Assistant Attorney General



REPLY TO
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DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Norman Coeeyate, Governor
Pueblo of Zuni
Zuni Tribal Council
P.O. Box 339
Zuni, New Mexico 87327

Dear Governor Coeeyate:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Dr. Kurt Dongoske, Acting Director, Zuni Heritage and Historic Preservation Office



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Diane Enos, President
Salt River Pima-Maricopa Indian Community
10005 E. Osborn Road
Scottsdale, Arizona 85256

Dear President Enos:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in black ink, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Shane Anton, Cultural Programs Supervisor
Angela Garcia-Lewis, NAGPRA



REPLY TO
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DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Wendsler Nosie, Sr., Chairman
San Carlos Apache Tribe
P.O. Box 0
San Carlos, Arizona 85550

Dear Chairman Nosie:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Vernelda J. Grant, Archaeologist and Director, Historic Preservation and Archaeology
Department



REPLY TO
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DEPARTMENT OF THE ARMY
US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

Directorate of Public Works

AUG 18 2011

Ned Norris, Jr., Chairman
Tohono O'odham Nation
P.O. Box 837
Sells, Arizona 85634

Dear Chairman Norris:

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A handwritten signature in cursive script, reading "Kimberlee K. Mulhern".

Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Peter Steere, THPO, Natural Resources Department/Cultural Affairs Program
Joe Joaquin, NAGPRA Coordinator, Natural Resources Department/Cultural Affairs Program



DEPARTMENT OF THE ARMY

US ARMY GARRISON
DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 18 2011

Ronnie Lupe, Chair
White Mountain Apache Tribe
P.O. Box 1150
Whiteriver, Arizona 85941

Dear Chairman Lupe:

The Environmental and Natural Resources Division has prepared an Environmental Assessment (EA) and Draft Finding of No Significant Impact (FNSI) for the annual Empire Challenge events at Fort Huachuca.

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Kimberlee K. Mulhern, P.G.
Chief, Environmental and
Natural Resources Division

CC (with enclosure):

Mark Altaha, THPO, White Mountain Apache Tribe, P.O. Box 507, Whiteriver, Arizona 85926

FORMAT PAGE