ENVIRONMENTAL ASSESSMENT

FOR

SECURITY FENCING AT YUMA PROVING GROUND

U.S. Army Yuma Proving Ground
Environmental Sciences Division
Yuma, Arizona 85365-9498

September 12, 2003

ABBREVIATIONS AND ACRONYMS

ADEQ	Arizona Department of Environmental Quality
AGFD	Arizona Game and Fish Department
AR	Army Regulation
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COE	United States Corps of Engineers
cm	Centimeters
CWA	Clean Water Act
EA	Environmental Assessment
FNSI	Finding of No Significant Impact
INRMP	Integrated Natural Resources Management Plan
ITAM	Integrated Training Area Management
km	Kilometer
KNWR	Kofa National Wildlife Refuge
LAAF	Laguna Army Airfield
LCTA	Land Condition-Trend Analysis
MAA	Main Administrative Area
MTA	Mobility Test Area
m	Meters
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PM10	Particulate Matter under 10 Microns
RWEIS	Range Wide Environmental Impact Statement
USFWS	United States Fish and Wildlife Service
YPG	Yuma Proving Ground

U.S. ARMY YUMA PROVING GROUND
YUMA, ARIZONA

ENVIRONMENTAL ASSESSMENT FOR SECURITY FENCING AT YUMA PROVING GROUND

September 12, 2003

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FINAL
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for
Security Fencing at Yuma Proving Ground

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September 12, 2003

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1.0 INTRODUCTION

The U.S. Army Yuma Proving Ground (YPG) is the Army's center for desert natural environment testing. The primary mission at YPG is test and evaluation of medium and long range artillery; aircraft target acquisition equipment and armament; armored and wheeled vehicles; munitions; and personnel and supply parachute systems. The installation is located in Southwest Arizona (see Figure 1) and encompasses more than 3390 square kilometers (1309 square miles).

In 2001, YPG completed a Range Wide Environmental Impact Statement (RWEIS). This Environmental Assessment (EA) is tiered from the RWEIS (YPG 2001a) and has been prepared to support the decision making process pursuant to the requirements of the National Environmental Policy Act (NEPA) and Army Regulation 200-2 (32 CFR Part 651). This EA addresses site-specific information and potential impacts on environmental resources associated with extending security fencing around designated cantonment areas at YPG.

1.1 Purpose of the Proposed Action

The purpose of the Proposed Action is to control and regulate entry into functional areas at YPG by extending current security fencing to enclose designated functional centers within the installation. These designated functional centers are generally known as “cantonment areas.”

1.2 Need for the Proposed Action

Since 1955, YPG has been an open post. Over the past several years, YPG has been converting to a closed post in order to meet requirements from Department of the Army. After the events of September 11, 2001, this process was accelerated due to increased security concerns. Extended fencing is required; pursuant to directives issued from Department of the Army headquarters, to minimize the potential for trespass by the public into cantonment areas restricted or reserved for installation residents and personnel.

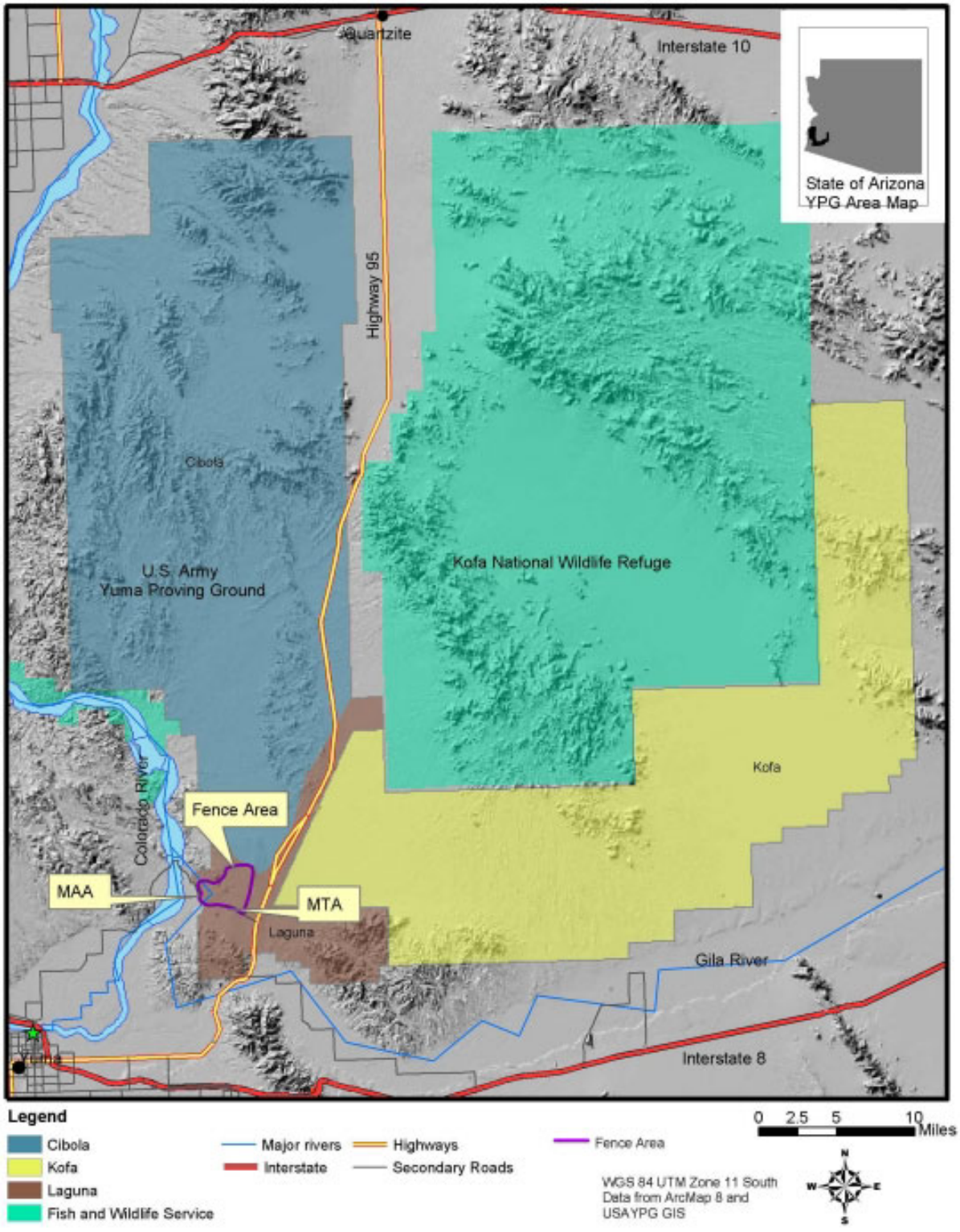


Figure 1 - U.S. Army Yuma Proving Ground

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Background

Yuma Proving Ground is segregated into three distinct geographical regions, the Laguna, Kofa, and Cibola Regions (see figure 1). Within these regions, several functional areas known as cantonment areas serve specific mission related purposes and house a variety of support facilities. Because of heightened national security, YPG is extending current security fencing to enclose these cantonment areas.

2.2 Proposed Action

The Proposed Action is to extend current security fencing an additional 2.6 miles to enclose approximately 5,136 acres of designated cantonment areas located within the Laguna Region of YPG (see figure 2).

2.2.1 Cantonment Areas

Cantonment areas to be enclosed are designated functional areas also known as the Main Administrative Area (MAA), Laguna Army Airfield (LAAF), and Mobility Test Area (MTA). Activities conducted within each of these areas provide a variety of support to the installation's mission, including areas reserved for installation residents and personnel (Haygood 2003).

2.2.2 Construction Activities

Each of the cantonment areas listed above already have some security fencing around and within the perimeter of the cantonment boundaries. A total of 11.6 miles of security fence is already in place and construction activities will center primarily on extending this fencing by an additional 2.6 miles. The extended fencing will connect to existing security fencing located north of the Water Treatment Plant in the MAA and run in a west to east direction joining to existing security fence in the northeast section of LAAF (Haygood 2003, Thomas 2003). An overview of current and proposed fencing is shown in figure 2.

The additional fencing will be similar to the current fencing, type E-6 six-foot high chain link fence topped with a three-strand barbwire diagonal intrusion protection structure. Galvanized steel posts, embedded in the ground with concrete reinforcement, approximately 10 feet apart, will support the fence. A 20 to 30 foot clearing will be graded and leveled along the proposed fence line. However, the majority of the new fencing will be placed adjacent to existing service roads, which parallel utility poles (Haygood 2003, Thomas 2003).

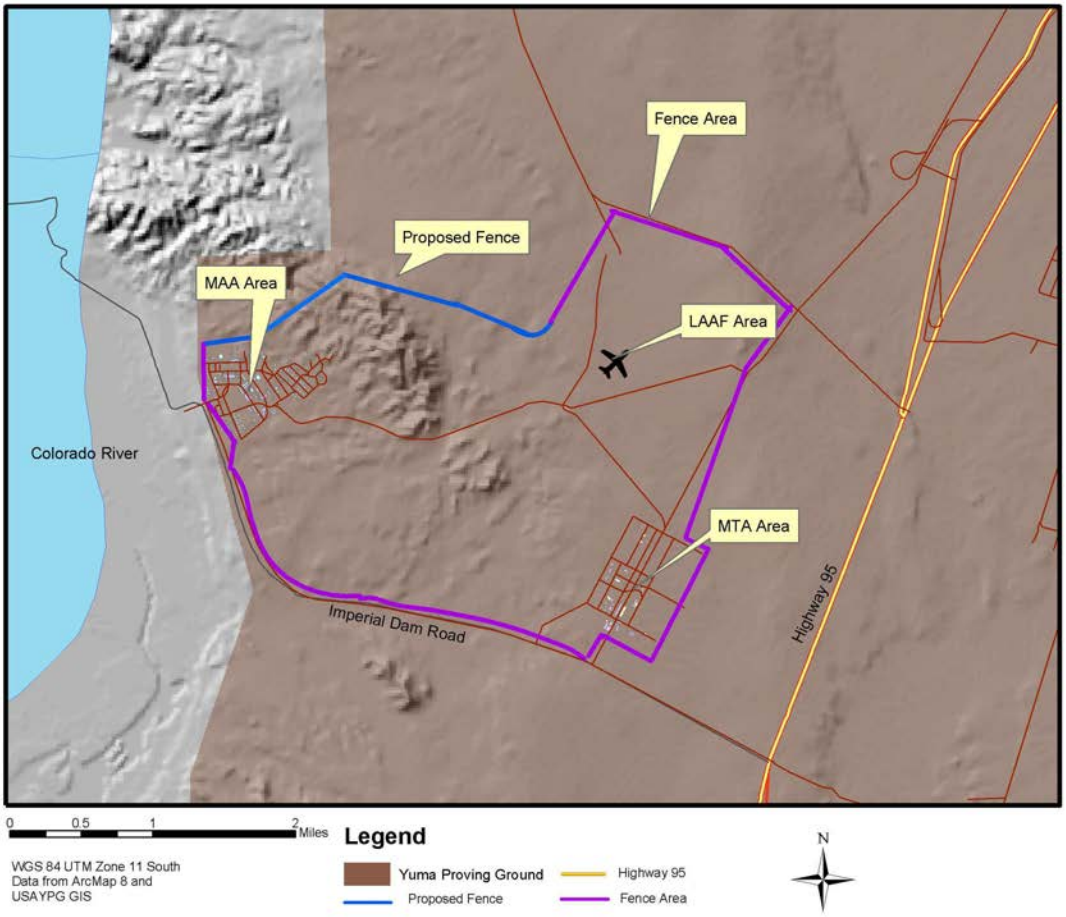


Figure 2 – Existing and Proposed Cantonment Fencing

3.0 ALTERNATIVES

3.1 Alternatives Considered

Alternatives considered evaluated various factors and constraints, as well as requirements mandatory for maintaining installation security and environmental quality without resulting in a loss to mission.

3.1.1 Alternative A - Proposed Action

YPG's preferred alternative to fulfill the requirements of the Proposed Action is Alternative A, as presented and discussed in chapter 2. A generalized location map is shown in figure 2.

3.1.2 Alternative B – No Action

Under the No Action Alternative, current security fencing would not be extended. Additional fencing required to restrict access into cantonment areas would not be constructed and YPG could not comply with Department of Army security requirements.

3.2 Alternative Eliminated from Further Detailed Study

The following alternative was examined for inclusion in the analysis for the Proposed Action, but eliminated from further detailed studies due to security reasons.

3.2.1 Alternative C – Separate Fencing

Consideration was given for the development of separate fencing around each cantonment area; however, this alternative was eliminated from further study. Reasons for the elimination of this alternative included the exposure of the Hill 630 area due to the lack of security fencing; an increase in the number of manned security gates, and runners/joggers along Barranca Road would be unsecured.

4.0 AFFECTED ENVIRONMENT

A programmatic description of the environmental setting for YPG is presented in detail in "Chapter 3.0 - Affected Environment" of the Final Range Wide Environmental Impact Statement, Yuma Proving Ground (YPG 2001a). This chapter briefly describes the existing environment at YPG and emphasizes site-specific information for the area along the proposed extension to security fencing. The characterization of existing conditions is focused on resources in the vicinity of the proposed security fence extension and applicable to the activities associated with installation of the extended fence line.

The topography at YPG is basin and range with elevations that vary from 46 to 853 meters (m) (150.9 to 2498.6 feet) above mean sea level. The overall climate is warm, extremely arid, and temperatures periodically exceed 120°F. Precipitation rates for the area average 8.9 centimeters (cm) (3.5 inches) annually with sixty to seventy percent of the total precipitation occurring in late fall or winter. There are no perennial lakes, streams, or mountain springs within the boundaries of YPG; however, the Colorado and Gila Rivers are located in the proximity of YPG's western and southern boundaries, respectively. The City of Yuma is located 40 kilometers (km) (24.9 miles) southwest of YPG and is the nearest population center (YPG 2001a).

4.1 Land Use

YPG encompasses 3,392 square km (1309 square miles) and is configured in a "U" shape, extending 86.0 km (53.4 mi) north to south and 86.9 km (53.9 mi) east to west (YPG 2001a). The installation is subdivided into three geographic areas, the Cibola Region, Kofa Region, and Laguna Region. The area proposed for extended security fencing is located in the Laguna Region. Primary use of the land in the Laguna Region is centered on mission support and administrative functions. Several mobility and durability test courses are also located within the region.

4.1.1 Installation and Adjacent Land Use

Land within the installation's boundaries is composed of public and non-public lands withdrawn for use by the Department of the Army for military purposes and devoted to functions that are compatible with YPG's current military mission (COE 1992a; COE 1992b).

4.1.2 Site-Specific Land Use

The extended security fencing will enclose 5,136 acres of land that is comprised of the MAA, MTA, and LAAF cantonment areas. The location of the proposed security fence extension is located on a length of land between the MAA and LAAF cantonment areas. This section of land serves primarily as a buffer between the MAA, LAAF, a vehicle test course and Martinez Lake Road.

4.2 Soil Resources

4.2.1 Installation Soil Resources

The surface soils of YPG were mapped and described by the Natural Resources Conservation Service and have been classified by the U.S. Department of Agriculture as aridic and hyperthermic. Mean soil temperatures are at least 72°F with more than a 9°F difference between summer and

winter temperatures (YPG 1999; YPG 2001a). Soil depth at YPG ranges from moderately deep in alluvial basins to very shallow in the mountain regions where bedrock is often exposed. The majority of YPG soils have been characterized as ranging from extremely gravelly, or cobbly sand, to very fine, sandy loam (Cochran 1991).

4.2.2 Site-Specific Soil Resources

Five of the nine soil complexes at YPG are found across the area proposed for extended fencing (YPG GIS data and Cochran 1991). Table 4-1 contains a listing of these soil complexes and their characteristics.

TABLE 4-1. SOIL TYPES AND CHARACTERISTICS FOR CANTONMENT FENCE PROJECT AREA

Soil Complex	Depth	Percent Slope	Drainage	Permeability
Riverbend-Carrizo	Very deep	1 to 3	Excessively drained	Rapid to very rapid
Gunsight-Chuckawalla	Very deep	5 to 45	Well drained	Moderate
Cristobal-Gunsight	Very deep	1 to 15	Well drained	Moderate to very slow
Carsitas -Chuckawalla	Very deep	1 to 30	Excessively to well drained	Moderate to rapid
Superstition -Rositas	Very deep	1 to 15	Somewhat excessively drained	Rapid
Lithic Torriorthents and Typic Torriorthents	Very shallow to Moderately deep	15 to 60	Somewhat excessively drained	Moderately rapid to moderate

Source: YPG GIS Data 2003 and Cochran 1991

4.3 Water Resources

There are no perennial lakes, streams, or mountain springs within the boundaries of YPG. However, the Colorado River flows in a north-south direction to the west of the installation, while the Gila River flows in a east-west direction to the south of YPG (YPG 1999, YPG 2001a). Surface drainage from western portions of YPG flow into the Colorado River; similarly, drainage from the central and eastern portions flow into the Gila River. Desert washes are a prevalent feature of the YPG landscape and surface hydrology. They are produced by localized high-intensity thunderstorms resulting in rapid surface runoff and flash floods. These desert watersheds are dry most of the year as a result of infrequent rainfall, characteristic of Sonoran Desert precipitation patterns.

Groundwater is found in hydrologic basins located below the surface. The Colorado and Gila Rivers replenish groundwater for the Yuma region. Depth to groundwater at the installation varies dependent upon geology, location, and thickness of basin alluvium. Known depths to groundwater on the installation range from 9.1 meters (30 feet) in the southwest Laguna Region to more than 305 meters (1000 feet) in the northern Cibola Region.

4.3.1 Site-Specific Water Resources

No permanent surface water developments, other than sewage lagoons, or natural water holes are on or near areas of the Proposed Action. A few small washes and micro channels run parallel to

and traverse sections of the proposed fence line. Theses natural drainage features provide transport for infrequent precipitation to adjacent areas and larger washes.

4.4 Biological Resources

The landforms and habitats found within the region support a variety of complex biological resources. Vegetation and wildlife indigenous to this region are comprised of species adapted to the harsh and specialized habitat conditions.

4.4.1 Installation Biological Resources

Vegetation and wildlife on the installation consists of species that have adapted to the harsh and specialized habitat conditions of the Sonoran Desert, along with a few introduced exotics such as wild horses and burros (feral equines). Detailed information on plant communities, xeroriparian plant communities, and wildlife species on the installation can be found in the Final Range Wide Environmental Impact Statement (YPG 2001a), the Integrated Natural Resources Management Plan (YPG 1999), and surveys conducted on YPG by the Arizona Game and Fish Department (AGFD) (Ough and deVos 1986; deVos and Ough 1986). Complete lists of scientific and common names for plant species are available from the Land Condition-Trend Analysis Installation Report, Yuma Proving Ground, Arizona – 1991-1994 (Bern 1995), the Yuma Proving Ground Perennial Plant List (YPG 2001b), and Yuma Proving Ground Annual Wildflowers Plant List (YPG 2001c). Additionally the YPG Conservation program has prepared complete listings of wildlife species that are available in the Yuma Proving Ground Mammal List (YPG 2001d), the Yuma Proving Ground Bird List (YPG 2001e), and the Yuma Proving Ground Reptile and Amphibian List (YPG 2001f).

4.4.2 Site-Specific Biological Resources

The proposed site encompasses a partially cleared linear strip approximately 2.6 miles bordering a variety of landforms and habitats. Table 4-2 contains a listing of vegetative species that were observed or documented to occur in the vicinity of the proposed fence line.

TABLE 4-2. SITE-SPECIFIC VEGETATION

Scientific Name	Common Name
Cercidium floridum	blue paloverde
Olynea tesota	ironwood
Fouquieria splendens [1]	ocotillo
Carnegiea gigantea [1]	saguaro
Larrea tridentata	creosote
Ambrosid dumosa	white bursage
Opuntia basilaris [1]	beavertail cactus
Opuntia spps. [1]	chollas
Pleuraphis rigida	big galleta

[1] Listed as a special status species under the Arizona Native Plant Law.
Note: Various understory shrubs were sited in wash areas along with miscellaneous grasses and Forbs.
Source: Jason Bio 2003 and

Wildlife such as small rodents, reptiles and migratory birds are likely inhabitants of the proposed fence line area. Other wildlife that has the potential to occur within areas surrounding the proposed

fence line includes, but is not limited to the following; *Ovis canadensis mexicana* (desert bighorn sheep), *Odocoileus hemionus* (mule deer), and *Canis latrans* (coyote).

4.4.3 Sensitive Species

Analysis for this EA addresses sensitive species as well as endangered and threatened species identified and listed under the Endangered Species Act. Currently no sensitive species are known to occur along the route for the proposed fence extension, nor within the area to be enclosed by security fencing. Thru coordination with the AGFD to address any issues related to special status species (AGFD 2003b). Only a few plant species listed for protection by the Arizona Native Plant Law (Arizona Revised Statues, Title 3) have been identified along the construction route or adjacent to the proposed security fence (see Table 4-2).

4.5 Cultural Resources

Archaeological research indicates important cultural resources do exist on the installation. Historically, the southwestern desert of Arizona has been home to Native American peoples (YPG 2001a). The Cocopah Indian Tribe, the Colorado River Indian Tribes, and the Quechan Indian Tribe are located within the vicinity of YPG.

The YPG Integrated Cultural Resources Management Plan (YPG 2000) sets forth specific goals, policies, and procedures to identify, nominate, and protect archaeological sites, and other eligible or potentially eligible historic properties for nomination to the National Register of Historic Places (NRHP).

4.5.1 Site-Specific Archaeology and Native American Cultural Sites

Coordination between the YPG Cultural Resource Manager and the State Historic Preservation Office (SHPO), determined that construction of the additional security fencing would result in "no historic properties affected" (SHPO 2003).

4.6 Air Quality

The Clean Air Act (CAA), as amended, establishes National Ambient Air Quality Standards. The Arizona Department of Environmental Quality (ADEQ) has adopted these Federal standards as the Arizona Ambient Air Quality Standards. ADEQ is the regulating and enforcing agency for Arizona air quality standards (YPG 2001a).

A small southwestern portion of YPG falls within the Yuma County nonattainment area for particulate matter 10 microns and smaller (PM10). In arid regions, such as southern Arizona, PM10 occurs naturally at higher levels due to low soil moisture, low humidity, and wind resulting in higher dust dispersion rates. Agricultural activities are considered major contributors to PM10 pollutants, while activities at the installation have been listed as minor contributions (YPG 2001a).

4.6.1 Site-Specific Air Quality

Air quality at the proposed site is equivalent to that throughout the installation, and the proposed security fence extension is not located within the PM10 nonattainment area.

5.0 ENVIRONMENTAL CONSEQUENCES

This chapter assesses potential environmental consequences associated with direct and indirect effects associated with implementation of the Proposed Action and the No action alternative. Potential impacts are addressed in the context of the scope of the Proposed Action in Chapter 2.0 and in consideration of the potentially affected environment as characterized in Chapter 4.0.

5.1 Effects Common to All Alternatives Considered

Implementation of either alternative considered that would result in similar or no environmental consequence to specific environmental resources are presented in this section. The information is being presented in this manner to avoid repetitive text and will not be discussed later in the chapter.

5.1.1 Land Use

The significance of potential impacts to land use is based on the level of sensitivity of an area affected by the proposal. Impacts to land use are considered significant if land is degraded so it cannot be used for current or planned use; and/or planned uses conflict with off post land use, especially along the YPG boundary (YPG 2001a).

Implementation of the Proposed Action is aligned with intended land use and consistent with YPG management goals, implementation of the no-action would result in conditions remaining as status quo. Therefore, no change in land use for the installation will occur under either alternative. No mitigation or monitoring is required for land use.

5.1.2 Cultural Resources

Activities at YPG have the potential to significantly impact cultural resources. Implementation of the proposed action will have a significant impact if one or more of the following criteria are met (YPG 2001a):

- Prehistoric and historic sites eligible for the NRHP are adversely affected
- Native American religious or other cultural activity areas are adversely impacted

Implementation of the Proposed Action is aligned with policies, procedures, and specific goals set forth in the YPG Integrated Cultural Resources Management Plan, implementation of the no-action would result in conditions remaining as status quo. No change in cultural resources for the installation will occur under either alternative and no mitigation or monitoring is required.

5.1.3 Air Quality

Impacts to air quality are considered significant if an action exceeds emission limits established under the CAA (YPG 2001a).

YPG's dust and air emissions can vary substantially on a daily basis depending on levels of activity, specific operations, and prevailing meteorological conditions. Implementation of the Proposed Action would result in short-term, minor construction activities. Increased air pollutants from these activities are not anticipated due to good dispersal by strong winds and a lack of topographic features to inhibit dispersal. Implementation of the Proposed Action is aligned with, and consistent with, YPG management goals; implementation of the no-action would result in

conditions remaining as status quo. No change in air quality for the installation will occur under either alternative and no mitigation or monitoring is required for land use.

5.2 Soil Resources

Impacts to soil resources are considered significant if the following conditions occur (YPG 2001a):

- Activities result in severe soil erosion
- Soil subsidence occurs over large areas
- Permanent contamination of soil occurs that would restrict future land use

5.2.1 Alternative A

Soils along the proposed fence line are mostly disturbed from grading and other previous activities. Construction activities associated with extending the security fence will result in additional disturbance to surface soil in the immediate vicinity of the proposed fence. Installation of concrete reinforced support for the aluminum posts will also result in minimal disturbance to soils. The construction activities are short-term and the mitigation measures described below will minimize impacts to the soil surface. Therefore, no significant impacts to soil resources for the installation will result from implementation of the Proposed Action.

5.2.2 Alternative B

Under this alternative, there would be no change to soil resources.

5.2.3 Mitigation and Monitoring

Disturbances to soils will be minimized by use of proper construction techniques and the implementation of best management practices during construction. Limitations to impacts on soils resulting from vehicular traffic can be accomplished by ensuring that all vehicular travel to and from the project will be on existing YPG roads and restricted to planned areas. Standard erosion control measures (e.g., silt fencing, sediment traps, application of water sprays, and revegetation of disturbed areas) will reduce any additional potential impacts.

5.3 Water Resources

Impacts to water resources are considered significant if one or more of the following significance criteria are met (YPG 2001a):

- Surface water is contaminated by storm water runoff to levels above Federal or State water quality standards
- "Waters of the U.S." are degraded by actions that exceed limits authorized under the Clean Water Act, as amended (CWA)
- Groundwater is depleted to the degree that subsidence causes fissures to form
- Groundwater quality is degraded below CWA standards

5.3.1 Alternative A

The combination of low precipitation, 8.9 cm (3.5 inches) per year, and high evaporation rate, 271.8 cm (107 inches) per year, limits surface water build up and/or infiltration into the soil (YPG 2001a). Therefore, surface water contamination from the Proposed Action is not anticipated. No dredging or filling of washes regulated under the CWA will occur in association with the Proposed

Action; therefore, no permits are required. The total footprint for the proposed fence line will disturb less than 5-acres; therefore, a waiver for a construction storm water permit was sought and issued. No hazardous materials will be used during construction; therefore, groundwater will not be adversely impacted.

5.3.2 Alternative B

Under the No-Action Alternative, there would be no impact on water resources.

5.3.3 Mitigation and Monitoring

Disturbances to natural drainage patterns and minor washes will be minimized through best management practices and procedures during construction activities in order to eliminate or minimize erosion and or contamination of water resources. Vehicular movement will be restricted to planned areas and existing roads; vehicles will avoid driving in drainage patterns and wash areas. All disturbed areas not in sand will be required to be watered and compacted after disturbance is completed. Personnel will monitor for proper compaction after disturbance activities are completed. Designated concrete wash out locations will be provided for use during the cleanup of trucks and equipment; no loose concrete will be dumped.

YPG currently maintains several environmental plans and programs designed to assist with monitoring and maintaining its natural environmental resources, the LCTA, the ITAM, and the INRMP. These programs provide scientific and management information for the monitoring of natural resources on the installation, with specific emphasis on lands where training and testing activities occur. Inclusion of the proposed site in these monitoring and mitigation programs will ensure that any adverse impacts are identified, mitigated where possible, and monitored.

5.4 Biological Resources

Potential physical impacts such as habitat loss, noise, and impacts on water resources, are evaluated to assess potential adverse effects on biologic resources resulting from implementation of the alternatives. Impacts to biologic resources are considered significant if the following conditions occur (YPG 2001a):

- A regional or local species is extirpated
- Threatened or endangered species are adversely affected
- Ecologic processes are damaged to the extent that the ecosystem is no longer sustainable or biodiversity is impaired
- Habitat necessary for all or part of the life cycle of a species is lost as a result of the action alternative (e.g., lambing areas, migratory corridors, or wildlife watering areas)

5.4.1 Alternative A

Implementation of Alternative A could result in disturbances to wildlife, vegetation, and habitat from vehicular traffic, construction activities associated with the proposed action, and the blockage of natural wildlife corridors. The majority of the proposed new fencing is to be placed adjacent to existing service roads that parallel utility poles. The cleared areas adjacent to the existing roadways have little to no vegetation or habitat. The majority of vegetation and habitat is in or around the micro channels and washes that parallel and cross the proposed fence line. These areas will remain mostly undisturbed. Minor disturbances could occur to vegetation in areas that are not already

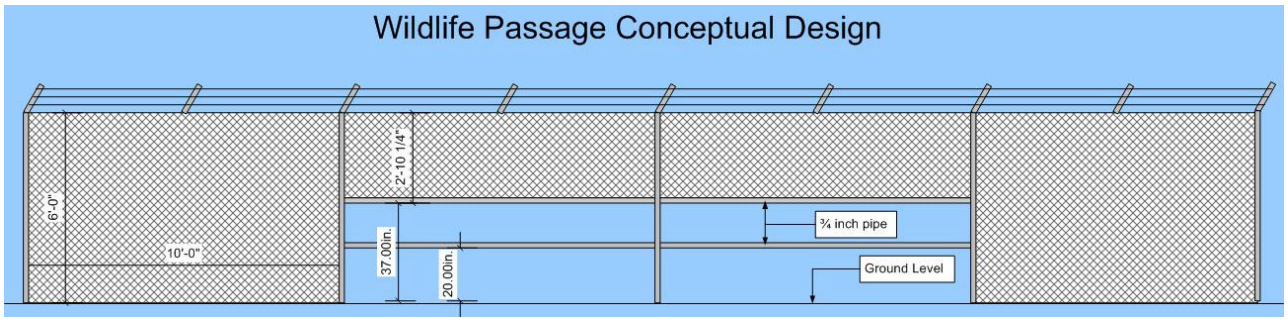
cleared; however, these vegetative species are prevalent throughout the installation and any additional clearing would be restricted to the proposed fence line areas. Vehicular movement during construction activities and the construction activities themselves could temporarily disturb or displace wildlife. However, any disturbance or displacement from vehicular movement and/or construction activities would be temporary and of short durations. The majority of vegetative cover and habitat was noted in and around the wash areas, which wildlife utilize as corridors or passageways to other foraging areas. Installation of the extended security fence will cut off migratory corridors currently used by wildlife. Of particular concern are desert big horn sheep that traverse the Laguna Region in route to water and forage sources southwest of the installation boundary. Through extensive coordination with the AGFD, YPG has developed mitigation measures to prevent permanent displacement of wildlife and disturbance of migratory corridors. The mitigation measures are described below in section 5.4.3.

5.4.2 Alternative B

Under this alternative, there would be no change to biological resources.

5.4.3 Mitigation and Monitoring

Wildlife and conservation management practices will be followed in order to ensure that habitat necessary for all or part of the life cycle of a species is not lost, and ecologic processes are not damaged to the extent that YPG biodiversity is impaired or ecosystems are no longer sustainable. Close coordination with AGFD has resulted in comprehensive designs and specified locations for wildlife passages in order to minimize potential impacts to wildlife movements through natural corridors (English 2003**,** Haygood 2003). Wildlife passages (as shown below) will be installed at two locations along the fence line. The design and locations for wildlife passages were developed in conjunction with AGFD (YPG 2003a). Among the criterion used for location selection, proximity to established wildlife trails and foraging areas was paramount. YPG will continue to monitor wildlife activity within and around the fenced area and coordinate with AGFD to address management of wildlife species. If any sensitive species are discovered during construction activities a separate mitigation plan will be prepared, if necessary, to protect them.



5.5 Cumulative Impacts

Cumulative impacts on environmental resources result from incremental impacts of proposed actions, when combined with other past, present, and reasonably foreseeable future projects in the area. Cumulative impacts can result from minor, but collectively substantial, actions undertaken over a period by various agencies (Federal, State, and local) or individuals.

By maintaining mission objectives while ensuring compliance with environmental regulations, YPG demonstrates its commitment to sound stewardship of public land. As for project specific precautions, regarding management of environmental resources within the areas of the proposed fence line a biological survey has been performed at proposed areas. The resulting data were used to evaluate potential direct, indirect, and cumulative impacts, as well as plans for mitigation and monitoring as required. Regionally, no development or infrastructure upgrades have recently been completed or are planned that would have an effect on or be affected by the implementation of the Proposed Action at YPG.

Installation wide, implementation of the Proposed Action would contribute positively toward increasing the installation's overall security and in regulating access to the cantonment areas. However, implementation of the Proposed Action when considered in conjunction with previous actions has the potential for cumulative effects on soils and biological resources.

Cumulative impacts to soil resources on the installation have resulted from past and current activities. Ground-disturbing activities such as construction of the fence line and vehicles traversing the terrain when combined with past disturbances have the potential to compound impacts to soil resources and increase soil erosion. However, these were determined to be minor, short-term activities. None of which would render or result in the restriction of future land use. Best management practices utilized during the implementation of the Proposed Action could control or eliminate potential cumulative impacts to soils from vehicular traffic and/or construction activities.

Natural corridors in and around the wash areas that parallel and cross the proposed fence line could be blocked thereby preventing passage to and from foraging areas. Larger mammals are known to utilize the wash areas as passageways or natural corridors to other areas. These areas provided habitat requirements and natural cover for several species of wildlife. Movement in, out, or through these established natural corridors could potentially be impacted from the additional fencing. However, coordination with AGFD (YPG 2003a, AGFD 2003b) and the Bureau of Land Management (BLM 2003) has resulted in a fence designed to address wildlife management issues including the locations for wildlife passages in order to minimize potential impacts to wildlife movements through natural corridors. Passages, gates, and/or openings will be installed at appropriate locations throughout the fence line; therefore, minimal cumulative impacts to biological resources from the disruption of wildlife movement are anticipated.

6.0 CONCLUSIONS

This EA has evaluated the potential for impacts associated with the Proposed Action and summaries of these findings are provided for each environmental resource and discussed in chapter 5. Based on this evaluation of potential impacts to resources, it was determined that potential impacts resulting from implementation of the proposed action could occur to soil and biological resources. A brief summary of the potential impacts and associated mitigation and monitoring measures is presented below. Detailed analysis and information regarding these mitigation measures can be found in chapter 5 of this document.

Soils within areas selected for the proposed action reflect grading, and other disturbances from previous various mission related activities. Implementation of this alternative would potentially result in additional disturbances to soil conditions. However, these activities are short-term and none would render or result in restriction of future land use. No significant impacts to soil resources for the installation were determined to result from the implementation of Alternative A.

Some disturbances to wildlife, vegetation, and habitat along the proposed action could result from vehicular traffic and construction activities. However, due to a brief construction period no significant impacts to vegetation and wildlife would occur from the proposed action under this alternative. Blockage of natural wildlife corridors resulting from the implementation of Alternative A could potentially result in significant impacts to wildlife. Potential impacts to wildlife movements through natural corridors will be minimized by features designed into the fence and construction of wildlife passages at two locations.

Based on the environmental analysis presented in this EA it has been determined that potentially significant impacts can be mitigated, in accordance with guidance provided by the AGFD (YPG 2003a). Therefore, the Proposed Action, as detailed in Alternative A will be implemented and a Finding of No Significant Impact (FNSI) issued.

7.0 LISTING OF PREPARERS, AGENCIES, AND PERSONS CONSULTED

7.1 Agencies and Organizations Consulted

A Draft Environmental Assessment (YPG 2003b) was completed which resulted in a Draft FNSI. Copies of both documents were sent to the agencies and interested parties listed below for a 30-day comment and review period. A Notice of Availability, that included the Draft FNSI, was published in the local newspaper (The Sun) on August 13th, 2003 to inform the general public about the availability of the documents. Comments were received from AGFD, the Bureau of Land Management (BLM), and the Sierra club. Their comments were evaluated and incorporated into this final EA. The following organizations were sent copies of the Draft EA and FNSI:

Arizona Game and Fish Department; Phoenix, AZ
Arizona Game and Fish Department; Yuma, AZ
Arizona Department of Environmental Quality; Phoenix, AZ
Audubon Club; Yuma, AZ
Bureau of Land Management; Yuma, AZ
Cocopah Indian Tribe; Somerton, AZ
Colorado River Tribal Council; Parker, AZ
Imperial National Wildlife Refuge; Martinez Lake, AZ
Kofa National Wildlife Refuge; Yuma, AZ
La Paz County Community Development; Parker, AZ
Quechan Indian Tribe; Yuma, AZ
Sierra Club; Phoenix, AZ
U.S. Fish and Wildlife Service; Phoenix, AZ
U.S. Environmental Protection Agency, Region IX; San Francisco, CA
Yuma County Planning and Zoning Division; Yuma, AZ

7.2 Technical Preparers

7.2.1 U.S. Army Yuma Proving Ground

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John Haygood; Facilities Manager, Public Works Division

7.2.2 Environmental Contractual Support

Jason Associates Corporation prepared this environmental assessment for the YPG Environmental Sciences Division. The following individuals made technical contributions during the preparations of this EA:

Jeffrey McCann, Program Manager
Richard Holder, Deputy Program Manager
Kim Maloney, Senior Environmental Specialist (Task Manager)

Renee Young, Environmental Scientist
Sergio Obregon, Natural Resource Specialist
Kya Saladin, GIS Technician

7.3 Comment and Review Period

This Final EA and FNSI are being provided to the agencies and individuals listed in Section 7.1. and will be made available to any requesting individuals. Any comments or questions should be directed to U.S. Army Yuma Proving Ground, Command Technology Directorate, Mr. Charles Botdorf, 301 C Street (CSTE-DTC-YP-CD-ES), Yuma, AZ 85365-9498; or by calling (928) 328-2754 or by submitting a fax to (928) 328-6696; or by calling Jason Associates Corporation at (928) 328-4804 or by submitting a fax to (928) 328-2565.

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FINDING OF NO SIGNIFICANT IMPACT
for
SECURITY FENCING AT YUMA PROVING GROUND

U.S. ARMY YUMA PROVING GROUND
Yuma, Arizona

An *Environmental Assessment for Security Fencing at Yuma Proving Ground* has been prepared in compliance with the National Environmental Policy Act (NEPA) in order to assess the potential environmental impacts associated with the Proposed Action of extending existing security fencing to enclose cantonments areas in the Laguna Region of U.S. Army Yuma Proving Ground, Yuma, Arizona.

The Proposed Action is to extend current security fencing an additional 2.6 miles to enclose approximately 5,136 acres of designated cantonment areas located within the Laguna Region of YPG. The fencing is to be placed within or along side the shoulders of established roads.

As a result of analysis in the above referenced EA, to include the mitigation and management methods discussed in Chapter 5 and 6, it is anticipated that implementation of Alternative A (Proposed Action) will not result in significant impacts to environmental resources. Therefore, Alternative A has been selected for implementation and this *Finding of No Significant Impacts* (FNSI) is being issued.

Stephen D. Kreider
COL, FA Commanding

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