PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

U.S. ARMY ELECTRONIC PROVING GROUND TESTING ACTIVITIES ON FORT HUACHUCA AND THROUGHOUT ARIZONA

Prepared for:

U.S. Army Electronic Proving Ground
Fort Huachuca, Arizona

Prepared by:

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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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FORMAT PAGE

EXECUTIVE SUMMARY

The Electronic Proving Ground (EPG) is an Army Test Range that falls under the United States (U.S.) Army Test and Evaluation Command (ATEC). The EPG at Fort Huachuca is the primary electronic equipment developmental test facility for the ATEC and a historic organization in the electromagnetic (EM) spectrum community. The organization is responsible for the testing and evaluation of a remarkably diverse collection of equipment and systems with test requirements extending anywhere from one-of-a-kind systems to the latest major programs within the Department of Defense (DoD) such as Joint Tactical Radio System (JTRS) and Warfighter Information Network-Tactical (WIN-T). Testing requirements extend from Very Low Frequencies to frequencies of more than 400 gigahertz (GHz).

EPG is a tenant of Fort Huachuca, a Joint DoD Installation supporting approximately 60 deployable and non-deployable tenant organizations. Fort Huachuca encompasses 73,142 acres located in the City of Sierra Vista, Cochise County, Arizona. The Installation is approximately 75 miles southeast of Tucson and 63 miles northeast of Nogales, Arizona.

Testing is conducted by dispatching intelligence, communication and other electronic testing equipment to a selection of either on-post or off-post locations that meet the testing requirements. Although EPG conducts a great deal of its testing within the bounds of Fort Huachuca, some tests require a wider geographic dispersion than can be accomplished on the Installation.

Approximately 2,400 test sites are located across Arizona to support regional electronics testing. EPG requires the continued and expanded use of these test sites in support of electronic equipment testing. Test sites are used for record testing at repetitive, known locations and to add record keeping capabilities for electronic systems testing. Test Officers attempt to position most equipment on Fort Huachuca test sites, but require off-post sites to test the capability of electronic systems to operate under a variety of geographic and atmospheric conditions. Approximately 1,600 test sites are within Fort Huachuca and an additional 800 test sites are outside the Installation boundaries. Most sites are approximately 100 ft by 100 ft (10,000 sf) and are established around an Army Security Agency (ASA) survey marker. Some tests require more testing area space, therefore EPG leases a number of larger off-post sites including Sunnyside, the Tombstone Municipal Airport, Site Sibyl, the Winchester Site, Keller Road Site, Gleeson Road Site and several sites within the Wilcox Playa.

Fort Huachuca's unique EM testing environment and the regional distribution of test sites provides EPG and the U.S. Army with testing capabilities not easily replicated anywhere else. These capabilities make EPG at Fort Huachuca a crucial military testing asset to ATEC, the U.S. Army and the DoD. Implementation of an emerging and changing testing program requires the continued and expanded use of on-post and off-post test sites, as well as the creation of additional sites. These new locations will be required to support future testing activities as electronic equipment technology continues to evolve.

The Proposed Action involves the continued and expanded use of existing test sites both on-post and off-post while allowing for the establishment of additional field test sites. The additional test sites would accommodate a wider dispersion of testing activities as electronic equipment equipment/techniques continue to emerge and change.

Under Alternative One, EPG would continue to use all existing test sites but would limit the establishment of new test sites to within Fort Huachuca boundaries. While this alternative would be anticipated to result in a significantly reduced testing capability for EPG and deteriorated testing asset for ATEC and the DoD, it is provided as the only reasonable alternative to the Proposed Action.

The No Action Alternative is the status quo and serves as a baseline or benchmark to be used to compare with the Proposed Action and Alternatives. Under the No Action Alternative, EPG testing activities would continue to occur on-post and off-post, but any subsequent establishment of new test sites may require additional independent evaluations under NEPA and other federal statutes as applicable.

A summary of the potential impacts and measures to minimize adverse impacts for the Proposed Action and Alternative One are provided in Table EX-1.

Based on the analysis contained herein, this Environmental Assessment (EA) concludes that neither the implementation of the Proposed Action, Alternative One, nor the No Action Alternative, would constitute a major federal action with significant impact on human health or the environment. This EA recommends 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 and Alternative One

Resource Area	Level of Anticipated Impact: Significant	Level of Anticipated Impact: Less than Significant	Level of Anticipated Impact: No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Land Use		X		The Fort Huachuca Training Division of DPTMS deconflicts activities on training ranges and minimizes testing and training-related land use conflicts. Off-post, test sites are typically located in previously disturbed areas, within easements along local, state or federal highways and the use of the site is not altered. Temporary access restrictions to the basic test sites may present a minor impact to recreational uses by the general public, but such use is infrequent given the close proximity of the sites to the roadway and existing state and county restrictions on recreational use along roadway rights-of-way. Regional frequency coordination by EPG and Fort Huachuca will encourage compatible land uses between off-post stakeholders and users of EM resources, amongst others, at Fort Huachuca. EPG testing activities at larger off-post test sites such as the Wilcox Playa and National Forest Lands at the Sunnyside area operate under land leases that stipulate use and operating conditions and do not permanently affect land uses. While the long-term and 24-hour use of these sites can occur which may limit public access to portions or all of these areas during testing events, such use restriction is minor and managed by the land owner in cooperation with EPG. Land use impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Biological Resources		X		Trampling of vegetation at test sites as well as the presence of personnel and testing activities can affect wildlife (including protected or special-status species) in multiple ways. Disturbance through soil compaction, tunnels and burrows being collapsed, or loss of vegetation for food or shelter can occur. Disturbance from the presence of humans and vehicles can 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 or wildlife. Wildlife in the immediate area may flush from an area leaving young exposed or leave territories vulnerable to competitors or predators. The EPG Environmental Coordinator works with the ENRD to identify and avoid on-post areas and operations that might impact critical habitat or special status species populations. Any existing or new test sites that fall within critical habitat or in sensitive areas are required to adhere to the guidelines set for those areas in the Fort Huachuca INRMP (USAGFH 2010). EPG testing activities off-post and at larger off-post test areas such as the Wilcox Playa and National Forest Lands at the Sunnyside area operate under land leases that stipulate use and operating conditions. While the long-term and 24-hour use of these sites can occur which may result in a short-term or minor impact to vegetation and wildlife in the immediate area, testing activities are not anticipated to impact any protected or special status species.

Resource Area	Level of Anticipated Impact: Significant	Less than Significant	No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Air Quality		X		Potential impacts to air quality resulting from the Proposed Action are associated with the burning of fossil fuels in vehicles and generators and the generation of dust through use of dirt roads to get to some of the test sites. While the use of these vehicles and equipment will result in additional emissions, it is not anticipated to affect local or regional air quality. Generators and other military equipment used during long-term or overnight EPG testing at larger test ranges may result in minor air quality impacts to adjacent areas but are not expected to result in any long-term impacts or hazards to health or the environment. Air quality impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Visual Resources		X		Testing activities would only impact visual resources temporarily and not result in any long-term or permanent change to visual resource conditions. Visual resource impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Noise		X		The greatest noise impact is likely the use of military aircraft during electronic equipment testing activities. To help minimize noise impacts, pilots avoid populated areas sensitive to aircraft noise. Aircraft used during EPG electronic equipment testing typically fly at altitudes higher than 15,000 ft and have little impact to noise conditions on the ground. Generators and military vehicles are other sources of noise at test sites during testing activities. While conducting testing at a roadside ASA site, the noise of a running generator is not likely to be noticed above the typical noise of the traffic. Noise impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Transportation and Circulation		X		On-post roads are designed to handle the traffic created by military vehicles and convoys, including additional volume created by EPG testing vehicles. Off-post EPG traffic will add only negligible additional volume to SR 90 and Sierra Vista local roads. These roads are currently used by EPG. The addition of new sites will add minimal traffic and not adversely impact traffic volumes. Traffic counts on smaller dirt or pasture roads are expected to be minimal and impacts from existing or future testing vehicles is expected to be less than significant. Transportation impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Hazardous and Toxic Substances		X		EPG and Fort Huachuca maintain policies and procedures to minimize impacts from the use of hazardous or toxic substances at EPG test sites. Volumes of hazardous or toxic materials at any given testing location are minimal and would not pose a major threat to human health or safety. EPG operators are expected to be well-versed in the proper measures and notification processes necessary to handle accidental spills of hazardous or toxic substances including POLs. Hazardous and toxic substances impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.

Resource Area	Level of Anticipated Impact: Significant	Less than Significant	No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Health and Human Safety		X		Due to a specific type of electronics testing, known as "jamming", there is a potential impact to public safety communication systems in the vicinity of the Sunnyside Test Site, where this type of testing may occur. Pre-testing coordination between the U.S. Forest Service Sierra Vista District Ranger and other law enforcement agencies regarding testing interference of the respective frequencies helps to minimize potential safety concerns. 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. Health and safety concerns related to the use of test sites for electronics and communications testing include brush fires, injury to test personnel or the general public from the placement and operation of equipment, and overall security of the site during testing. Health and safety impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Cultural Resources		X		The nature of electronics testing at existing test sites is not anticipated to impact undiscovered subsurface archaeological or historic resources on Fort Huachuca. As stated in the Fort Huachuca ICRMP SOP 4 (USAGFH 2008) should previously undiscovered archaeological materials be encountered during any phase of testing, activities would cease, the Fort Huachuca DPW ENRD would be contacted, and the site would be protected until an evaluation by ENRD had been completed as to the extent of protection, avoidance or other restriction to the use of the site. New on-post sites would be evaluated on an individual basis by the EPG Environmental Coordinator in consultation with Fort Huachuca DPW ENRD to ensure compliance with all applicable laws and regulations, including but not limited to NHPA, NAGPRA, ARPA, AIRFA, and AR 200-1. Off-post test sites and larger testing areas will be evaluated by the EPG Environmental Coordinator to ensure that they are not located within close proximity to known historic properties or resources. Due to the limited ground disturbance and potential for subsurface disturbance associated with EPG testing activities, the Proposed Action is not anticipated to significantly impact archaeological or historic resources at off-post test sites or larger testing areas. Impacts associated with Alternative One are similar but potentially less than those associated with the Proposed Action.

ASA-Army Security Agency; **DPTMS-**Directorate of Planning, Training, Mobilization, and Security; **RFMSS-** Range Facility Management Support System; **EPG-**Electronic Proving Ground; **EM-**electromagnetic; **FAA-**Federal Aviation Administration; **SR-**State Route; **POL-**Petroleum, Oil, and Lubricant; **ICRMP-**Integrated Cultural Resources Management Plan; **SOP**-Standard Operating Procedure; **DPW**-Directorate of Public Works; **ENRD**-Environmental and Natural Resources Division; **NHPA**-National Historic Preservation Act; **NAGPRA**-Native American Graves Protection and Repatriation Act; **ARPA**-Archaeological Resources Protection Act; **AIRFA**-American Indian Religious Freedom Act; **AR-**Army Regulation.

FORMAT PAGE

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

FORMAT PAGE

LIST OF ACRONYMS AND ABBREVIATIONS

AAFES	Army and Air Force Exchange Service
ACUB	Army Compatible Use Buffer
ADEQ	Arizona Department of Environmental Quality
ADNL	A-weighted day-night levels
AEI	Air Emissions Inventory
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
ASA	Army Security Agency
ATEC	Army Test and Evaluation Command
ATF	Antenna Test Facility
AT/FP	anti-terrorism/force protection
BGEPA	Bald and Golden Eagle Protection Act
CAA	Clean Air Act
CBP	Customs and Border Patrol
CDNL	C-weighted day night level
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	methane
CLFR	Combat Live-fire Range
CO	carbon monoxide
CO_2e	equivalent carbon dioxide
CWA	Clean Water Act
DA	Department of the Army
db	decibel
dba	A-weighted decibel
DHS	Department of Homeland Security
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
EIS	Environmental Impact Statement
EM	electromagnetic
EMI	electromagnetic interference
ENRD	Environmental and Natural Resources Division
EO	Executive Order
EPA	Environmental Protection Agency
EPACT	Energy Policy Act
EPG	Electronic Proving Ground
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FIC	Facility Incident Commander
FLPMA	Federal Land Protection and Management Act
FNSI	Finding of No Significant Impact
GHG	Greenhouse Gas
GHz	gigahertz
GIS	Geographic Information System
HAP	Hazardous Air Pollutant
HAZMAT	hazardous materials
HF	high frequency
HFC	hydrofluorocarbons
HMCC	Hazardous Material Control Center
HMMP	Hazardous Materials Management Program
HWAP	Hazardous Waste Accumulation Point
HWU	Huachuca Water Umbel
HMMWV	High Mobility Multipurpose Wheeled Vehicle
ICRMP	Integrated Cultural Resources Management Plan
IMCOM	Installation Management Command
INRMP	Integrated Natural Resources Management Plan
ISCP	Installation Spill Contingency Plan
IWFMP	Integrated Wildland Fire Management Plan
JLUS	Joint Land Use Study

JTRS	Joint Tactical Radio System
kW	kilowatt
LAAF	Libby Army Airfield
LF	low frequency
LLNB	lesser long-nosed bat
LOS	Level of Service
LUPZ	Land Use Planning Zone
MER	Military Electromagnetic Range
MF	medium frequency
MOUT	Military Operations on Urban Terrain
MRR	Mandatory Reporting Rule
MSO	Mexican spotted owl
MT	metric ton
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NFS	National Forest Service
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NO_X	nitrogen
NRHP	National Register of Historic Places
ODS	ozone depleting substance
OSHA	Occupational Safety and Health Administration
PAC	Protected Activity Center
Pb	lead
PEA	Programmatic Environmental Assessment
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
QI	Qualified Individual

RCRA	Resource Conservation and Recovery Act
RFMSS	Range Facility Management Support System
RPMP	Real Property Master Plan
SCBA	self-contained breathing apparatus
sf	square foot
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SO_2	sulfur dioxide
SOP	standard operating procedure
SPCCP	Spill Prevention Control and Countermeasures Plan
SPRNCA	San Pedro Riparian National Conservation Area
SR	State Route
SWFL	southwestern willow flycatcher
tpy	tons per year
TSD	treatment, storage, and disposal
TSP	total suspended particulate
U.S.	United States
UAS	Unmanned Aerial Systems
USAEPG	U.S. Army Electronic Proving Ground
USC	U.S. Code
USAEHA	U.S. Army Environmental Hygiene Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
UXO	unexploded ordnance
VHF	very high frequency
VOC	volatile organic compound
WIN-T	Warfighter Information Network-Tactical

1.0 PURPOSE AND NEED

1.1 Introduction

The Electronic Proving Ground (EPG) is an Army Test Range that falls under the United States (U.S.) Army Test and Evaluation Command (ATEC). The EPG at Fort Huachuca is the primary electronic equipment developmental test facility for the ATEC and a historic organization in the electromagnetic (EM) spectrum community. The organization is responsible for the testing and evaluation of a remarkably diverse collection of equipment and systems with test requirements extending anywhere from one-of-a-kind systems to the latest major programs within the Department of Defense (DoD) such as Joint Tactical Radio System (JTRS) and Warfighter Information Network-Tactical (WIN-T). Testing requirements extend from Very Low Frequencies to frequencies of more than 400 gigahertz (GHz).

EPG is a tenant of Fort Huachuca, a Joint DoD Installation supporting approximately 60 deployable and non-deployable tenant organizations. Fort Huachuca encompasses 73,142 acres located in the City of Sierra Vista, Cochise County, Arizona. The Installation is 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 (Figure 1.1-1). 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 (LAAF).

EPG testing is conducted by dispatching intelligence, communication and other electronic testing equipment to a selection of either on-post or off-post locations that meet the testing requirements. Although EPG conducts a great deal of its testing within the bounds of Fort Huachuca (Figure 1.1-2), some tests require a wider geographic dispersion than can be accomplished on the Installation. To meet this requirement, EPG regularly conducts testing at more than 800 off-post test sites that span across Arizona (Figure 1.1-3). In addition to the smaller, 100 ft by 100 ft (10,000 sf) test sites, EPG leases larger, off-post test sites, including Sunnyside, the Tombstone Municipal Airport, Site Sibyl, the Winchester Site, Keller Road Site, Gleeson Road Site and several sites within the Wilcox Playa (Figure 1.1-4). Most test sites are identified by their Army Security Agency (ASA) survey marker identification. Larger test sites may have multiple ASA markers within their boundary.

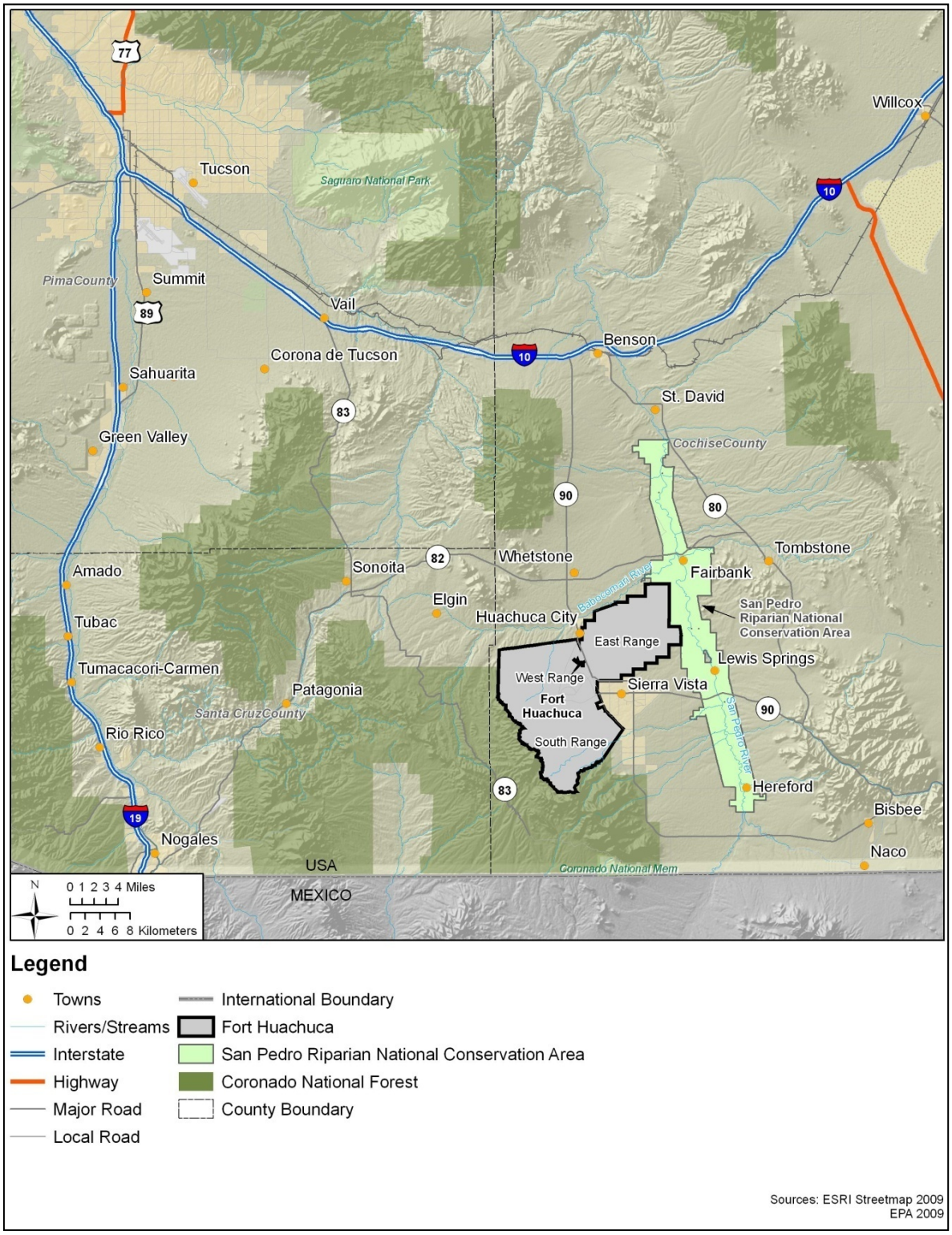

Figure 1.1-1. Regional Location Map

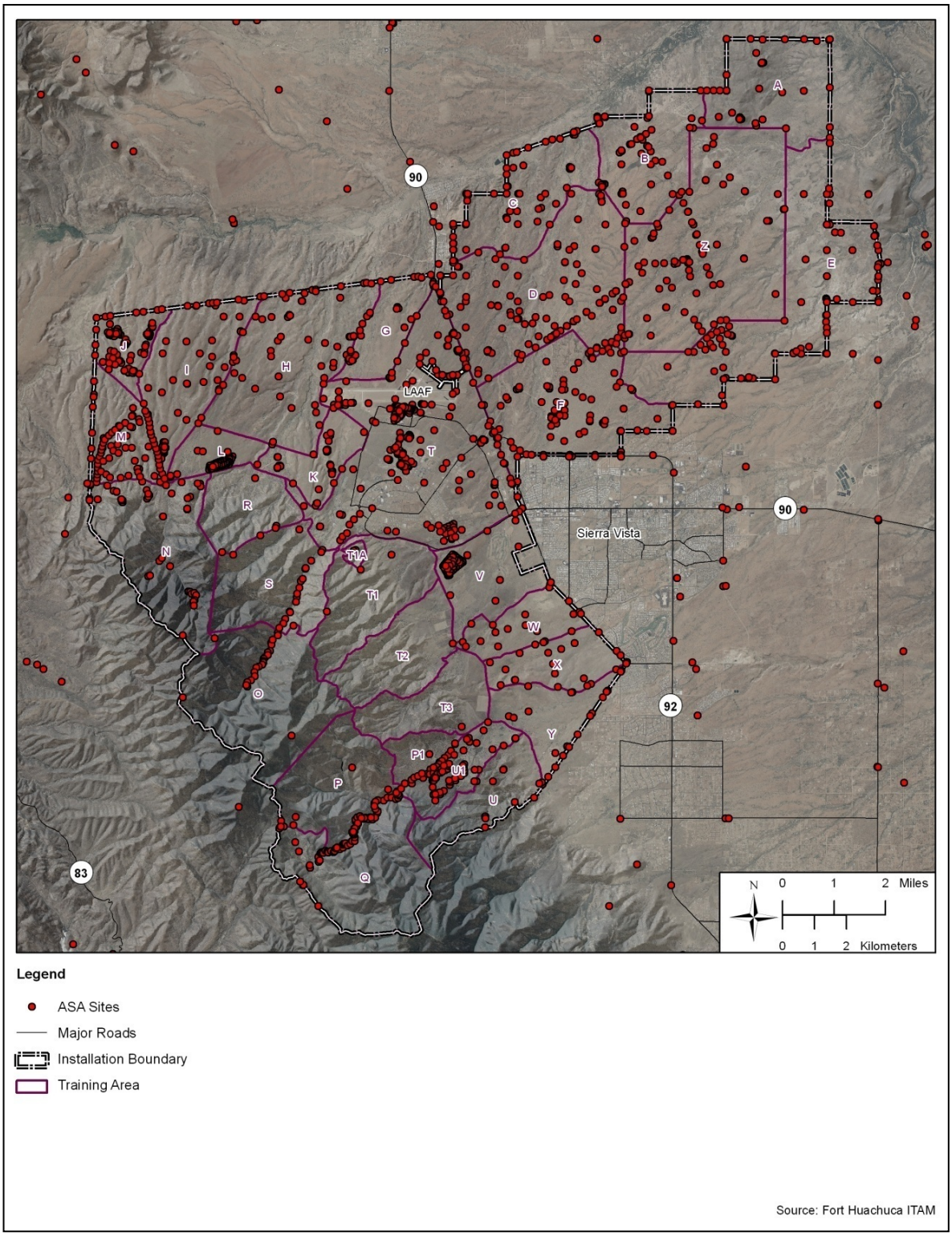

Figure 1.1-2. On and Near-Post Test Sites

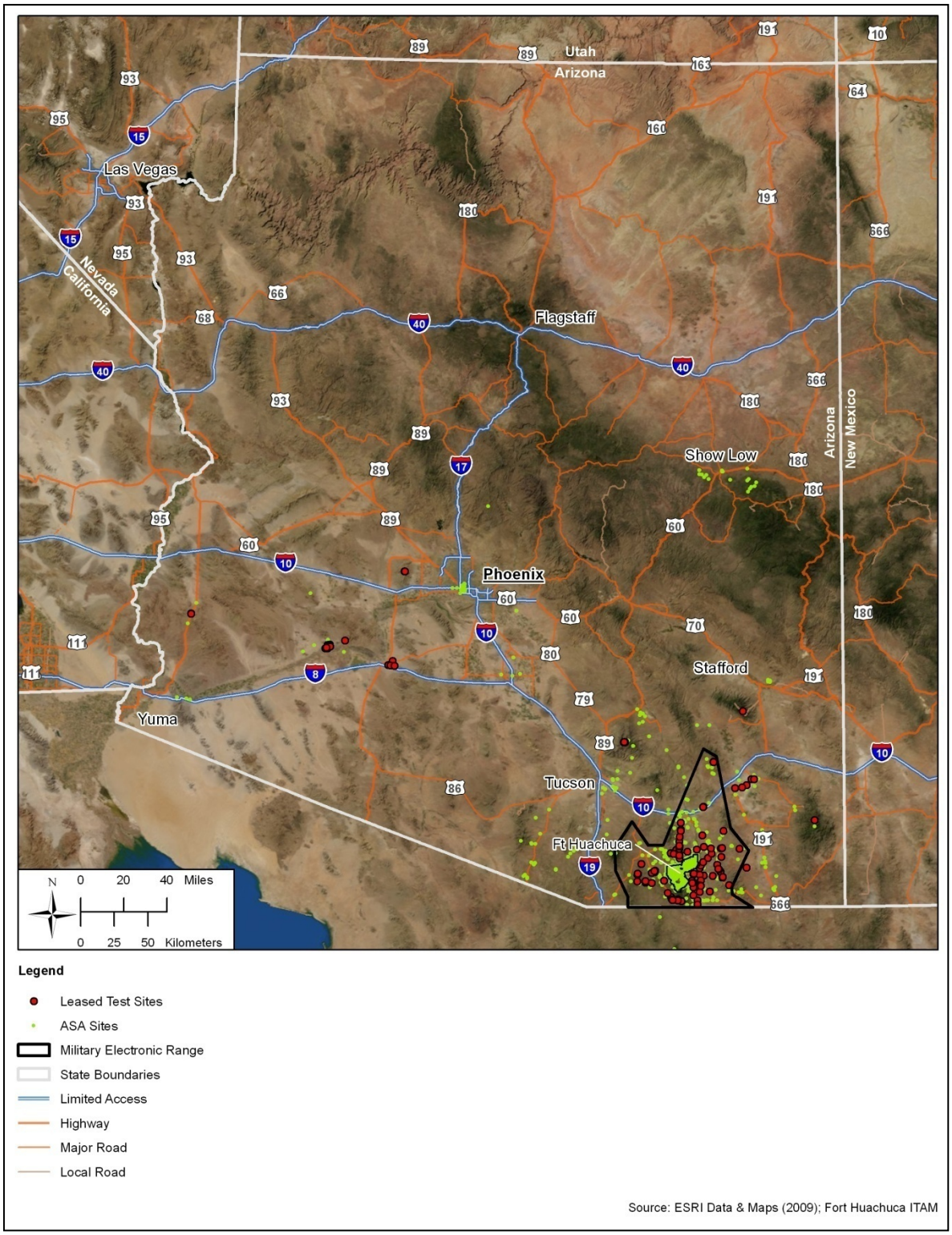

Figure 1.1-3. Statewide Test Sites

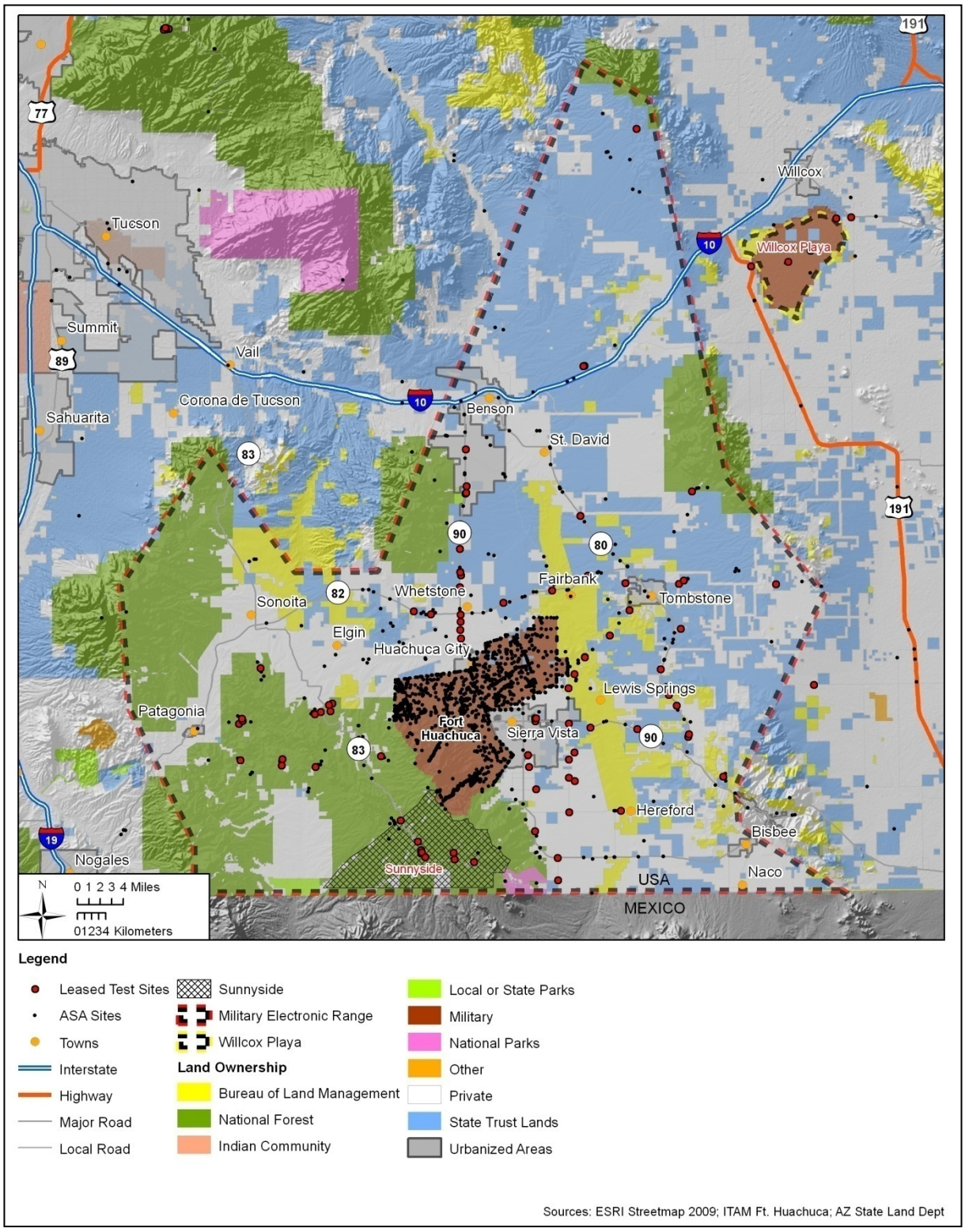

Figure 1.1-4. Regional Test Sites

Ongoing EPG testing activities both on-post and off-post have already been evaluated in a number of different National Environmental Policy Act (NEPA) documents over the past 20 years. None of these previous NEPA documents found a potential for EPG testing activities to result in a significant threat to the human or natural environment (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b). However, the EPG is a dynamic and ever-changing program with a commitment to be a proactive steward of environmental resources. Considering those factors and the length of time since the previous programmatic NEPA process was completed, EPG has commissioned this Programmatic Environmental Assessment (PEA) to evaluate the potential for future environmental impacts. This PEA is broad enough in scope to provide an updated evaluation of potential impacts of future unknown actions that are comparable to the existing projects and activities identified in this document.

1.2 Purpose and Need for Action

Fort Huachuca's surrounding topography, geology, and relatively isolated location create a unique EM interference-free environment, making it ideally suited for electronic equipment testing. Due to Fort Huachuca's distinctive operational setting, the communications and electronic equipment testing function of the EPG moved to the Installation in 1954. The dual testing and training use has made Fort Huachuca a unique spectrum asset for the Army.

Approximately 2,400 test sites are located across Arizona to support EPG testing. EPG requires the continued and expanded use of test sites in support of military testing involving the use of electronic equipment such as sensors, radios transmitters, and jammers. Test sites are used for record testing at repetitive, known locations and to add record keeping capabilities for electronic systems testing. Test Officers attempt to position most equipment on Fort Huachuca test sites, but require off-post sites to test the capability of electronic systems to operate under a variety of geographic and atmospheric conditions. Approximately 1,600 test sites are within Fort Huachuca and an additional 800 test sites are outside the Installation boundaries (Figures 1.1-2 and 1.1-3). Most sites are approximately 100 ft by 100 ft (10,000 sf) and are established around an ASA marker. Some tests require more space, therefore EPG leases a number of larger off-post areas to meet its testing needs.

Fort Huachuca's unique EM testing environment and the regional distribution of test sites provides EPG and the U.S. Army with testing capabilities not easily replicated anywhere else. These capabilities make EPG at Fort Huachuca a crucial military testing asset to ATEC, the U.S. Army and the DoD. Implementation of an emerging and changing testing program may require the continued and expanded use of on-post and off-post test sites, as well as the creation of additional sites. These new locations will be required to support future testing activities as electronic equipment technology continues to evolve.

1.3 Regulatory Framework

Congress enacted 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 PEA 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 Environmental Assessment (EA), PEA 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.

A purpose of this PEA is to update and consolidate the 1992 EA titled *U.S. Army Electronic Proving Ground Communication-Electronic Testing and Use of Test Sites in Southern Arizona and Fort Huachuca*, the 1993 EA titled *Military Training and Communications-Electronics Testing at Fort Huachuca*, the 1997 EA update titled *Renewal of Six Joint-Use Property Leases in Support of the U.S. Army Electronic Proving Ground,* and the 1993 EA titled *Renewal of a Lease of a 40-Acre Property on the Tombstone Municipal Airport, Arizona to Support the USAEPG Test Mission*. Other purposes of this PEA are to provide additional evaluation of the Sunnyside Test Site as well as programmatic evaluation of future EPG testing requirements that may require new test sites throughout Fort Huachuca and/or the State of Arizona.

1.4 Use of this Programmatic Environmental Assessment

This PEA analyzes and documents potential environmental impacts associated with the Proposed Action and Alternative, relative to the No Action Alternative. EPG will use this PEA to determine whether a Finding of No Significant Impact (FNSI) is appropriate or if a Notice of Intent (NOI) to prepare an EIS should be issued for future EPG testing requirements involving new test sites both on Fort Huachuca and within the State of Arizona.

1.5 Public Participation Opportunities

In keeping with established Army policy to provide a transparent and open decision-making process, EPG and Fort Huachuca will make this PEA 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 PEA 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 will be issued upon completion of the 30-day review period and consideration of all comments received during the 30-day comment period.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

EPG requires a dynamic set of testing capabilities including the continued and expanded use of test sites, both on-post and off-post, in support of military testing involving the use of electronic equipment. EPG tests of electronic equipment usually require realistic placement of electronic equipment over a wide area. Most sites are approximately 100 ft by 100 ft (10,000 sf) and are established around an ASA marker. However, many tests require a larger area. The off-post test sites can be classified as “basic” or “larger than basic”. The larger test sites allow more of the typical activities to occur at a single location.

Typical Equipment Used

The physical components of testing systems typically consist of military heavy-duty four-wheel drive vehicles, civilian-type 1-ton vehicles, and on very infrequent occasions, military 5-ton trucks. The vehicles can be equipped with an electronic equipment shelter or used to move Soldier-transportable systems that can be carried by a team of operators. Trailer-mounted systems may be moved to and from a testing location by vehicle.

Electrical power sources for field tests may be commercial-type generators (similar to “Honda” portable generators) operated on the ground, vehicle-mounted, or trailer-mounted. The power output of these generators ranges from 1 kilowatt (kW) to 60 kW. Equipment that can be transported by Soldiers may be powered by lithium batteries of several sizes and makes.

During some tests small portable equipment shelters made of plywood could be placed near selected test sites. These shelters provide both protection from weather and physical security to test equipment. Use of shelters would replace the need for Soldiers or contract personnel to monitor the equipment during the long-term tests. This would conserve the fuel and minimize the number of vehicles and personnel required to perform the test. On-post placement of the shelters would be coordinated with the Fort Huachuca Range Control Office.

Typical Electronic Frequencies

Several types of transmitting antennas may be used, from small vehicle- or system-mounted whip antennas, to ground-mounted antennas, which can be raised to a height of 35 meters. The erection of some antennas will consist of driving stakes in the ground for the attachment of guy wires. Other antennas would be compact and hand-carried or vehicle mounted.

Transmitted frequencies range from very low frequencies to more than 400 GHz. All frequencies are coordinated with the Fort Huachuca Area Frequency Manager and the Federal Communications Commission (FCC) to minimize the risk of interference with other military organizations or with civilian activities. Low frequency (LF), medium frequency (MF), high frequency (HF), very high frequency (VHF), or microwave electromagnetic signals may be transmitted and received. Signals may be received and transmitted in relay across the great distances made possible by the staggered deployment of the test vehicles.

Typical Personnel and Mobile Testing Units

At the time of a test, vehicles and personnel could be deployed to any combination of test sites in the field. The number of testing units and associated ground vehicles vary from test to test.

Test activity often involves transporting personnel with tactical radio equipment to a number of test sites. Tests could require personnel to walk cross-country where permitted to other test sites. These tests evaluate the radio equipment's capability to operate while moving through varied terrain. Some radios currently in use by the Army in the field are tested to evaluate engineering improvements.

EPG also supports tests of aircraft electronic systems that may transmit to, or detect and locate radio transmitters on the ground. The EPG Range Support Division may provide group sites for stationing a network of ground radio transmitter vans for these tests. Radio transmitters would be housed in vehicles that are driven to test sites as described for other ground-based tests. The airborne system would attempt to detect the selectively "counter" radio transmissions from the network of ground transmitters. The frequency emitted from the airborne equipment and pattern of jamming transmissions would be designed to minimize interference with other activities and would be approved by FCC.

Typical Testing Times

Tests are conducted by dispatching equipment to a selection of test sites that meet the geographic distribution requirements of a particular test. Test personnel or equipment may be stationed at a point on or off the Installation for longer periods, but equipment operators and the vehicles usually return to Fort Huachuca each night. If personnel must be stationed at remote sites for more than about 4 hours, portable toilets are provided and maintained through a civilian service contract.

EPG tests may be performed on Fort Huachuca or off-post at any time of the year, 7 days per week, and 24 hours per day. Typical tests are from three to 30 days and others can last longer. EPG estimates about 50 field tests are performed annually.

Sunnyside Test Site

Sunnyside Test Site is a larger and newer addition to the list of off-post test sites. This approximately 100-acre test site includes a fenced compound approximately 200 feet by 200 feet (0.92 acres). Testing activities occur within this fenced area and other distributed test sites. Activities often involve the use of support wheeled vehicles, convoying over stretches of existing Forest Roads 48, 227, and 61. During the activities, temporary self-contained shelters are often placed alongside the roadways and moved from road to road as necessary.

The physical components of the testing typically include a mobile trailer used as a base office along with the parking of support vehicles, communication shelters, generators—two to three depending on power equipment requirements—and potentially a 5-ton vehicle mounted crane,

which is used to move the communication shelters. As many as 20 vehicles and 50 support personnel would be deployed in support of the tests at this site.

Tests that occur at Sunnyside include electronic sensor and jamming techniques with varying intensities of power up to 100 watts maximum. The maximum power would be experienced infrequently. It is understood that at this site, the higher power intensities have potential to affect communications equipment within the area. It is possible that frequencies used by the U.S. Forest Service (USFS), Border Patrol and some Mexican authorities may be affected in the immediate area. The frequency issues at Sunnyside, for security purposes, would not occur outside of approved time frames and /or approved conditions. A list of mitigation measures taken to avoid interference with frequencies would be provided to the USFS District Ranger prior to start of any activity. Testing time frames at Sunnyside would be approximately 10, 3-week activity periods annually.

New Test Site Selection Process

Based on testing requirements, EPG would determine if a new test site is required. Selection of a basic site is test driven, while the selection of a larger, leased property, (often containing multiple test sites) is influenced by both test and mission requirements. Once a site is located that meets EPG's requirements, a qualified EPG technician is sent to the location to perform a cursory review and survey the location. Information on the condition of the property is provided to the EPG Environmental Coordinator to determine whether additional surveys or inspections are required prior to its use. After the review, a lease, if required, is obtained and an environmental review is completed. When necessary pursuant to lease conditions, additional environmental review may be required.

Renewable Energy Commitment

Executive Order (EO) 13423, Strengthening Federal Environmental, Energy and Transportation Management requires federal agencies to ensure that at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources, and to the extent feasible, the agency should implement renewable energy generation projects on agency property for agency use. EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, expands federal agencies' requirements for energy reduction and environmental performance that are identified in EO 13423. In addition, the Energy Policy Act (EPACT) of 2005 (Public Law 109-58, Section 203) requires, to the extent economically feasible and technically practicable, that the total amount of electric energy consumed by federal agencies should come from renewable sources in amounts not less than 3 percent in fiscal years 2007 through 2009; not less than 5 percent in fiscal years 2010 through 2012; and not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter.

EPG intends to implement the use of renewable energy resources in accordance with EO 13423, EO 13514, and the EPACT of 2005. Projects will be proposed based on economic feasibility, technical practicability, and environmental considerations. Fort Huachuca currently has several renewable energy projects that have been completed or initiated. Many of the

existing projects have been relatively small in scale, primarily conducted as trials, pilots, and research. EPG and the Fort will consider the use of renewable energy sources and production devices to support the EPG mission and may use a variety of different systems for each of the renewable energy sources being considered. Siting for the renewable energy systems would be on a case-by-case basis, particularly for those likely to include projects such as wind turbines and large-scale solar systems. EPG and the Fort would base decisions on site-specific resource assessments that identify energy production potential as well as environmental considerations, such as visual impacts and natural and cultural resources. Decision-makers would consider all elements of the military mission to ensure that there are no impacts to training or operations. EPG may choose to partner with a contractor, local power provider, or developer to install and operate the systems. EPG may also provide Fort Huachuca with system testing and natural resource impact evaluation from renewable energy resource projects.

2.1 Proposed Action

The Proposed Action involves the continued and expanded use of existing on-post and off-post test sites while allowing for the establishment of additional test sites as necessary. The additional test sites both on-post and off-post would accommodate a wider dispersion of testing activities as electronic equipment technologies continue to emerge and change.

2.2 Alternative One

Under Alternative One, EPG would continue to use all existing test sites but would limit the establishment of new test sites to areas within Fort Huachuca boundaries. While this alternative would be anticipated to result in a significantly reduced testing capability for EPG and deteriorated testing asset for ATEC and the DoD, it is provided as the only reasonable alternative to the Proposed Action for purposes of comparative evaluation.

2.3 No Action Alternative

The No Action Alternative is required under the Council of Environmental Quality regulations implementing the NEPA, and serves as a baseline or benchmark to be used to compare with the Proposed Action and Alternatives. Under the No Action Alternative, EPG testing activities would continue to occur on-post and off-post, but any subsequent establishment of new test sites may require additional independent evaluations under NEPA and other federal statutes as applicable.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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 Council on Environmental Quality (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.

Initial scoping for this EA included a review of *Environmental Assessment for the U.S. Army Electronic Proving Ground Communication-Electronic Testing and Use of Test Sites in Southern Arizona and Fort Huachuca* (USAGFH 1992), *Environmental Assessment for Military Training and Communications-Electronics Testing at Fort Huachuca* (USAIC and FH 1993), and the *Environmental Assessment for the Renewal of Six Joint Property Leases in Support of the U.S. Army Electronic Proving Ground* (USAEPG 1997a) and their findings related to the Proposed Action.

As a result of initial scoping, 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, Soils, or Geology**. The continued and expanded use of existing test sites and creation of new test sites does not involve subsurface exploration, mass grading, soil excavation or transport, or any activity anticipated to impact topographic, soil or geologic conditions on Fort Huachuca or off-post.
- **Hydrology and Water Resources**. The continued and expanded use of existing test sites and creation of new test sites involves only minor quantities of water for the washing of vehicles and equipment upon the completion of testing activities. Bottled potable water is used at test sites for test personnel consumption. No changes to surface or ground water conditions on Fort Huachuca or within the region are anticipated from the use or creation of EPG test sites.
- **Socioeconomics**. The continued and expanded use of existing test sites and creation of new test sites does not involve the creation of new jobs and has at most a negligible effect on local or regional socioeconomic conditions. There would be no disproportionate adverse environmental or health effects on low income or minority populations. No environmental justice impacts are anticipated.
- **Utilities**. The continued and expanded use of existing test sites and creation of new test sites involves only minor consumptive use of electricity on Fort Huachuca where test sites are within proximity to existing electrical supplies. All other test activities at test sites both on Fort Huachuca and off-post are mainly powered by portable generators, batteries or other power sources not associated with local or regional power supply networks. EPG is committed to using alternative energy resources where possible to reduce testing impacts on energy consumption. Potential impacts to wireless communication systems as a result of EPG testing activities are addressed under Health and Human Safety. No other utility is anticipated to be affected.

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

3.1 Land Use

3.1.1 Affected Environment

One of Fort Huachuca's unique operational roles for the DoD includes EM testing and training. The metal-bearing mountain chains surrounding Fort Huachuca create a unique topographic "bowl" that blocks external EM interference within the basin. This creates an ideal location for electronics testing and training. The natural topography provides the flexibility of using both military and commercial spectrum for operational and developmental testing.

3.1.1.1 On-post

Fort Huachuca Military Installation is located in the City of Sierra Vista, in the southwestern portion of Cochise County, Arizona. The Installation is operated by IMCOM West and is home to many tenants, including the U.S. Army EPG.

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 and multiple EPG test facilities including the open air antenna testing range, 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 aviation complex, multiple Military Operations on Urban Terrain (MOUT) sites, and numerous electronics testing sites such as the E3 Test facility. 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.

The limited amount of developed land that surrounds the Installation provides an EM environment that is an unparalleled asset for testing. Due to the operational setting, the communications and electronic equipment testing function of the EPG moved to Fort Huachuca in 1954. The dual testing and training use made Fort Huachuca a unique spectrum asset for the Army. An area surrounding Fort Huachuca known as the Buffalo Soldier Military Electromagnetic Range (MER) is one of the only U.S. locations where regional electronic equipment testing can be effectively conducted. The MER is a frequency coordination zone protected by federal mandate (JLUS 2007). The EM environment is also a critical resource for many other tenants and organizations operating on the Installation and plays a vital role in the success of testing missions conducted by EPG.

To help ensure compatible land uses between on-post military activity and surrounding development, a Joint Land Use Study (JLUS) was developed through a collaborative effort between Fort Huachuca and other stakeholders. The study was finalized in June 2007. Compatible land use agreements between all stakeholders are accomplished using a cooperative program of affected jurisdictions in Cochise and Santa Cruz counties that have the authority to implement land use regulations, along with Fort Huachuca and other interested parties (JLUS 2007). The JLUS identified operations occurring at the Installation that extend beyond the boundaries of the Fort and into the surrounding communities, including uses of the EM environment.

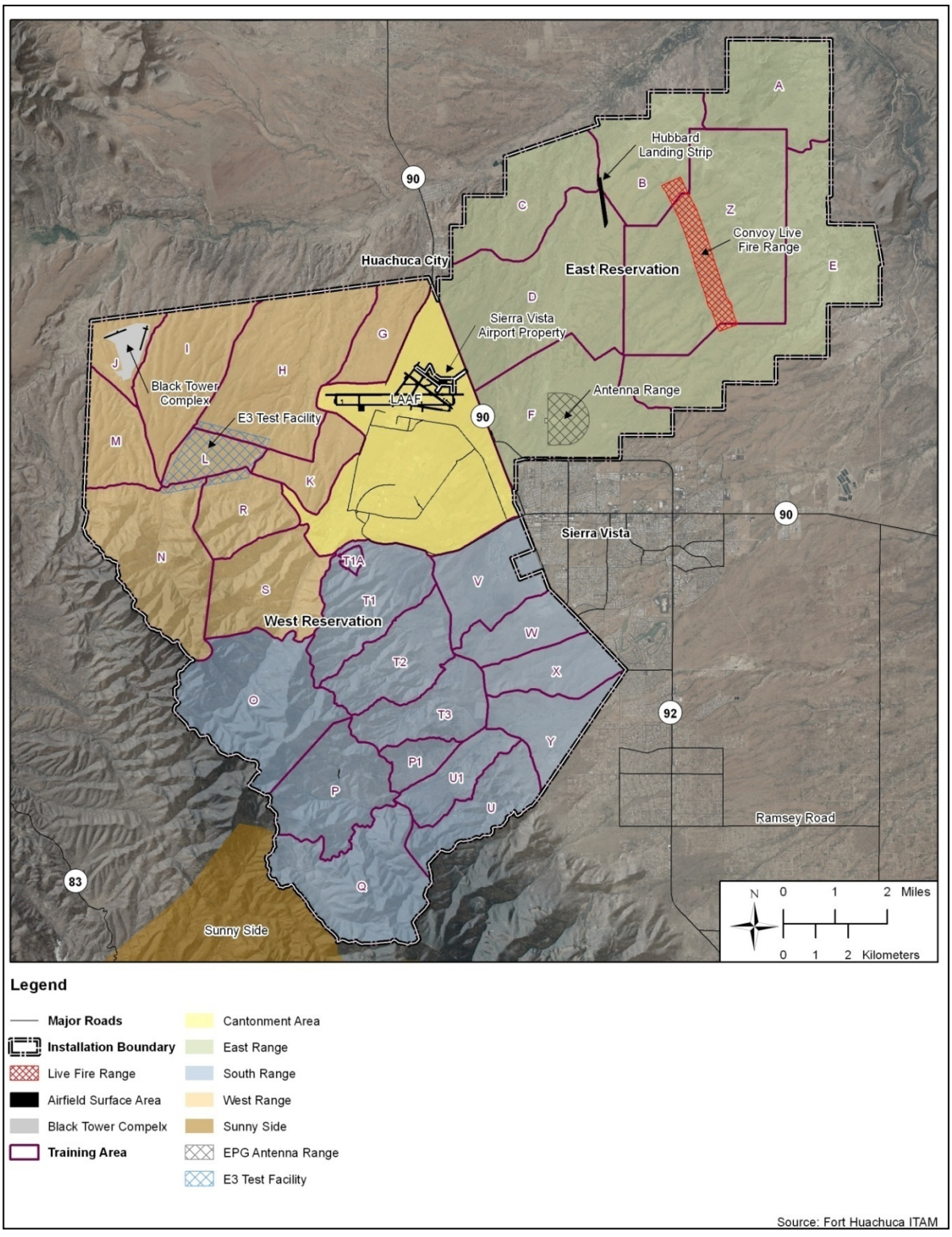

Figure 3.1-1. Range Base Map

East Range

Figure 3.1-1 depicts the East Range, which is located on the 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 these lands 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).

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, a former impact area, and six drop zones (DZ) are located within the training areas on the East Range. When live-fire exercises occur, electronic testing and training activities are restricted in training areas Alpha, Echo, Delta and Bravo, depending on the mission. Impact area Zulu is a 6,954-acre impact area that was historically used for various types of self-propelled artillery and mortars and is always closed to training activities other than CLFR (USAGFH 2010). Weapons intelligence training and electronics testing is typically conducted outside impact area Zulu. The main open air Antenna Test Facility (ATF) is also located on the East Range and is used to measure the electrical performance of antennas either as a “stand alone” configuration or when mounted on ground or air vehicles. The ATF compound encompasses 300 acres dedicated for open air testing.

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. Table 3.1-1 summarizes land use by area, which includes the following classifications: Administrative Facilities; Airfield; Community Facilities; Family Housing; Troop Housing; Transient Housing; Industrial; Maintenance and Supply/Storage; Medical Facilities; Open Space; Outdoor Recreation; Research, Development and Testing; and Training Areas (USACE 2008).

Table 3.1-1. Cantonment Area Land Use

Land Use	Area (acres)	Percent
Administrative Facilities	201	2.1
Community Facilities	303	3.2
Family Housing	611	6.4
Industrial Maintenance & Supply/Storage	394	4.1
Manufacturing Production	191	2.0
Medical Facilities	40	0.4
Airfield	1711	17.9
Open Space	3,336	34.9
Outdoor Recreation	368	3.8
Development & Testing	198	2.1
Training Areas	2,072	21.6
Transient Housing	62	0.6
Troop Housing	85	0.9
Total	9,572	100

*Source: Real Property Master Plan (USACE 2008)

The majority of the buildings and facilities located on Fort Huachuca are within the Cantonment Area and fall into the remaining land use categories found in Table 3.1-1. These facilities and associated personnel provide the functions required to operate and maintain the Installation including wastewater treatment, solid waste management, transportation networks and infrastructure, Installation access points, power distribution, fuel distribution, and hazardous waste management. Military barracks, bachelor/guest quarters, transient billeting, and family housing, as well as associated support facilities including dining, health care, and other services, are also located within the Cantonment Area (USACE 2008).

Two outdoor training facilities are located within the Cantonment Area: an obstacle course and a confidence course. The obstacle course is designed to challenge the Soldier's motor skills and physical conditioning while the confidence course provides a more difficult challenge intended to increase the Soldier's confidence in their mental and physical abilities (USAGFH 2009).

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 2010). LAAF, included in the airfield land use category, occupies roughly 17.9 percent of the Cantonment Area.

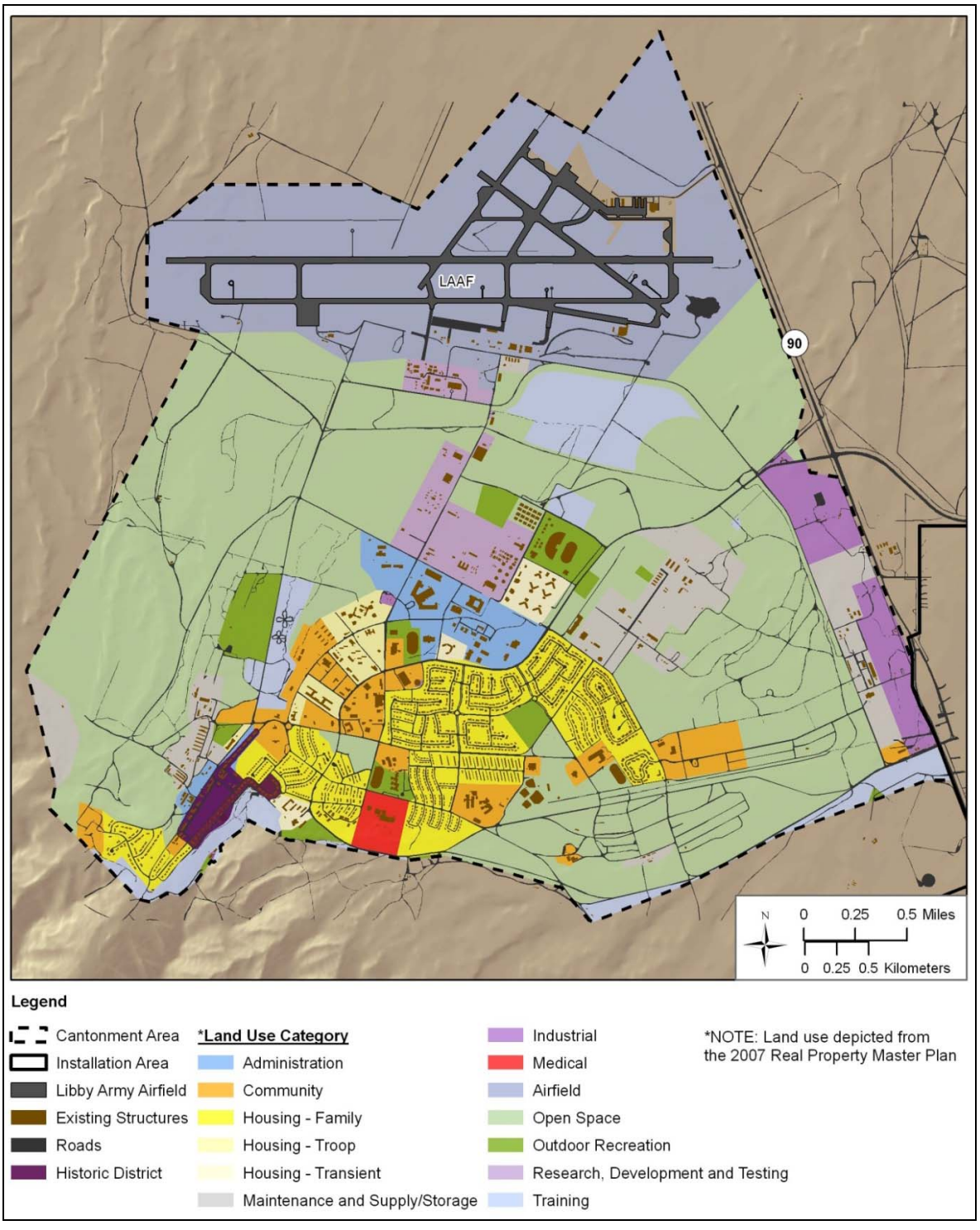

Figure 3.1-2. Cantonment Area Land Use

West Range

The West Range, which includes approximately 16,000 acres, is located in the West Reservation, and is used primarily for tactical training, Unmanned Aerial System (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.

The West Range is divided into Training Areas Golf, Hotel, India, Juliet, Kilo, Lima, Mike, November, Romeo, and Sierra. Testing and training activities that occur on the West Range include intelligence and communications testing and training 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 Joint Services UAS Training Complex is located in Training Area Joliet (USAGFH 2010). The E3 Test Facility is also located on the West Range.

South Range

The South Range includes approximately 23,000 acres, and is located in the West Reservation, (Figure 3.1-1). The South Range is used primarily for intelligence training, equipment testing, and small arms ranges. 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 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 2009).

Range Utilization

Among other factors, the varying topography, isolation and unique electromagnetic testing environment make Fort Huachuca an ideal location for EM testing. However, these conditions are also favorable for a variety of other military testing and training operations, which makes Fort Huachuca a busy military Installation. As illustrated by a FY2009 range utilization report, Fort Huachuca training areas are heavily occupied by various testing and training missions under normal operation. The FY2009 range scheduling information for each training area was summed to represent an overall count of annual testing and 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. Training areas Papa and Uniform located at lower elevations on the South Range receive the most use with more than 150 events annually.

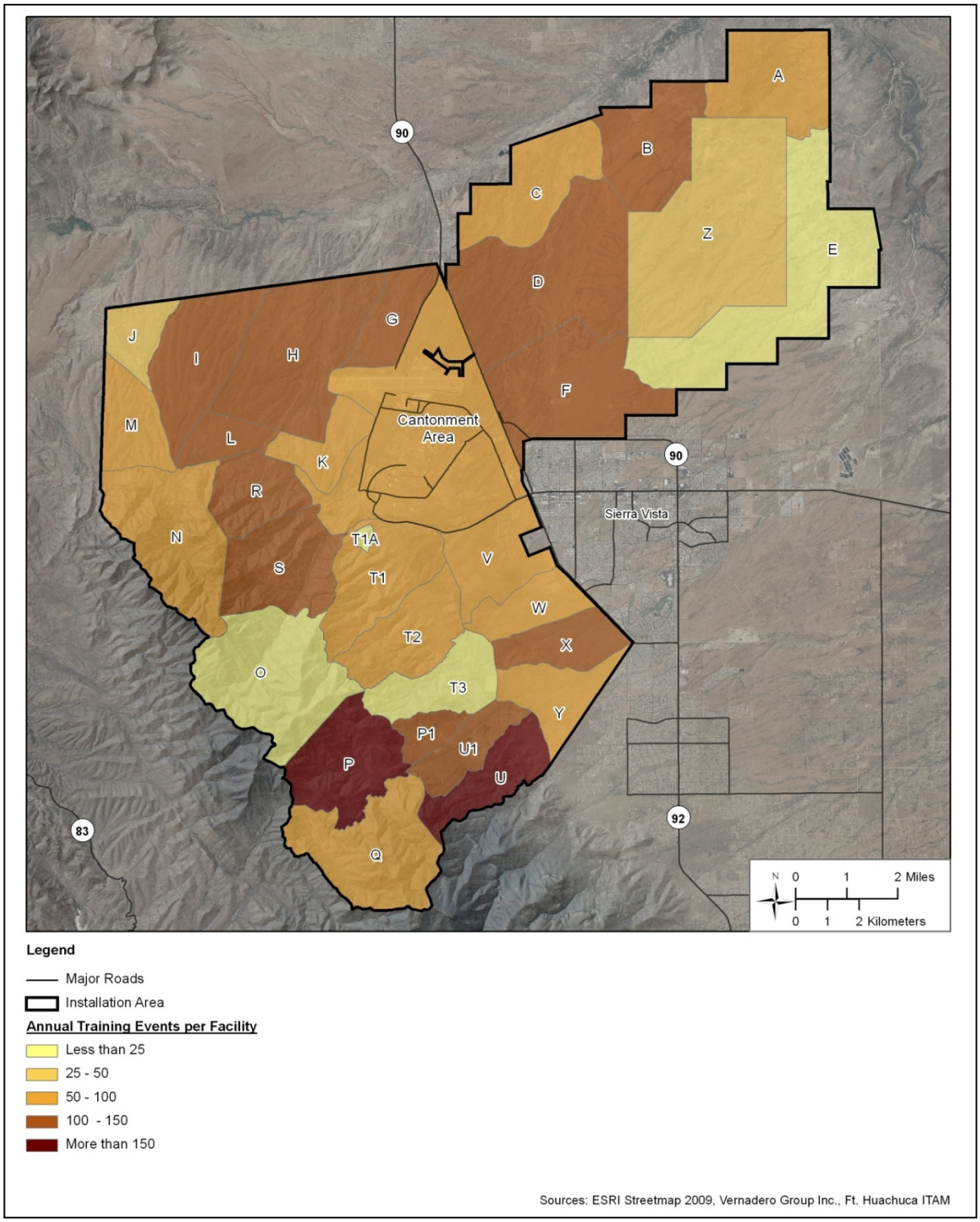

Figure 3.1-3. Range Utilization

3.1.1.2 Off-post

Although EPG conducts a great deal of their EM testing within the bounds of Fort Huachuca, other tests require a wider geographic dispersion than can be accomplished on the 73,000 acre Installation. To meet this requirement, EPG regularly conducts testing at more than 800 off-post test sites that span across Arizona. In addition to the smaller, 10,000 sf test sites, EPG leases larger, off-post test sites, which include: Sunnyside, the Tombstone Municipal Airport, Site Sibyl, the Winchester Site, Keller Road Site, Gleeson Road Site and several sites within the Wilcox Playa (Figure 3.1-4).

Due to the nature of EM testing, signals that originate near the test site have the potential to affect other electronics systems nearby. Likewise, consumer electronics, such as cell phones, also have the potential to create EMI and adversely affect the success of EPG's testing missions. Thus, compatible land use within the proximity of both Fort Huachuca and off-post test sites is critical in maintaining EPG's testing environment.

More than 90 percent of Cochise County is designated as rural area and agriculture remains the dominant land use (JLUS 2007). Land use and development for Cochise County is guided by the Cochise County Comprehensive Plan and Zoning and Subdivision ordinances.

Sierra Vista is the largest city in Cochise County, encompassing 139 square miles, including the 114 square miles that make up Fort Huachuca. Outside the Installation, Sierra Vista is urbanized and is near complete build-out. The City of Sierra Vista and Cochise County signed a Joint Planning Agreement in 2002 and incorporated the Agreement into the City's Vista 2020 General Plan, which guides future development within the City (JLUS 2007). Huachuca City is located in southwest Cochise County and borders Fort Huachuca to the north and east. The County of Santa Cruz is located to the west of Fort Huachuca and is the smallest county in Arizona. Overall, development in the county has mostly been along the Santa Cruz River and development trends indicate that future development will be limited, leaving most of the County as open space (JLUS 2007). The Coronado National Forest, which includes a leased training area known as Sunnyside, is located to the west and south of the Installation.

Land use is typically governed by the county or municipality in which it occurs. In some cases, land use is further defined by plans specific to a limited geographic area, which is often seen in the case of land grants in Southeast Arizona. Agencies and entities controlling land also have the authority to regulate land use, including the Department of Defense, Fort Huachuca, Bureau of Land Management, USFS, State Lands, etc. The types of planning vehicles that may direct land use include comprehensive plans, general plans, specific plans, and studies that address specific issues in a given area such as the Joint Land Use Studies that have been prepared for Pima and Cochise counties.

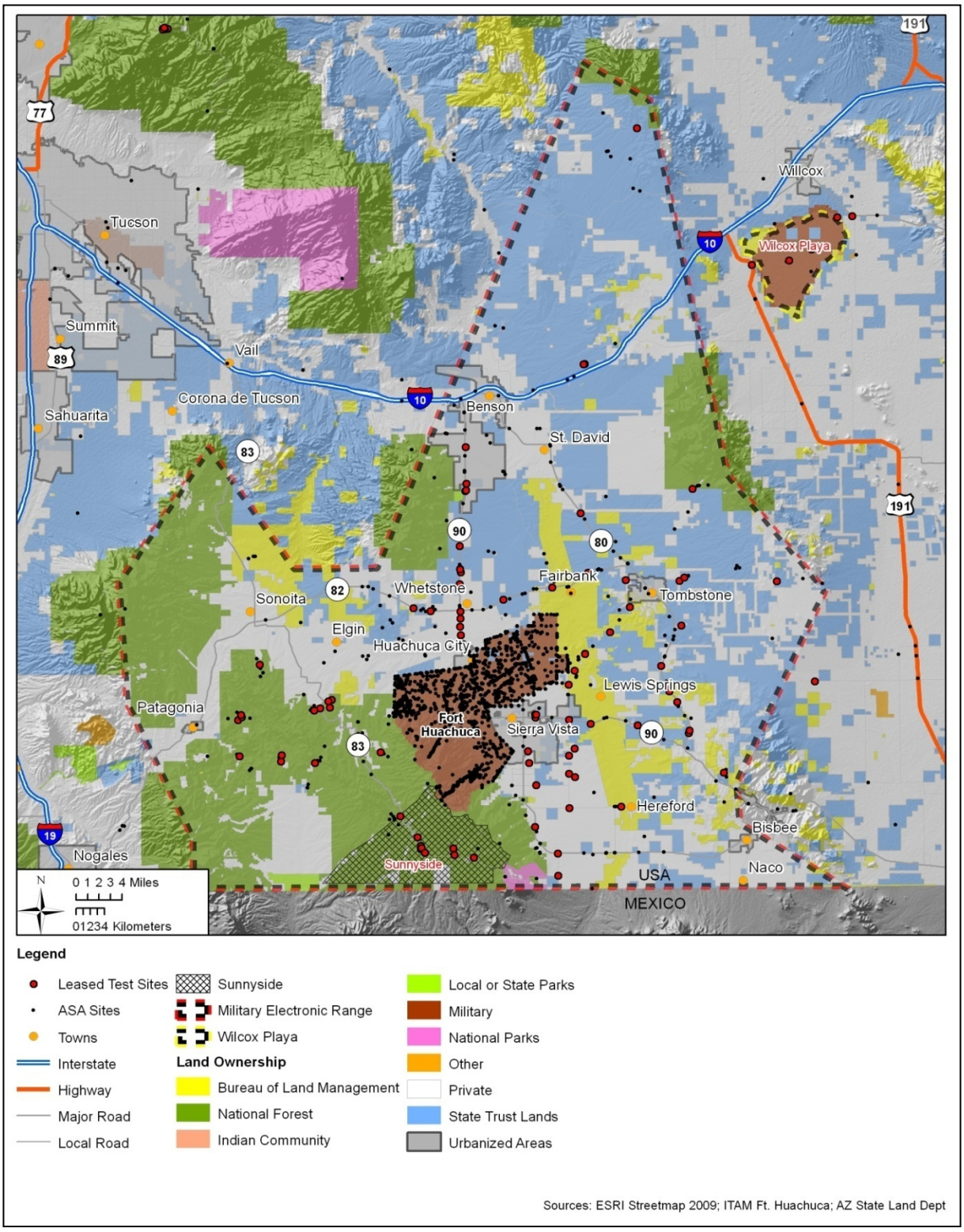

Figure 3.1-4. Military Electronic Range

As a federal entity, Fort Huachuca is not subject to local zoning regulation, but the Installation makes an effort to be a good neighbor. As part of the Arizona Military Regional Compatibility Project – a proactive endeavor to address land compatibility issues at military installations statewide – Fort Huachuca partnered with Cochise County, Santa Cruz County, the City of Sierra Vista, the Arizona Department of Commerce, and other local organizations to develop a JLUS that was issued in June 2007 (JLUS 2007).

The Military Electromagnetic Range

The development of land and urbanization within the MER indirectly threatens the success of EPG's EM testing at Fort Huachuca. Population growth and urban development brings about an increased likelihood of civilian-military EM incompatibility. Since all wireless devices can transmit and/or receive EM, interference in the exchange of energy between the transmitter and receiver can result in abnormal operation of testing and training instrumentation, especially wireless internet and commercial cell phone activity.

The Arizona legislature recognized the need to protect military testing in the state and passed legislation to formalize and protect the area around Fort Huachuca from EM interference. Senate Bill 1387, section 37-102, established the requirement of identifying the boundaries of the 1.6 million acre MER. This boundary was determined and released by the State Land Department (Figure 3.1-4).

Senate Bill 1387 requires real estate disclosure for properties that occur within a military training range. This bill requires the Department of Real Estate to authorize the sale of lots/parcels within a subdivision to include, in writing, whether the land is within the MER of a military base. The department must record documents that disclose land contained in a MER with county recorders. Maps delineating the area of a MER are posted on the Department of Real Estate and State Land Department websites.

MER Land Ownership

Major land ownership within the MER can be divided into four principal classifications: federal, state, municipal, and private. Land ownership in the study area is shown in Figure 3.1-5. Table 3.1-2 provides a summarized record of property ownership within the MER boundaries. Outside the boundaries of Fort Huachuca, a majority of the land (approximately 60 percent) is divided evenly between State Trust and Private holdings. Federal land holdings within the MER testing areas account for another 38 percent of major land holdings. Statewide legislative trends starting in the 1980s transitioned from leasing rural land for natural resource production to selling State Trust Lands near urbanized areas for larger profit. The development of State Trust Land tied to population growth and the expansion of urban areas are creating issues of compatibility that affect the ability of the installations to carry out their present and future missions (JLUS 2007). Urbanization of State Trust Lands adjacent to Fort Huachuca could create noise and EM related compatibility issues due to private and commercial wireless use.

Table 3.1-2. MER Land Ownership in Acres

Owner	Acres
City of Patagonia	792
City of Bisbee	1,622
City of Huachuca City	1,730
Local or State Parks	3,932
National Parks	3,936
City of Tombstone	3,988
City of Sierra Vista	16,985
City of Benson	25,316
Military	79,639
Bureau of Land Management	126,161
National Forest	396,948
Private Land	477,011
State Trust	484,453
Total	**1,622,514**

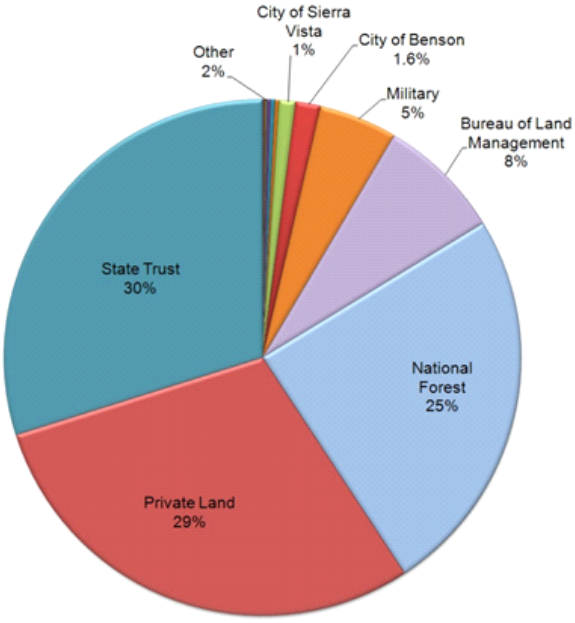

Figure 3.1-5. Percent of Total Land Ownership within the MER

Test Sites

As mentioned previously, EM testing is also performed off-post within the MER and throughout the state of Arizona. Test sites are used for record testing at repetitive known locations and to add record keeping capabilities for electronic systems testing. Test sites give the ability to document a variety of geographic and atmospheric conditions at predetermined testing locations. A test site is typically identified by an ASA surveyed marker. Approximately 1,600 test sites are within the Fort Huachuca training ranges and an additional 800 test sites are on lands outside the Installation boundaries (Figure 3.1-6).

Testing is conducted by dispatching electronic equipment to a selection of test sites that meet the requirements for the testing to be conducted. On-post sites are located across the Installation along existing roads and trails and previously disturbed areas. Off-post sites are usually located within the road right-of-way shoulders along several highways in Cochise and Santa Cruz Counties. The remaining off-post sites are located in previously disturbed areas.

Test Sites and Land Ownership

Out of roughly 2,400 test sites across the state of Arizona, more than 800 are located outside of Fort Huachuca. Table 3.1-3 summarizes the total number of test sites by land owner. If the ASA site is located off-post, it is either within a land easement, in the right of way alongside federal, state and local highways or on a leased parcel of land. Private land contains the greatest number of test sites outside of Fort Huachuca. Much of the private land is inside municipalities, which could directly threaten the ASA site, should further urban development occur. Test sites located near urban areas also have a greater likelihood of being affected by EM interference, as residential internet routers and consumer electronics are likely to be within close proximity of the testing location. Urban development pressure near existing test sites has the potential to not only influence current electronics testing, but should the site be relocated, historic data recorded at the location would no longer serve as a comparative baseline for future testing.

Table 3.1-3. Test Sites by Land Owner

Land owner	Number of Test Sites
Bureau of Land Management	63
National Forest Service	152
Indian Reservation	4
Local/State Park	5
Military	1657
National Parks Service	4
Other	1
Private	322
State Trust	167
Wildlife	13

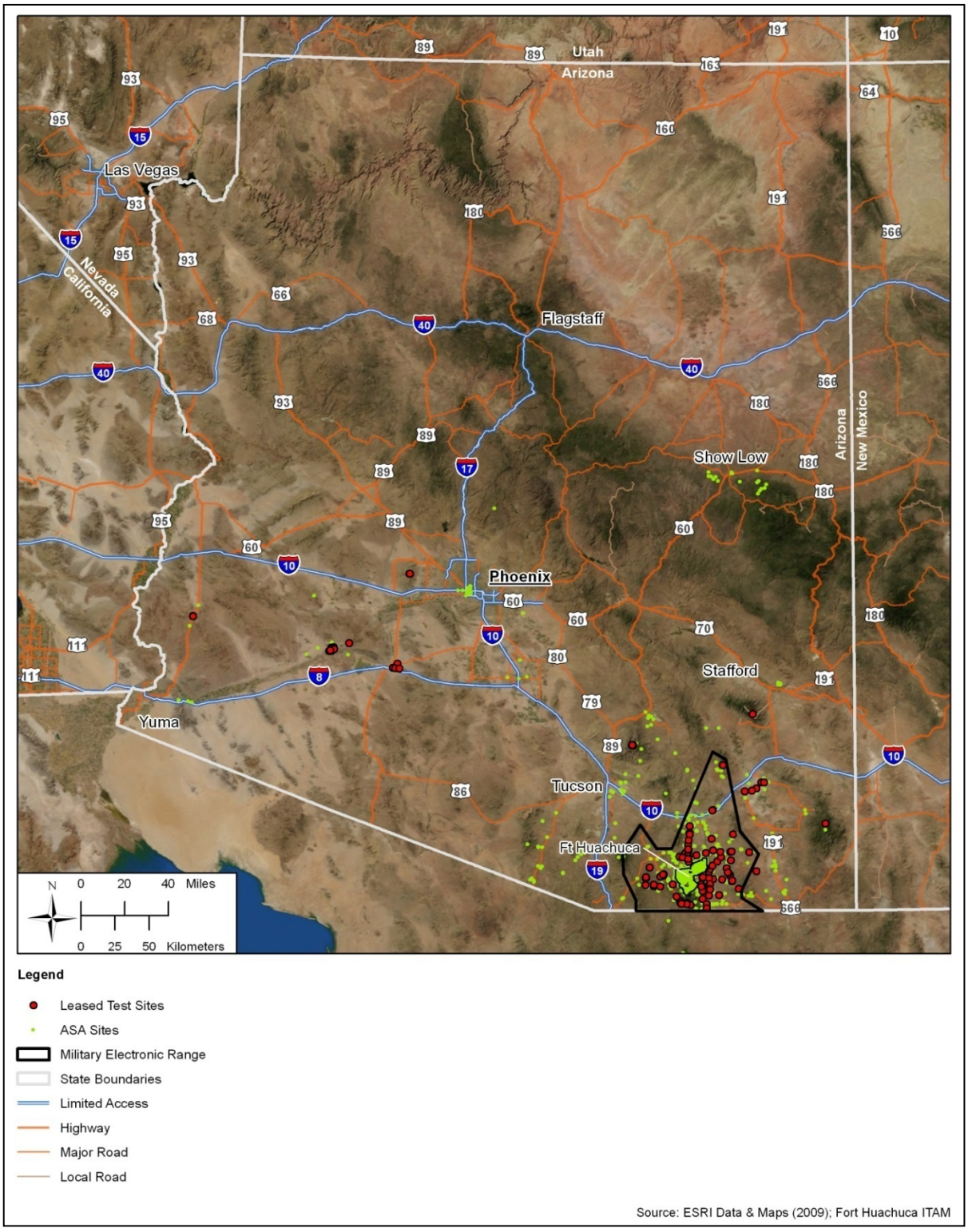

Figure 3.1-6. Test Sites in Arizona

In addition to off-post EM testing that is conducted at test sites, larger parcels of land are also required to meet testing needs. Depending on the test being conducted, EPG utilizes several larger scale testing areas within the MER. The leased test sites vary in size from less than 1 acre to more than 25,000 acres, the size of the Wilcox Playa. Another large scale testing location is the Sunnyside area, just south of Fort Huachuca. The location of all leased testing areas is shown in Figure 3.1-6.

Wilcox Playa and portions of Sunnyside are leased by Fort Huachuca to support the capacity and capability of EM infrastructure. Once known as the Willcox Dry Lake Bombing Range, Willcox Playa is now an extension of Fort Huachuca's long range testing capability. Willcox Playa is located roughly 40 miles northeast of Fort Huachuca, near the town of Wilcox, Arizona. The Sunnyside area is located southwest of the Fort, and includes portions of the Coronado National Forest (Figure 3.1-4). The location of the Sunnyside area provides an extremely quiet EM environment as it is shielded on the north by the Huachuca Mountains. The Sunnyside area also benefits from the lack of development on the National Forest lands. The Fort, through a use agreement with the Department of Agriculture, plans to use several sites within the Sunnyside area for certain testing and training requirements (JLUS 2007).

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).

3.1.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant direct or indirect impacts to land use either on Fort Huachuca or off-post.

Utilization of on-post test sites located within training areas is scheduled through the Fort Huachuca Training Division of DPTMS using a Range Facility Management Support System (RFMSS). The RFMSS deconflicts training activities on training ranges and minimizes training-related land use conflicts. Through RFMSS, the Fort Huachuca Training Division can schedule and monitor range utilization to reduce military training-related incompatibilities and conflicts amongst the military community. The RFMSS also allows the Training Division to restrict training areas from recreational or non-military activities during testing events. While the potential exists for EPG testing activities to impact training area utilization by other military tenants and organizations, these impacts are minor and managed according to standing mission prioritization guidelines. Short-term restriction of training area access for recreational and other non-military uses will occur during some EPG testing activities. This short-term restriction may

limit access to hiking trails, hunting areas, and other recreational amenities but would result in no change to land use within Fort Huachuca training areas.

Utilization of on-post test sites located within the Cantonment is coordinated through the Fort Huachuca DPW Real Property Manager's office to ensure deconfliction with daily operational activities of the post. EPG testing activities within the Cantonment are not anticipated to affect ongoing mission or operational requirements, capabilities or land uses of the Fort. No change to land use within the Cantonment would result.

Outside of Fort Huachuca, the basic test sites are typically located in previously disturbed areas, within easements along local, state or federal highways and the use of the site is not altered. Temporary access restrictions to the basic test sites may present a minor impact to recreational uses by the general public, but such use is infrequent given the close proximity of the sites to the roadway and existing state and county restrictions on recreational use along roadway rights-of-way. Vehicle access to the test sites could occur using both paved or dirt roads, under permit from the Arizona Department of Transportation and County Highway Departments. EPG testing at test sites along roadway rights-of-way would not require the use of permanent structures and would not alter future land use.

EPG testing activities at larger off-post sites such as the Wilcox Playa and National Forest Lands at the Sunnyside area operate under land leases that stipulate use and operating conditions and do not permanently affect land uses. While the long-term and 24-hour use of these sites can occur which may limit public access to portions or all of these areas during testing events, such use restriction is minor and managed by the land owner in cooperation with EPG.

Regional frequency coordination by EPG and Fort Huachuca will encourage compatible land uses between off-post stakeholders and users of EM resources, amongst others, at Fort Huachuca. As Figures 3.1-4 and 3.1-5 illustrate, the three largest land owners within the MER, an area where most new test sites are likely to be located, include the State Land Department, U.S. Forest Service, and private entities. EPG's future expansion of test sites within the MER will likely involve leasing agreements with one or more of those groups or a state or local transportation agency and land use and EM frequency coordination made a part of the lease agreement as necessary to protect any public or agency-related interest present at the site.

Alternative One

Land use impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post land use conditions and anticipated impacts are expected to remain. On-post land use impacts would be identical to the Proposed Action and less than significant.

No Action Alternative

Under the No Action Alternative, utilization of on- and off-post test sites would continue as status quo with no additional impacts to land use anticipated. There have been no identified significant impacts to land use resulting from the past 57 years of EPG testing activity at Fort Huachuca and within the region (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

Cumulative Impacts

As population growth continues throughout Arizona, so will the conversion of farmlands and rangelands to residential and commercial land uses. Due to the temporary and limited nature of EPG testing activities at test sites and leased locations around the State, these activities are not anticipated to either contribute to, or limit ongoing land use conversion or result in any long-term limit or restriction of use. None of the alternatives are anticipated to contribute to cumulative impacts on land use at the local, regional, or statewide level.

3.2 Biological Resources

3.2.1 Affected Environment

3.2.1.1 On-post

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 2006). 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). Portions of the Cantonment Area that are not considered urban or built-up land consist of shrub-grassland and shrubland.

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.

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 2010).

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. microlophis*) (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) maintains 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. A listing of all the protected species on-post, off-post, and in the Sunnyside area are listed in Table 3.2-1.

Complying with federal environmental and natural resource laws and regulations is also consistent with the Army's commitment to be good environmental stewards but is a separate Command requirement. The 2010 Integrated Natural Resources Management Plan (INRMP) helps Fort Huachuca comply with federal and state laws including laws associated with environmental documentation, wetlands, special-status species and wildlife management by coordinating policy and program implementation (USAGFH 2010). The species are described in detail in the 2010 Fort Huachuca INRMP (USAGFH 2010).

FORMAT PAGE

Table 3.2-1. Special Status Species With the Potential to Occur within EPG Testing Sites

Species	Status	Species Description	Location	Threats to Population
Arizona Treefrog[1] *Hyla wrightorum*	Federal Candidate Species	Small (1.8 inches) green frog with a dark eye stripe that extends past the shoulder sometimes down to the groin. Throat of the male is dusky green or tan. Tadpoles are golden-brown above and below and have mottled black tails (AGFD 2007).	**OP, OFP[2]** Known from less than 20 localities in the Huachuca Mountains, adjacent Canelo Hills, and wetlands at Rancho Los Fresnos in Sonora, Mexico (AGFD 2007). Approximately 30% of breeding habitat occurs on Fort Huachuca with the remaining 70% occurring on the Coronado National Forest (USFWS 2008a).	Habitat loss, mortality due to catastrophic fire, drought or floods, predation by introduced species, and habitat degradation caused by sedimentation and environmental contamination (USFWS 2007a, 2007b).
Bald Eagle *Haliaeetus leucocephalus*	Federally Protected under the Bald and Golden Eagle Protection Act	Large raptor that is dark in color with white head and tail feathers.	**OP, OFP[2]** Bald eagles are known to inhabit estuaries, large lakes, reservoirs, and major rivers. Preferred habitat for nesting is near the coast, large lakes, and along rivers. One record of a bald eagle flying over Fort Huachuca in 1987.	Primary threats to bald eagles include illegal shooting and disturbance or loss of habitat.
Canelo Hills Ladies' Tresses *Spiranthes delitescens*	Federally Endangered (62 FR 665)	Herbaceous perennial and slender erect terrestrial orchids with 5-10 grass-like leaves. Flowering occurs in late July to August.	**OFP[2]** Species is known from five sites at about 5,000 feet in the San Pedro River watershed (Newman 1991, USAIC & FH 2006a). Grows on slopes near water where finely grained, highly organic soil is seasonally or perennially saturated but well drained.	Threats include groundwater pumping, water diversions, sand and gravel mining, recreational impacts, illegal collection, and invasion by non-native plant species (USFWS 2007a).

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Species	Status	Species Description	Location	Threats to Population
Chiricahua Leopard Frog *Lithobates chiricahuensis*	Federally Threatened (67 FR 40789) AZ Species of Concern	Has small cream colored spot or tubercles on a dark pattern on rear of the thigh. Stocky looking, with rough skin on back and sides and overall green coloration on head and back. Length of 2.1 to 4.7 inches (USFWS 2008b)	**OP, OFP[2]** Two disjunct populations of this species exist in Arizona, one occurs in central and east-central Arizona along the Mogollon Rim, and the second occurs in southeastern Arizona and was at one time known as the Ramsey Canyon leopard frog (USFWS 2008b). Species not seen on Fort Huachuca since Tinker Pond dried out in the early 2000s (Stone 2008).	Predation by invasive frogs, loss of genetic variation and demographic stochasticity, as well as habitat destruction and degradation (AGFD 2001a,b).
Cochise Pincushion Cactus *Coryphantha robbinsorum*	Federally Threatened (51 FR 952)	Small, unbranched cactus with no central spines and 11-17 radial spines. Bell shaped flowers are pale yellow-green; fruits are orange-red when ripe but quickly turn dull red (USFWS 2002b).	**OFP[2]** Occurs in the southeastern corner of Cochise County and in adjacent Sonora, Mexico (SFB 1996). Inhabits the cracks of limestone rocks found on hilltops in semi-desert grasslands.	Threats include soil disturbing activities that include vehicular movement, recreational activities, and livestock movement, as well as the introduction of non-native species (USFWS 2002b).
Gila Topminnow *Poeciliopsis occidentalis occidentalis*	Federally endangered (32 FR 4001) AZ Species of Concern	Small, guppy-like live-bearing fish. Males are jet black with yellow fins (USFWS 2008a).	**OFP[2]** Once common in the Rio Yaqui and Gila River Basins, including the San Pedro until the mid to late 1970s (BLM 1989). Inhabits marshes, permanent stream, intermittent streams and cienegas below 4,500 feet.	Threats include habitat destruction and competition with and predation by the non-native mosquito fish (NMGFD1996).
Headwater Chub *Gila nigra*	Federal Candidate Species	Dark gray or brown often with longitudinal stripes on the sides and measures up to 12 inches in length.	**OFP[2]** Historic range was small and limited to headwaters within the Gila River basin including the Tonto Creek subbasin, east-side tributaries in the middle Verde River basin, the upper Gila River, and the San Carlos River basin (USFWS 2006b). Usually found in large pools and are associated with undercut banks, or deep pools created by obstructions.	Primary threats include loss of habitat or degradation due to dams, diversions, groundwater pumping, mining, and livestock grazing, as well as competition and predation from non-native fish.

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Species	Status	Species Description	Location	Threats to Population
Huachuca Springsnail *Pyrgulopsis thompsoni*	Federal Candidate Species Protected by the State of Arizona (AGFD 1993)	Small 0.05 to 0.15 inch long mollusk with a conical-shaped shell that has three to five convex whorls. Occupies shallow areas of springs and cienegas that are typically marshy.	**OP, OFP[2]** Known to occur in up to 16 sites within the upper San Pedro River drainage and the upper Santa Cruz River drainage (USFWS 2010a).	Loss or degredation of habitat due to overgrazing, timber harvest, altered fire regimes, drought, mining, groundwater withdrawal, recreation, and catastrophic fire (USFWS 2010a).
Huachuca Water Umbel *Lilaeopsis schaffneriana* var. *recurva*	Federally Endangered (62 FR 3)	Herbaceous semi-aquatic perennial with slender erect leaves that grow from the nodes of creeping rhizomes. The leaves are segmented and are hollow cylinders that are from 1-9 inches in length depending upon water depth (USFWS 2001c).	**OP, OFP[2]** Found in southeastern Arizona in cienegas and associated vegetation within Sonoran desert scrub, grassland, or oak woodland as well as in conifer forest between 4,000-6,500 feet (USFWS 2001c). Known to occur in up to 16 sites within the upper San Pedro River drainage and the upper Santa Cruz River drainage (USFWS 2010a). Nine populations of this species are located within the higher elevations in Garden, Sawmill, McClure, Huachuca, and Blacktail Canyons (USFWS 1997b, AGFD 1993).	Primary threats include alteration of ground and surface flows, (USFWS 1997a), increased soil erosion, reduced water infiltration (Rinne & Neary 1996), and stability of perennial water systems.
Lemmon Fleabane *Erigeron lemmonii*	Federal Candidate Species	Small, flowering, prostrate perennial with stem that spread 4 to 8 inches in length. It has daisy-like flowers that are white or light-purple with yellow inner petals (Warren et al. 1991a).	**OP[2]** Found growing in dense clumps only on vertical cliffs located at elevations between 6,300 and 6,600 feet in Scheelite Canyon in the Huachuca Mountains (Warren et al 1991a, Tandy 1997).	Vulnerable to impacts of a single catastrophic even or combination of localized events such as drought or wildfire (USFWS 2008a).

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Species	Status	Species Description	Location	Threats to Population
Lesser Long-Nosed Bat *Leptonycteris yerbabuenae*	Federally Endangered (53 FR 38456) AZ Species of Concern	Medium sized bat with yellowish-brown or pale gray above and cinnamon-brown below. Has an elongated nose with a small nose-leaf at the tip. This species is approximately 2.7 to 3.7 inches long (USFWS 2001b).	**OP, S, OFP**[2] Historically extends from central Arizona and southwest New Mexico through Mexico to El Salvador. This species consumes the nectar and pollen of agave flowers and the nectar, pollen, and fruit produced by columnar cacti. This species has consistently been found at Fort Huachuca from late June through October and as late as the end of November (Sidner 2000).	Disturbance and loss of roost and foraging habitat and the taking of individual bats during animal control programs.
Masked Bobwhite *Colinus virginianus ridgewayi*	Federally Endangered (35 FR 8495) AZ Species of Special Concern	Female of this species is virtually indistinguishable from the Texas bobwhite, while the male is characterized by a brick-red breast and black head and throat (USFWS 2002c).	**OFP**[2] Was extirpated from US around 1900 but a refuge population and captive rearing program was established in 1985 at Buenos Aires National Wildlife Refuge in Pima County, AZ. Current population is estimated at 300-500 (USFWS 2002c).	Primary threats include continued degradation and loss of habitat due to overgrazing and competition with other native quail.
Mexican Spotted Owl *Strix occidentalis lucida*	Federally Threatened	Ashy-chestnut brown color with white and brown spots on its abdomen, back, and head. Has dark colored eyes.	**OP, S, OFP**[2] 4 million acres of critical habitat spread across the state of Arizona in 25 different units. Found in steep canyons containing cliffs with stands of live oak, Mexican pine, and broad-leaved riparian vegetation as well as mixed conifer and pine-oak forests (Ganey & Balda 1989). Documented as occurring in 11 PACs at Fort Huachuca. Critical habitat is designated to the south of Fort Huachuca in the Coronado National Forest.	Threats include actions that create forest openings that remove mature or old-growth forests and human activities in or near nesting, roosting, or foraging sites.

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Species	Status	Species Description	Location	Threats to Population
Mt. Graham Red Squirrel *Tamiasciurus hudsonicus grahamensis*	Federally Endangered (51 FR 18630)	Small subspecies of red squirrel that measures 12 inches from tip of the nose to tip of the tail. Fur is brownish-red, with ear tufts and prominent white eye rings. Genotypic differences from approximately 10,000 years of isolation distinguish this subspecies (Sullivan & Yates 1994).	**OP**[2] Limited to the Pinaleño Mountains of southeastern Arizona. Found in mixed-conifer and spruce-fir habitat zones from approximately 7,800 feet to 10,720 feet.	Primary threats include insect damage and fire that adversely affect the red squirrel's habitat or leads to loss of individuals (Koprowski et al 2006).
Northern Mexican Gartersnake *Thamnophis eques megalops*	Federal Candidate Species AZ Species of Concern	Stout-bodied snake that reaches a total length of 18-40 inches with females larger than males. Brown or greenish-brown with a yellow-white stripe running down the back. Secondary stripes run down the third and fourth scale rows on each side of the body (AGFD 2001c).	**S**[2] Ranges from southeastern Arizona and extreme southwestern New Mexico into Mexico. Most abundantly found in densely vegetated habitat surrounding cienegas, cienega-streams, and stock tanks, or along streams in valley floors and generally open areas (AGFD 2001c).	Threatened by the expanding range of introduced non-native species that prey upon and compete with this snake and its prey base. Habitat loss from improper livestock grazing, development, water diversions, groundwater pumping, and climate change is also a significant threat.
Pima Pineapple Cactus *Coryphantha scheeri* var. *robustispina*	Federally Endangered (58 FR 49875)	Hemispherical plant, measuring up to 4-18 inches tall. Spines appear in clusters with a central hooked spin surrounded by 5-16 straight radial spines. Flowers are yellow and appear in early July (USFWS 2000).	**OFP**[2] Found in Pima and Santa Cruz counties east from the Baboquivari Mountains to the western foothills of the Santa Rita Mountains.	Primary threats include illegal collection, habitat degradation due to recreation and overuse by grazing livestock, as well as urbanization, and the import of invasive plants.

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Species	Status	Species Description	Location	Threats to Population
Sonora Tiger Salamander *Ambystoma mavortium stebbinsi*	Federally Endangered (50 FR 665) AZ Species of Special Concern	Black, with yellow spots and stripes, may grow up to 13-inches long. Dependent upon water sources for breeding and larval stages, but capable of developing into branchiate (stay in water entire life) or metamorphosed (terrestrial) adults (USFWS 2002a).	**OP, S, OFP**[2] Found in 53 Ponds in San Rafael Valley of Arizona (USFWS 2002a). Historically inhabits springs, cienegas, streams, or backwaters that contained permanent or nearly permanent water sources. Locally found in Scotia and Copper Canyons, as well as Upper Garden Canyon Pond and the junction of Sawmill and Garden canyons on Fort Huachuca.	Predation by nonnative fish and bullfrogs, disease catastrophic floods, and habitat degradation caused by loss of cover and erosion (USFWS 2002a).
Southwestern Willow Flycatcher *Empidonax traillii extimus*	Federally Endangered (58 FR 39495) AZ Species of Concern	Small migratory bird about 6 inches long with grayish-green back and wings. Has a white throat, a light gray-olive breast, and pale yellowish belly (USFWS 2006a)	**OFP**[2] 1,200 territories estimated across southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, southwestern Colorado, and extreme northwestern Mexico (USFWS 2006a). No habitat is identified on Fort Huachuca (USAGFH 2009).	Extensive loss, modification, and fragmentation of riparian habitat (Kreuper 1993) and brood parasitism by the brown-headed cowbird (Sogge et al 1997).
Spikedace *Meda fulgida*	Federally Threatened (51 FR 23769)	Small, slim fish, up to 3 inches long, with silvery sides and a “spine” on the dorsal fin (USFWS 2010d).	**OFP**[2] Endemic to Gila River basin, currently found in Aravaipa Creek, and believed to be present in the Verde River, Eagle Creek, and the middle Gila River. Specifically found in shear zones where rapid flow borders slower flow in moderate to large perennial streams (USFWS 2010d).	Habitat destruction, and competition and predation from introduced non-native fish species are primary causes for decline of species (Miller 1961, Williams et al 1985, Douglas et al 1994).
Stephan’s Riffle Beetle *Heterelmis stephani*	Federal Candidate Species	Small beetle approximately 0.1 inches long. Larval species is strictly aquatic before pupating under sand, rock, bark, or other debris. Adult returns to water after pupation and almost never leaves the water again (USFWS 2010b).	**OFP**[2] Endemic to springs within the Santa Rita Mountains in Santa Cruz County, specifically from Bog Springs and Sylvester Spring in Madera Canyon.	Primary threats include alteration of the springs for commercial or recreational purposes decreasing their habitat.

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Species	Status	Species Description	Location	Threats to Population
Tucson Shovel-Nosed Snake *Chionactis occipitalis klauberi*	Federal Candidate Species	Small snake, 10-17 inches in length with a shovel-shaped snout and inset lower jaw. It has smooth scales and has a coloration pattern that mimics that of the coral snake (USFWS 2010c).	**OFP**[2] Historically found along a 35-mile patch of land running from Phoenix to Tucson. Found in creosote-mesquite floodplain environments that are associated with soils that are soft, sandy loams, with limited gravel (USFWS 2010c).	Primary threats include road construction, the creation of solar arrays, agriculture, and wildfires that lead to the loss, destruction, and fragmentation of its habitat.
Yellow-Billed Cuckoo *Coccyzus americanus*	Federal Candidate Species AZ Species of Special Concern	Adults have long tail, with brown on dorsal surfaces and black and white below. They have a black curved bill with yellow especially on the lower portion as well as a yellow ring around the eye.	**OP, OFP**[2] Known to occur in Arizona across southern and central Arizona and the extreme northeast. Nests in riparian forests and scrub as well as mesquite bosques. Only known occurrence at Fort Huachuca occurred in 2001 in Middle Garden Canyon Pool (USAIC & FH 2006).	Loss, degradation and fragmentation of mature cottonwood-willow riparian habitat, stream diversion, agriculture, urbanization, overgrazing, and invasion of non-native invasive species.

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

FORMAT PAGE

[1] **Huachuca/Canelo Population**

[2] **OP-On-Post; OFP-Off-Post; S-Sunnyside**

Habitat for Protected Species

Critical habitat is a specific geographic area deemed essential for the conservation of a threatened or endangered species and 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 2002e). On-post, 368 acres of critical habitat is designated for Huachuca Water Umbel (HWU) along 3.8 miles of the Garden Canyon watershed.

Eleven Mexican spotted owl (MSO) Protected Activity Centers (PACs) on Fort Huachuca encompass approximately 6,729 acres of high quality MSO habitat that is currently occupied by owls, or that was occupied in the recent past. PACs will 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).

Lesser long-nosed bats (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 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 (USAGFH 2010). AMAs totaling 6,209 acres are identified 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 Environmental Protection Agency (EPA).

Fort Huachuca contains 64 acres of wetlands and 770 acres of riparian habitat that are protected by the CWA (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.

3.2.1.2 Off-post

Vegetation

Arizona contains a multitude of environments owing to the varied topography, geology, and climate. Existing test sites are located in urban environments and dry lake beds as well as in 14 documented plant biomes across the lower two thirds of Arizona that varies according to gradient, moisture regime, and elevation. These are: arctic-boreal forest and woodland, Great Basin conifer woodland, Madrean montane conifer forest, Rocky Mountain conifer forest,

Sonoran desert scrub, warm temperature scrub-grassland, Chihuahuan desert scrub, Madrean evergreen forest and woodland, Mogollon chaparral, Sonoran riparian and oasis forest, interior southwest riparian deciduous forest and woodland, tropical-subtropical Sonoran desert scrub, scrub-grassland (semidesert), and riparian deciduous forest and woodland (Bennet et al 2004).These biomes cover elevation ranges from as low as 1,076 ft in drainages throughout southern Arizona to 11,975 ft among the peaks of the highest mountains throughout the state. Drastic differences in plant composition and speciation occur between these biomes to reflect varying characteristics of the environments they occur in.

The Sunnyside Test Site is composed of three documented plant biomes: scrub-grassland (semidesert), Madrean evergreen forest and woodland (oak-pine), and Madrean evergreen forest woodland (encinal). These biomes cover elevations from 3,510 feet to 7,513 feet and are dominated by bunch grasses such as sideoats grama (*Bouteloua curtipendula*) and squirreltail (*Elymus elymoides*), shrubs such as fragrant sumac (*Rhus aromatic*), Palmer's agave (*Agave palmeri*), and Toumey oak (*Quercus toumeyi*), and trees such as Arizona white oak (*Quercus arizonica*), Chihuahuan pine (*Pinus leiophylla*), and Apache pine (*Pinus engelmannii*) (Bennett et al 2004).

Wildlife

Arizona contains a large diversity of animals directly related to the diversity of environments within the state. All four North American deserts, grasslands, woodlands, montane and alpine forest, as well as riparian areas, large rivers, and numerous creeks occur within the state. Approximately 800 species of amphibians, birds, invertebrates, fish, mammals, and reptiles occur here including 534 birds, 300 of which have been documented as breeding in the state. There are 145 species of mammals, 36 species of fish, 107 species of reptiles, 29 species of amphibians, and 221 mollusk species including 220 native snails (AGFD 2011).

Special Status Species

Of the large number of species that exist in Arizona, 39 animals and 17 plants are listed as threatened or endangered according to the ESA and there are 24 candidate species for protection under the ESA. Of these, 19 species fall within the range of where existing test sites occur. Special status species are listed in Table 3.2-1.

Seventy-six test sites occur in critical habitat for four threatened or endangered species, to include the Huachuca water umbel (HWU), Mexican spotted owl, Mount Graham red squirrel, and the southwestern willow flycatcher (SWFL). Critical habitat for these species covers a total of 4,241,057 acres of land in Arizona. A majority of this is MSO critical habitat, covering 4,170,690 acres, while HWU (13,136 acres), Mount Graham red squirrel (1,921 acres), and SWFL (55,310 acres) critical habitat covers considerably less area.

Four threatened, endangered, or candidate species are known to occur in the area of the Sunnyside Test Site as shown in Table 3.2-1 to include the Sonora tiger salamander, lesser long-nosed bat, Mexican spotted owl, and Northern Mexican gartersnake.

The Coronado National Forest utilizes a Forest Plan to direct the management of their forest over a 10-15 year time scale. The plan provides for integrated multiple use and sustained yield of goods and services in a way that will maximize the long term net public benefits in an environmentally sound manner (USDA Forest Service 2005). All permits that are issued for use on the forest must comply with the Forest Plan for each National Forest (36 CFR 219.10 (e)). Each National Forest throughout the nation creates one of these plans to ensure the long term management of the Forest in the best interest of the public.

Wetlands and Aquatic Habitat

Despite relatively dry conditions across much of Arizona, this state contains 28 major rivers including the Colorado and the Salt rivers. Many of these rivers turn into dry channels and only flow after rains (WEF & UAWRRC 2007). More than one third of Arizona's wetlands have been lost due to modification or drainage, leaving only 1 percent of Arizona to be considered wetlands (USGS 1997). There are no known wetlands or aquatic habitat within the Sunnyside Test Site.

3.2.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant direct or indirect impact to biological resources.

Trampling of vegetation at test sites as well as the presence of personnel and testing activities can affect wildlife (including protected or special-status species) in multiple ways. Disturbance through soil compaction, tunnels and burrows being collapsed, or loss of vegetation for food or shelter can occur. Disturbance from the presence of humans and vehicles can 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 or wildlife (Hammit and Cole 1987). Wildlife in the immediate area 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).

Three hundred and forty-eight test sites fall within sensitive habitats on FH. Some of these overlap, but 222 fall within AMAs, 97 within critical habitat for HWU, and 66 within MSO PACs. AMAs were created in the 1990s to protect the feeding habitat of the endangered LLNB. Current management stipulations prohibit nighttime use within AMAs from July 1 to October 31 which coincides with the presence of lesser long nosed bats at the facility. Off road vehicle use is also prohibited within any AMA (USAGFH 2010).

Critical habitat for HWU occurs within Garden Canyon resulting in specific conservation measures to prevent the destruction or decline of the species within this area. Rock barriers are placed around HWU populations to keep motorized and nonmotorized vehicles out and silt fencing is installed in areas that have the potential for elevated sediment levels in storm water runoff to enter Garden Canyon Creek (USAGFH 2010). The EPG Environmental Coordinator

works with the ENRD to identify and avoid areas and operations that might impact HWU critical habitat or HWU populations.

Protected areas for MSOs have seasonal limitations for use during its breeding season. Low-level helicopter flights within 1.0 mile of the MSO nests, or in canyons where occupancy or reproductive status is unknown are limited, and from March 1 to August 31 are prohibited within 0.25 miles of active nests. Rappelling in Garden Canyon is halted or moved at least 0.25 miles if a MSO nest is found in Garden Canyon within 0.25 miles of the rappelling cliffs. Additionally, restriction of off-road vehicle use, construction of informational signs, and environmental awareness briefings for troops are part of the Fort's conservation measures to protect this species (USAGFH 2010). Limitations to the use of land that falls within MSO PACs during their breeding season, as well as posting of awareness signs on trails and roads that enter these areas, alert users to the sensitivity of the habitat and reduce the potential for impact.

Establishment of new test sites on Fort Huachuca would adhere to current ENRD standards for selection of new sites including analysis of the site in regards to special status species. Any sites that fall within critical habitat or in sensitive areas (Figure 3.2-1) would be required to adhere to the guidelines set for those areas in the Fort Huachuca INRMP (USAGFH 2010).

Off-post, 76 test sites fall within critical habitat for four species: HWU (8), Mount Graham red squirrel (1), MSO (67), and SWFL (1). One site overlaps between the Mount Graham red squirrel and MSO. Of these, 8 fall within the San Pedro Riparian National Conservation Area (SPRNCA). Vehicles used for EPG testing must either remain on established roads or trails. Test personnel are allowed to park their vehicles adjacent to the road or trail in a previously disturbed, designated area at each ASA site within the SPRNCA (USAGFH 2010). EPG is committed to not use ASA sites within 300 feet of SWFL habitat from April 1 to September 1 of each year and to take precautions at ASA sites adjacent to suitable habitat. Test sites must remain farther than 300 feet from habitat to minimize the chance of an accidental human-caused fire. Given the low amount of ground disturbance, limited periods of activity, and passive electronic nature of most EPG test activities, neither direct nor indirect (accidental or incidental) adverse impacts on off-post special status species or protected or critical habitat are anticipated.

EPG testing activities at larger off-post sites such as the Wilcox Playa and National Forest Lands at the Sunnyside area operate under land leases that stipulate use and operating conditions. Environmental review conducted as a part of these lease transactions has and will continue to occur in an effort to avoid potential impacts to known or identified species or habitats that may be present within the property to be leased. The EPG Environmental Coordinator, in cooperation with the property owner, will determine any specific or particular sensitive environmental resources at the site, and measures to avoid or lessen the potential for EPG testing activities to result in any adverse impact to the resource. While both long-term and 24-hour use of these sites can occur and may result in a short-term and minor impact to vegetation and wildlife in the immediate area, testing activities are not anticipated to impact any protected or special status species.

Alternative One

Biological Resource impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post biological resource conditions and anticipated impacts are expected to remain. New establishment of test sites on Fort Huachuca would be required to adhere to current standards for selection of new sites including analysis of the site in regards to special status species. Any sites that fall within critical habitat or in sensitive areas (Figure 3.2-1) would be required to adhere to the guidelines set for those areas in the Fort Huachuca INRMP (USAGFH 2010). No significant impact is expected to biological resources with this Alternative.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites, is not expected to have significant impacts to biological resources. All previous and current environmental reviews of the use of test sites have concluded that EPG testing has not had a significant impact on biological resources during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

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 EPG testing events around the region and state, and the limited potential for these actions to negatively influence biological resources, no cumulative impacts to biological resources are anticipated to result from implementation of any of the alternatives.

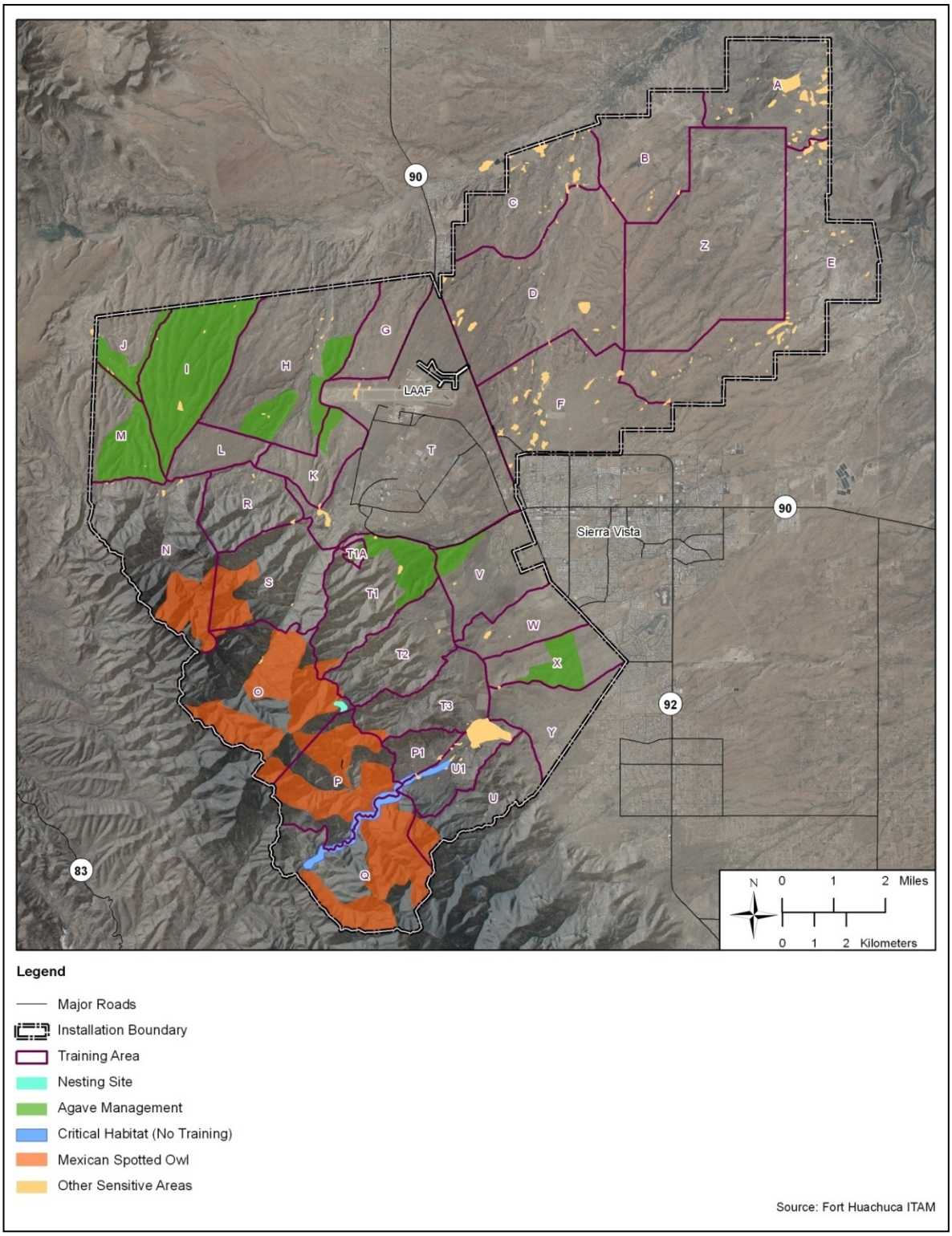

Figure 3.2-1. Potential Sensitive Areas Map (Representative)

3.3 Air Quality

3.3.1 Affected Environment

3.3.1.1 On-post

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 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 ton 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 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.

The conditions included in Fort Huachuca's permit include removal of a portion of the volatile organic compound (VOC) emissions from Ft. Huachuca's inventory, which was easily achieved because the Army and Air Force Exchange Service (AAFES) gas stations are operated as a separate entity not under direct control of the Army. Another 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 ton per year 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, PM_{10}, VOCs, SO_2, 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 Gases

Although the subject of global warming due to man-made production and release of Greenhouse Gases (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 (CO_2, CH_4, N_2O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) in the atmosphere threaten the public health and welfare of current and future generations" (EPA 2011d). 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 (CO_2e) and a 75,000 tpy CO_2e significance level (FR 2010).

In addition, on 22 September 2009, the Administrator of the EPA 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) CO_2e 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 CO_2e 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 to be completed in January 2012. While Fort Huachuca definitely emits GHGs, based on the data in the most recent AEI associated with its' synthetic minor permit, it is unlikely that it will meet the requirements outlined in the Tailoring Rule, which relate to permitting or the 25,000 tons per year (tpy) threshold established by the MRR, which

relate to reporting only. 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 of the other emission sources cited previously. Therefore, it is assumed that the Fort's heating units will produce the vast majority of GHG emissions emanating from the Installation. Based on the amount of natural gas Fort Huachuca uses to fire its heating units, approximately 13,400 tpy of CO_2e will be emitted. While this doesn't include all the GHG emissions generated by Fort Huachuca, the combination of all other sources is insignificant in comparison.

3.3.1.2 Off-post

The off-post environment that EPG uses for testing includes areas in the immediate vicinity of the approximately 800 off-post test sites, which are defined previously. Of these roughly 800 test sites, 500 lie within the Southeast Arizona Air Quality Control Region. The other sites lie in other parts of Arizona (Figure 3.3-1). Forty test sites are within nonattainment areas for various criteria pollutants. All of these are in Maricopa County. Out of these 40, there are three that are within a single lease site in the White Tank Mountains west of Phoenix and all others lie within various rights-of-way within the immediate vicinity of Phoenix. Of the remaining test sites, which are all in attainment areas, about 630 lie within 10 miles of an Arizona city or town and about 120 of those are within the incorporated boundary of those cities or towns.

There are two areas within the region that are in nonattainment of the NAAQS; Paul Spur and Douglas, which lie 40 miles and 50 miles southeast of Fort Huachuca, respectively. According to the SO_2 Air Quality Data Update written by the EPA, as of 9 June 2010, Douglas has been assigned maintenance status for SO_2 (EPA 2009). Maintenance status indicates that the area recently achieved attainment of the NAAQS and is awaiting redesignation by the EPA.

Both Paul Spur and Douglas were classified as moderate nonattainment areas in 2006 for particulate matter less than 10 micrometers in diameter, or PM_{10} (ADEQ 2006). More recently, the EPA published a Final Rule effective 10 February 2011 (EPA 2011) that concluded that Paul Spur and Douglas' status would remain moderate.

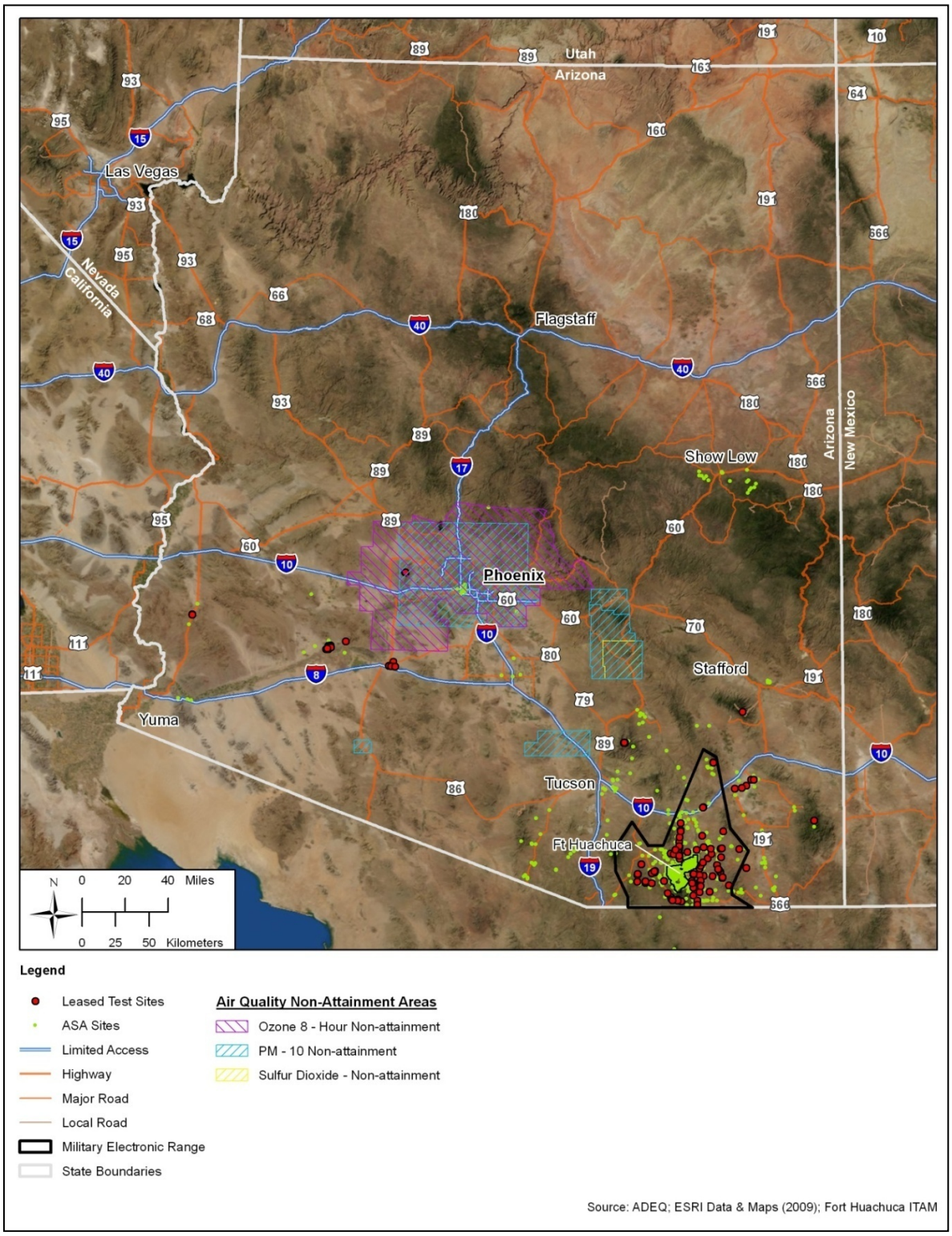

Figure 3.3-1. Arizona Air Quality

3.3.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant direct or indirect impact to air quality. Potential impacts to air quality resulting from the Proposed Action are associated with the burning of fossil fuels in vehicles and generators and the generation of dust through use of dirt roads to access some of the test sites. While the use of these vehicles and equipment will result in additional emissions, a typical test only involves the use of a few vehicles and is not anticipated to affect local or regional air quality. Cochise County is in federal attainment for all criteria air pollutants. Portable generators used in conjunction with EPG testing activities associated with the Proposed Action are considered minor sources under State of Arizona regulations, and the emissions generated are considered trivial in nature. Though EPG conducts approximately 50 field tests annually, dust generation from these activities is anticipated to be minor and localized.

The limited use of fossil fuel vehicles and equipment outside of Cochise County is not anticipated to impact regional or local air quality conditions in other areas that may be in non-attainment for any particular criteria pollutant. Air emissions from testing activities within non-attainment areas are not expected to exceed de minimis threshold levels or contribute emissions in violation of any federal, state, or local air quality regulations. As such a Record of Non Applicability was prepared and is provided in Appendix A.

Alternative One

Air quality impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post air quality conditions and anticipated impacts are expected to remain. On-post air quality impacts associated Alternative One are anticipated to be identical to those described for the Proposed Action which are determined to be less than significant.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites is not expected to have significant impacts to air quality. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the surrounding region have concluded that EPG testing has not had a significant impact on air quality during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

Cumulative Impacts

Air quality in the Sierra Vista area has consistently been within attainment of the NAAQS. In the past, ADEQ's annual evaluations at Fort Huachuca have shown emissions to be relatively low, qualifying the Fort for a Class II synthetic minor air permit. This permit allows the Fort to voluntarily limit the amount of fuel burned by heaters, furnaces, and boilers for example. In an

effort to further reduce potential air quality degradation, Fort Huachuca has agreed to lower its annual emissions by limiting the use of backup generators. In addition, an AEI—which works on voluntary emission reductions—must be prepared on a yearly basis to record and monitor air emissions.

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 aim to keep air quality at the Fort within attainment of the NAAQS. Given these air quality monitoring mechanisms, and the short duration of vehicle and generator usage at test sites, it is unlikely that the implementation of any of the alternatives would result in any cumulative impact to air quality.

3.4 Visual Resources

3.4.1 Affected Environment

3.4.1.1 On-post

Much of Fort Huachuca outside the Cantonment Area consists of approximately 67,000 acres of open space testing and training areas.

The South and West Ranges are mostly open grasslands and mountainous terrain (Figure 3.4-1). 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 activities in the West and South Range involve 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 is primarily open rangelands and grasslands and used for electronic testing and training exercises (Figure 3.4-2). This is the only area on the Installation used for CLFR 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 (NHL). 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 3.4-3); 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 2011a). Fort Huachuca relishes its history and strives to keep the Historic District maintained as a reminder of days gone by.

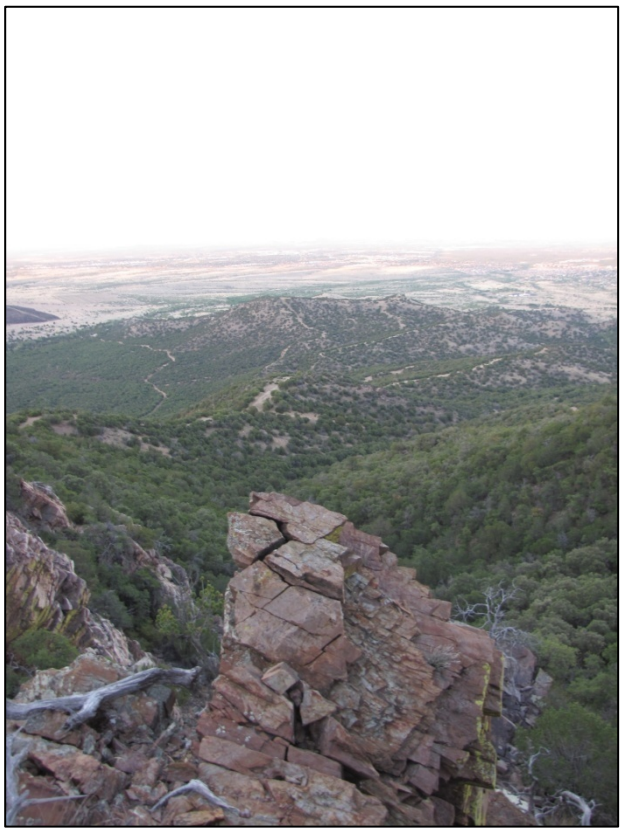

Figure 3.4-1. South Range, Mountainous Terrain

Figure 3.4-2. East Range, Open Grassland/Shrubland

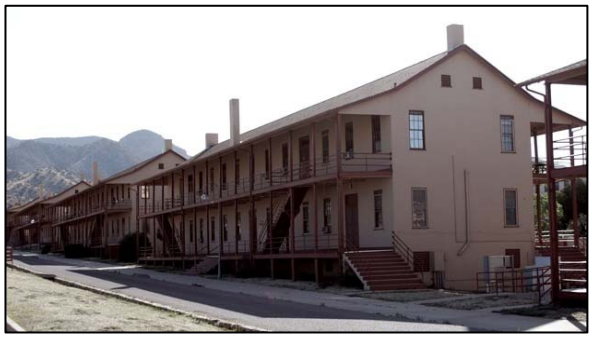

Figure 3.4-3. The Old Post Barracks are Part of Fort Huachuca’s Historic District

3.4.1.2 Off-post

Similar to Fort Huachuca, the State of Arizona consists of topographically diverse open space with a high aesthetic appeal. From the pine forests of Northern Arizona to the desert valleys in the central and southern portions of the state, the Arizona landscape is diverse and appeals to many observers. To help maintain the economic gains Arizona draws each year from the tourism industry, it is important to consider visual resources with regard to off-post EM testing.

Arizona not only contains appealing landscapes, but is also home to 41 NHLs and more than 1,000 locations on the National Register of Historic Places, (NRHP). NHLs are nationally

significant historic sites designated by the Secretary of the Interior as they illustrate the heritage of the United States (NPS 2011b). The NHLs are mapped and shown in Figure 3.4-4. Seven NHLs are not shown on the map as their locations are restricted for cultural sensitivity purposes. Figure 3.4-4 also includes Arizona sites listed on the NRHP. Locations include historic districts, sites, buildings, structures and objects significant in American history, architecture, archeology, engineering and culture (NPS 2011c).

To preserve the nationally recognized historic sites, it is important to ensure that off-post EM testing at ASA and leased test sites does not affect any nearby national historic sites. The location of all ASA and leased test sites was examined in relation to national historic sites using the aid of a Geographic Information System (GIS). The analysis found that 10 test sites were within close proximity to a NHL or site listed on the NRHP. Historic sites within close proximity to a test site are labeled on Figure 3.4-4. Table 3.4-1 summarizes these historic sites and lists the site within close proximity. The analysis did not find any leased test sites that were within close proximity to a national historic site. It is important to note that the map omits historic sites with cultural significance due to the sensitivity of mapping their location. Testing equipment, although close to a historic site, may not be visible at the landmark location due to the presence of a hill or mountain.

Table 3.4-1. National Historic Sites Located Near Test Sites

Site Name	Site Type	ASA No.
Coronado National Memorial	NRHP	929, 939
Fort Huachuca Historic Dist.	NHL	1096, 1099, 2435
Lake Mtn Lookout Complex	NRHP	1263
Security Building	NRHP	1338
Tombstone Historic District	NHL	764
Willow Historic District	NRHP	1340, 1341

3.4.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant direct or indirect impacts to visual resources. Within the boundaries of Fort Huachuca, expansion of future test sites would be guided by the Fort Huachuca Training Division and DPW Real Property Manager, after consultation with the DPW ENRD. The infrequent, short duration testing activities would only impact visual resources temporarily and not result in any long-term or permanent change to visual resource conditions. SHPO consultation would be conducted on a site-by-site basis if expansion nears a NHL or property listed on the NRHP, helping to ensure that testing activities would not impact the historic site.

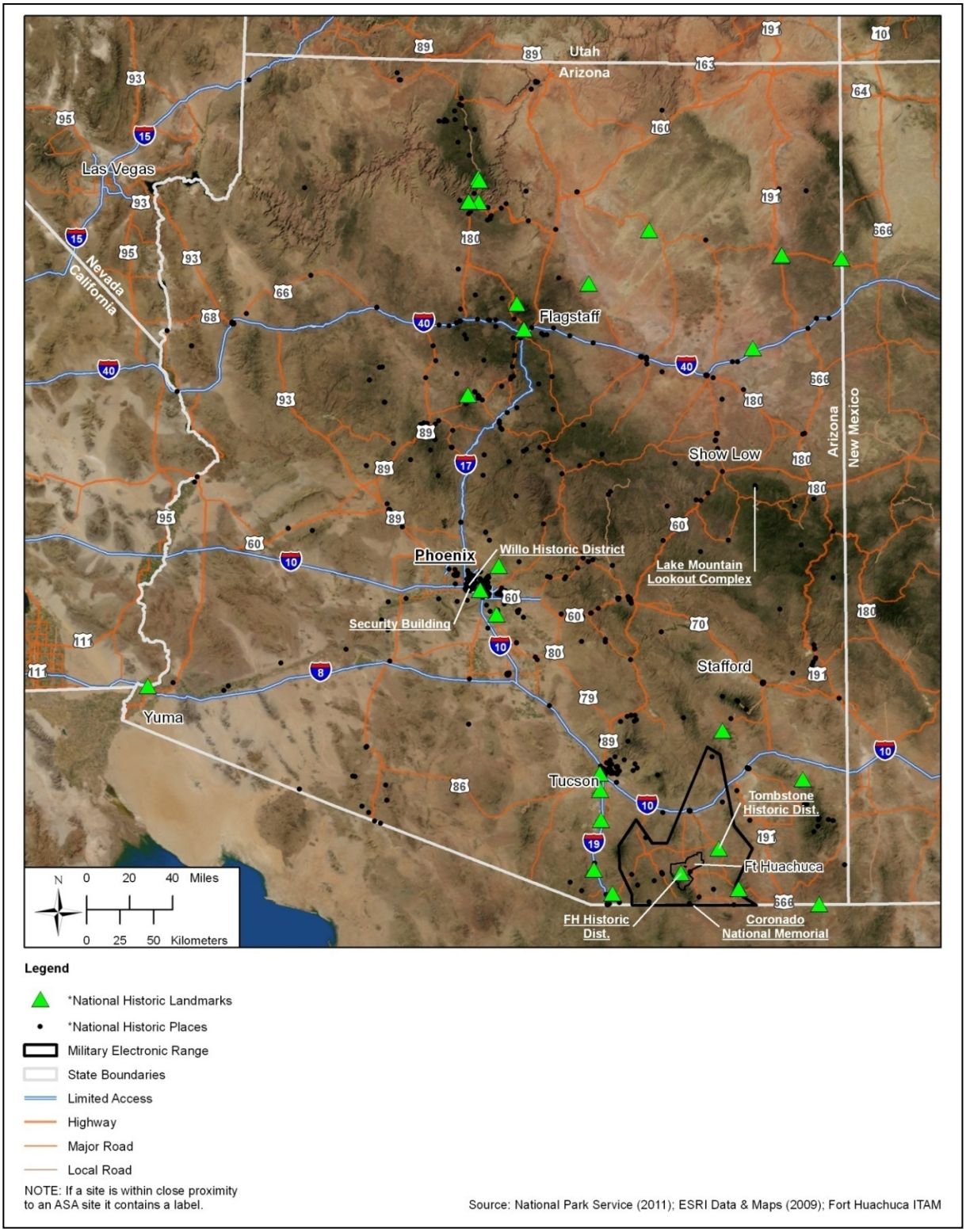

Figure 3.4-4. Statewide National Historic Landmarks and Places

Alternative One

Visual resource impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post visual resource conditions and anticipated impacts are expected to remain. On-post visual resource impacts associated Alternative One are anticipated to be identical to those described for the Proposed Action which are determined to be less than significant.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites is not expected to have significant impacts to visual resources. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the region have not found that EPG testing has had a significant impact on visual resources during the past 40 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

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.

At Fort Huachuca the Installation Design Guide would direct future development to preserve historic buildings and ensure uniformity in construction to maintain continuity of views. Each existing off-Post ASA site has been evaluated by EPG to avoid historic sites and views as would future ASA sites. Due to the temporary and limited duration of EPG testing events around the region and state, and the limited potential for these actions to negatively influence visual resource conditions, no cumulative impacts to visual resources are anticipated to result from implementation of any of the alternatives.

3.5 Noise

3.5.1 Affected Environment

3.5.1.1 *On-post*

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 people (receptors) 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 guns, mortars and demolition activities), 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 3.5-1 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 3.5-1. Noise Limits for Noise Zones

	Noise Limits (dB)		
Noise Zone	**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).

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 Vehicles (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).

3.5.1.2 Off-post

The off-post affected environment includes areas in the immediate vicinity of the test sites that lie off-post. For ease of access, most off-post test sites are located within 125 feet of a roadway, including about 330 paved (interstates, U.S. highways, and local streets) and 420 rural roads. Additionally, about 630 of the off-post test sites are located within 10 miles of an urbanized area; 120 of those within an incorporated boundary. Noise levels along roadsides and in the vicinity of urbanized areas are typically diurnal in nature, with the peak levels occurring during morning and afternoon rush hour (USAEPG 1997a). Typical noise levels associated with roadway noise are shown in Table 3.5-2 (Minor 2006).

Table 3.5-2. Roadway Noise Levels

Noise Levels at 50 feet	
Vehicle Type	**dB**
Passenger	72 - 74
Medium Truck	80 - 82
Heavy Truck	84 - 86

3.5.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant direct or indirect noise impacts. Sources of noise under the Proposed Action include various military vehicles used at test sites, portable generators and military aircraft. The greatest noise impact is likely the use of military aircraft during electronic equipment testing activities. To help minimize noise impacts, pilots avoid populated areas sensitive to aircraft noise. Aircraft used during EPG testing typically flies at altitudes higher than 15,000 ft and will have little impact to noise conditions on the ground. AR 200-1 outlines the Army's noise program and the requirements for working with local communities through the Air Installation Compatible Use Zone (AICUZ)

program and the Army Compatible Use Buffer Program (ACUB) to locate appropriate land uses in more noise intensive areas.

Generators and military vehicles are other sources of noise at test sites during testing activities. Out of the roughly 800 off-post test sites, approximately 300 are located within land easements along paved interstates, U.S. highways and local streets. According to Table 3.5-2, a typical passenger vehicle traveling on the road produces a noise level of approximately 72 dB at 50 feet. A similar noise level, 80 dB at 23 feet, is produced by the loudest Honda generator (Mayberry 2010). If the noise of the generator were to be measured at the same distance as the passenger vehicle, (50 feet) it is likely to be less than that of the vehicle, 72 dB. Thus, while conducting testing at a roadside ASA site, the noise of a running generator is not likely to be noticed above the typical noise of the traffic. Generators and other military equipment conducting testing at the roughly 400 test sites located along rural roads are not likely to have any noise impacts due to the remoteness of the testing location.

Generators and other military equipment used during long-term or overnight EPG testing at auxillary test ranges may result in minor noise impacts to adjacent areas but are not expected to result in any long-term or hazards to health or the environment.

Alternative One

Noise impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post noise conditions and anticipated impacts are expected to remain. On-post noise impacts associated Alternative One are anticipated to be identical to those described for the Proposed Action which are determined to be less than significant. Any expansion of test sites on Fort Huachuca would comply with chapter 14 of AR 200-1 (DA 2007), which outlines major goals of the Army's noise program, promoting compatible land uses for the overall goal of reducing community annoyance resulting from noise.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites is not expected to have significant impacts from noise. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the region have concluded that EPG testing has not had a significant noise impact during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

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 could grow as mission requirements change. Most of the noise created by military vehicles is comparable to typical existing civilian traffic noises in the vicinity of an ASA site. Operations that require equipment with increased noise levels, such as generators, are typically in more remote areas that are further way from adjacent populations. Noise levels can be expected to continue

at current levels, which may create negligible impact of the individual ASA sites while testing occurs in more rural or remote areas of the state. Due to the temporary and mobile nature of the noise associated with equipment testing, it can be anticipated that none of the alternatives would result in any cumulative noise impact.

3.6 Transportation and Circulation

3.6.1 Affected Environment

3.6.1.1 On-post

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.

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 on 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 3.6-1) 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. 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).

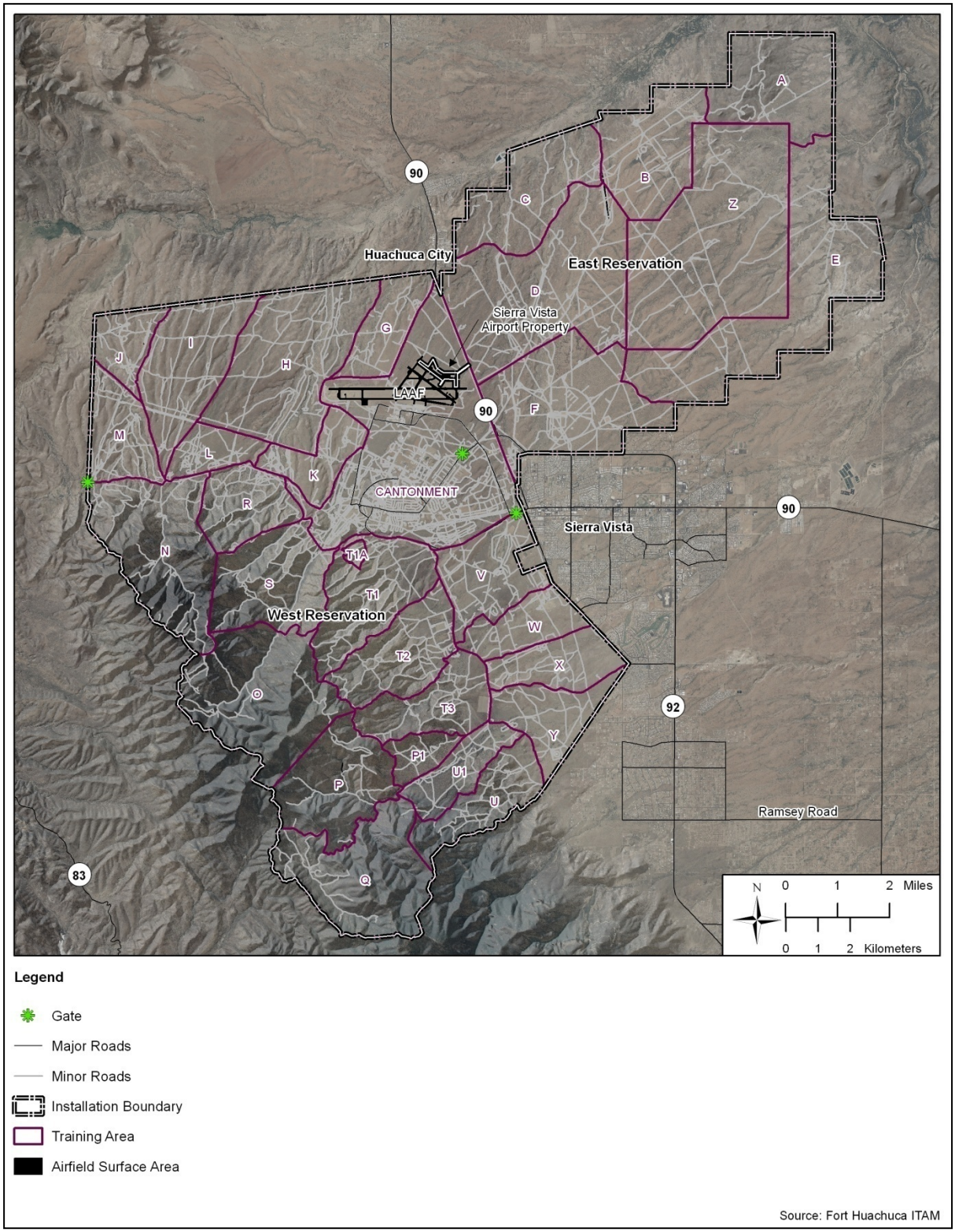

Figure 3.6-1. Fort Huachuca Roadway Network

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 are spaced 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% 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).

3.6.1.2 Off-post

Off-post test sites and lease sites are accessed in several ways. Most are located adjacent to paved roadways while some are accessed via unpaved roads. There are approximately 10 sites adjacent to Interstate Highways, 20 sites adjacent to U.S. Highways, 200 sites adjacent to State Highways, 100 located adjacent to local paved roads in urban areas, and approximately 450 accessed by small dirt roads or pasture roads used jointly by cattle ranchers, hunters, and EPG.

The dirt roads exhibit various states of compaction, vegetation cover, and roughness resulting from vehicular use. All dirt roads are maintained by the individual land owner. All test sites have been marked with a geodetic position for accurate relocation and granted access permits by the individual property owner for EPG testing purposes.

As part of the ASA permit process, State Highway and county/city regulations require that the tests conducted by EPG not impede traffic or become road hazards. EPG is required to notify the state or individual county of test dates and locations before testing. The State and counties conduct inspections to ensure that the terms of the permits are being followed. Site use permits for the individual test site would be required to be with the individuals doing the testing. Existing and future permits would further require that all tests be conducted in accordance with environmental regulations and any spillage would be immediately contained and cleaned. Fire fighting tools, i.e., shovels, swatters, and fire extinguishers would be on hand at all sites during the use of the test sites. Personnel involved in testing activities would be instructed in the importance of avoiding off-road, cross-country driving in rural areas.

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 SR90 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.

3.6.2 Environmental Consequences

Proposed Action

Anticipated impacts to transportation and circulation within the Fort, surrounding communities, and other parts of the state would be less than significant. On-post roads are designed to handle the traffic created by military vehicles and convoys, including additional volume created by EPG testing vehicles. The addition of new test sites is not anticipated to have a significant effect on traffic within Fort Huachuca. Airfield traffic is not anticipated to dramatically increase beyond current EPG flights levels.

Off-post EPG traffic will not add noticeable volume to SR 90 or Sierra Vista local roads. These roads are currently used by EPG. The addition of new sites will add minimal traffic and would not significantly impact traffic volumes. EPG traffic in other parts of the state will be conducted in

previously disturbed areas accessed by highways and paved roadways designed to have high traffic volumes. Traffic counts on smaller dirt or pasture roads are expected to be minimal and impacts from existing or future testing vehicles is expected to be less than significant. Activities at test sites are required, as part of the site permit process, to not impede traffic or become road hazards. A temporary and minor increase in air traffic and air space restrictions are anticipated during some EPG testing activities.

Alternative One

Transportation impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post transportation conditions and anticipated impacts are expected to remain. On-post transportation-related impacts associated Alternative One are anticipated to be identical to those described for the Proposed Action which are determined to be less than significant.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites is not expected to have significant impact on local or regional transportation resources. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the region have concluded that EPG testing has not had a significant transportation-related impact during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

Cumulative Impacts

Due to Sierra Vista's and the surrounding communities' location adjacent to the national border, I-10 and SR 90 will continue as the main vehicular access to the community. A network of smaller roads connects other parts of the county to Sierra Vista and Fort Huachuca. Roadway LOS has been studied for main access roads and proposed upgrades determined. An expanded freeway interchange, which is part of the recommended upgrades, is under construction. The existing immediate roadways adequately serve the needs of the surrounding civilian communities and the mission of Fort Huachuca. Throughout the remainder of the state, ASA sites have only been located where vehicular access is available and is anticipated to continue.

The RPMP for Fort Huachuca provides a list of identified transportation-related improvements to be addressed in future years to keep pace with development trends and provide a safe on-Post environment. The Northwest Cochise County Long-Range Transportation Plan Final Report includes projects to address future deficiencies on the SR90 and projects to provide better connectivity within the immediate county. Access to ASA sites in other parts of the state by EPG personnel and equipment for testing purposes would create only negligible impact on transportation corridors and state-wide vehicular circulation.

With plans in place that anticipate growth in transportation needs for Sierra Vista area, Fort Huachuca and state-wide, proposed temporary and mobile activities under any of the

alternatives are not anticipated to contribute to adverse cumulative impacts on transportation at the local or regional level.

3.7 Hazardous and Toxic Substances

3.7.1 Affected Environment

3.7.1.1 *On-post*

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.

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 hazardous waste 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 an 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 57 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 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.

3.7.1.2 *Off-post*

The off-post environment that EPG currently uses for testing includes areas in the immediate vicinity of the roughly 800 off-post test sites. All tenants that utilize the test sites have established safeguards to protect the environment from accidental spills of hazardous materials or POLs during off-post testing activities. The following is an example of the precautions EPG operators utilize to manage hazardous materials or POLs on off-post sites:

- Drip pans;
- Spill kits;
- Fire extinguishers;
- Well defined spill cleanup procedures including proper notification;
- Use of berms and plastic lining as secondary containment; and
- Use of double walled tanks for large generators.

3.7.2 Environmental Consequences

Proposed Action

Conducting the Proposed Action is not anticipated to cause any significant impacts resulting from the use of hazardous or toxic substances. Existing and future permits would further require that all tests be conducted in accordance with environmental regulations and any spillage would

be immediately contained and cleaned. Potential impacts from the use of hazardous and toxic substances include accidental spills and litter being left behind by EPG operators.

Fort Huachuca's current policies and procedures will minimize impacts from the use of hazardous or toxic substances at EPG's test sites during the implementation of the Proposed Action. In accordance with training requirements set forth in AR 200-1 and the procedures defined in Fort Huachuca's ISCP, EPG operators are expected to be well-versed in the proper measures and notification processes necessary to handle accidental spills of hazardous or toxic substances including POLs. Equipment, such as portable generators, utilizes the latest safety technology including double-walled containers which prevent leaks. Volumes of hazardous or toxic materials at any given testing location are minimal and would not pose a major threat to human health or safety. Vehicles used by EPG operators are outfitted with drip pans, plastic sheeting, and spill kits, which are used to prevent and clean up accidental spills (Hougland 2011). EPG operators are also trained in the proper practices regarding litter and trash.

Alternative One

There is little difference between Alternative One and the Proposed Action as it relates to the use of hazardous or toxic substances. In either scenario, EPG operators will employ the same procedures regarding prevention and clean up of accidental spills and litter. Therefore, no significant impacts are anticipated.

No Action Alternative

Under the No Action Alternative, EPG would not expand the number of test sites. Therefore, current conditions would remain unchanged resulting in no significant impacts from the use of hazardous or toxic substances. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the region have concluded that EPG testing has not had a significant impact from hazardous or toxic substances during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

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. 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. Fort Huachuca additionally has a HMCC to keep track of materials and remove them safely from on-Post. Accidental spills of any size may occur no matter how many manuals and policies are in place, but materials and guidelines for dealing with the spills are more sophisticated, effective, and time responsive today than in the past. In addition, today guidelines for handling hazardous materials are more proactive and equipment more appropriate for the required action, leading to fewer accidents.

Personnel sent to various ASA sites located on-post and off-post have established safeguards to protect the environment from accidental spills of hazardous materials or POLs during testing

activities. Fort Huachuca's ISCP describes the procedures to be implemented in the event of a spill of hazardous materials or POLs.

Due to the extensive policies and procedures in place for potential spills and mishandling of hazardous and toxic substances, and the limited types and quantities of hazardous materials and toxic substances, it is anticipated that none of the alternatives would result in a cumulative local or regional impact from the use of hazardous and toxic substances.

3.8 Human Health and Safety

3.8.1 Affected Environment

3.8.1.1 *On-post*

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 Emergency Services has primary responsibility for the enforcement of rules and regulations and the security of the Installation.

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 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 USFS are in place to provide mutual assistance. The Sierra Vista Fire Department has three fire stations (City of Sierra Vista 2009). The Cochise County 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 2006). 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 and USFS. In addition, the DPW assists in maintaining fire breaks. Range Control regulations and standard operating procedures identify allowable range practices and precautions that must be taken (USAGFH 2004).

3.8.1.2 Off-post Affected Environment

The off-post environment that EPG currently uses for testing includes areas in the immediate vicinity of the roughly 800 off-post test sites. For ease of access, all off-post test sites are located within 125 feet of a roadway, including about 330 paved (interstates, US highways, and local streets) and 420 rural roads. Because EPG is currently using the test sites to conduct testing activities, the area around all the sites has been previously disturbed. Roadside locations close to the travelled way present potential safety issues for both EPG operators as well as the general public. All trucks and gear must be located well off the roadway and properly marked or flagged.

EPG testing operates within the MER and regional EM environment that encompasses all EM radiation—man-made and natural—that emanates from emitters at the lowest alternating current to the highest radio frequency in the environment. The EM environment is the sum of EM interference, EM pulse, hazards of EM radiation to personnel, ordnance, and volatile materials, and natural phenomena effects of lightning and precipitation static. EM radiation consists of oscillating electric and magnetic fields and is propagated with the speed of light. It includes gamma radiation; x-rays; ultraviolet, visible, and infrared radiation; and radar and radio waves.

Population growth and urban development within the MER and region of EPG testing activities brings about an increased likelihood of civilian-military EM incompatibility. Since all wireless devices can transmit and/or receive EM, interference in the exchange of energy between the

transmitter and receiver can result in abnormal operation of testing and training instrumentation, especially wireless internet and commercial cell phone activity.

The Arizona legislature recognized the need to protect military testing in the state and passed legislation to formalize and protect the area around Fort Huachuca from EM interference. Senate Bill 1387, section 37-102, established the requirement of identifying the boundaries of the 1.6 million acre MER (see Figure 3.1-4). Senate Bill 1387 requires real estate disclosure for properties that occur within a military training range. This bill requires the Department of Real Estate to authorize the sale of lots/parcels within a subdivision to include, in writing, whether the land is within the MER of a military base. The department must record documents that disclose land contained in a MER with county recorders. Maps delineating the area of a MER are posted on the Department of Real Estate and State Land Department websites.

3.8.2 Environmental Consequences

Proposed Action

Health and safety concerns related to the use of test sites for electronics and communications testing include brush fires, injury to test personnel or the general public from the placement and operation of equipment, and overall security of the site during testing. However, due to the communication, permitting and pre-testing coordination between EPG and various emergency response teams and organizations, the Proposed Action is not anticipated to significantly impact health and human safety.

Although minimal, the potential for fire at a test site exists. Fires could be caused by overheating vehicles, a spark from small gas powered generators, or cigarette smoking. Each testing vehicle is equipped with fire suppression equipment as required by Army Regulations (USAEPG 1997a). All personnel receive procedural training on how to immediately notify the nearest County Fire Department if the fire is in the surrounding off-post rural areas or the Sierra Vista Fire Department if the threat is on-post (USAEPG 1997a). Given that the majority of test sites are located along roadways; emergency response vehicles should not have problems accessing the site.

Another safety concern involves the operation of the testing equipment. Noise emanating from engines and generators can pose a safety hazard to equipment operators at the individual test sites. Hearing protection is an important part of safety procedures developed by the Army for the operation of test equipment and vehicles.

Depending on the location of the ASA site, emergency services would be provided by Fort Huachuca medical personnel, or local/county emergency response teams. Fire fighting tools, i.e., shovels, swatters, and fire extinguishers would be on hand at all sites during the use of the test sites. With regard to the off-post Wilcox Playa leased test site, civilian and contractor employees are routinely briefed on the dangers of unexploded ordnance (UXO) safety since the site was formally used for military live-fire operations (USAEPG 1997a). All testing personnel are required to stay within areas surrounding the ASA site currently being used, or near their vehicles (USAEPG 1997a).

Although invisible to the human eye, EM radiation resulting from EPG operations has the potential to cause health and safety concerns to people within the immediate vicinity of testing equipment. This is particularly true for large vehicle-mounted radios and antennas. Due to the radiation threat, each piece of equipment is given a rating, expressed as a buffer distance (USAEPG 1997a). Both vehicle and foot traffic is required to maintain at least this buffer distance away from the piece of equipment, minimizing radiation hazards (USAEPG 1997a). These zones are delineated using ropes, fences, barriers and signs to prevent unauthorized access of people or livestock (USAEPG 1997a). The remoteness of the various sites also helps minimize potential health and safety impacts of electronics testing. The energy emitted from testing equipment rapidly diminishes with distance from the source (USAEPG 1997a).

As another safety precaution, the USAGFH (1992) outlines EPG's consultation with the former U.S. Army Environmental Hygiene Agency, now known as the Public Health Command (PHC). The PHC conducted analytical studies to detect health hazards of EM emitters and lasers used in EPG operations. Findings of the report by USAEHA, entitled *Non-ionizing radiation protection Survey No. 24-42-0626-91, Radiofrequency Radiation Sources, Tenant Activities, Fort Huachuca, Arizona, 30 April – 4 May 1990* were evaluated. The results of that study are the basis for determining buffer zone distances which are communicated to all EPG testing participants (USAGFH 1992).

Due to a specific type of electronics testing, known as "jamming", there is a potential for impact to public safety communication systems in the vicinity of the Sunnyside Test Site, where this type of testing occurs. As illustrated in Figure 3.8-1, the Sunnyside Test Site is located South of Fort Huachuca, along the international border with Mexico, where Customs and Border Patrol (CBP) maintains a strong presence due to the threat of illegal immigration. The "jamming" activities conducted in this area may disrupt radio communications of the CBP, USFS and Mexican authorities operating in the area, thereby creating a potential safety hazard. This potential safety hazard is limited to the Sunnyside area due to a shielding effect created by the Huachuca Mountains.

Pre-testing coordination between the USFS Sierra Vista District Ranger and other law enforcement agencies (i.e., Department of Homeland Security [DHS] and Cochise County Sheriff's Dept.) regarding testing interference of the respective frequencies helps to minimize potential safety concerns. Interference with any agency's communications may not occur outside of approved timeframes and/or approved conditions listed in the special use permit issued for the Sunnyside Test Site. A list of mitigation measures that are taken to avoid interference with frequencies must be provided to the District Ranger prior to start of any "jamming" activities. The closure of any Forest Service road is only valid with an approved area closure order from the Forest Supervisor during specified times. To further minimize potential safety concerns, and due to the sensitivity of the testing equipment, an equipment custodian will occupy the EPG fenced compound at the Sunnyside test site during testing operations.

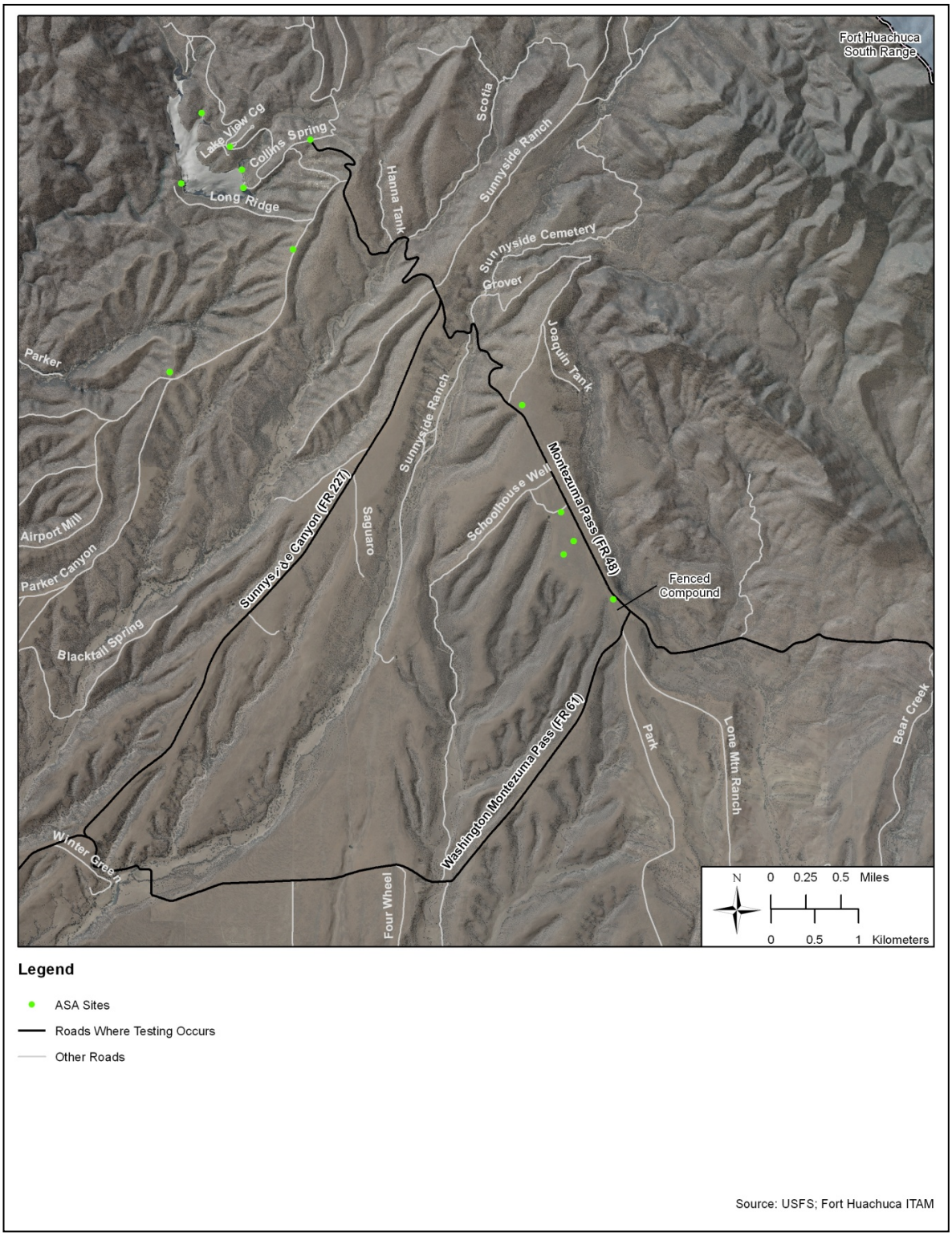

Figure 3.8-1. Sunnyside Test Site

Alternative One

Health and safety impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action. Alternative One does not provide for growth in number of off-post ASA Test sites, so existing off-post conditions and anticipated impacts are expected to remain. On-post impacts to health and safety associated Alternative One are anticipated to be identical to those described for the Proposed Action which are determined to be less than significant.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites is not expected to have significant impact on local or regional human health or safety. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the region have concluded that EPG testing has not had a significant health and safety-related impact during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

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 at Fort Huachuca still require evacuation to Tucson. However, today the trip 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.

Human health and safety associated with ASA sites off-post would be different. The potential for impact to EPG test personnel or the general public would vary as the locations vary. Impact would range from high access to emergency treatment in urban areas and high potential for more accidents which comes with the increase in population to low access to emergency services and lower population related potential for accidents in rural areas. Human health and safety may be at higher risk along the southern border of Arizona where interactions with illegal aliens and drug smugglers are present. Today, communication allowed with remotely operating military personnel is at its highest, allowing quicker responses to emergencies.

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, it is anticipated that none of the alternatives would contribute to cumulative impacts on health and safety at the local or regional level.

3.9 Cultural Resources

3.9.1 Affected Environment

3.9.1.1 *On-post*

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, 60,900 acres of Fort Huachuca had been surveyed by Fort Archaeologists or other designated representatives, accounting for roughly 83 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 2008). 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, but only 65 buildings and 2 sites are contributors to the District. There are 101 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 2008) 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.

3.9.1.2 *Off-post*

Off-post, the Arizona State Historic Preservation Office: SHPO, a division of Arizona State Parks, assists private citizens, private institutions, local governments, tribes, and state and federal agencies in the identification, evaluation, protection, and enhancement of historic and archaeological properties that have significance for local communities, the State of Arizona, or the Nation. The role and function of the SHPO is defined in both state law (Arizona Historic Preservation Act) and federal law (NHPA, as amended). Activities of the SHPO include:

- Statewide survey to identify and evaluate historic structures and archaeological sites;
- Nomination of eligible historic and archaeological properties to the National Register of Historic Places;
- Review of federal and state actions that may affect historic and archaeological properties;
- Technical assistance to owners of historic properties;
- Technical assistance to Certified Local Governments/local preservation commissions;
- Public education and awareness programs; and
- Assistance through matching grants; and assistance to property owners seeking tax credits and incentives.

The thousands of historic houses, buildings, structures, and archaeological sites in Arizona represent a tangible link to Arizona's past. The SHPO conducts an ongoing historic/prehistoric resource survey program to identify, evaluate, and plan for the effective and responsible management of these significant properties. The SHPO has also developed a comprehensive State Plan for historic and prehistoric resources in Arizona. State and federal agencies, cities and towns, nonprofit organizations, and individuals participate in and contribute to this survey and planning effort.

3.9.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action is not anticipated to result in any significant direct or indirect impact to historic or cultural resources. Utilizing boundaries that were identified by previous cultural survey efforts and the Fort's digital GIS database, the proximity of test sites to known cultural resources was calculated. A majority of the test sites, (more than 1,200), are located within previously surveyed areas of Fort Huachuca. No protected resources are known to occur within the operational areas of these test sites. Any resources detected by previous surveys have been marked and are subsequently avoided during EPG's testing activities according to standard operating procedures (SOPs) outlined in the Fort Huachuca ICRMP (USAGFH 2008).

The remaining 400 on-post test sites are located within areas that may not have not been surveyed for cultural resources. Based on the parameters of future testing requirements and a possibility for additional protected resources to be discovered on Fort Huachuca, new surveys

may be required at these existing on-post test sites. The need for a new survey would be identified during the pre-coordination review that occurs between the EPG Environmental Coordinator and ENRD prior to the test beginning. However, due to the limited ground disturbance associated with most EPG testing activities, significant impacts to cultural resources are not anticipated. As stated in the Fort Huachuca ICRMP SOP 4 (USAGFH 2008) should previously undiscovered archaeological materials be encountered during any phase of testing, activities would cease, the Fort Huachuca ENRD would be contacted, and the site would be protected until an evaluation by ENRD had been completed as to the extent of protection, avoidance or other restriction to the use of the site.

The Proposed Action also includes the creation of new test sites both on-post and off-post. New sites on Fort Huachuca would be evaluated on an individual basis by the EPG Environmental Coordinator in consultation with ENRD to ensure compliance with all applicable laws and regulations, including but not limited to NHPA, NAGPRA, ARPA, AIRFA, and AR 200-1. New off-post test sites and larger off-post testing areas are evaluated by the EPG Environmental Coordinator to ensure that they are not located within close proximity to known historic properties or resources. New surveys at these larger off-post sites may be required in the future based on parameters of tests and the age of any existing previous survey. Due to the limited ground disturbance and potential for subsurface disturbance associated with EPG testing activities, the Proposed Action is not anticipated to significantly impact archaeological or historic resources at off-post test sites or larger off-post testing areas.

Alternative One

Impacts associated with Alternative One are similar but potentially less than those associated with the Proposed Action. This alternative does not provide for growth in number of off-post test sites, so existing off-post cultural resource conditions and anticipated impacts would remain. On-post impacts to cultural resources would be identical to the Proposed Action and less than significant.

No Action Alternative

The No Action Alternative, which would result in the continued use of existing testing sites is not expected to have significant impact on local or regional cultural resources. Previous and current environmental reviews of EPG testing activities on Fort Huachuca and within the region have concluded that EPG testing has not had a significant impact on cultural resources during the past 57 years of EPG testing activities (USAGFH 1992, USAIC & FH 1993, USAEPG 1997a, USAEPG 1997b).

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 the State SHPO dictate the treatment and preservation of all cultural resources. Off-post sites are evaluated for potential cultural resources prior to lease and requests for permission to use the property. Cumulative impacts associated with cultural resources are not anticipated.

4.0 FINDINGS AND CONCLUSIONS

A summary of the potential impacts and measures to minimize adverse impacts is provided in Table 4-1. Based on the analysis contained herein, this EA concludes that neither the implementation of the Proposed Action, Alternative One, 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 4-1. Summary of Potential Impacts and Measures to Minimize Impacts for the Proposed Action and Alternative One

Resource Area	Level of Anticipated Impact: Significant	Level of Anticipated Impact: Less than Significant	Level of Anticipated Impact: No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Land Use		X		The Fort Huachuca Training Division of DPTMS deconflicts activities on training ranges and minimizes testing and training-related land use conflicts. Off-post, test sites are typically located in previously disturbed areas, within easements along local, state or federal highways and the use of the site is not altered. Temporary access restrictions to the basic test sites may present a minor impact to recreational uses by the general public, but such use is infrequent given the close proximity of the sites to the roadway and existing state and county restrictions on recreational use along roadway rights-of-way. Regional frequency coordination by EPG and Fort Huachuca will encourage compatible land uses between off-post stakeholders and users of EM resources, amongst others, at Fort Huachuca. EPG testing activities at larger off-post test sites such as the Wilcox Playa and National Forest Lands at the Sunnyside area operate under land leases that stipulate use and operating conditions and do not permanently affect land uses. While the long-term and 24-hour use of these sites can occur which may limit public access to portions or all of these areas during testing events, such use restriction is minor and managed by the land owner in cooperation with EPG. Land use impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.

Resource Area	Level of Anticipated Impact: Significant	Level of Anticipated Impact: Less than Significant	Level of Anticipated Impact: No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Biological Resources		X		Trampling of vegetation at test sites as well as the presence of personnel and testing activities can affect wildlife (including protected or special-status species) in multiple ways. Disturbance through soil compaction, tunnels and burrows being collapsed, or loss of vegetation for food or shelter can occur. Disturbance from the presence of humans and vehicles can 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 or wildlife. Wildlife in the immediate area may flush from an area leaving young exposed or leave territories vulnerable to competitors or predators. The EPG Environmental Coordinator works with the ENRD to identify and avoid on-post areas and operations that might impact critical habitat or special status species populations. Any existing or new test sites that fall within critical habitat or in sensitive areas are required to adhere to the guidelines set for those areas in the Fort Huachuca INRMP (USAGFH 2010). EPG testing activities off-post and at larger off-post test areas such as the Wilcox Playa and National Forest Lands at the Sunnyside area operate under land leases that stipulate use and operating conditions. While the long-term and 24-hour use of these sites can occur which may result in a short-term or minor impact to vegetation and wildlife in the immediate area, testing activities are not anticipated to impact any protected or special status species.
Air Quality		X		Potential impacts to air quality resulting from the Proposed Action are associated with the burning of fossil fuels in vehicles and generators and the generation of dust through use of dirt roads to get to some of the test sites. While the use of these vehicles and equipment will result in additional emissions, it is not anticipated to affect local or regional air quality. Generators and other military equipment used during long-term or overnight EPG testing at larger test ranges may result in minor air quality impacts to adjacent areas but are not expected to result in any long-term impacts or hazards to health or the environment. Air quality impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Visual Resources		X		Testing activities would only impact visual resources temporarily and not result in any long-term or permanent change to visual resource conditions. Visual resource impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.

Resource Area	Level of Anticipated Impact: Significant	Level of Anticipated Impact: Less than Significant	Level of Anticipated Impact: No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Noise		X		The greatest noise impact is likely the use of military aircraft during electronic equipment testing activities. To help minimize noise impacts, pilots avoid populated areas sensitive to aircraft noise. Aircraft used during EPG electronic equipment testing typically fly at altitudes higher than 15,000 ft and have little impact to noise conditions on the ground. Generators and military vehicles are other sources of noise at test sites during testing activities. While conducting testing at a roadside ASA site, the noise of a running generator is not likely to be noticed above the typical noise of the traffic. Noise impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Transportation and Circulation		X		On-post roads are designed to handle the traffic created by military vehicles and convoys, including additional volume created by EPG testing vehicles. Off-post EPG traffic will add only negligible additional volume to SR 90 and Sierra Vista local roads. These roads are currently used by EPG. The addition of new sites will add minimal traffic and not adversely impact traffic volumes. Traffic counts on smaller dirt or pasture roads are expected to be minimal and impacts from existing or future testing vehicles is expected to be less than significant. Transportation impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Hazardous and Toxic Substances		X		EPG and Fort Huachuca maintain policies and procedures to minimize impacts from the use of hazardous or toxic substances at EPG test sites. Volumes of hazardous or toxic materials at any given testing location are minimal and would not pose a major threat to human health or safety. EPG operators are expected to be well-versed in the proper measures and notification processes necessary to handle accidental spills of hazardous or toxic substances including POLs. Hazardous and toxic substances impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.

Resource Area	Level of Anticipated Impact: Significant	Level of Anticipated Impact: Less than Significant	Level of Anticipated Impact: No Impact	Summary of Potential Impacts and Measures to Minimize Impacts
Health and Human Safety		X		Due to a specific type of electronics testing, known as "jamming", there is a potential for impact to public safety communication systems in the vicinity of the Sunnyside Test Site, where this type of testing may occur. Pre-testing coordination between the U.S. Forest Service Sierra Vista District Ranger and other law enforcement agencies regarding testing interference of the respective frequencies helps to minimize potential safety concerns. 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. Health and safety concerns related to the use of test sites for electronics and communications testing include brush fires, injury to test personnel or the general public from the placement and operation of equipment, and overall security of the site during testing. Health and safety impacts under Alternative One are anticipated to be similar but less than those associated with the Proposed Action.
Cultural Resources		X		The nature of electronics testing at existing test sites is not anticipated to impact undiscovered subsurface archaeological or historic resources on Fort Huachuca. As stated in the Fort Huachuca ICRMP SOP 4 (USAGFH 2008) should previously undiscovered archaeological materials be encountered during any phase of testing, activities would cease, the Fort Huachuca DPW ENRD would be contacted, and the site would be protected until an evaluation by ENRD had been completed as to the extent of protection, avoidance or other restriction to the use of the site. New on-post sites would be evaluated on an individual basis by the EPG Environmental Coordinator in consultation with Fort Huachuca DPW ENRD to ensure compliance with all applicable laws and regulations, including but not limited to NHPA, NAGPRA, ARPA, AIRFA, and AR 200-1. Off-post test sites and larger testing areas will be evaluated by the EPG Environmental Coordinator to ensure that they are not located within close proximity to known historic properties or resources. Due to the limited ground disturbance and potential for subsurface disturbance associated with EPG testing activities, the Proposed Action is not anticipated to significantly impact archaeological or historic resources at off-post test sites or larger testing areas. Impacts associated with Alternative One are similar but potentially less than those associated with the Proposed Action.

ASA-Army Security Agency; **DPTMS-**Directorate of Planning, Training, Mobilization, and Security; **RFMSS-** Range Facility Management Support System; **EPG-**Electronic Proving Ground; **EM-**electromagnetic; **FAA-**Federal Aviation Administration; **SR-**State Route; **POL-**Petroleum, Oil, and Lubricant; **ICRMP-**Integrated Cultural Resources Management Plan; **SOP**-Standard Operating Procedure; **DPW**-Directorate of Public Works; **ENRD**-Environmental and Natural Resources Division; **NHPA**-National Historic Preservation Act; **NAGPRA**-Native American Graves Protection and Repatriation Act; **ARPA**-Archaeological Resources Protection Act; **AIRFA**-American Indian Religious Freedom Act; **AR-**Army Regulation.

5.0 REFERENCES

ADEQ (Arizona Department of Environmental Quality). 2006. [Accessed online on 22 April 2011.] http://www.azdeq.gov/environ/air/plan/notmeet.html. 1 May 2006

AGFD (Arizona Game and Fish Department). 1993. *Pyrgulopsis thompsoni*. Unpublished abstract compiled and edited by the Heritage Data Management System. Arizona Game and Fish Department, Phoenix, Arizona. 3 pp.

AGFD (Arizona Game and Fish Department). 2001a. *Rana chiricahuensis*. Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 5pp.

AGFD (Arizona Game and Fish Department). 2001b. *Rana subaquavocalis*. Unpublished abstract compiled and edited by the heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 4pp.

AGFD (Arizona Game and Fish Department). 2001c. *Thamnophis eques megalops*. Unpublished abstract compiled and edited by the heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 4pp.

AGFD (Arizona Game and Fish Department). 2007. *Hyla wrightorum*. Unpublished abstract compiled and edited by the heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. 4pp.

AGFD (Arizona Game and Fish Department). 2011. *Nongame Species.* [Online] [Accessed 27 April 2011]. http://www.azgfd.gov/w_c/nongame_species_information.shtml

Bailowitz and Upson. 1997. *Fort Huachuca, Arizona Butterfly List.* Accessed online 22 December 2009 at http://www.naba.org/chapters/nabasa/Fort%20Huachuca%20Butterfly%20List%20-%20page%201.html.

Bennet, P, M. Kunzmann, and L. Graham. 2004. *Descriptions of Arizona Vegetation Represented on the GAP Vegetation Map.* Biological Resources Division, U.S. Geological Survey.

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.

BLM (Bureau of Land Management). 1989. *San Pedro River riparian management plan and environmental impact statement.* Final. Safford, AZ: U.S. Department of the Interior, BLM. June. 381 pp.

City of Sierra Vista. 2009. *Sierra Vista Fire Department Locations*. [Accessed online 27 April 2011]. http://www.sierravistaaz.gov/department/division.php?fDD=12-114.

Cochise County. 2010. *Northwest Cochise County Long-Range Transportation Plan – Final Report*. URS. Phoenix, Arizona.

DA (Department of the Army). 2007. *AR (Army Regulation) 200-1: Environmental Protection and Enhancement.* 13 December 2007.

Douglas, M., P. Marsh, and W. Minckley. 1994. *Indigenous fishes of western North America and the hypothesis of competitive displacement: Meda fulgida (Cyprinidae) as a case study.* Copeia 1994(1):9-19.

EPA (Environmental Protection Agency). 2009. *SO_2 Air Quality Data Update.*

EPA (Environmental Protection Agency). 2011. [*Accessed* online on 26 April 2011.] http://www.epa.gov/oaintrnt/ghg/index.htm. 24 March 2011.

FR (Federal Register). 2010. *75 FR 31514 – Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.* 3 June 2010.

Fry Fire District. 2009. *Fry Fire Department Locations*. [Accessed online 27 April 2011]. http://www.fryfiredistrict.com/fryfiredistrict/.

Ganey and Balda. 1989. *Distribution and Habitat Use of Mexican Spotted Owls in Arizona.* Condor 91:355-361.

Hammit and Cole. 1998. *Wildland Recreation: Ecology and Management*. John Wiley & Sons, Inc., 1998.

Hougland, M. (Personal Communication). 2011. Vernadero Group, Incorporated, Personal Communication between Heather Kinkdade (Vernadero Group) and Marjorie Hougland, Fort Huachuca EPG. May 2011.

Huckelberry, C. 2001. *Recreation Impacts in Eastern Pima County - Draft.* [Online] March 2001. [Accessed: 16 June 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 (Joint Land Use Study). 2007. Fort Huachuca Joint Land Use Study, Arizona Military Regional Compatibility Project. Accessed online on 13 October 2009 at http://www.azcommerce.com/doclib/commasst/ft%20huachuca/ft%20_huachuca_jlus_final_report.pdf

Koprowski, et al. 2006. *Direct Effects of Fire On Endangered Mount Graham Red Squirrels*. The Southwestern Naturalist. 51(1):59-63.

Krueper, D. J. 1993. *Effects of Land Use Practices on Western Riparian Ecosystems.* In Status and Management of Neotropical Migratory Birds, General Tech. Rep. RM-229, U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado.

Mayberry. 2010. *Sound Level Comparison for Honda Generators.* [Accessed online 28 April 2011]. 2010.

Miller, R. 1961. *Man and the changing fish fauna of the American southwest*. Papers of the Michigan Academy of Science, Arts, and Letters XLVI:365-404.

Minor (Michael Minor & Associates). 2006. *Noise Primer.* [Accessed on line 29 April 2011]. http://www.drnoise.com/

Newman, D. 1991. *Status Report: Spiranthes delitescens*. U.S. Fish and Wildlife Service, Ecological State Office, Phoenix, Arizona. 10 pp.

NMGFD (New Mexico Game and Fish Department). 1996. *Species Accounts.* BISON-M. [Online] http://www.bison-m.org/.

NPS (National Park Service) 2011a. . National Register of Historic Places. [Online] 27 April 2011. [Cited: April 27, 2011.] http://www.nps.gov/nr/travel/amsw/sw3.htm

NPS (National Park Service) 2011c. National Register of Historic *Places*. [Online] 27 April 2011. [Cited: April 27, 2011.] http://www.cr.nap.gov/nr/faq.htm#nr

NPS (National Park Service). 2011b. National Historic Landmarks Program. [Online] 27 April 2011. [Cited: April 27, 2011.] http://www.cr.nps.gov/nhl/whatis.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_final_report.pdf.

Rinne and Neary. 1996. *Fire Effects on Aquatic Habitats and Biota in Madrean-type Ecosystems: Southwestern United States.* Pages 135-145 in P.F. Folliott et al. (eds), Effects of Fire on Madrean Province Ecosystems, A Symposium Proceedings. USDA Forest Service, General Technical Report RM-GTR-289.

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.

SFB (Southwestern Field Biologists).1996. *Baseline and History of Six Wildlife Species Federally Listed as Threatened and Endangered in the San Pedro River Watershed, Arizona.* Tucson, Arizona.

Sidner, R. 2000. *The Tenth Year of Monitoring Bats and Bat Roostsites, with Emphasis upon the Lesser Long-nosed Bat (Leptonycteris curasoae), on the Fort Huachuca Military Reservation, Cochise County, Arizona, July - November 1999.* Draft. Contract No. DABT63-00-P-0346 for the Environmental and Natural Resources Division, Directorate of Engineering and Housing, Fort Huachuca, Arizona. 13 pp. + appendices.

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.*

Sogge, et al. 1997. *A Southwestern Willow Flycatcher Natural History Summary and Survey Protocol*. Tech. Rep NPS/NAUCPRS/NRTR-97/12, USGS Colorado Plateau Research Station/Northern Arizona State University. 39 pp.

Stone, Sheridan. 2008. Wildlife Biologist, Fort Huachuca, Arizona. Personal Communication of 5 December 2008 regarding Ramsey Canyon leopard frog.

Sullivan and Yates. 1994. *Population Genetics and Conservation of Relict Populations of Red Squirrels.* In: Storm Over A Mountain Island. Istock and Hoffman Editors. University of Arizona Press, Tucson. 2008.

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

Tandy, M. 1997. *Fort Huachuca Plant Community Interpretation (vegetation community type map)*. University of Arizona, Tucson.

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 27 April 2011]. http://rwbach.huachuca.amedd.army.mil/gen-info.html.

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

USACE (U.S. Army Corps of Engineers). 2008. *Fort Huachuca Real Property Master Plan Update.* October 2008.

USAEPG (U.S. Army Electronic Proving Ground) 1997a. *Environmental Assessment – Renewal of Six Joint-Use Property Leases in Support of the U.S. Army Electronic Proving Ground.* March 1997.

USAEPG (U.S. Army Electronic Proving Ground) 1997b. *Relocation of Three Existing Electronic Proving Ground Low Powered Repeaters.* June 1997

USAGFH (U.S. Army Garrison Fort Huachuca). **1992.** *Environmental Assessment for the U.S. Army Electronic Proving Ground Communication-Electronic Testing and Use of Test Sites in Southern Arizona and Fort Huachuca.* Fort Huachuca, Arizona.

USAGFH (U.S. Army Garrison Fort Huachuca). 2000. *Comprehensive Unmanned Aerial Vehicle Testing and Training at Fort Huachuca, Arizona.* Environmental and Natural Resources Division. June 2000.

USAGFH (U.S. Army Garrison Fort Huachuca). 2004. *Programmatic Environmental Assessment Future Development Plan, U.S. Army Intelligence Center, Fort Huachuca.* Environmental and Natural Resources Division. November 2004.

USAGFH (U.S. Army Garrison, Fort Huachuca). 2007. Endangered Species Management Plan for the Mexican Spotted Owl, Strix occidentalis lucida. Environmental and Natural Resources Division, Fort Huachuca, Arizona.October 2007.

USAGFH (U.S. Army Garrison, Fort Huachuca). 2008. 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. July.

USAGFH (U.S. Army Garrison Fort Huachuca). 2009. *Final Environmental Assessment for the Integrated Natural Resource Management Plan and Real Property Master Plan –* Environmental and Natural Resources Division, Fort Huachuca, Arizona.

USAGFH (U.S. Army Garrison Fort Huachuca). 2010. *Integrated Natural Resource Management Plan.* Environmental and Natural Resources Division, Fort Huachuca, Arizona. March 2010.

USAGFH (U.S. Army Garrison Fort Huachuca). 2011. *Installation Spill Contingency Plan.* Contract W9124A-08-D-002. Environmental and Natural Resources Division, Fort Huachuca, Arizona.

USAIC & FH (U.S. Army Intelligence Center and Fort Huachuca). 2006. *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.

USAIC & FH (U.S. Army Intelligence Center and Fort Huachuca). 2006. *Fort Huachuca Integrated Wildland Fire Management Plan.* January 2006.

USAIC & FH (U.S. Army Intelligence Center and Fort Huachuca). 1993. *Environmental Assessment for Training and Communications-Electronics Testing at Fort Huachuca.* 1993 pg 13

USDA (U.S. Department of Agriculture) Forest Service. 2005. *Coronado National Forest Plan.* Revised Edition June *2005*.

USDA (U.S. Department of Agriculture) Forest Service. 2009. *Environmental Assessment, Huachuca FireScape Project, Coronado National Forest, Cochise, Pima, and Santa Cruz Counties, Arizona.* February 2009.

USDA (U.S. Department of Agriculture) Forest Service. 2010. *Special Use Permit.* 20 September 2010.

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

USFWS (U.S. Fish and Wildlife Service). 1997a. *Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for Three Wetland Species Found in Southern Arizona and Northern Sonora, Mexico.* Federal Register 62(3):665-689.

USFWS (U.S. Fish and Wildlife Service). 1997b. *Pyrgulopsis thompsoni*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 3 pp.

USFWS (U.S. Fish and Wildlife Service). 2000. *Coryphantha scheeri var. robustispina*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2001b. *Leptonycteris curasoae yerbabuenae*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2001c. *Lilaeopsis schaffneriana* ssp. *recurva*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2002a. Sonora *Tiger Salamander Recovery Plan, Ambystoma tigrinum stebbinsi,* October, 2002. USFWS, Albuquerque, New Mexico.

USFWS (U.S. Fish and Wildlife Service). 2002b. *Coryphantha robbinsorum*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2002c. *Colinus virginianus ridgewayi*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2002d. *Final Biological Opinion Fort Huachuca Ongoing and Programmed Future Military Operations and Activities.* 23 August 2002. Available from Fort Huachuca Army Intelligence Center, Sierra Vista, Arizona.

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

USFWS (U.S. Fish and Wildlife Service). 2006a. *Empidonax traillii extimus*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2006b. *Gila nigra*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2007a. *Endangered and Threatened Wildlife and Plants; Review of Native Species That Are Candidates for Listing as Endangered or Threatened; Annual Notice of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions; Proposed Rule*. USFWS, Federal Register 72:69033-69106.

USFWS (U.S. Fish and Wildlife Service). 2008a. *Erigeron lemmonii.* Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2008b. *Lithobates [Rana] chiricahuensis.* Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2010a. *Pyrgulopsis thompsoni*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2010b. *Heterelmis stephani*. Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2010c. *Chionactis occipitalis klauberi.* Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USFWS (U.S. Fish and Wildlife Service). 2010d. *Meda fulgida.* Unpublished abstract compiled and edited by the U.S. Fish and Wildlife Service. Phoenix Field Office, Phoenix, Arizona. 1 p.

USGS (U.S. Geological Survey). 1997. *National Water Summary on Wetland Resources.* [Online] [Accessed 27 April 2011]. http://water.usgs.gov/nwsum/WSP2425/state_highlights_summary.html

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.

Warren, et al. 1991a. *Erigeron Lemmonii: Status Report*. Arizona Nature Conservancy, submitted to the USFWS.

WEF and UAWRRC (Water Education Foundation and The University of Arizona Water Resources Research Center). 2007. *Layperson's Guide to Arizona Water.* [Online] [Accessed 28 April 2011] http://ag.arizona.edu/AZWATER/WRRC_Events_News/LPG/Layperson%27s_Guide_to_Arizona_Water.pdf

Williams, et al. 1985. *Endangered aquatic ecosystems in North American deserts with a list of vanishing fishes of the region.* Journal of the Arizona-Nevada Academy of Science 20(1):1-62.

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Bureau of Land Management
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1763 Paseo San Luis
Sierra Vista, AZ 85635

Bureau of Reclamation
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Coronado National Forest
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Region 9
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Newport News, VA 23606

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Sells, Arizona 85634

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1110 W. Washington Street
Phoenix, Arizona 85007

Arizona Department of Water Resources
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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

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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
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Bisbee, AZ 85603

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PO Box 339
Tombstone, AZ 85638

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

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

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Flagstaff, Arizona 86002-1178

Huachuca Audubon Society
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Sierra Vista, Arizona 85636

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

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

The Nature Conservancy
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Tucson, Arizona 85719

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Tom Webb	EPG, Fort Huachuca, Arizona

FORMAT PAGE

Appendix A. Record of Non-Applicability

RECORD OF NON-APPLICABILITY

Project Name: U.S. ARMY ELECTRONIC PROVING GROUND TESTING ACTIVITIES ON FORT HUACHUCA AND THROUGHOUT ARIZONA
Point of Contact: Wes Culp, NEPA Coordinator, Fort Huachuca, Arizona
Phone/E-mail: (520) 533-1863 wesley.b.culp.civ@mail.mil

Project Description: The Electronic Proving Ground (EPG) at Fort Huachuca is a primary electronic equipment developmental test facility for the Department of Defense and a historic organization in the electromagnetic spectrum community. Testing is conducted by dispatching intelligence, communication and other electronic testing equipment to a selection of either on-post or off-post locations that meet the testing requirements. Although EPG conducts a great deal of its testing within the bounds of Fort Huachuca, some tests require a wider geographic dispersion than can be accomplished on the Installation. Approximately 1,600 test sites are within Fort Huachuca and an additional 800 test sites are outside the Installation boundaries. Most sites are approximately 10,000 sf and are established around an Army Security Agency (ASA) survey marker. Some tests require more testing area space, therefore EPG leases a number of larger off-post leased including Sunnyside, the Tombstone Municipal Airport, Site Sibyl, the Winchester Site, Keller Road Site, Gleeson Road Site and several sites within the Wilcox Playa. The Proposed Action involves the continued and expanded use of existing test sites both on-post and off-post while allowing for the establishment of additional field test sites.

Conformity Determination: General Conformity under the Clean Air Act, Section 176 has been evaluated according to the requirements of Title 40 of the Code of Federal Regulations Part 93, Subpart B. The requirements of this rule are not applicable to the Proposed Action or the alternatives because:

> Air emissions associated with the action are in conformity with the applicable State Implementation Plans and Air Quality Management Plans for federal non-attainment pollutants. The criteria emissions would be below both State and Federal conformity *de minimis* thresholds for applicable nonattainment emissions.

Supporting Documentation:

( ) Attached
(X) Appear in the NEPA Document
( ) Other – Not necessary

Wes Culp
NEPA Coordinator, Fort Huachuca, Arizona

Date

Appendix B. Agency Responses

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 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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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 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA 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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DEPARTMENT OF THE ARMY
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DIRECTORATE OF PUBLIC WORKS
3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 2011 to be considered during the NEPA process.

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

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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.

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

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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.

Kimberlee K. Mulhern

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

CC (with enclosure):

Leland Michael Darrow, Historian

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 25 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 a Programmatic Environmental Assessment (PPEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

The PPEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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

GILA RIVER INDIAN COMMUNITY

POST OFFICE BOX 2140, SACATON, AZ 85147

TRIBAL HISTORIC PRESERVATION OFFICE

(520) 562-7162
Fax: (520) 562-5083

October 5, 2011

Kimberlee K. Mulhern, P.G.
Chief, Environmental and Natural Resource Division
U.S. Army Garrison
Directorate of Public Works
3040 Butler Road
Fort Huachuca, Arizona 85613-7010

RE: Programmatic Environmental Assessment (PPEA) and Draft Finding of No Significant Impact (FONSI) for Electronic Proving Ground (EPG) Test Sites On and Off Post, Fort Huachuca, Arizona

Dear Ms. Mulhern,

The Gila River Indian Community Tribal Historic Preservation Office (GRIC-THPO) has received your consultation documents August 25, 2011. The Programmatic Environmental Assessment (PPEA) describes an electronic systems testing program employed by Fort Huachuca which occurs both on and off lands managed by Fort Huachuca. The Electronic Proving Ground (EPG) is an Army Test Range which is the state of the art electronic testing program for the U.S. Army Test and Evaluation Command. The PPEA specifies that the "nature of electronics testing at existing test sites is not anticipated to impact undiscovered subsurface archeological or historic resources on Fort Huachuca." The Environmental and Natural Resource Division Fort Huachuca has recommended a draft Finding of No Significant Impact (FONSI) for the continued use of EPG.

The GRIC-THPO agrees with the FONSI. The proposed project area is within the ancestral lands of the Four Southern Tribes (Gila River Indian Community; Salt River Pima-Maricopa Indian Community; Ak-Chin Indian Community and the Tohono O'Odham Nation). The GRIC-THPO defers to the Tohono O'Odham Nation as lead in the consultation process.

Thank you for consulting with the GRIC-THPO on this project. If you have any questions please do not hesitate to contact me or Archaeological Compliance Specialist Larry Benallie, Jr. at 520-562-7162.

Respectfully,

Barnaby V. Lewis
Tribal Historic Preservation Officer
Gila River Indian Community

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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Kimberlee K. Mulhern

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

CC (with enclosure):

Rolando Flores, Assistant Attorney General

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

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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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

CC (with enclosure):

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

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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.

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

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 25 2011

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

Dear Chairman Norris:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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.

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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.

Kimberlee K. Mulhern

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

White Mountain Apache Tribe

Office of Historic Preservation
PO Box 507
Fort Apache, AZ 85926
Ph: (928) 338-3033 Fax: (928) 338-6055

To: Wes Culp, Fort Huachuca Military Base NEPA Coordinator

Date: September 27, 2011

Project: Draft EA / FONSI for the Electronic Proving Grounds at Fort Huachuca, AZ.

.....

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, August 25, 2010 . In regards to this, please attend to the following checked items below.

► ***There is no need to send additional information unless project planning or implementation results in the discovery of sites and/or items having known or suspected Apache Cultural affiliation.***

N/A - The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethno-historic study and interviews with Apache Elders. The tribe's ***Cultural Heritage Resource Director Mr. Ramon Riley*** may be contacted at (928) 338-3033 for further information should this become necessary.

► Please refer to the attached additional notes in regards to the proposed project:

We have received and reviewed information regarding the draft EA and the FONIS, and we have determined the proposed action will ***not have an effect*** on the White Mountain Apache tribe's (WMAT) historic properties and/or traditional cultural properties. Regardless, any/all ground disturbing activities should be monitored ***if*** there are reasons to believe that there are human remains and/or funerary objects are present, and if such remains and/or objects are encountered all project activities should cease and the proper authorities and/or ***affiliated*** *tribe(s)* be notified to evaluate the situation.

Thank you. We look forward to continued collaborations in the protection and preservation of place of cultural and historical significance.

Sincerely,

Mark T. Altaha

White Mountain Apache Tribe

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 25 2011

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

Dear Governor Cooeyate:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary.

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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 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA 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.

Kimberlee K. Mulhern

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

Enclosure

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

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

Janice K. Brewer
Governor

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 On-Post and Off-Post Test Sites

Dear Mr. Culp:

The ADEQ Air Quality Division has reviewed your letter, dated August 25, 2011, concerning the Scoping Letter for the Fort Huachuca ~~Empire Challenge Events~~ EPG Testing Activities. 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 testing. 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:

On January 11, 2011, EPA promulgated a determination of attainment as of the applicable attainment date for the Douglas-Paul Spur PM10 Nonattainment Area based on ambient air quality monitoring data from 1992-1994, retroactively affirming that the area had met the PM_{10} NAAQS by the December 31, 1994, deadline established by the 1990 amendments of the CAA (76 Federal Register 1532). Two exceedances were recorded in later years, related to high wind events. ADEQ anticipates that EPA will issue a new Clean Data Finding for the years 2009-2011 in early 2012, after which ADEQ would prepare a 10-year Maintenance Plan and a request for redesignation to attainment status for PM10.

REDUCE DISTURBANCE of PARTICULATE MATTER DURING TESTING

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;
   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. 266789

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 PM_{10} 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 PM_{10} 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.

From:	Culp, Wesley B USA CIV (US)
To:	Karen Collins
Cc:	Chinea, Luz E USA CIV (US); Webb, Thomas B USA CIV (US)
Subject:	FW: Comments on Programmatic Environmental Assessment for Electronic Proving Ground (UNCLASSIFIED)
Date:	Thursday, September 15, 2011 3:46:06 PM

Classification: UNCLASSIFIED
Caveats: NONE

Karen

FYI

Only comment received so far.

Wes Culp
NEPA Coordinator
DPW/Environmental and Natural Resources Division
IMWE-HUA-PWB
3040 Butler Rd, Bldg 22526
Fort Huachuca, Arizona 85613-7010
Ph: 520-533-1863
Fax: 520-533-3043
E-mail: wesley.b.culp.civ@mail.mil

-----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: Comments on Programmatic Environmental Assessment for Electronic Proving Ground

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 continued and expanded use of existing Electronic Proving Ground test sites on-post at Fort Huachuca and off-post. 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

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

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 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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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

October 3, 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 **Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact for the continued and expanded use of existing Electronic Proving Ground test sites on-post at Fort Huachuca and off-post at additional sites throughout Arizona**. At this time the Department sees no significant threats to wildlife resources posed by the proposed actions.

We would, however, like to draw attention to a potential impact to our law enforcement activities in the vicinity of the Sunnyside Test Site. In the PEA, the statement is made that electronic jamming techniques "have potential to affect communications equipment within the area". We request that when you provide "a list of mitigation measures taken to avoid interference with frequencies" to the U.S. Forest Service District Ranger, you also provide the same information to the Department's Region V Law Enforcement Program Manager, Gabe Paz. You may contact Mr. Paz at 520-388-4443 or gpaz@azgfd.gov.

Sincerely,

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

cc: Gabe Paz, Region V Law Enforcement Program Manager, AGFD
Laura Canaca, Project Evaluation Program, AGFD

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 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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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 25 2011

Arizona State Land Department
1616 West Adams
Phoenix, Arizona 85007

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA 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.

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 25 2011

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

Dear Mr. Garrison:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA 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.

Kimberlee K. Mulhern

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

Enclosure

SHPO-2003-76(94181)MIR

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 25 RECEIVED
AUG 30 2011
AH
ARIZONA STATE PARKS/S.H.P.

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

Received
9-30-11
K. Mulhern

Dear Mr. Garrison:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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Kimberlee K. Mulhern

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

Enclosure

This NEPA submittal does not constitute consultation under Section 106 of the National Hist. Preservation Act. Provisions at 36 CFR Part 800.8 must be followed in order for this Office to accept NEPA documentation as Section 106 compliance consultation.

We look forward to your Agency's Section 106 consultation on this undertaking. Thank you,
Carol D. Howard / SHPO 9/23/11

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 25 2011

City of Bisbee
118 Arizona Street
Bisbee, Arizona 85603

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA 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.

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

AUG 25 2011

Directorate of Public Works

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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA 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.

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 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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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 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

The PEA and supporting documents are being made available for public and agency review and comment during a 30-day period commencing September 4, 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 October 3, 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.

Kimberlee K. Mulhern

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

Enclosure

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3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 2011

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

Dear Sir or Madam:

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REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 2011

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

Dear Ms. Thomas:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 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 a Programmatic Environmental Assessment (PPEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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Kimberlee K. Mulhern

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

Enclosure

From:	Culp, Wesley B USA CIV (US)
To:	"Karen Collins"
Cc:	Chinea, Luz E USA CIV (US); Webb, Thomas B USA CIV (US)
Subject:	FW: comments (UNCLASSIFIED)
Date:	Monday, September 26, 2011 10:11:59 AM

Classification: UNCLASSIFIED
Caveats: NONE

Karen

EPG PEA comment.

The correct spelling is Willcox.

Thanks

Wes Culp
NEPA Coordinator
DPW/Environmental and Natural Resources Division
IMWE-HUA-PWB
3040 Butler Rd, Bldg 22526
Fort Huachuca, Arizona 85613-7010
Ph: 520-533-1863
Fax: 520-533-3043
E-mail: wesley.b.culp.civ@mail.mil

-----Original Message-----
From: Tricia Gerrodette [mailto:triciag2@cox.net]
Sent: Thursday, September 22, 2011 3:27 PM
To: Culp, Wesley B USA CIV (US)
Subject: comments

Hi, Wes. I'm looking at the PEA and Draft FNSI for the EPG test sites. I'm still researching one possible substantive comment. But in the meantime I wanted to point out the extremely inconsistent use/spelling of Wilcox and Willcox. It's used both ways for the city, the playa, etc. and should be spelled with two l's in all cases, as far as I know. It should be fixable with a global search.

--

What you do speaks so loud that I cannot hear what you say. - Ralph Waldo Emerson
<http://www.quotationspage.com/quote/32980.html>

Classification: UNCLASSIFIED
Caveats: NONE

HUACHUCA AUDUBON SOCIETY
P. O. BOX 63 • SIERRA VISTA, ARIZONA 85636-0063

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

Re: PEA for use of EPG test sites

October 3, 2011

Dear Mr. Culp:

We wish to submit the following comments in regard to the Programmatic Biological Assessment (PEA) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post and off-post.

In section 3.2.1.2, there is the following statement: “There are no known wetlands or aquatic habitat within the Sunnyside Test Site.” The test site seems to cover a lot of area, per Figure 3.8-1. We asked some people who visit the area to provide us with their information and received the following from Bob Luce, retired biologist, from his journal entries.

From my Arizona Trail Journal (for the area between Bathtub Spring in Miller Peak Wilderness and Canelo Hills Trailhead along the gravel road between Sonoita and Montezuma Pass):

April 11, 2006

"Heading down the AZT from the Crest Trail in Miller Peak Wilderness toward Sunnyside Canyon we pass the spur trail to Copper Glance Mine and find the historical remains of an old mining camp a few minutes later. Among the historical remains are three rock-walled wells that look like wishing wells that invite us to toss in a coin. Mining artifacts, original function only to be guessed at, are scattered in the sandy streambed like mammoth bones. Pools of water the size of a wash basin occasionally well up in the otherwise dry streambed. I doubt the pools will last until the July monsoon, so I would not count on them for a May trip."

"...just above the (Miller Canyon) wilderness boundary (heading toward Sunnyside Canyon) is a metal livestock water tank full of water piped from an uphill spring. This tank may have water all year, but certainly will as long as there are cattle using the pasture."

HUACHUCA AUDUBON SOCIETY
P. O. BOX 63 • SIERRA VISTA, ARIZONA 85636-0063

"A short distance below the wilderness boundary we arrive ... at the (Sunnyside) Trailhead. After a short hike up the two-track road we intersect with Scotia Canyon and find both running water and pools (in Sunnyside Canyon)."

April 12, 2006.

"...we turn *down* Scotia Canyon and within one-half mile find a windmill and storage tank, but no water. Just below, however, there is water in the creek."

We urge you to double-check with the Forest Service about the existence of wetlands or aquatic habitat in the area and the potential impact of activities on these waters.

Sincerely,

Tricia Gerrodette, President
Huachuca Audubon Society

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3040 BUTLER ROAD
FORT HUACHUCA ARIZONA 85613-7010

REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 2011

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

Dear Sir or Madam:

The Environmental and Natural Resources Division has prepared a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

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REPLY TO
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Directorate of Public Works

AUG 25 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 a Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FNSI) for the continued and expanded use of existing Electronic Proving Ground (EPG) test sites on-post at Fort Huachuca and off-post while allowing for the establishment of additional field test sites as necessary. A copy of the PEA and supporting documents are enclosed.

It is required that the PEA 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 September 4, 2011 naming your library as the public review location for these documents. As such, documents must remain available for public review from September 4, 2011 through October 3, 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 October 3, 2011 to be considered.

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REPLY TO
ATTENTION OF

Directorate of Public Works

AUG 25 2011

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

Dear Sir or Madam:

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