Final

Environmental Assessment for the Implementation of the Privatization of Army Lodging Program at Fort Bliss, Texas

Prepared for

Commander, Fort Bliss, Texas

Prepared by

U.S. Army Corps of Engineers, Mobile District

With technical assistance from

Tetra Tech, Inc.
Fairfax, VA

September 2010

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This environmental assessment (EA) addresses the proposed action to implement the Privatization of Army Lodging (PAL) Program at Fort Bliss, Texas. It has been developed in accordance with the National Environmental Policy Act and implementing regulations issued by the Council on Environmental Quality (Title 40 of the *Code of Federal Regulations* [CFR] Parts 1500–1508) and the Army (32 CFR Part 651). Its purpose is to inform decision makers and the public of the likely environmental and socioeconomic consequences of the Preferred Alternative and other alternatives.

An ***EXECUTIVE SUMMARY*** briefly describes the proposed action, environmental and socioeconomic consequences, and mitigation measures.

CONTENTS

SECTION 1.0: PURPOSE, NEED, AND SCOPE summarizes the purpose of and need for the proposed action and describes the scope of the environmental impact analysis process.

SECTION 2.0: PROPOSED ACTION AND ALTERNATIVES describes the proposed action to implement the PAL Program at Fort Bliss and examines alternatives to implementing the proposed action including a Preferred Alternative and a No Action Alternative.

SECTION 3.0: AFFECTED ENVIRONMENT AND CONSEQUENCES describes the existing environmental and socioeconomic setting at Fort Bliss and identifies potential effects of implementing the Preferred Alternative and the No Action Alternative.

SECTION 4.0: FINDINGS summarizes the environmental and socioeconomic effects of implementing the Preferred Alternative and the No Action Alternative.

SECTION 5.0: REFERENCES AND PERSONS CONSULTED provides bibliographical information for cited sources and provides a listing of persons and agencies consulted during preparation of this EA.

SECTION 6.0: LIST OF PREPARERS identifies the persons who prepared the document.

SECTION 7.0: DISTRIBUTION LIST indicates recipients of this EA.

APPENDICES
- ***A*** Record of Non-Applicability and Emission Calculations
- ***B*** Economic Impact Forecast System Model
- ***C*** Solid Waste Calculations

An ***ACRONYMS AND ABBREVIATIONS*** list is provided at the end.

ENVIRONMENTAL ASSESSMENT

IMPLEMENTATION OF THE PRIVATIZATION OF ARMY LODGING PROGRAM AT FORT BLISS, TEXAS

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ENVIRONMENTAL ASSESSMENT

LEAD AGENCY: Office of the Assistant Secretary of the Army, Installations and Environment (OASA (I&E))

TITLE OF PROPOSED ACTION: Implementation of the Privatization of Army Lodging Program at Fort Bliss, Texas

AFFECTED JURISDICTION: Fort Bliss, Texas

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ABSTRACT: This environmental assessment (EA) considers the proposed implementation of the Privatization of Army Lodging Program, including the transfer of lodging assets at Fort Bliss, Texas. The EA identifies, evaluates, and documents the effects of obtaining private sector funding for construction, maintenance, management, renovation, replacement, rehabilitation, and development of transient lodging facilities. This is the Army's Preferred Alternative. A No Action Alternative is also evaluated. Implementation of the Preferred Alternative is not expected to result in significant environmental impacts. Preparation of an environmental impact statement, therefore, is not required, and a finding of no significant impact (FNSI) will be published in accordance with Title 32 of the *Code of Federal Regulations* Part 651 (Environmental Effects of Army Actions) and the National Environmental Policy Act.

REVIEW COMMENT DEADLINE: The final EA and draft FNSI are available for review and comment for 30 days, beginning upon publication of a notice of availability in *Fort Bliss Monitor* (Fort Bliss) and the *El Paso Times* (El Paso, Texas). Copies of the EA and Draft FNSI are available for review and comment at the following local libraries: El Paso Main Public Library, El Paso, Texas; Irving Schwartz Branch Library, El Paso, Texas; Mickelson Library, Fort Bliss, Texas; and Westside Branch Library, El Paso, Texas. They are also online at https://www.bliss.army.mil/About%20Ft%20Bliss/NEW-EIS/Documents-EIS.htm. Comments on the EA and draft FNSI should be submitted to Mr. John Barrera, Directorate of Public Works – Environmental Division, B624 Pleasonton Avenue, Attention: IMWE–BLS–PWE, (barreraj), Fort Bliss, TX 79916-6812, or by e-mail to john.f.barrera@us.army.mil. Comments on the EA and draft FNSI should be submitted to Mr. Barrera at the above mailing or e-mail addresses no later than the end of the 30-day review period.

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Executive Summary

ES.1 BACKGROUND

This environmental assessment (EA) evaluates the proposal of the Privatization of Army Lodging (PAL) at Fort Bliss, Texas.

ES.2 PROPOSED ACTION

The Army proposes to transfer ownership and operation of its transient lodging facilities to a private-sector development company. Under the proposed action, the Army would execute a lease and supporting agreements negotiated with and approved by the Office of the Assistant Secretary of the Army for Installations and Environment. The Army would convey specified lodging facilities and lease the underlying land to its selected development partner, Actus Lend Lease (Actus). Actus has formed a special-purpose entity, Rest Easy, LLC (Rest Easy) to execute the lease with Army as lessor and Rest Easy as lessee. Actus would redevelop the lodging facilities, and InterContinental Hotels Group, its contracted hotelier, would manage the lodging operations. The Army would grant a 50-year lease of the land underlying the existing facilities and other land for constructing new lodging facilities. Rest Easy would be expected to meet Fort Bliss's lodging requirements through operating and maintaining the existing facilities and by renovating inadequate facilities and constructing new ones.

Implementing the PAL program at Fort Bliss would result in the conveyance of as many as 13 existing lodging facilities to Rest Easy for renovation for either short- or long-term use, as well as construction of new hotels. These actions would occur over about a 5-year development period beginning in 2011and provide a final inventory of about 475 lodging units. The proposed action would improve the quality of life for Soldiers, their families, and other personnel eligible to use Army transient lodging.

ES.3 PURPOSE AND NEED

The purpose of the proposed action is to transfer ownership and operation of transient lodging to the private sector. The proposed action is needed to provide affordable, quality transient lodging facilities to Soldiers and their families through a combination of new facilities and improvements to existing facilities to ensure that they meet current commercial standards for mid-scale hotels.

ES.4 ALTERNATIVES

The Army identified three alternatives: the Preferred Alternative, the reliance on the off-post hotel market alternative, and the No Action Alternative. Implementing the PAL program at Fort Bliss is the Army's Preferred Alternative. Under the Preferred Alternative, the Army would implement the PAL program at Fort Bliss. The Army would convey specified lodging facilities to Rest Easy, a private developer. The Army would also grant to the developer a 50-year lease of the land underlying the existing lodging facilities and other land for constructing new lodging facilities. Rest Easy would be expected to meet Fort Bliss's lodging requirements by operating and maintaining the existing facilities and by renovating inadequate existing facilities and constructing new lodging facilities. That would achieve the purpose of and need for the proposed action.

The alternative to the Preferred Alternative that was considered is reliance on the off-post hotel market. In lieu of privatizing the function, the Army could exit the lodging business, resulting in patrons' reliance on off-post hotels and motels for similar services. The use of off-post lodging, however, would lengthen Soldiers' workdays because of commuting and increased transportation costs. In some instances, Soldiers would encounter shortages of lodging in adjacent communities. Terminating the Army's lodging program at Fort Bliss would result in abandoning 17 buildings. The combination of the buildings standing idle until alternative uses could be determined and the time needed to achieve such uses would contravene the Army's policy to manage its resources to their optimal potential. For those reasons, the off-post hotel market alternative is not feasible and is not evaluated in detail in this EA.

A No Action Alternative also is evaluated in detail in this EA. The No Action Alternative is prescribed by Council on Environmental Quality regulations to serve as the baseline against which the Preferred Alternative and other alternatives are analyzed.

ES.5 ENVIRONMENTAL CONSEQUENCES

This EA evaluates potential long- and short-term effects on land use, aesthetic and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics (including environmental justice and protection of children), transportation, utilities, and hazardous and toxic substances.

Implementing the Preferred Alternative would be expected to result in a mixture of short- and long-term minor adverse and beneficial effects on the subject environmental resources and conditions. The EA does not identify the need for any mitigation measures.

For each resource area, the predicted effects from the Preferred Alternative and the No Action Alternative are summarized in Table ES-1.

ES.6 CONCLUSION

On the basis of the EA, it has been determined that implementing the Preferred Alternative would have no significant adverse effects on the quality of human life or the natural environment. Preparation of an environmental impact statement is not required before implementing the Preferred Alternative.

Table ES-1.
Summary of potential environmental and socioeconomic consequences

	Environmental and socioeconomic effects	
Resource	**Proposed Action (Preferred Alternative)**	**No Action Alternative**
Land use	No effect	No effect
Aesthetic and visual resources	Short-term minor adverse Long-term minor beneficial	Long-term minor adverse
Air quality	Short-term minor adverse Long-term minor beneficial	No effect
Noise	Short-term minor adverse	No effect
Geology and Soils	Short-term minor adverse	No effect
Water resources	Short- and long-term minor adverse Long-term minor beneficial	No effect
Biological resources	No effect	No effect
Cultural resources	Long-term minor beneficial	No effect
Socioeconomics	Short- and long-term minor beneficial	Long-term minor adverse
Transportation	Short-term minor adverse Long-term minor beneficial	No effect
Utilities	Long-term minor beneficial and adverse	No effect
Hazardous and toxic substances	No effect	No effect

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CONTENTS

Appendices

Tables

Figures

ACRONYMS AND ABBREVIATIONS (*at end*)

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SECTION 1.0
PURPOSE, NEED, AND SCOPE

1.1 INTRODUCTION

The Army provides transient lodging for Soldiers and their families on temporary duty (TDY) and permanent change of station (PCS) travel. Because funding shortfalls over many years have prevented the proper maintenance, repair, or replacement of facilities, approximately 80 percent of the Army's lodging inventory does not meet acceptable quality standards.

The Privatization of Army Lodging (PAL) program is an initiative to improve facilities and services for transient lodging users. The PAL program is founded on the Military Housing Privatization Initiative (MHPI) established in the 1996 Defense Authorization Act.[1] The MHPI authorizes the Army to obtain private capital by leverage government contributions, making efficient use of limited resources, and using a variety of private-sector approaches to build, renovate, and operate lodging. This environmental assessment (EA) evaluates implementation of the PAL program at Fort Bliss, Texas.

The Army has divided its installations into three groups for implementing the PAL program. Group A consisted of 10 installations: Fort Hood and Fort Sam Houston, TX; Fort Sill, OK; Fort Riley and Fort Leavenworth, KS; Fort Rucker, AL; Fort Myer, VA; Yuma Proving Ground, AZ; Fort Polk, LA; and Fort Shafter/Tripler Army Medical Center, HI. Implementation of the PAL program at Group A installations is now underway. Group B, of which Fort Bliss is a part, involves 11 installations having 4,916 guest rooms. The other installations in Group B are Fort Buchanan, PR; Fort Belvoir, VA; Fort Hamilton, NY; Fort Gordon, GA; White Sands Missile Range, NM; Fort Huachuca, AZ; Fort Leonard Wood, MO; Fort Wainwright, AK; Fort Knox, KY; and Fort Campbell, KY. Group C will involve implementation of the program at the remainder of the Army's installations.

1.2 PURPOSE AND NEED

The Army proposes to privatize operation of its lodging at Fort Bliss (Figure 1-1). This is the Army's Preferred Alternative. The purpose of the Preferred Alternative is to transfer operation of the transient lodging to the private sector under a long-term lease.

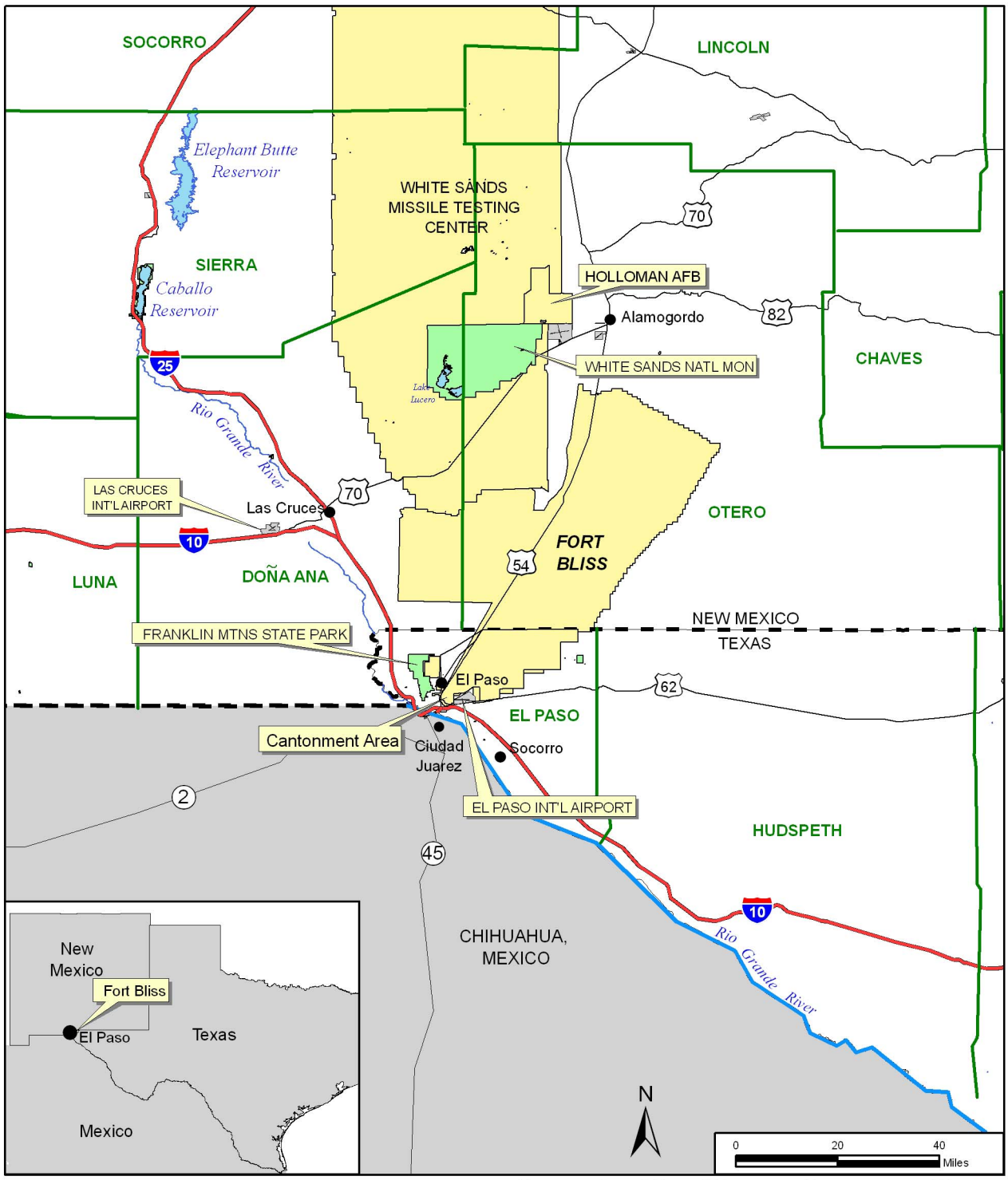
The need for the proposed action is to improve the quality of life for Soldiers, their Families, and other personnel eligible to use Army lodging. Many lodging facilities at Fort Bliss are old, and their rehabilitation is not economically feasible. Several historic buildings used for transient housing have room sizes and configurations that render them inefficient for lodging. By leveraging scarce resources, the Army can obtain the benefits of capital improvements and professional management that are available through the private sector's investment and experience. In addition, the PAL program sets aside funds for the long-term sustainment of such facilities. Privatization of lodging would enable the Army to focus its management efforts on its core competencies, as required by the President's Management Agenda.[2]

1.3 SCOPE OF ANALYSIS

This EA has been developed in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations issued by the Council on Environmental Quality (CEQ)

[1] Section 2801, National Defense Authorization Act for Fiscal Year 1996, Public Law 104-106, as amended (codified at Title 10 of the *United States Code* (U.S.C.), Sections 2871–2885).

[2] Information on the President's initiative is available at http://www.whitehouse.gov/omb/budget/fy2002/mgmt.pdf.



LEGEND

State Boundary
County Boundary
River/Water

Installation Location

Fort Bliss, Texas

Figure 1-1

and the Army.[3] An interdisciplinary team of environmental scientists, biologists, ecologists, geologists, planners, economists, engineers, archaeologists, historians, lawyers, and military technicians reviewed the proposed action in light of existing conditions and has identified relevant beneficial and adverse effects associated with the Preferred Alternative and No Action Alternative.

The purpose of the EA is to inform Army decisionmakers and the public of the likely environmental consequences of privatizing transient lodging at Fort Bliss.

This EA focuses on evaluating environmental effects that are reasonably foreseeable within the initial development period (IDP), which is the first five years of implementation of privatization, described in detail in Section 2.3. This is the period during which the Army's privatization entity would accomplish demolition, renovation, and new construction of lodging, as well as take responsibility for the operation and maintenance of existing lodging facilities. Potential environmental effects beyond 2016 would be speculative, and therefore they are not analyzed in this EA.

1.4 PUBLIC INVOLVEMENT

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decisionmaking. All agencies, organizations, and members of the public having a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decisionmaking process.

Army guidance provides for public participation in the NEPA process. If the EA concludes that the proposed action would not result in significant environmental effects, the Army may issue a draft Finding of No Significant Impact (FNSI). The Army will then observe a 30-day period during which agencies and the public may submit comments on the EA or draft FNSI. Upon consideration of any comments received from the public or agencies, the Army may approve the FNSI and implement the Preferred Alternative. If, however, during the development of the EA it is determined that significant effects would be likely, the Army will issue a notice of intent to prepare an environmental impact statement.

1.5 PRIVATIZATION AUTHORITIES

The PAL program is founded on the MHPI. The essence of the MHPI is that it comprehensively allows access to private-sector financial and management resources for constructing, maintaining, managing, renovating, replacing, rehabilitating, and developing housing. In 2002 Congress amended the MHPI to provide that unaccompanied personnel housing includes "transient housing intended to be occupied by members of the armed forces on temporary duty."[4]

The Army has competitively selected Actus Lend Lease (Actus) as its development entity to privatize the Army lodging at Fort Bliss. Actus has formed a special-purpose entity, Rest Easy, LLC (Rest Easy) to execute the lease. Actus would perform the redevelopment of the lodging facilities, and InterContinental Hotels Group (IHG), its contracted hotelier, would take over the lodging operations. Actus has completed a Lodging Development Management Plan (LDMP) to serve as the business plan for the project. The LDMP will be expanded to include additional installations, including Fort Bliss. Upon approval of the revised LDMP, transfer of assets and transition to the developer conducting operations would begin. For its part, the Army would

[3] Council on Environmental Quality *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*, Title 40 of the *Code of Federal Regulations* (CFR), Parts 1500–1508, and *Environmental Analysis of Army Actions*, 32 CFR Part 651.

[4] Section 2803(b), National Defense Authorization Act for Fiscal Year 2003, Public Law 107-314.

convey its lodging facilities to the developer and provide long-term leases for the underlying land. In return, the Army would obtain the benefit of modern facilities and services that equal the standards prevailing in the commercial sector.

1.6 ENVIRONMENTAL LAWS AND REGULATIONS

Army decisions that affect environmental resources and conditions occur within the framework of numerous laws, regulations, and Executive orders (EOs). Some of these authorities prescribe standards for compliance. Others require specific planning and management actions to protect environmental values potentially affected by Army actions. These include the Clean Air Act, Clean Water Act, Noise Control Act, Endangered Species Act, National Historic Preservation Act, Archaeological Resources Protection Act, Resource Conservation and Recovery Act, Energy Policy Act, Energy Independence and Security Act, and Toxic Substances Control Act. Executive orders bearing on the proposed action include EO 11988 (*Floodplain Management*); EO 11990 (*Protection of Wetlands*); EO 12088 (*Federal Compliance with Pollution Control Standards*); EO 12580 (*Superfund Implementation*); EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*); EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*); EO 13175 (*Consultation and Coordination with Indian Tribal Governments*); EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*); EO 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*); and EO 13514 *(Federal Leadership in Environmental, Energy, and Economic Performance*). Where useful to better understanding, key provisions of these statutes and EOs are described in more detail in the text of the EA. The text of EOs can be accessed at http://www.archives.gov/federal-register/executive-orders/, and the text of public laws can be accessed at http://www.archives.gov/federal-register/laws/.

SECTION 2.0
PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The Army proposes to implement the PAL program at Fort Bliss. The Army would convey specified lodging facilities to Rest Easy. The Army would also grant a 50-year lease of the land underlying the existing facilities, as well as other land for construction of new lodging facilities. Rest Easy would be expected to meet Fort Bliss's lodging requirements by operating and maintaining the existing facilities, as well as renovating inadequate facilities and constructing new ones.

Implementing the PAL program at Fort Bliss would entail constructing new lodging facilities and renovating existing facilities. When siting facilities, garrison commanders take into account the following criteria: availability of developable land, consistency with the land use allocations of the installation's master plan, compatibility with adjacent functions, proximity to relevant community services (e.g., Commissary, Post Exchange, and recreation and entertainment venues), and avoidance of evident environmental issues (e.g., protected species, cultural resources, past hazardous waste sites, and the like). Fort Bliss officials also gave substantial weight to the proximity of new lodging facilities to existing lodging facilities and their required support functions to enable efficient and cost-effective management of operations. These criteria resulted in the siting locations identified in Figure 2-1.

This section presents the Preferred Alternative and the No Action Alternative. It also identifies alternatives considered, but eliminated from detailed study. The proposed action presented at Section 2.3 is the Army's Preferred Alternative.

2.2 NO ACTION ALTERNATIVE

Inclusion of the No Action Alternative, prescribed by CEQ regulations, serves as a baseline against which the impacts of the Preferred Alternative and other alternatives can be evaluated.

Under the No Action Alternative, the Army would not implement the PAL program at Fort Bliss. The Army would continue to provide lodging through the use of facilities funded by Congressional appropriations and by Army Lodging resources that rely on the use of nonappropriated funds. On the basis of historical trends, it is assumed that the amount of Congressional funding for personnel on temporary duty would not change and that maintenance backlogs would remain at present levels or continue to decrease. In the absence of implementing the PAL program, the Army would forego opportunities to leverage private-sector financing for the lodging function. Quality of life for personnel using the lodging facilities would in all likelihood decline based on current funding levels.

2.3 PREFERRED ALTERNATIVE

2.3.1 Description of Existing Lodging and Available Land

Fort Bliss provides on-post transient lodging services through the use of 579 lodging units within 17 buildings located throughout the cantonment area. For the purposes of this project, the lodging units and areas available for new construction have been grouped into nine distinct parcels of land, labeled A, B, C, D, F, H, K, L, and M.[5] Table 2.3-1 identifies the existing lodging

[5] Initially 13 individual parcels, labeled A through M, were identified for consideration as part of the PAL lodging footprint. During the planning and footprint approval process, some of the parcels were combined or eliminated from further

Table 2.3-1
Existing Lodging Facilities, Fort Bliss

Parcel	Building(s)	Building name	Year built	Lodging units	Square Footage	Notes
Parcel A	B213	Historic DVQ	1914	1	2,487	NRHP-eligible
Parcel B	B205	Historic DVQ	1914	1	3.867	NRHP-eligible
	B206	Historic DVQ	1914	1	3,867	NRHP-eligible
Parcel C	B243	Historic DVQ	1939	20	25,589	NRHP-eligible
Parcel D	B5015	5000 Series	1956	26	23,145	All eligible structures in the 5000s are covered by a Program Comment at the DoD level and have been removed from further Section 106 review
	B5016		1956	18	16,124	
	B5017		1956	27	23,145	
	B5018		1956	27	23,145	
	B5020		1956	26	23,145	
	B5023		1956	27	23,145	
	B5040		1958	11	8,457	
Parcel F	B11265		1957	38	26,465	Not NRHP-eligible
	B11266	N/A	1957	38	26,465	Not NRHP-eligible
	B11332		1958	38	26,465	Not NRHP-eligible
Parcel H	B11345	N/A	1994	94	41,379	
	B11340		1959	35	19,961	Not NRHP-eligible
Parcel M	B1744	Fort Bliss Inn	1989	151	89,131	
		Total lodging units		579		

Note: NRHP = National Register of Historic Places.

inventory by parcel. Figures 2-2 through 2-8 provide more detailed views of each parcel and Figures 2-9 and 2-10 show photos of the representative sample of the lodging structures.

The following provides a description of each of the parcels containing existing lodging facilities, as well as parcels of land being made available to Rest Easy for the siting of new lodging facilities.

Parcel A. This parcel consists of Building 213 and about 0.3 acres of associated land located on Club Road. Building 213, a single-suite Distinguished Visitors Quarters (DVQ) was constructed in 1914 and has been determined eligible for listing on the National Register of Historic Places (NRHP).

Parcel B. This parcel consists of Buildings 205and 206, single-suite DVQ units, and about 0.7 acres of associated land located on Club Rd. Both structures were built in 1914 as single-family residences and were later converted to lodging. Both structures have been determined to be eligible for NRHP-listing.

Parcel C. This parcel consists of Building 243 and about 1.5 acres of land. The parcel is located at the intersection of Club Rd. and Pershing Dr. in close proximity to Parcel B. Building 243 was completed in 1939 and has a total of 20 guestrooms. The building has been determined eligible for NRHP-listing.

Parcel D. This parcel consists of Buildings 5015, 5016, 5017, 5018, 5019, 5020, 5023, and 5040 on about 27 acres of land. The parcel is bordered by Dickman Rd. to the north, Robert E. Lee Rd. to the south, Dudley Rd to the east, and Pleasonton Rd to the west. Building 5040 is actually

consideration. To maintain consistency throughout the process, the original parcel labels have been maintained; therefore, some parcels labels appear to missing.

located just across Dudley Rd, which is to its west. Buildings 5015–5023, commonly referred to as the "5000 series," are three-story structures that were built in 1956 as barracks. Buildings 5017, 5018, and 5023 each contain 27 family suites. Buildings 5015 and 5020 consist of 26 family suites. Building 5016 consists of 18 family suites, with its bottom floor containing administrative offices. Although these buildings have similar floor plans, several rooms in each building have been diverted to different functions. Building 5019 is not currently used as lodging. Building 5040, constructed in 1958, consists of 11 two-bedroom suites. The building is located in the same barracks complex as the other 5000 series buildings. See Figure 2-4 for an aerial view of the parcel and Figure 2-9 for a photograph of B5018.

Parcel F. This parcel consists of Buildings 11265, 11266, and 11332 and about 19 acres of land. The parcel is bordered by Ssg Sims St. to the north, Msg R. Miller St. to the south, Barksdale Rd. to the east, and Patterson St. to the west. The parcel is located adjacent to the Sergeant Major's Academy. Buildings 11265 and 11266 were constructed in 1957 and 11332 was built in 1958. All three of the facilities contain 38 lodging units each. See Figure 2-5 for an aerial view of the parcel and Figure 2-10 for a photograph of B11332.

Parcel H. This parcel consists of Buildings 11345 and 11340 and about 21.3 acres of land across the street from the Sergeant Major's Academy and perpendicular to Parcel F. The parcel is bordered by Msg R. Miller St. to the north, Sgt E. Churchill St. to the south, Wendover St. to the east, and Scott St. to the west. Building 11340 was constructed in 1959 and renovated during 1995. It is an exterior corridor facility containing 35 lodging units. Building 11345 was constructed in 1994. The facility contains 100 lodging units, however, 6 of the rooms have been converted for use by the housekeepers yielding 94 lodging units. See Figure 2-5 for an aerial view of the parcel and Figure 2-10 for photographs of B11340 and B11345.

Parcel K. This parcel consists of about 6 acres of undeveloped land adjacent to the Centennial Club (a large conference and event center). The parcel is bordered by Third St. to the north, Sgt Major Blvd. to the south, the Centennial Club property to the east, and Duncan St. to the west. The land is currently used as a contractor lay down and staging area for Base Realignment and Closure (BRAC)-related construction projects. There are no permanent structures on the parcel. See Figure 2-6 for an aerial view of the parcel

Parcel L. This parcel consists of about 6.6 acres of undeveloped land in the vicinity of an Army & Air Force Exchange Service (AAFES) facility. The parcel is adjacent to the AAFES property to the north, maintained open space to the south and east, and Sgt. Major Blvd to the west. See Figure 2-7 for an aerial view of the parcel.

Parcel M. This parcel consists of Buildings 1744 "Fort Bliss Inn," and 1743 on about 20 acres of land. Another small building (B1742) leased by Hertz Car Rental is also located in the western part of the parcel; however, it is not part of the proposed action. Parcel M is bordered by Fred Wilson Ave. to the north, Victory Ave. to the south, an athletic field and Fort Bliss National Cemetery to the east, and Marshall Rd. to the West. Building 1744, initially constructed in 1989, received a major addition in 1997. This building has 151 standard-stay rooms and family suites, and is the main lodging facility on the post. It has all the modern amenities including a swimming pool, workout room and Internet work area. Building 1743 was constructed in 1971 and has served variety of uses over the years, the most recent being administrative space.

A 2003 Army Lodging Wellness report for Fort Bliss made the following recommendations for improvements to Fort Bliss lodging:

- Structural repairs (replacing roofs, windows, exterior and interior doors, balconies, and railings; repairing exterior concrete stairs, sidewalks, and parking lots; and repointing brick joints)
- Life safety upgrades (installing fire sprinkler and alarm system
- Utility upgrades (replacing HVAC systems and hot water heaters, upgrading electrical and lighting systems, and upgrading water and plumbing systems)
- Interior décor improvements (replacing bath fixtures, light fixtures, and flooring).

The Army has also prepared an internal market demand review for the on-post lodging and has determined that once the BRAC 2005 transformation is complete, Fort Bliss will have an excess of between 100 and 110 salable units in the lodging inventory.

2.3.2 Proposed Lodging Actions

Implementing the PAL program at Fort Bliss would involve short-term hold (STH) lease, long-term hold (LTH) lease, and new building construction actions as described in the following paragraphs and listed in Table 2.3-2. Upon conveyance and grants of leases noted in the following, Rest Easy would conduct all transient lodging operations as provided for in the lease. The total number of lodging units at Fort Bliss under the Preferred Alternative would decrease from 579 to about 474.

Table 2.3-2
Fort Bliss PAL Preferred Alternative

			Lodging units		
Parcel	**Acres**	**Building(s)**	**Beginning state**	**End state**	**PAL action**
Parcel A (Historic DVQ) – LTH					
	0.3	B213	1	1	Renovate in accordance with historic property requirements and maintain in lodging portfolio as The Historic Collection.
Parcel B (Historic DVQs) – LTH					
	0.7	B205	1	1	Renovate in accordance with historic property requirements and maintain in lodging portfolio as The Historic Collection.
		B206	1	1	
Parcel C (Historic DVQs) – LTH					
	1.5	B243	20	20	Renovate in accordance with historic property requirements and maintain in lodging portfolio as The Historic Collection.
Parcel D (5000 Series) – STH/LTH					
	26.7	B5015	26	0	Minor renovations for STH and then demolish after new hotels go into operation. Alternative site (*second choice*) for 170-room Candlewood Suites.
		B5016	18	0	
		B5017	27	0	
		B5018	27	0	
		B5020	26	0	
		B5023	27	0	
		B5040	11	0	
Parcel F – STH/LTH					
	18.9	B11265	38	0	Minor renovations for STH and then demolish once new hotels go into operation. Alternative site (*second choice*) for 150-room Candlewood Suites.
		B11266	38	0	
		B11332	38	0	

Table 2.3-2
Fort Bliss PAL Preferred Alternative (continued)

Parcel H – STH					
	21.3	B11345	94	0	Minor renovations for STH and then demolish after new hotels go into operation.
		B11340	35	0	
Parcel K (Centennial Club Site) – LTH					
	5.9	N/A	0	150	Build 150-room Candlewood Suites (*preferred location*).
Parcel L (AAFES/Longknife Village Site) – LTH (if conveyed)					
	6.6	N/A	0	150*	Alternative site (*third choice*) for 150-room Candlewood Suites.
Parcel M (Fort Bliss Inn Site) – LTH					
	20	B1744	151	151	Renovate and maintain lodging portfolio. Rebrand as a Holiday Inn Express. Build 170-room Candlewood Suites (*preferred location*).

Notes: STH = short-term hold; LTH = long-term hold; N/A = not applicable.

STH lease actions. Initially, all the existing lodging structures (identified in Table 2.3-1) would be conveyed to Rest Easy. During the IDP, Rest Easy would begin renovating the existing lodging structures and continue to operate them as lodging facilities. Renovations would include making the necessary life safety upgrades or modifications as required per safety regulations and updating the interiors (e.g., linens and décor). The lodging in Parcel D (the 5000 series), Parcel F (B11265, B11266, and B11332), and Parcel H (B11345 and B11340) would be conveyed to Rest Easy under a short-term (5-year) lease. These lodging units would be used during the IDP to maintain an appropriate number of available rooms while some of the other lodging structures undergo renovations and new lodging is being built. At the end of the IDP or as the new hotels become operational, the lodging units in Parcels D, F, and H would be demolished and the land would revert back to Fort Bliss.[6] More detailed information on these parcels is provided in Tables 2.3-1 and 2.3-2. Parcels D, F, and H are shown on Figures 2-4 and 2-5.

LTH lease actions and new construction. The existing lodging and land in Parcel A (B213 as shown in Figure 2-2), Parcel B (B205 and B206 as shown in Figure 2-3), Parcel C (B243 as shown in Figure 2-3), and Parcel M (B1744 Fort Bliss Inn as shown in Figure 2-8) would be conveyed to Rest Easy under a 50-year lease. Rest Easy would renovate these buildings, rebrand them, and continue to operate them as lodging facilities during the 50-year lease period. Renovations would include making the necessary life safety upgrades or modifications as required per safety regulations, updating the interiors (e.g., linens and décor), adding some recreational facilities and improved public spaces for guests, and making exterior structural modifications associated with rebranding the buildings as Holiday Inn Express, The Historic Collection, or IHG Army hotels.

Structures eligible for the National Register of Historic Places (NRHP; i.e., Parcels A, B, and C) would be renovated in strict accordance with the historic property requirements identified in the deed of conveyance. Rest Easy would maintain these structures and brand them as The Historic Collection. It is possible that some of the historic properties might not be conveyed to Rest Easy or that Rest Easy might use them only during the IDP and then return them to the Army once the

[6] For the purposes of analysis, it is assumed that all of the building in Parcels D, F, and H would be demolished. However, the installation, however, might choose to keep the buildings for non-lodging purposes, in which case Rest Easy would return them to the Army's inventory at the end of the IDP.

new hotels become operational. For the purposes of analysis, the EA assumes that they would be conveyed to Rest Easy and managed by IHG for the entire 50-year lease period.

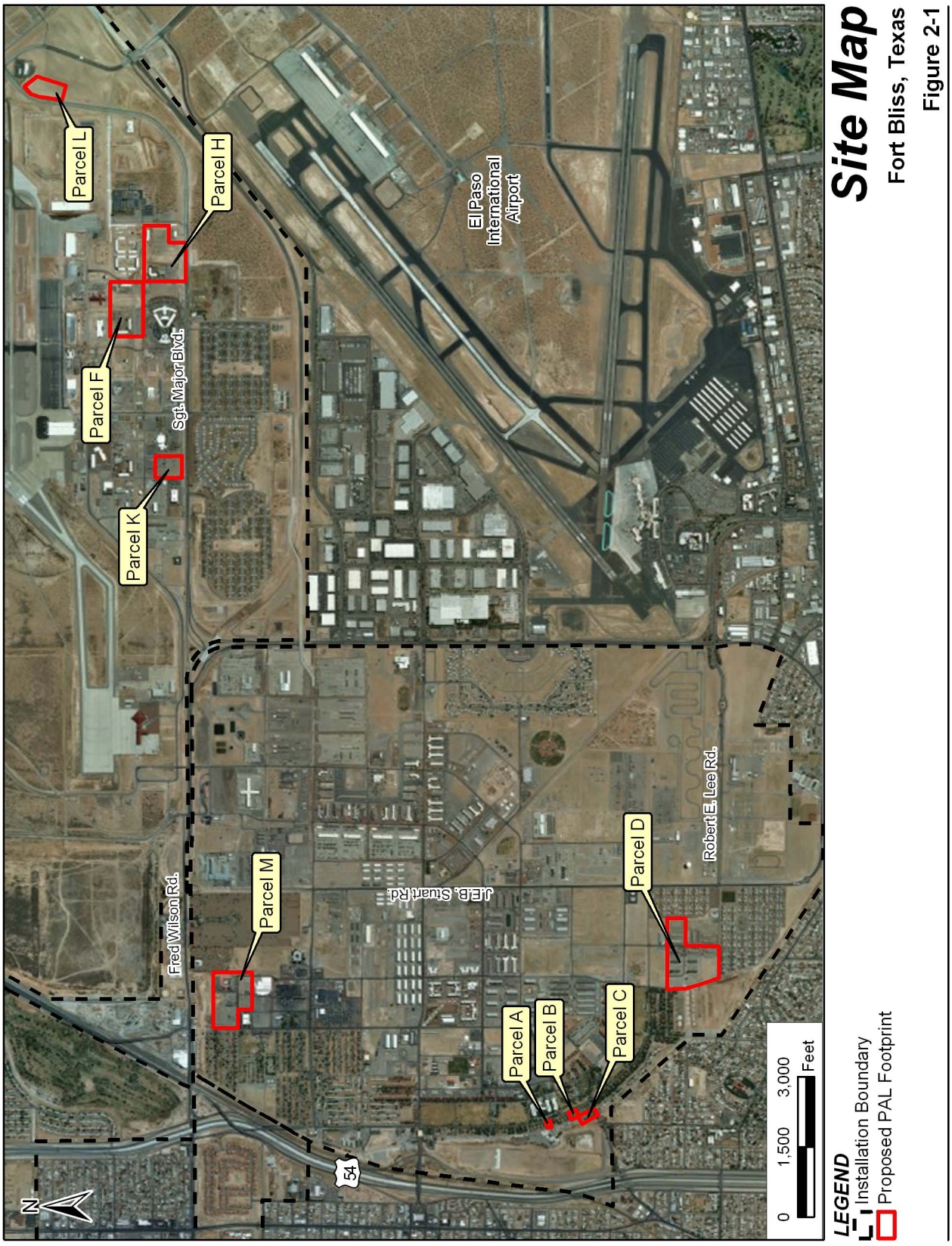
Rest Easy plans to replace much of the outdated lodging infrastructure at Fort Bliss by building two additional hotels—a 150-room Candlewood Suites and a 170-room Candlewood Suites. The Army would grant IHG a 50-year lease of Parcel K, a 5.9-acre parcel of previously developed land west of the Centennial Club (as shown in Figure 2-6), for the construction of a 150-room Candlewood Suites. The land is currently used as a contractor lay-down site for BRAC-related construction activities in the general area. If for some unforeseen reason Parcel K is not a suitable site for construction of the 150-room hotel, the hotel would be constructed on Parcel F following demolition of the existing lodging structures, or on Parcel L near the AAFES and Longknife Village.

Rest Easy also proposes to construct a 170-room Candlewood Suites in the open space adjacent to the Fort Bliss Inn in Parcel M (as shown in Figure 2-8). Building 1743 would be demolished to accommodate the new construction. Alternatively, should Parcel M be determined not suitable for unforeseen reasons, the 170-room Candlewood Suites could be located on Parcel D following demolition of the existing lodging structures.

It should be noted all potential alternative construction sites for new lodging facilities are included within the Preferred Alternative analysis in Section 3.0, rather than being analyzed as separate alternatives for implementing the Preferred Alternative.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Sources of lodging services. The Army now provides transient lodging to Soldiers, their dependents, and other authorized patrons. Under Alternative 2, in lieu of privatizing the function, the Army could choose to discontinue all lodging operations on Army installations. This would require prospective lodging patrons to rely entirely on private-sector hotels and motels for their lodging. Currently, in many cases, lodging for personnel using unaccompanied personnel housing is located near their temporary duty site. Many of the current occupants of Army lodging are attending Army schools located on-post. Eliminating on-post lodging would lengthen the students' workdays because of commuting, increase their transportation costs (absent specific authorization, personnel on temporary duty are ineligible for rental vehicle reimbursement), and, in some instances, cause them to encounter shortages of lodging in adjacent communities. Local hospitality providers could experience wide swings in occupancy rates, especially between Army schools sessions. At Fort Bliss, termination of the Army's lodging program would result in abandoning 17 buildings that have a total of 579 lodging rooms. The Army would incur substantial costs to convert all of these buildings to alternative uses. The combination of idling of the facilities until alternative uses could be determined and the time needed to achieve such alternative uses would contravene the Army's policy to manage its resources to optimal potential. For these reasons, this alternative is not feasible and is not evaluated in detail in this EA.



Site Map
Fort Bliss, Texas
Figure 2-1

Parcel A (Bldg. 213)

Figure 2-2

Source: Fort Bliss DPW 2010.

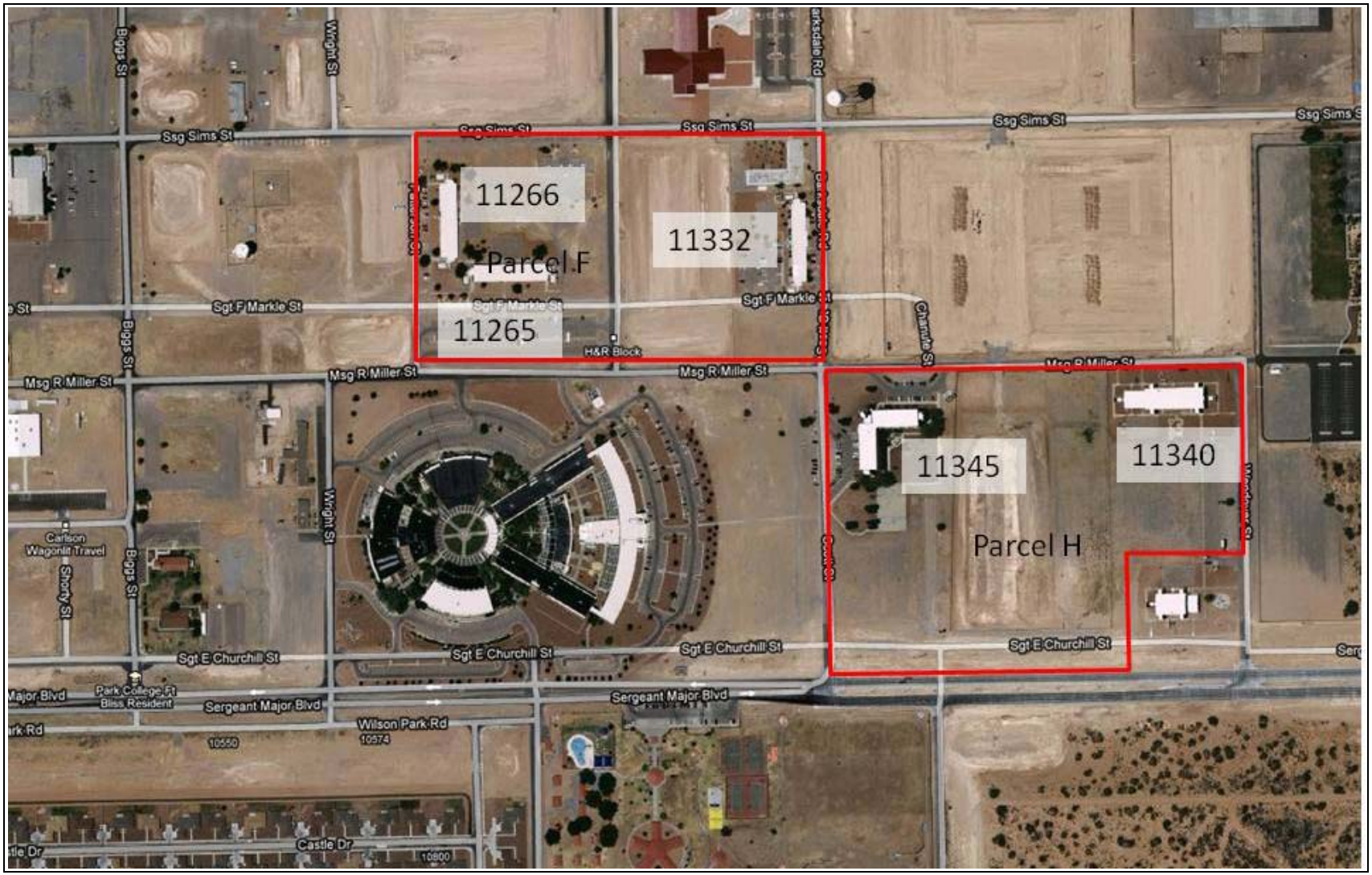
Parcels B&C (Bldgs. 205, 206, and 243)

Figure 2-3

Source: Fort Bliss DPW 2010.

Parcel D
(Bldgs. 5015-5020, 5023, and 5040)
Figure 2-4

Source: Fort Bliss DPW 2010.



Parcels F& H
(Bldgs.11265, 11266, 11332, 11340, and 11345)

Source: Fort Bliss DPW 2010.

Figure 2-5


Parcel K
Luke St.
SGT Major Blvd.
First St.
MSG R. Miller (Third St.)
Duncan St.
Randolph St.
Railroad Ave.

Figure 2-6

Figure 2-7

Parcel M (Bldg.1744)

Figure 2-8

Source: Fort Bliss DPW 2010.

	
Parcel A Building 213	**Parcel B Building 205**
	
Parcel C Building 243	**Parcel D Building 5018**

Figure 2-9. Photos of Parcels A through D.

	
Parcel F Building 11332	**Parcel H Building 11340**
	
Parcel H Building 11345	**Parcel M Building 1744**

Figure 2-10. Photos of Parcels F through M.

SECTION 3.0
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 LAND USE

3.1.1 Affected Environment

The Fort Bliss cantonment area is in the city of El Paso, in El Paso County, Texas. El Paso is on the north bank of the Rio Grande near the international boundary between Mexico and the United States. Fort Bliss is a large installation covering about 1.12 million acres in parts of El Paso County and Doña Ana and Otero counties in New Mexico. The cantonment area constitutes only 0.98 percent of Fort Bliss' total acreage. All the PAL parcels are in the installation's cantonment area. Land use for the PAL parcels is designated as Community Facilities or Troop Housing, and surrounding land use is compatible. The proposed PAL parcels are bordered by Administration, Community Facilities, Family Housing, Light Industrial, Maintenance, Open Space, or Troop Housing land uses. No land use incompatibilities in or adjacent to the proposed PAL parcels are known to exist.

3.1.2 Environmental Consequences

3.1.2.1 Preferred Alternative

No effects would be expected. No land use incompatibilities would be created by implementing the PAL program. Surrounding land uses would not interfere with use of the proposed PAL sites for Army lodging, and use of the proposed parcels for lodging would not conflict with adjacent land use.

3.1.2.2 No Action Alternative

No effects on land use would be expected. The proposed PAL action would not be implemented under the No Action Alternative; therefore, the No Action Alternative would not result in any changes in land use.

3.2 AESTHETICS AND VISUAL RESOURCES

3.2.1 Affected Environment

Aesthetics and visual resources are the natural and man-made features on the installation landscape. They include cultural and historic landmarks, landforms of particular beauty or significance, water surfaces, and vegetation. Together, those features form the overall impression that a viewer receives of the area or its landscape.

Fort Bliss is in the Chihuahuan Desert Province, where the environment is extremely dry. The vegetation present requires small amounts of water and provides minimal cover. Although the terrain is mainly high desert with undulating plains, striking views of mountains reaching elevations near 4,000 feet can be seen from the cantonment area. Fort Bliss projects an array of visual landscapes reflecting the supporting functions and activities of past and present mission requirements. Views across the installation vary, ranging from urban and industrial buildings to open vistas to large training areas covered with rock blankets. Historic elements on the

cantonment area, such as the Main Post Historic District and William Beaumont General Hospital Historic District, contribute to the appearance, style, and layout of the post. Some newer and more modern areas of the installation vary in design, style, function, and size. Overall, the visual impression of Fort Bliss is one of focused activity in a military environment that blends past development with present conditions in an attractive manner wherever possible. Because maintenance is provided at a relatively high level and there is little trash or debris, the post has a general appearance of cleanliness and order.

The PAL footprint buildings vary in size and style, having been constructed from 1914 to 1994. The existing PAL footprints have typical desert surroundings with minimal vegetation, with the exception of Parcels A, B, and C (the distinguished visitor quarters [DVQs]), which have small, well-maintained lawns, mature trees, and nearby mowed common areas. The typical view from the PAL footprints is primarily of other installation buildings (such as administrative buildings, troop housing, family housing, and community facilities) and open space with views of the mountains in the distance.

Parcels A, B, and C are in the historic district (see Section 3.8, Cultural Resources); the historic district, with its distinctive architecture, well-manicured lawns, and mature trees is visually pleasing. Parcel D is in the historic district viewshed.

Parcel L, in the northeast cantonment, is an undeveloped parcel near the AFFES and Longknife Village. The parcel is desert with no vegetation. Views from Parcel L are of open space and other installation buildings.

3.2.2 Environmental Consequences

3.2.2.1 Preferred Alternative

Short-term minor adverse and long-term minor beneficial effects on aesthetics and visual resources would be expected. Short-term minor adverse effects would result from construction activities, which are inherently aesthetically displeasing. During the construction and renovation phases of the PAL program, views from various vantage points on the installation would be disrupted by construction equipment, construction material staging areas, and bare land as buildings undergo demolition or construction. Parcel D, which would undergo demolition of its existing buildings and is an alternate site for one of the proposed new hotels, is in the viewshed of the historic district (see Section 3.8, Cultural Resources). The visually disrupting effects from demolition and construction would be short term and localized to the areas under construction. Construction activities would be limited to daylight hours; therefore, night-time construction activities and associated lighting would not occur.

Long-term minor beneficial effects would be expected from the overall improvement in the aesthetic appeal of the lodging areas. Renovations to repair or update the interior or exterior of existing lodging buildings would improve the appearance of the buildings. Any renovations to historic lodging would be done in strict accordance with historic building requirements (see Section 3.8, Cultural Resources). The proposed new hotels would be modern lodging facilities in keeping with installation Design Guidelines.

3.2.2.2 No Action Alternative

Long-term minor adverse effects on aesthetics and visual resources would be expected. The Army would continue to perform regular maintenance on existing lodging, but those activities would be

conducted on a constrained budget. Without implementing the PAL program, the Army would forego opportunities to leverage private-sector financing for the lodging function. Aesthetic and visual appeal of lodging facilities could decline on the basis of current funding levels.

3.3 AIR QUALITY

3.3.1 Affected Environment

El Paso County, and therefore Fort Bliss, is in the El Paso-Las Cruces-Alamogordo Interstate Air Quality Control Region (AQCR 153). Although EPA has designated the nearby city of El Paso as moderate nonattainment for PM_{10} and a maintenance area for CO, Fort Bliss has been designated as in attainment for all criteria pollutants. An applicability analysis and formal conformity demonstration under the General Conformity Rule (40 CFR 93.153) for the PAL action, therefore, would not be required. The proposed project would be exempt from the General Conformity Rule, and a Record of Non-applicability is in Appendix A.

Fort Bliss is considered a major source of emissions and the Texas Commission on Environmental Quality (TCEQ) issued a federal Title V operating permit (number O-2865) to the installation in January 2007. As part of its permit requirements, Fort Bliss tracks air emissions from many stationary emission sources on the installation. Those include boilers, generators, surface-coating operations, underground storage tanks, and a sanitary landfill. Fort Bliss' 2007 installation-wide air emissions are tabulated below (Table 3.3-1).

Table 3.3-1
2007 Annual emissions of areas of Fort Bliss within Texas

Pollutant	Emissions (tons/year)
Volatile organic compounds (VOCs)	62.5
Nitrogen oxides (NO_x)	58.7
Carbon monoxide (CO)	38.3
Sulfur dioxide (SO_2)	0.4
Particulates (PM_{10})	7.3

Source: Fort Bliss 2009

Greenhouse Gases and Global Warming. Greenhouse gases (GHGs) are components of the atmosphere that trap heat relatively near the surface of the earth and, therefore, contribute to the greenhouse effect and global warming. Most GHGs occur naturally in the atmosphere, but increases in their concentration result from human activities such as burning fossil fuels. Global temperatures are expected to continue to rise as human activities continue to add carbon dioxide (CO_2), methane, nitrous oxides, and other greenhouse (or heat-trapping) gases to the atmosphere. Whether rainfall increases or decreases remains difficult to project for specific regions (USEPA 2010a; IPCC 2007).

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* outlines policies intended to ensure that federal agencies evaluate climate-change risks and vulnerabilities, and to manage the short- and long-term effects of climate change on their operations and mission. The EO specifically requires the Army to measure, report, and reduce its GHG emissions from both its direct and indirect activities. The Department of Defense (DoD) has committed to reduce GHG emissions from non-combat activities 34 percent by 2020 (DoD 2010). In addition, the

CEQ recently released draft guidance on when and how federal agencies should consider GHG emissions and climate change in NEPA analyses. The draft guidance includes a presumptive effects threshold of 27,563 tons (25,000 metric tons) of CO_2 equivalent emissions from a federal action on an annual basis (CEQ 2010).

3.3.2 Environmental Consequences

3.3.2.1 Preferred Alternative

Short-term minor adverse and long-term minor beneficial effects on air quality would be expected. Implementing the Preferred Alternative could affect air quality through airborne dust and other pollutants generated during demolition and construction, and by introducing new stationary sources of pollutants, such as heating boilers. Air quality effects would be minor unless the anticipated emissions would be greater than the General Conformity Rule applicability threshold, exceed the GHG threshold in the draft CEQ guidance, or contribute to a violation of any federal, state, or local air regulation.

Construction and demolition emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, architectural coatings, and paving off-gasses. Operational emissions would primarily be from heating emissions for the building and patron trips. Notably, the reduction in lodging would constitute a net decrease in operational emissions. The estimated emissions from the Preferred Alternative would be below the General Conformity Rule applicability thresholds (Table 3.3-2).

Table 3.3-2
Annual air emissions compared to applicability thresholds

Activity	Emissions (tons/year)						*De minimis* threshold	Would emissions equal/exceed *de minimis* levels?
	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$		
Construction and Demolition	13.2	11.8	3.0	0.0	7.3	1.1	100	No
Operations[a]	None							

a. Reduction in overall lodging units would constitute a long-term incremental decrease in emissions.

For analysis purposes, it was assumed that all the construction would be compressed into a single 12-month period. Therefore, regardless of the ultimate implementation schedule, the effects would be minor. Small changes in the facilities' siting, the ultimate design, and moderate changes in the quantity and types of equipment used would not have a substantial influence on the emission estimates and would not change the level of effects under NEPA.

The new facilities would be equipped with individual furnaces or boilers for heating. Such stationary sources of air emissions could be subject to federal and state air permitting regulations, including New Source Review, Prevention of Significant Deterioration, National Emission Standards for Hazardous Air Pollutants, or New Source Performance Standards. IHG would own, operate, and maintain the lodging facilities on property leased by Fort Bliss. In general, leased activities would not be considered under the direct control of Fort Bliss. Such leased activities would normally be considered *tenants*, and IHG would need to perform an air quality regulatory analysis to determine if any Clean Air Act permitting is required for the operation of any sources of air emissions. However, leased activities can be considered under common control when they also have a contract-for-service relationship to provide goods or services to a military controlling

entity the installation. Given the variety and complexity of leased and contract-for-service activities at Fort Bliss, case-by-case determinations would be necessary to determine if the existing sources of emissions would remain on, or new sources would be added to, Fort Bliss' Title V permit.

Fort Bliss' air operating permit does not outline specific installation-wide limitations on construction-phase emissions of criteria pollutants. However, the Texas Administrative Code does outline precautions that would be required during the new facilities' construction (Texas Administrative Code Title 30, Chapter 111). All persons responsible for any operation, process, handling, transportation, or storage facility that could result in fugitive dust, would take reasonable precautions to prevent such dust from becoming airborne. Reasonable precautions might include using water to control dust from building demolition, construction, road grading, or land clearing.

GHGs and Global Warming. Under the Preferred Alternative, all construction activities combined would generate approximately 1,681 tons (1,529 metric tons) of CO_2, and operational activities would reduce GHG emission. The GHG emissions associated with the Preferred Alternative fall well below the CEQ threshold, and the long-term decrease would help the DoD meet its overall goal put forth under EO 13514.

3.3.2.2 No Action Alternative

No effects on air quality would be expected. No demolition, construction, or changes in operations would occur. Ambient air quality conditions would remain as described in Section 3.3.1.

3.4 NOISE

3.4.1 Affected Environment

The primary sources of noise at Fort Bliss are military training in the northern portions of the installation and aircraft operations at Biggs Army Airfield and the El Paso International Airport. Other sources of noise are vehicle traffic, landscaping and construction activities, and vehicle maintenance operations. The Army recognizes three noise zones to aid in land use planning on and near installations (U.S. Army 2007). The noise zones are as follows:

- Zone I (recommended for noise-sensitive activities): This area, considered to have moderate to minimal noise exposure from aircraft operations, weapons firing and other noise sources, is acceptable for noise-sensitive land uses including housing, schools, and medical facilities.
- Zone II (normally not recommended for noise-sensitive activities): This area is considered to have significant noise exposure and is, therefore, normally acceptable only for activities such as industrial, manufacturing, transportation, and resource production.
- Zone III (not recommended for noise-sensitive activities): This zone is considered an area of severe noise exposure and is unacceptable for noise-sensitive activities.

The noise zones have been carried forward in this EA to facilitate a discussion of land use compatibility with respect to the proposed PAL actions.

3.4.2 Environmental Consequences

3.4.2.1 Preferred Alternative

Short-term minor adverse effects on the noise environment would be expected. Short-term increases in noise would result from the use of construction equipment. That source of noise would be present only during the construction phases of the project and would be limited to normal weekday business hours to the extent practicable. Because of the temporary nature of proposed construction activities and the limited amount of noise that construction equipment would generate, the effects would be minor.

All parcels would be in Noise Zone I and would be completely compatible with the intended use. Such a determination includes all current and foreseeable military training in the northern portions of the installation and aircraft operations at Biggs Army Airfield and the El Paso International Airport. No use of weaponry, demolitions, or aircraft operations would occur with the implementation of the Preferred Alternative. Therefore, no changes in the existing noise zones associated with the sources would be expected. The long-term effects would be negligible.

3.4.2.2 No Action Alternative

No effects on the noise environment would be expected. No demolition and construction or changes in operations would occur. Ambient noise conditions would remain as described in Section 3.4.1.

3.5 GEOLOGY AND SOILS

3.5.1 Affected Environment

Fort Bliss is in the northern Chihuahua Desert in south-central New Mexico and southwest Texas and is in the Basin and Range Physiographic Province. The area is characterized by short, linear mountain ranges oriented roughly north to south and formed by the extension of the underlying crust. The mountains are separated by broad basins or valleys. Most of Fort Bliss, to the north and northeast of the cantonment area, is within the Tularosa Basin. The basin is about 100 miles long and 60 miles wide and is one of the largest valleys in the Rio Grande Rift Basin. The Rio Grande flows in its generally southeast direction west and south of Fort Bliss. The Tularosa Basin merges with the Hueco Bolson valley in the El Paso area. The cantonment area of Fort Bliss is in the Hueco Bolson, between the Franklin Mountains to the west and Hueco Mountains to the east. Elevations across Fort Bliss range from around 3,900 feet in the primarily-level cantonment area to 8,600 feet in the Organ Mountains of the Dona Ana Range-North Training Areas to the north (Fort Bliss 2010; USACE Fort Worth District 2004; USACE Mobile District 2004).

The geologic composition of the southern portion of the Tularosa Basin, in the vicinity of the Fort Bliss cantonment area, consists of more than 6,000 feet of valley fill, stream sand and gravel, rock slides, alluvial fans from mountains on either side, and lake deposits rich in salt and gypsum derived from sedimentary rocks of the adjacent ranges (Fort Bliss 2001, 2010).

Seismic activity of the Rio Grande Rift area is considered to be moderate, and many known fault lines occur in the Tularosa Basin and its surrounding mountains. Earthquakes have been recorded in the region over the past 150 years, but they have typically been centered within the 75-mile long segment between Socorro and Albuquerque, New Mexico (Fort Bliss 2010; USACE Fort Worth District 2004; USACE Mobile District 2004).

Soils of the PAL parcels are of two types. Parcels A, B, C, D, and M soils are Cavalry loamy fine sand, with 1 to 3 percent slopes. Parcels F, H, K, and L soils are Hueco loamy fine sand, with 1 to 3 percent slopes. Both of those soils are formed from parent material of alluvium or eolian sands, are well drained, and have depth to water tables of more than 80 inches (USDA NRCS 2010). The soils are highly susceptible to erosion by wind or water, and neither is a hydric soil (i.e., soils associated with wetlands). No prime farmland soil, subject to protection under the Farmland Policy Protection Act, is in the portion of the cantonment area encompassing the PAL parcels (USACE Mobile District 2004); thus, a Farmland Conversion Impact Rating (Form AD-1006) is not warranted, and no further action is required under the Farmland Policy Protection Act. Soils of the PAL parcels have been previously disturbed by development.

3.5.2 Environmental Consequences

3.5.2.1 Preferred Alternative

Short-term minor adverse effects on soils would be expected from implementing the Preferred Alternative. In the short term, some soil disturbance would be expected during demolition, site preparation, and new construction. New construction, or demolition and reconstruction, on one or more of the proposed PAL parcels (D, F, H, K, M, or L) would be expected to involve little vegetation removal because of the previously developed or sparsely vegetated condition of the sites. Any vegetation removal, however, and other site preparation and construction-related activities would be expected to increase soil exposure, making soils more susceptible to erosion by wind or water. Such effects would be minimized, however, by using appropriate site-specific best management practices (BMPs) for controlling erosion and runoff. These erosion and control devices consist of silt fencing for construction areas and gravel or native plants for final stabilization. (Silt fencing is a 3'fence across active construction sites, 6" is buried below ground to capture debris until construction is complete). All activities would be conducted in accordance with applicable federal, state, and installation regulations to provide erosion and sediment control, including preparing and adhering to site-specific Storm Water Pollution Prevention Plans (SWPPPs), and in accordance with requirements of the Fort Bliss TCEQ Multi-Sector General Storm Water Permit (TXR050000), its Phase II Small Municipal Separate Storm Sewer System General Permit (TXR040000), and the TCEQ Construction General Permit (TXR150000) for construction activities disturbing areas 5 acres or larger.

No effect on soils would be expected on any proposed PAL parcels where the only activities are interior and minor exterior building renovations.

No effects on geologic or topographic conditions, or on prime farmland, would be expected under the Preferred Alternative.

3.5.2.2 No Action Alternative

No effects on geologic or topographic conditions, soils, or prime farmland would be expected from implementing the No Action Alternative. No ground-disturbing activities would occur.

3.6 WATER RESOURCES

3.6.1 Affected Environment

The cantonment area of Fort Bliss is within the Hueco Bolson (valley) about 3 miles north of the Rio Grande. The mountain slopes and foothill areas around the margins of the valley are

characterized by small ephemeral streams (arroyos) which, during periods of heavy or prolonged storms, discharge onto the valley floor, where the runoff infiltrates or is lost to evapotranspiration. No well-defined natural perennial stream channels, except the Rio Grande, are present on the valley floor in the vicinity of the Fort Bliss cantonment area. No natural, perennial lakes exist in the area; however, shallow depressions, known as playa lakes, are characteristic features of the valley and are important habitat sites for wildlife. Most water in playas is seasonally lost to infiltration or evapotranspiration in the arid climate. No playas exist in the vicinity of the proposed PAL parcels. Flash flooding and high alluvial erosion and deposition caused by high-intensity thunderstorms are associated with the terrain of the area. The cantonment area has experienced drainage and flooding problems seasonally during heavy precipitation events (Fort Bliss 2010; USACE Fort Worth District 2004; USACE Mobile District 2004).

Storm water runoff in the areas of the cantonment area encompassing the proposed PAL parcels flows through a series of storm drainage channels and pipes into various storm water retention ponds. The main Fort Bliss storm water retention pond has a storage capacity sufficient to meet 100-year storm storage requirements. Much of the surface water diverted to retention ponds leaves only by evapotranspiration or infiltration (USACE Mobile District 2004).

No waterbodies in the immediate vicinity of the portion of the cantonment area encompassing the proposed PAL parcels are on EPA's 2008 Clean Water Act Section 303(d) list of impaired waters. A section of the Rio Grande beginning about 10 miles downstream from Fort Bliss is listed as impaired for chloride, total dissolved solids, and bacteria (USEPA 2010b).

The Hueco Bolson aquifer underlies the Fort Bliss cantonment area and much of El Paso County and neighboring Mexico, and it is a major water supply source for the area. The principal area of recharge is along the eastern edge of the Franklin and Organ Mountains, where runoff infiltrates into the coarse gravel of alluvial fans. The aquifer is about 9,000 feet thick and consists of silt, sand, and gravel in the upper part, and clay and silt in the lower part. Only the upper several hundred feet contain fresh to slightly saline water. The majority of fresh water in the aquifer is along the eastern front of the Franklin Mountains, and the area of fresh water thins toward the east until only brackish water is present. The majority of the Fort Bliss cantonment area water supply comes from nearby main post and Biggs Army Air Field wells to the Hueco Bolson aquifer (Fort Bliss 2010; TWDB 2010; USACE Mobile District 2004).

No designated 100-year floodplain occurs on any of the proposed PAL parcels. The Armstrong Field area to the west of Parcels A, B, and C is the closest Federal Emergency Management Agency-designated flood prone area (Zone A [FEMA 1991]) and holds a storm water retention pond.

3.6.2 Environmental Consequences

3.6.2.1 Preferred Alternative

Short- and long-term minor adverse and long-term minor beneficial effects on water resources would be expected from implementing the Preferred Alternative.

In the short term, staging, site preparation, demolition, and new construction activities in parcels D, F, H, K, M, or L would be expected to involve some soil disturbance or compaction and the potential for removing limited vegetation on-site. It could result in increases in dissolved solid, sediment, or other waterborne pollutant runoff that could reach groundwater through infiltration

through the porous soils, either during overland sheet flow, or by infiltration from storm water retention ponds. Potential adverse effects on the groundwater and surface water systems would be minimized by using appropriate site-specific BMPs to control erosion and runoff, in accordance with all applicable federal, state, and installation regulations, and by preparing and adhering to site-specific SWPPPs and to requirements of the Fort Bliss TCEQ Multi-Sector General Storm Water Permit (TXR050000), its Phase II Small Municipal Separate Storm Sewer System General Permit (TXR040000), and the TCEQ Construction General Permit (TXR150000) for construction activities disturbing areas 5 acres or larger.

Long-term minor adverse effects on water resources would be expected from any PAL parcels on which demolition followed by new construction, or new construction alone, would result in a net loss of pervious ground cover (vegetation or permeable sand or gravelscaping) and net increase in impervious surface area. Increased impervious surface area, such as driveways, parking lots, sidewalks, and rooftops, can result in increased runoff (in the forms of increased volume, velocity, and peak flows), increased erosion, increased pollutant loads (e.g., dissolved solids, petroleum hydrocarbon debris from vehicles) and sediment loads, and reduced ground absorption and infiltration of runoff that would otherwise recharge groundwater aquifers. Long-term minor adverse effects would be minimized by complying with all applicable regulations for storm water management, including developing an effective site-specific SWPPP and incorporating BMPs for storm water management into the site design.

Long-term minor beneficial effects would be expected to result from any PAL parcels on which demolition of existing facilities is followed by replacing formerly impervious surfaces with vegetated cover, or with pervious, nonvegetated, land-stabilizing gravelscaping, rather than redevelopment (e.g., Parcels D, F, or H). Such benefits would be expected to arise from increased groundwater recharge through the pervious ground cover, reduced volume and velocity of runoff, and reduced potential for erosion and transport of sediment (by wind or water).

No effects on surface or groundwater resources would be expected on any proposed PAL parcels where the only activities would be interior and minor exterior building renovations.

No effects on floodplains would be expected from implementing the Preferred Alternative.

3.6.2.2 No Action Alternative

No effects on water resources would be expected under the No Action Alternative.

3.7 BIOLOGICAL RESOURCES

3.7.1 Affected Environment

3.7.1.1 Vegetation

According to the Fort Bliss Integrated Natural Resources Management Plan (INRMP) (Fort Bliss 2001), the cantonment area is highly developed and does not contain many natural resources. (Figure 6-8 of the INRMP, *South Training Areas and Cantonment Vegetation*, classifies the vegetation of the cantonment area as Barren, Facilities, Non-native, Urban, No Data.) The cantonment area's natural resources are managed to provide an aesthetically pleasing environment rather than vegetative community variety or wildlife habitat. Grounds maintenance consists of mowing; planting grass, flowers, shrubs, and trees; golf course upkeep; and pest control. The vegetation of the cantonment area, where it exists, consists primarily of planted

lawns, trees, and shrubs. Vegetation on the proposed PAL parcels consists of scattered planted trees and maintained lawns (Parcels A, B, and C) or scattered shrubs (Parcels D, F, H, and K). Some parcels (Parcels K, L, and M) are mostly unvegetated.

3.7.1.2 Wildlife

Wildlife species diversity on Fort Bliss is high (for example, New Mexico lists 123 species of amphibians and reptiles as occurring in the state, and 47 of those species occur and 19 have the potential to occur on Fort Bliss), but wildlife is concentrated on range and training areas having natural habitat (Fort Bliss 2001). Wildlife in the cantonment area consists of common and introduced species typical for such areas, such as the house sparrow (*Passer domesticus*), great-tailed grackle (*Quiscalus mexicanus*), house finch (*Carpodacus mexicanus*), rock dove (*Columba livia*), European starling (*Sturnus vulgaris*), house mouse (*Mus musculus*) and Norwegian rat (*Rattus norwegicus*).

3.7.1.3 Sensitive Species

Various species of flora and fauna that are listed as threatened, endangered, or species of concern by the U.S. Fish and Wildlife Service and New Mexico and Texas occur or have the potential to occur on Fort Bliss (Fort Bliss 2001). Two federally listed species (Sneed pincushion cactus [*Escobaria sneedii var. sneedii*], black-tailed prairie dog [*Cynomys ludovicianus*]) are found on Fort Bliss year-round, and potential but unoccupied habitat exists for two species that have been sighted (aplomado falcon [*Falco femoralis*] and mountain plover [*Charadrius montanus*]). Habitat for the remaining four federally listed species does not exist or is of insufficient amount to maintain a population (piping plover [*Charadrius melodus*], interior least tern [*Sternula antillarum*], Mexican spotted owl [*Strix occidentalis lucida*], southwest willow flycatcher [*Empidonax traillii extimus*]). However, those species have passed or could pass through portions of Fort Bliss. None of the sensitive species known to occur or that could occur on Fort Bliss inhabit the PAL parcels or their surroundings, and the PAL parcels do not provide habitat suitable for any sensitive species of flora or fauna.

3.7.2 Environmental Consequences

3.7.2.1 Preferred Alternative

No effects on biological resources would be expected from implementing the Preferred Alternative at Fort Bliss. New construction would occur on parcels that are mostly unvegetated, and the marginal habitat that exists on parcels with existing facilities would not be disturbed by building renovations. No protected species or species of concern, or wetlands would be expected to be affected by the Preferred Alternative.

Fort Bliss coordinated with the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD) regarding the 2010 Army Growth and Force Structure Environmental Impact Statement (Fort Bliss 2010) and the 2007 Fort Bliss Supplemental Programmatic Environmental Impact Statement Mission and Master Plan (IMA 2007). USFWS provided general comments relating to continuing to implement the Fort Bliss INRMP; applying ecosystem management tools; conserving ecologically important vegetative communities, unique natural ecological communities and landscape features, and listed species; and protecting migratory bird resources. TPWD did not provide comments on the documents. The Preferred Alternative addressed in this EA would occur entirely within the main cantonment area, which

was fully assessed by Fort Bliss in those documents and reviewed by USFWS and TPWD. No further coordination is required with USFWS or TPWD for this project.

3.7.2.2 No Action Alternative

No effects on biological resources would be expected under the No Action Alternative. No vegetation or animal species would be disturbed under the No Action Alternative.

3.8 CULTURAL RESOURCES

3.8.1 Affected Environment

Fort Bliss is responsible for identifying, evaluating, and protecting important cultural resources on the installation in compliance with the National Historic Preservation Act (NHPA) and other federal laws, regulations, and standards. Managing cultural resources on the installation is guided, in accordance with Army Regulation 200-1, by an Integrated Cultural Resources Management Plan (ICRMP), which is updated every 5 years. That plan integrates cultural resources management into other mission-related activities.

The most recent Fort Bliss ICRMP was prepared in 2008. It contains detailed information on area prehistory and history, including a history of Fort Bliss itself. Also included in the ICRMP are a discussion of regulatory frameworks and compliance status, party and agency roles and responsibilities, studies conducted to date, known site data, standard operating procedures, and memoranda and agreements applicable to managing cultural resources (Sackett 2008).

As an overview, hundreds of cultural resources studies have been conducted at Fort Bliss. Resource types associated with the installation include archaeological sites and historic architecture; and cultural landscapes, traditional cultural properties, and sacred sites.

The PAL program involves granting a long-term lease of Fort Bliss lodging to a private entity. Because the transfer of a long term interest in the construction, demolition, renovation, operation, and maintenance of Army lodging has the potential to affect cultural resources, a Programmatic Agreement (PA) between Fort Bliss and the Texas State Historic Preservation Officer (SHPO) and other interested parties is required. The PA for PAL might be a supplement to the existing *2004 Privatization of Family Housing Programmatic Agreement*, or Fort Bliss, the Texas SHPO, and other interested parties might develop a separate and new PA for PAL. Regardless of form, the PA will outline methods by which National Register eligible cultural resources will be protected during the lease period and the PA will be made part of the ground lease agreement between the Army and Rest Easy. The PA will demonstrate that the Army has considered the potential effects of PAL on historic properties in accordance with Section 106 of the National Historic Preservation Act. No historic properties will be transferred as part of the PAL program until such time as the PA is finalized.

3.8.1.1 Archaeological Sites

Archaeological sites found on the installation number more than 17,000. They range in date from 10,000 B.C. to the 1900s and include isolated prehistoric features and artifacts such as hearths, stone tools, and pottery and pueblos, post-contact Native American sites, and the remains of historic ranches, farms, mining operations, and related roads and towns. More than 2,000 archaeological sites on Fort Bliss are considered eligible for listing on the NRHP, more than 3,000 are considered ineligible, and many more have not yet been evaluated (Sackett 2008).

Under the various alternatives, demolition would be planned for parcels D, F, and H. New construction is proposed for Parcels K, L, and M. Little or no archaeological potential is within the main cantonment and it would be, in the main, excluded from NHPA section 106 compliance surveys as formalized in a PA between the installation and the SHPO (Sackett 2008). That specifically would apply to Parcels D, F, H and M. Parcels F and H were also surveyed as a project titled *Settlement Patterns of the Western Hueco Bolson* and no sites were identified (Whalen 1978). Surveys conducted on Parcels K and L resulted in no archaeological sites being identified (Roberts 2004).

3.8.1.2 Native American Resources

Consultation is ongoing with four Indian tribes in identifying Native American resources (including Traditional Cultural Properties and Sacred Sites). No Native American resources have been identified on any of the PAL parcels.

3.8.1.3 Historic Architecture

The installation has identified more than 4,000 potentially historic standing structures including historic buildings that predate the fort; those associated with its establishment in the 19th century; and World War I, World War II, and Cold War-era military structures and objects. Two historic districts have been identified on Fort Bliss—the Fort Bliss Main Post Historic District comprising 346 structures and landscape features; and the William Beaumont General Hospital District, which includes 71 contributing properties. In addition, 73 Cold War-era buildings on the installation have been determined eligible for listing on the NRHP.

Building renovation is planned for NRHP-eligible historic DVQs on three PAL parcels (Parcels A-C). Parcel A is Building 213, constructed in 1914. Parcel B is Buildings 205 and 206, built in 1914; Parcel C is Building 243, built in 1939. Before serving as DVQs, Building 213 was a Captain's Quarters; Buildings 205 and 206 were Lieutenant's Quarters. All three were built during the installation's historic context of the First Expansion Period (1913 to 1917); key historic events associated with that period include the Mexican Revolution, the Punitive Expedition, and the Zimmerman Telegram, all of which meant border issues were the subject of national and international attention. Building 243 is a Depression-era Bachelor's Quarters built during a construction boom funded by the military, the Works Program Administration, and the National Industrial Recovery Act as part of the Franklin Roosevelt administration's efforts to programs to pull the country out of the Great Depression.

Renovations to those historic buildings would include necessary safety upgrades or modifications as required by safety regulations, updating the interiors (e.g., linens and décor), and exterior structural modifications associated with rebranding the buildings as part of IHG's *Historic Collection*. All renovation actions affecting historic properties would be coordinated with the SHPO before they occur, in accordance with coordination requirements stated in the PA. The PA would be part of the lease agreement and captured in the deed of conveyance; strict adherence to the PA, lease agreement, and deed of conveyance would be required.

Demolition would be planned for one PAL parcel (Parcel D) involving NRHP-eligible buildings categorized as Cold War-era UPH. Buildings 5015, 5016, 5017, 5018, 5020, and 5023 were all constructed in 1956 and are part of a barracks complex. Management actions including ongoing operations, maintenance and repair, rehabilitation, renovation, mothballing, cessation of maintenance, new construction, demolition, deconstruction and salvage, remediation activities, and transfer, sale, lease, and closure of UPH facilities are all guided by an Advisory Council on

Historic Preservation (ACHP) Program Comment. That comment provides for alternatives to conventional NHPA section 106 compliance procedures for UPH constructed between 1946 and 1974. Army NHPA section 106 obligations and mitigation were met for those properties through a study titled *Unaccompanied Personnel Housing (UPH) during the Cold War (1946–1989)*. The resulting report consists of a historic context and detailed record of Army UPH including site plans, as-built plans, and photographs. No further NHPA compliance work would be required for UPH on Army property as a result of that Army-wide mitigation study.

The remaining PAL parcels where demolition would be conducted are Parcels F, H and M. Buildings on Parcel F were constructed in the late 1950s. They were evaluated for NRHP eligibility in 2006 as part of a historic context study for Biggs Air Force Base and recommended ineligible due to lack of integrity (Sackett 2006). The Texas Historical Commission responded with a Letter of Concurrence dated 30 November 2006. Parcel H's Building 11345 was built in 1994 and is therefore not eligible for the NRHP. Building 11332 was built in 1959 and is, like the buildings on Parcel D, a UPH structure. Army obligations for NHPA compliance on UPH structures have been met by an Army wide mitigation study. Building 1743 on Parcel M was built in 1971 and is not eligible for the NRHP.

In addition to the previously mentioned historic districts, Fort Bliss also recognizes 10 important landscapes dating from the late 1800s through the 1930s (Initial Construction Period through Depression Era contexts). Historic landscapes include recreational areas and fields, layout and design features like the Depression Era Pershing Gate and Pershing Circle, and collections of buildings like quarters, warehouses, and stables (Sackett et al. 2008). However, none of the PAL proposed activities would be expected to result in indirect adverse effects on viewsheds. All exterior renovations to historic resources on Parcels A, B, and C would be done in coordination with the SHPO and may result in benefical effects. No demolition work is planned for any features contributing to the districts or landscapes. Buildings to be demolished do not add to or complement the overall feel of historic districts or landscapes, and no new construction is planned in or adjacent to any important visual resources.

3.8.2 Environmental Consequences

3.8.2.1 Preferred Alternative

No adverse effects on archaeological sites or Native American resources would be expected from implementing the Preferred Alternative. The involved parcels contain no NRHP-eligible archaeological sites or any identified resources of significance to a Native American tribe. Archaeological materials inadvertently discovered would be managed under the guidelines of the PA among Fort Bliss, the Texas SHPO, and the ACHP, SOP 10.

No direct or indirect adverse effects on historic architecture would be expected under the Preferred Alternative. Maintenance, repair, and renovation to NRHP-eligible structures on Parcels A, B, and C would be done in strict accordance with historic property requirements identified in the PA developed for the PAL action. Such work would be expected to benefit the historic properties, which might otherwise deteriorate over time if sufficient maintenance funding were not available. The EA, Draft Finding of No Significant Impact (FNSI), and cover letter of Determination of Effect will be reviewed and commented on by the SHPO during the 30-day period for public review of the EA and Draft FNSI. The Determination of Effect will either make a proposal to incorporate the Section 106 compliance process for the PAL undertaking into the existing PA, or to develop a separate PA for the PAL action. The SHPO will review the documents and provide an appropriate and timely response to the proposal. If SHPO concurs

with the determination and proposal, consultation will be completed. If not, consultation will continue until a suitable proposal is reached that ensures the proper management of historic buildings affected by the PAL undertaking. The agreed upon protection measures will be incorporated into the ground lease conveyance document. No transfer of historic properties will take place until such time as the Section 106 consultation process has been completed.

Renovation, demolition, transfer, sale, lease, and closure of NRHP-eligible UPH facilities (Parcel D) have been mitigated through the ACHP Program Comment, and an Army-conducted study titled *Unaccompanied Personnel Housing (UPH) during the Cold War (1946–1989)*. The NRHP-eligible structures in Parcels A, B, and C are not being considered for demolition, and any renovations planned to those structures would be in strict accordance with the guidelines and requirements set forth in the PA. None of the other PAL parcels contain buildings that are eligible for the NRHP. None of the proposed activities involve historic district or landscape viewsheds except the renovation of historic buildings in Parcels A, B, and C. Because all exterior renovation work to these buildings would be done in coordination with the SHPO, no adverse effects to viewsheds would be expected. Minor beneficial effects could result to historic properties because private funding would be available to carry out needed renovations and upkeep almost immediately.

3.8.2.2 No Action Alternative

No effects on cultural resources would be expected under the No Action Alternative. All Army actions affecting the involved parcels would conform to installation policies, the ICRMP, and relevant regulatory frameworks.

3.9 SOCIOECONOMICS

3.9.1 Affected Environment

This section describes the economy and the sociological environment of the region of influence (ROI) surrounding Fort Bliss. An ROI is a geographic area selected as a basis on which social and economic impacts of project alternatives are analyzed. The major factors used to determine the ROI are the location of Fort Bliss, the residency distribution of employees, commuting distances and times, and the location of businesses providing goods and services to the installation. On the basis of those criteria, the ROI for the social and economic environment is defined as El Paso County, Texas.

The baseline year for socioeconomic data is 2009, the most recent year for which socioeconomic indicators are reasonably available. Where 2009 data are not available, the most recent data available are presented.

3.9.1.1 Regional Economy

Employment and Industry. ROI civilian labor force and unemployment data are in Table 3.9-1 shown with state and national data for comparative purposes. The region's labor force increased 12 percent between 2000 and 2009, lower than the state but higher than the national growth rate. The ROI 2009 annual unemployment rate was 9 percent, higher than the state unemployment rate of 8 percent but the same as the national unemployment rate.

Table 3.9-1
Labor force and unemployment

	2000 civilian labor force	2009 civilian labor force	Change in labor force, 2000–2009	2009 annual unemployment rate
ROI	274,796	306,644	12%	9%
Texas	10,347,847	11,930,847	15%	8%
United States	142,583,000	154,142,000	8%	9%

Source: BLS 2010

The primary sources of ROI employment were government and government enterprises; retail trade; health care and social assistance; and administrative and waste services. Together, those industry sectors account for 50 percent of regional employment (BEA 2010). Fort Bliss employs more than 42,000 military and civilian personnel (DA 2009). The installation affects the local economy through the direct employment of government and civilian personnel and through the local procurement of goods and services. Fort Bliss is the second largest Army Post in the United States. As part of the DoD's 2005 Base Realignment and Closure (BRAC) recommendations, the 1st Armored Division and echelons above division units from Germany and Korea will be relocated to Fort Bliss. Fort Bliss also will gain three Brigade Combat Teams, an Artillery Brigade, and an Aviation Brigade, resulting in an increase of 11,500 military and civilian jobs at the installation.

Income. ROI income levels were lower than state and national averages (Table 3.9-2). The ROI 2008 per capita personal income (PCPI) was $28,071, about 74 percent of the state level PCPI of $37,809 and 70 percent of the national per capita income of $40,166 (BEA 2010). The ROI median household income of $36,519 was 73 percent of the state median household income of $50,049 and 70 percent of the national median household income of $52,029 (U.S. Census Bureau 2010).

Table 3.9-2
2008 Income

	PCPI	Median household income
ROI	$28,071	$36,519
Texas	$37,809	$50,049
United States	$40,166	$52,029

Source: BEA 2010; U.S. Census Bureau 2010

Population. The ROI's 2009 population was about 751,300, an increase of approximately 71,675 persons since 2000. The ROI's population growth of 11 percent was lower than the state growth rate of 19 percent but higher than the national growth rate of 9 percent (Table 3.9-3).

3.9.1.2 Quality of Life

Implementing the proposed PAL program would not affect residential housing, shopping or recreational services, or public services (e.g., primary and secondary schooling). They are, therefore, not further addressed in this EA.

Table 3.9-3
Population

	2000 population	2009 population	Change in population, 2000–2009
ROI	679,622	751,296	11%
Texas	20,851,818	24,782,302	19%
United States	281,424,602	307,006,550	9%

Source: U.S. Census Bureau 2010

Lodging. The Fort Bliss lodging facilities are described in Section 2.3. During a 5-year study from Fiscal Years 2001 through 2005, demand for on-post lodging was found to average 80 percent official TDY, 9 percent PCS, and 11 percent unofficial travelers. Over the 5-year study period, the Fort Bliss Army Lodging operations achieved a 66 percent occupancy rate. When Soldiers on TDY, PCS, or unofficial travel cannot be accommodated on-post, they receive Certificates of Non-Availability to stay at a market lodging facility. Training and the demand from the installation's schools have contributed to the dominance of TDY travel at the installation. The increased population coming to Fort Bliss in the next few years as a result of BRAC implementation should result in a greater accommodation of PCS families.

Emergency services. Fort Bliss provides a full range of emergency services for on-post employees and residents. Fort Bliss Directorate of Emergency Services oversees the installation's law enforcement and fire and emergency services. The directorate provides Fort Bliss with 24-hour police and fire emergency response. Fire protection is provided by four fully equipped fire stations: three of the stations are in the cantonment area and one station is at Fort Bliss' Biggs Army Airfield. The William Beaumont Army Medical Center, just west of Fort Bliss in El Paso, is a full-service hospital with a trauma center. Fort Bliss also has a medical clinic and dental clinics on-post.

3.9.1.3 Environmental Justice

On February 11, 1994, President Clinton issued EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations.* The EO requires that federal agencies take into consideration disproportionately high and adverse environmental effects of governmental decisions, policies, projects, and programs on minority and low-income populations. Data from the U.S Census Bureau were used for this environmental justice analysis. Minority populations included in the Census are identified as Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander; other race; of two or more races; and Hispanic or Latino.

According to the U.S. Census Bureau, 93 percent of the ROI population was white, and 7 percent was composed of Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander; and persons of two or more races. Persons of Hispanic or Latino origin, who can be of any race, composed 82 percent of the total population. The ROI has a high population of persons of Hispanic or Latino origin compared to Texas (37 percent) and the United States (15 percent) (U.S. Census Bureau 2010).

The poverty level in the ROI was 25 percent, compared to the Texas rate of 16 percent and the national poverty rate of 13 percent (U.S. Census Bureau 2010).

3.9.1.4 Protection of Children

EO 13045, *Protection of Children from Environmental Health and Safety Risks*, issued by President Clinton on April 21, 1997, requires federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. Children are present at Fort Bliss as residents and visitors (e.g., family housing, schools, and use of recreational facilities). The Army takes precautions for their safety through a number of means, including using fencing, limiting access to certain areas, and providing adult supervision.

3.9.2 Environmental Consequences

3.9.2.1 Preferred Alternative

EIFS Model Methodology. The economic effects of implementing the Preferred Alternative are estimated using the Economic Impact Forecast System (EIFS) model, a computer-based, economic tool that calculates multipliers to estimate the direct and indirect effects resulting from an action. Changes in spending and employment caused by renovating and constructing on-post lodging facilities represent the direct effects of the action. Using the input data and calculated multipliers, the model estimates ROI changes in sales volume, income, employment, and population, accounting for the direct and indirect effects of the action.

For purposes of this analysis, a change is considered significant if it falls outside the historical range of ROI economic variation. To determine that range, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. The analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of an action is above the positive RTV or below the negative RTV, the effect is considered significant. Appendix B discusses this methodology in more detail and presents the model inputs and outputs developed for this analysis.

EIFS Model Results. Short-term minor beneficial economic effects on the regional economy would be expected from implementing the PAL program. The expenditures and employment associated with the construction and renovation of Fort Bliss lodging would increase ROI sales volume, employment, and income, as determined by the EIFS model (Table 3.9-4 and Appendix B). The economic benefits would last for the duration of the construction period. The changes in sales volume, employment, and income would fall within historical fluctuations (i.e., within the RTV range) and would be considered minor.

Lodging. Long-term minor beneficial effects on on-post lodging would be expected from implementing the Preferred Alternative. The availability of quality, on-post lodging facilities that meet government per diem rates is important to Soldiers and visitors when they are on TDY or PCS. It also is important to the installation to be able to accommodate Soldiers and guests in suitable lodging equal to that of lodging in the market sector. Under the Preferred Alternative, the development partner would renovate existing lodging and construct two new hotels to provide a sufficient number of on-post rooms to meet Fort Bliss' lodging requirements as determined by the Army's market demand review. The installation would have renovated DVQs and modern hotels with amenities preferred by today's travelers, such as Internet access and workout rooms, benefitting the quality of life of those who stay at the facilities. The Preferred Alternative would not increase the number of on-post lodging rooms; therefore, no adverse effects would be expected on market lodging.

Table 3.9-4
EIFS model output

Indicator	Projected change	Percentage change	RTV range
Direct sales volume	$11,260,000		
Induced sales Volume	$22,294,800		
Total sales volume	$33,554,800	0.17%	–6.39% to 7.74%
Direct income	$1,949,267		
Induced income	$3,859,548		
Total income	$5,808,816	0.05%	–6.06% to 7.72%
Direct employment	55		
Induced employment	109		
Total employment	164	0.05%	–4.85% to 4.80%
Local population	0	0.00%	–1.88% to 2.49%

Source: EIFS model calculations

Emergency services. No effects on law enforcement, fire protection, and emergency medical response would be expected. The proposed buildings and renovated buildings would be on Fort Bliss property within the jurisdiction of the Fort Bliss Directorate of Emergency Services, which would respond to emergencies at the proposed facilities as it does with existing facilities on the installation at a cost-reimbursable basis to the development partner. The new lodging facilities would be built to installation design guidelines for height of structures and would have all the safety requirements required by law (such as smoke alarms, fire alarms, sprinklers). The Preferred Alternative would not increase the number of on-post lodging rooms nor the demand for emergency services.

Environmental Justice and Protection of Children. No effects would be expected. The Preferred Alternative of renovating and constructing lodging facilities on Fort Bliss would not be expected to result in disproportionate adverse environmental or health effects on low-income or minority populations or children. The Preferred Alternative would not be an action with the potential to substantially affect human health or the environment by excluding persons, denying persons benefits, or subjecting persons to discrimination.

3.9.2.2 No Action Alternative

Long-term minor adverse effects on quality of life would be expected. Continuation of the present lodging programs would perpetuate deficiencies in quality of life for Soldiers, their families, and other personnel eligible to use Army lodging. The Army would continue to perform regular maintenance on existing lodging, but those activities would be conducted on a constrained budget. Without implementing the PAL program, the Army would forego opportunities to leverage private-sector financing for the lodging function. Quality of life for personnel using lodging facilities would in all likelihood decline on the basis of current funding levels.

3.10 TRANSPORTATION

3.10.1 Affected Environment

Transportation in and around Fort Bliss is achieved mainly via road and street networks, a rail system, pedestrian walks, trails and bike paths, and Biggs Army Airfield. The transportation system serves installation traffic consisting of everyday work, living, and recreations trips.

U.S. Highways 54 (Patriot Freeway) and Dyer Street travel north to south on the west portion of the cantonment area. Average daily traffic counts for the Pershing Gate at U.S. 54 is 86,000 vehicles per day (vpd) and the Cassidy Gate at U.S. 54 is 68,000 vpd. Fred Wilson Boulevard runs east west at the north portion of the cantonment area and the Marshall, Jeb Stuart North, and Chaffee (commercial only) Gates all average approximately 20,000 vpd (TXDOT 2008). U.S. Highways 54 and Pershing Drive serve as the main access roads to Interstate 10/110 traveling east west at the southern portion of the cantonment area. The installation has 17 gates that provide access from all points of Fort Bliss.

The Fort Bliss rail system is used primarily for shipping and receiving tactical vehicles, ammunition, and other materials. The installation is served by Union Pacific/Southern Pacific Railroad, a commercial carrier that provides direct service from El Paso and serves as the installation's common carrier. Biggs Army Airfield on Fort Bliss is adjacent to the main cantonment. Several civilian airports are in the region. They are the El Paso International Airport, West Texas Airport, Dona Ana County Airport, and Fabens Airport (USACE 2004).

3.10.2 Environmental Consequences

3.10.2.1 Preferred Alternative

Short-term minor adverse and long-term minor beneficial effects on transportaion would be expected from implementing the Preferred Alternative. Short-term traffic delays from construction vehicles would be likely. Construction vehicles would be scheduled and routed to minimize conflicts with other traffic. It is likely that during the construction phases, construction vehicles and day labor traffic would have a minor adverse effect.

The decrease in lodging of approximately 105 rooms would constitute an overall corresponding decrease in trips of 852 vpd on-post (ITE 2003). Many of those trips would have occurred at peak periods and account for some amount of on-post, off-post, and gate traffic. Regardless of their ultimate siting, an overall increases in traffic would occur in the vicinity of the new hotels of about 1,740 vpd. Those increases would be more than offset by traffic decrease at other locations near the facilities that are slated for demolition. Those effects would be minor and generally beneficial.

Because of the overall decrease in lodging, the limited transit access, and that employees would be within driving distance of the proposed facilities, the Preferred Alternative would likely have no appreciable effect on public transit, rail, bus, or air traffic in the area. Parking upgrades would be adequate for the new hotels.

3.10.2.2 No Action Alternative

No effects on transportation resources would be expected because no change to the road network or changes in traffic volume would occur. Current and future traffic would remain as described in Section 3.10.1.

3.11 UTILITIES

3.11.1 Affected Environment

Utilities available at Fort Bliss include potable water, sanitary sewer, and storm water systems; energy sources; communications; and solid waste disposal. The following subsections discuss the location, availability, capabilities, and limitations of the utility infrastructure (MICC-Fort Bliss 2010).

Potable Water Supply. Fort Bliss produces the majority of its potable water from two on-post wellfields, Tobin and Pike wellfields. The fields can produce a combined flow of 15.8 million gallons per day (mgd). With the combined El Paso Water Utilities (EPWU) water supply, Fort Bliss has a water supply of approximately 27.5 mgd stored by deep well injection. Fort Bliss alone has a 4-mgd capacity (EPWU-Fort Bliss 2010). Water usage by El Paso for 2008 was 40 mgd (EPWU 2010).

Wastewater System. Wastewater collected at the cantonment area is discharged to the EPWU sanitary sewer system, which flows through the installation. The Fort Bliss wastewater system connects to the EPWU system at five outfall points. Under contract with El Paso, Fort Bliss is allowed to discharge an average of 3.0 mgd of wastewater to the city's system (USACE 2000). In Fiscal Year 2001, the wastewater flow from the cantonment area was approximately 404 million gallons (Fort Bliss 2007). No wastewater treatment facilities are on the installation. Wastewater flows approximately 3 miles to El Paso's Haskell Street Wastewater Treatment Plant. El Paso had an average daily flow of 316 gallons of wastewater per customer in 2008 (EPWU 2010).

Storm Water System. Storm water runoff from the cantonment area flows through a series of storm drainage channels, pipes, and storm water pump stations to various storm water retention ponds. Storm water that enters the ponds is contained and typically leaves only by evaporation or infiltration. Locations are on-post that have connections to EPWU stormwater drainage and are separate from the municipal sewer system permit (TXR040128) issued March 2009 (USEPA 2010c).

Energy Sources. Rio Grande Electric Cooperative, Inc., is the private contractor that maintains the overhead distribution network. Fort Bliss purchases electricity from El Paso Electric Company and is serviced by a 115-kilovolt (kV) transmission loop system in the region. The system can feed Fort Bliss from two directions and has a loading capability of approximately 150 Megavolt-amperes (MVA). It is also connected to El Paso Electric Company's 50-MVA substation near the intersection of Jeb Stuart and Chaffee roads. The installation has a main regulator station on the southeast corner and 10 outgoing feeders that supply power to the cantonment area (MICC-Fort Bliss 2010).

Natural Gas. Texas Gas Service provides natural gas service to the cantonment area for heating and cooking. A number of distribution points, with an estimated total capacity of 2.5 million cubic feet per hour, are dispersed on a looped gas distribution network. In Fiscal Year 2001, the natural gas consumption was 135,478 cubic feet (MICC-Fort Bliss 2010).

Communications. Fort Bliss lodging areas are served by commercial telephone, cable, Internet, cellular telephone, and television systems. AT&T provides telephone service; Time Warner provides cable and Internet services. All major cellular services are supported on Fort Bliss. Direct TV and Dish Network provide television satellite services.

Solid Waste. Solid waste is defined as any garbage or refuse; sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Construction and demolition (C&D) debris (which in this case includes renovation-generated debris) includes uncontaminated solid waste resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads, as well as uncontaminated solid waste resulting from land clearing.

3.11.2 Environmental Consequences

3.11.2.1 Preferred Alternative

Long-term minor adverse effects on utilities would be expected from implementing the Preferred Alternative. The effects would be from adding debris from the construction, demolition, and renovation of the lodging facilities to off-post landfills. The on-post landfill would not be used. The existing infrastructure for all other utilities would be adequate for projected demands from lodging facilities.

Long-term minor adverse effects on off-post landfills would be likely. Debris from construction, demolition, and renovation of lodging facilities would create a substantial amount of construction debris. Implementing the Preferred Alternative would generate approximately 20,788 tons of C&D debris (Table 3.11-1). Approximately half of the debris would be recycled, which would result in 10,394 tons of non-hazardous C&D debris for disposal in landfills.

Table 3.11-1
Summary of C&D debris from the Preferred Alternative

Action	Debris generation (lb/sq ft)	Debris from Preferred Alternative (lb)	Debris from Preferred Alternative (tons)	Quantity recycled (50%) (tons)	Total quantity landfill disposed of (tons)
Renovation	20	8,119,640	4,060	2,030	2,030
Demolition	115	32,319,715	16,160	8,080	8,080
Construction	4.4	1,137,400	569	284	284

Source: USEPA 1998.
Note: More detail is provided in Appendix C.

The Preferred Alternative would decrease the number of lodging units on-post, and modernized facilities with energy-efficient and low-usage utility systems, appliances, and fixtures in new and some renovated units would be likely to decrease overall utility demand. Infrastructure upgrades would be required for the new lodging facilities to access the existing utility systems (i.e., potable water, wastewater, storm water, energy, natural gas, and communications). However, the overall capacity and supporting installation-wide infrastructure would be more than adequate to handle current and future projected demands from lodging facilities.

3.11.2.2 No Action Alternative

No effects on utilities would be expected. No changes to utility systems would result if the No Action Alternative were implemented. Current and future utilities would remain as described in Section 3.11.1.

3.12 HAZARDOUS AND TOXIC SUBSTANCES

3.12.1 Affected Environment

According to installation personnel, no installation restoration program sites or known ordnance sites are on or abutting the proposed PAL sites that would have an effect on the environmental condition of the selected properties (Knopp 2010). However, in Parcel L various buried environmental concerns such as tar, pesticides, asbestos-containing materials and especially concrete construction debris have been found in nearby properties. All have been properly removed, but it is still possible during earth-moving activities, other unknown environmental concerns may be uncovered. According to Robert Lenhart (Petroleum Storage Tanks Program Manager), no aboveground storage tanks are within or adjacent to the subject properties at Fort Bliss. However, one underground storage tank was located west of Parcel M (Building 1744). That site, a former AAFES station, has been remediated and is considered a closed underground storage tanks site by the TCEQ. If fuel-affected soils are encountered they will remain on site until proper removal can take place.

In addition, no indications exist that special hazards such as polychlorinated biphenyls (PCBs) or mold are present. Other special hazards that are likely present on the proposed PAL sites are the following:

Pesticides. Pesticides are listed commercial products that become a hazardous waste when discarded in a manner not consistent with their intended use. In addition, 40 CFR 261.2 (c)(1)(B)(ii) states that the commercial chemical products listed in 40 CFR 261.33 are not solid wastes (and therefore are not hazardous wastes) if they are applied to the land and that is their ordinary manner of use. Therefore, if pesticides are identified in soils around the buildings and they were used for their intended purposes, their presence in the soil would not constitute a release and, therefore, would not affect the environmental condition of property. No soil sampling for pesticides has been conducted at Fort Bliss.

Both manual and mechanical means of vegetation control are used before pesticide application. Only trained personnel may apply pesticides and pesticides may only be applied in a manner consistent with the directions for the specific type of pesticide, federal law, and the Fort Bliss Pest Management Plan. Pesticide applications must be reported to the Pest Management program manager.

Radon. Radon is a naturally occurring, colorless, and odorless radioactive gas that is produced by the decay of naturally occurring radioactive material (e.g., potassium, uranium). Atmospheric radon is diluted to insignificant levels; however, when radon is concentrated in enclosed areas, it can present human health risks.

According to installation personnel, no instances of radon exceeding the 4 pCi/L action level has been recorded.

Lead-Based Paint. The federal government banned the use of lead-based paint (LBP) in 1978. In light of the date the various lodging areas were constructed, it is possible that some of the lodging units contained LBP. LBP abatement and encapsulation was conducted during upgrade activities to buildings constructed before 1978 (i.e., Buildings 205, 206, 213, 243, 5015, 5016, 5017, 5018, 5019, 5020, 5023, 5040, 1743, and 11340). However, Buildings 5015 through 5040, 1743, and 11340 could possibly still contain LBP. Upon demolition of those structures, LBP would be disposed of by a licensed contractor and sent to a permitted landfill. The VSI identified moderate to extensive paint peeling at some of the buildings with paint chips noted in the soils around several buildings. Army policy calls for controlling LBP by using in-place management (as opposed to mandated removal procedures). Maintenance staff are given instructions for routine cleaning procedures leading to capture of LBP fragments from suspected locations.

Asbestos-Containing Material. Fort Bliss Environmental Division conducted an asbestos-containing material (ACM) inspection of a sample of lodging units within Fort Bliss in areas identified for renovation. In general, the inspection identified friable and non-friable ACM in the thermal insulation on piping, floor tiles and linoleum, flooring mastic, calking, and vent pipe sealant, floor tiles and linoleum in the lodging units. According to installation personnel, the potential ACM in the lodging units is typically either encapsulated during renovations or abated before demolition (Moncada 2010, personal communication). As long as the ACM, actual or potential, remains non-friable, it does not pose a significant health risk. Because the ACM identified at the installation has not been released into the soil, groundwater, or air, it would not affect the environmental condition of the subject properties.

Most of the ACM has been abated during remodeling activities (Holguin, Knopp 2010, personal communication). However,buildings 5015 through 5040, 1743, and 11340 could possibly still contain ACM. Upon demolition of those structures, ACM would be disposed of by a licensed contractor and sent to a permitted landfill.

Mold. Fungi are present almost everywhere in indoor and outdoor environments. Molds or fungi typically grow on common building components (e.g., walls, ventilation systems, support beams) that are chronically moist or water-damaged. Elevated fungal exposure in humans can result in flu-like symptoms, including runny nose, eye irritation, cough, congestion, and aggravation of asthma. Inhalation of fungal spores, fragments, or metabolites (e.g., mycotoxins, volatile organic compounds) from a variety of fungi can lead to or exacerbate allergic reactions or cause toxic effects, or cause infections.

According to the installation personnel in the Industrial Hygiene division, when the presence of mold is reported, testing is generally conducted. Mold is typically caused by faulty steam pipes or leaking water pipes in the walls. When mold is found, maintenance personnel usually remove it.

3.12.2 Environmental Consequences

3.12.2.1 Preferred Alternative

No effects would be expected. All known hazardous materials have been abated in the lodging units in accordance with all applicable laws and regulations. Demolition debris possibly containing ACM and/or LBP would be disposed of in accordance with all applicable federal, state, and local solid waste management regulations by a licensed contractor and sent to a hazardous waste permitted facility.

Additional potentially hazardous materials that could be found on-site during PAL project-related activities include paints, asphalt, and fuels and motor oils for construction and residential vehicles and equipment. The construction contractors would be responsible for preventing paint and fuel spills. Spills could be prevented by proper storage and handling, attention to the task at hand, and responsible driving. Some materials, though essentially inert under normal conditions, can be potentially hazardous under specific circumstances. Wood and dry concrete, for example, can generate airborne particulates as they are cut or sanded. To protect against adverse effects, workers should wear face masks and safety glasses when performing such tasks. Wood and other construction materials are also flammable. Establishing smoking areas and prohibiting open flames near flammable materials would greatly reduce the risk of fire.

3.12.2.2 No Action Alternative

No adverse effects regarding hazardous and toxic substances would be expected because the lodging units previously containing hazards such as LBP, ACM, radon, and mold would be abated during upgrade activities. It is expected that Fort Bliss would continue to abate such potential hazards in accordance with applicable laws, if additional hazardous materials are discovered.

3.13 CUMULATIVE EFFECTS SUMMARY

Cultural Resources. Minor long-term beneficial effects would be expected from the programmatic (lodging and housing) repair, maintenance, and renovation of historic properties on the installation.

Socioeconomics. Beneficial cumulative socioeconomic effects would be expected. In addition to the PAL action, a number of other economic development projects would likely have short- and long-term beneficial effects on the local economy by increasing employment, income, and business sales volume. The projects include the BRAC and Residential Communities Initative (RCI) actions at Fort Bliss and commercial, residential, and infrastructure development or improvements occurring in the ROI.

3.14 MITIGATION SUMMARY

Mitigation actions are used to reduce, avoid, or compensate for significant adverse effects. The EA does not identify any significant adverse effects or the need for any mitigation measures.

SECTION 4.0
CONCLUSIONS

This EA has been prepared to evaluate the potential effects on the natural and human environment from the proposal to implement the PAL program at Fort Bliss. The EA examines the proposed action (Preferred Alternative) and a No Action Alternative. The No Action Alternative is prescribed by CEQ regulations to serve as the baseline against which the proposed action and alternatives are analyzed.

This EA evaluates potential long- and short-term effects on land use, aesthetic and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics (including environmental justice and protection of children), transportation, utilities, and hazardous and toxic substances.

Implementing the proposed action would be expected to result in a combination of short- and long-term minor adverse and beneficial effects. Short-term minor adverse effects on aesthetics and visual resources, air quality, noise, soils, surface and groundwater, and transportation would be expected, primarily associated with construction and renovation activities. Long-term minor adverse effects would be expected on utilities from the increase in solid waste (construction and demolition debris). Short-term minor beneficial effects on the local economy would be expected from expenditures and employment associated with lodging renovation and construction. Long-term minor beneficial effects on aesthetic and visual resources and socioeconomics (quality of life) would be expected from the overall improved quality of the lodging facilities. Long-term minor beneficial effects also would be expected on air quality and transportation from the reduction in the number of lodging units, which would constitute a net decrease in operational air emissions. Long-term minor beneficial effects on surface and groundwater would be expected from replacing formerly impervious surfaces with vegetated cover. Long-term minor beneficial effects on utilities would result from the decrease in the number of lodging units and modernized lodging facilities with energy-efficient and low-usage utility systems, appliances, and fixtures.

Mitigation actions are used to reduce, avoid, or compensate for significant adverse effects. The EA does not identify any significant adverse effects or the need for any mitigation measures.

For each resource, the predicted effects from both the proposed action, identified as the Army's Preferred Alternative, and the No Action Alternative are summarized in Table 4-1.

Implementing the proposed action would not be expected to result in significant environmental or socioeconomic effects. Issuance of a FNSI would be appropriate, and an EIS need not be prepared before implementing the proposed action.

Table 4-1.
Summary of potential environmental and socioeconomic consequences

	Environmental and socioeconomic effects	
Resource	**Proposed Action (Preferred Alternative)**	**No Action Alternative**
Land use	No effect	No effect
Aesthetic and visual resources	Short-term minor adverse Long-term minor beneficial	Long-term minor adverse
Air quality	Short-term minor adverse Long-term minor beneficial	No effect
Noise	Short-term minor adverse	No effect
Geology and Soils	Short-term minor adverse	No effect
Water resources	Short- and long-term minor adverse Long-term minor beneficial	No effect
Biological resources	No effect	No effect
Cultural resources	Long-term minor beneficial	No effect
Socioeconomics	Short- and long-term minor beneficial	Long-term minor adverse
Transportation	Short-term minor adverse Long-term minor beneficial	No effect
Utilities	Long-term minor beneficial and adverse	No effect
Hazardous and toxic substances	No effect	No effect

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Appendix A

Record of Non-Applicability and Emission Calculations

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RECORD OF NON-APPLICABILITY
In Accordance with the Clean Air Act—General Conformity Rule for
The Proposed Privatization of Army Lodging, Fort Bliss, Texas

15 September 2010

The Army proposes to privatize the ownership and operations of its lodging at Fort Bliss, Texas. The Army would convey specified lodging facilities to InterContinental Hotels Group (IHG). The Army would also grant 50-year leases of the land underlying the existing facilities and other land for construction of new lodging facilities. IHG would be expected to meet Fort Bliss's lodging requirements through operating and maintaining the existing facilities and by renovating inadequate facilities and constructing new ones. As a result of the action, the lodging inventory at Fort Bliss would decrease from 579 units to 474 units. The action would generate new direct and indirect emissions from construction of the proposed facilities. Over the long term, net operating emissions would decrease.

General Conformity under the Clean Air Act Section 176 has been evaluated in accordance with the requirements of Title 40 of the *Code of Federal Regulations* Part 93, Subpart B. The requirements of that rule are not applicable to the Preferred Alternative because:

> All activities associated with the Preferred Alternative are in an area designated by the U.S. Environmental Protection Agency to be in attainment for all criteria pollutants.

Supported documentation and emission estimates:

( ) Are Attached
( ) Appear in the NEPA Documentation
(X) Other (Not Necessary)

Signature

ENVIRONMENT ENG.
Title

22 SEP 2010
Date

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Emissions Calculations

Table A-1. Heavy equipment use

Equipment Type	Number of units	Days on site	Hours per day	Operating hours
Excavators Composite	2	115	4	920
Rollers Composite	2	173	8	2,768
Rubber Tired Dozers Composite	2	115	8	1,840
Plate Compactors Composite	3	115	4	1,380
Trenchers Composite	2	58	8	928
Air Compressors	2	115	4	920
Cement & Mortar Mixers	2	115	6	1,380
Cranes	2	115	7	1,610
Generator Sets	2	115	4	920
Tractors/Loaders/Backhoes	3	230	7	4,830
Pavers Composite	2	58	8	928
Paving Equipment	4	58	8	1,856

Table A-2. Heavy equipment emission factors (lbs/hour)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Excavators Composite	0.5828	1.3249	0.1695	0.0013	0.0727	0.0727	119.6
Rollers Composite	0.4341	0.8607	0.1328	0.0008	0.0601	0.0601	67.1
Rubber Tired Dozers Composite	1.5961	3.2672	0.3644	0.0025	0.1409	0.1409	239.1
Plate Compactors Composite	0.0263	0.0328	0.0052	0.0001	0.0021	0.0021	4.3
Trenchers Composite	0.5080	0.8237	0.1851	0.0007	0.0688	0.0688	58.7
Air Compressors	0.3782	0.7980	0.1232	0.0007	0.0563	0.0563	63.6
Cement and Mortar Mixers	0.0447	0.0658	0.0113	0.0001	0.0044	0.0044	7.2
Cranes	0.6011	1.6100	0.1778	0.0014	0.0715	0.0715	128.7
Generator Sets	0.3461	0.6980	0.1075	0.0007	0.0430	0.0430	61.0
Tractors/Loaders/Backhoes	0.4063	0.7746	0.1204	0.0008	0.0599	0.0599	66.8
Pavers Composite	0.5874	1.0796	0.1963	0.0009	0.0769	0.0769	77.9
Paving Equipment	0.0532	0.1061	0.0166	0.0002	0.0063	0.0063	12.6

Source: CARB 2007a and 2007b

Table A-3. Heavy equipment emissions (tons per year)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Excavators Composite	0.2681	0.6095	0.0780	0.0006	0.0335	0.0335	55.0074
Rollers Composite	0.6008	1.1912	0.1838	0.0011	0.0832	0.0832	92.8012
Rubber Tired Dozers Composite	1.4684	3.0058	0.3353	0.0023	0.1296	0.1296	219.9772
Plate Compactors Composite	0.0182	0.0227	0.0036	0.0000	0.0014	0.0014	2.9765
Trenchers Composite	0.2357	0.3822	0.0859	0.0003	0.0319	0.0319	27.2467
Air Compressors	0.1740	0.3671	0.0567	0.0003	0.0259	0.0259	29.2594
Cement and Mortar Mixers	0.0309	0.0454	0.0078	0.0001	0.0031	0.0031	5.0012
Cranes	0.4839	1.2961	0.1432	0.0011	0.0576	0.0576	103.5770
Generator Sets	0.1592	0.3211	0.0494	0.0003	0.0198	0.0198	28.0566
Tractors/Loaders/Backhoes	0.9813	1.8706	0.2908	0.0019	0.1446	0.1446	161.3374
Pavers Composite	0.2726	0.5009	0.0911	0.0004	0.0357	0.0357	36.1622
Paving Equipment	0.0494	0.0984	0.0154	0.0001	0.0059	0.0059	11.7187
Total	**4.74**	**9.71**	**1.34**	**0.0086**	**0.57**	**0.57**	**773.12**

Table A-4. Painting

VOC Content	0.84	lbs/gallon	
Coverage	400	sqft/gallon	
Emission Factor	0.0021	lbs/sqft	
Building/Facility	Wall Surface	VOC [lbs]	VOC [tpy]
All Buildings Combined	705,000	1,480.5	0.740
Total	**705,000**	**1,480.50**	**0.74**

Table A-5. Delivery of equipment and supplies

Number of Deliveries	8						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	110,400						
Pollutant	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Emission Factor (lbs/mile)	0.0219	0.0237	0.0030	0.0000	0.0009	0.0007	2.7
Total Emissions (lbs)	2,423.19	2,617.87	330.39	2.83	94.51	81.62	300,225.5
Total Emissions (tpy)	**1.21**	**1.31**	**0.17**	**0.0014**	**0.05**	**0.04**	**150.11**

Source: CARB 2007a

Table A-6. Paving off-gasses

VOC Emissions Factor	2.62	lbs/acre	
Building/Facility	**Area [acres]**	**VOC [lbs]**	**VOC [tpy]**
All Combined Parking	4.15	10.88	0.0054
Total	**4.15**	**10.88**	**0.0054**

Source: SQAQMD 1993

Table A-7. Surface disturbance

TSP Emissions	80	lb/acre				
PM_{10}/TSP	0.45					
$PM_{2.5}$/PM_{10}	0.15					
Period of Disturbance	30	days				
Capture Fraction	0.5					
	Area [acres]	**TSP[lbs]**	**PM_{10}[lbs]**	**PM_{10}[tons]**	**$PM_{2.5}$[lbs]**	**$PM_{2.5}$[tons]**
	12.3	29,420	13,239	6.62	993	0.50
Total	**12.3**	**29,420**	**13,239**	**6.62**	**993**	**0.50**

Source: USEPA 1995, 2005

Table A-8. Worker commutes

Number of Workers	100						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	1,380,000						
Pollutant	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Emission Factor (lbs/mile)	0.0105	0.0011	0.0011	0.0000	0.0001	0.0001	1.1
Total Emissions (lbs)	14,556.84	1,521.98	1,489.29	14.83	117.38	73.04	1,517,354.5
Total Emissions (tpy)	**7.28**	**0.76**	**0.74**	**0.0074**	**0.06**	**0.04**	**758.68**

Source: CARB 2007a

Table A-9. Total construction and demolition emissions (tons per year)

Activity/Source	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Construction Equipment	4.74	9.71	1.34	0.0086	0.57	0.57	773.12
Painting	0.00	0.00	0.74	0.0000	0.00	0.00	0.00
Delivery of Equipment and Supplies	1.21	1.31	0.17	0.0014	0.05	0.04	150.11
Paving Off Gasses	0.00	0.00	0.01	0.0000	0.00	0.00	0.00
Surface Disturbance	0.00	0.00	0.00	0.0000	6.62	0.50	0.00
Worker Commutes	7.28	0.76	0.74	0.0074	0.06	0.04	758.68
Total Construction Emissions	**13.23**	**11.78**	**3.00**	**0.0174**	**7.30**	**1.15**	**1,681.91**

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Appendix B

Economic Impact Forecast System Model

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ECONOMIC IMPACT FORECAST SYSTEM (EIFS) MODEL

SOCIOECONOMIC IMPACT ASSESSMENT

Socioeconomic impacts are linked through cause-and-effect relationships. Military payrolls and local procurement contribute to the economic base for the region of influence (ROI). In that regard, construction and renovation of lodging on Fort Bliss would have a multiplier effect on the local and regional economy. With the Preferred Alternative, direct jobs would be created (e.g., construction jobs), generating new income and increasing personal spending. Such spending generally creates secondary jobs, increases business volume, and increases revenues for schools and other social services.

THE ECONOMIC IMPACT FORECAST SYSTEM

The U.S. Army, with the assistance of many academic and professional economists and regional scientists, developed EIFS to address the economic impacts of NEPA-requiring actions and to measure their significance. As a result of its designed applicability, and in the interest of uniformity, EIFS should be used in NEPA assessments. The entire system is designed for the scrutiny of a populace affected by the actions being studied. The algorithms in EIFS are simple and easy to understand but still have firm, defensible bases in regional economic theory.

EIFS was developed under a joint project of the U.S. Army Corps of Engineers, the U.S. Army Environmental Policy Institute, and the Computer and Information Science Department of Clark Atlanta University. EIFS is implemented as an online system supported by the U.S. Army Corps of Engineers, Mobile District. The system is available to anyone with an approved user ID and password. U.S. Army Corps of Engineers staff is available to assist with the use of EIFS.

The databases in EIFS are national in scope and cover the approximately 3,700 counties, parishes, and independent cities that are recognized as reporting units by federal agencies. EIFS allows the user to define an economic ROI by identifying the counties, parishes, or cities to be analyzed. Once the ROI is defined, the system aggregates the data, calculates multipliers and other variables used in the various models in EIFS, and prompts the user for forecast input data.

THE EIFS MODEL

The basis of the EIFS analytical capabilities is the calculation of multipliers that are used to estimate the impacts resulting from Army-related changes in local expenditures or employment. In calculating the multipliers, EIFS uses the economic base model approach, which relies on the ratio of total economic activity to basic economic activity. Basic, in this context, is defined as the production or employment engaged to supply goods and services outside the ROI or by federal activities (such as military installations and their employees). According to economic base theory, the ratio of total income to basic income is measurable (as the multiplier) and sufficiently stable so that future changes in economic activity can be forecast. That technique is especially appropriate for estimating aggregate impacts and makes the economic base model ideal for the environmental assessment and environmental impact statement process.

The multiplier is interpreted as the total impact on the economy of the region resulting from a unit change in its base sector; for example, a dollar increase in local expenditures due to an expansion of its military installation. EIFS estimates its multipliers using a location quotient approach based on the concentration of industries within the region relative to the industrial concentrations for the nation.

The user inputs into the model the data elements that describe the Army action: the change in expenditures, or dollar volume of the construction project(s); change in civilian or military employment; average annual income of affected civilian or military employees; the percent of civilians expected to relocate because of the Army's action; and the percent of military living on-post. Once those are entered into the EIFS model, it provides a projection of changes in the local economy. They are projected changes in sales volume, income, employment, and population. Those four indicator variables are used to measure and evaluate socioeconomic impacts. Sales volume is the direct and indirect change in local business activity and sales (total retail and wholesale trade sales, total selected service receipts, and value-added by manufacturing). Employment is the total change in local employment due to the Preferred Alternative, including not only the direct and secondary changes in local employment, but also those personnel who are initially affected by the military action. Income is the total change in local wages and salaries due to the Preferred Alternative, which includes the sum of the direct and indirect wages and salaries, plus the income of the civilian and military personnel affected by the Preferred Alternative. Population is the increase or decrease in the local population as a result of the Preferred Alternative.

The Privatization of Lodging (PAL) program at Fort Bliss would require construction of new lodging and renovation of existing lodging. The working estimate for the cost of renovation and construction of the facilities (about $56,300,000) was divided over the projected 5-year initial development period and entered as the change in expenditures (about $11,260,000 per year). The Preferred Alternative would not change the number of military or civilian personnel assigned to Fort Bliss.

THE SIGNIFICANCE OF SOCIOECONOMIC IMPACTS

Once model projections are obtained, the Rational Threshold Value (RTV) profile allows the user to evaluate the significance of the impacts. The analytical tool reviews the historical trends for the defined region and develops measures of local historical fluctuations in sales volume, income, employment, and population. The evaluations identify the positive and negative changes within which a project can affect the local economy without creating a significant impact. The greatest historical changes define the boundaries that provide a basis for comparing an action's impact on the historical fluctuation in an area. Specifically, EIFS sets the boundaries by multiplying the maximum historical deviation of the following variables:

		Increase	Decrease
Sales Volume	X	100%	75%
Income	X	100%	67%
Employment	X	100%	67%
Population	X	100%	50%

Those boundaries determine the amount of change that will affect an area. The percentage allowances are arbitrary, but sensible. The maximum positive historical fluctuation is allowed with expansion because economic growth is beneficial. While cases of damaging economic growth have been cited, and although the zero-growth concept is being accepted by many local planning groups, military installation reductions and closures generally are more injurious to local economics than are expansion.

The major strengths of the RTV are its specificity to the region under analysis and its basis on actual historical data for the region. The EIFS impact model, in combination with the RTV, has proven successful in addressing perceived socioeconomic impacts. The EIFS model and the RTV

technique for measuring the intensity of impacts have been reviewed by economic experts and have been deemed theoretically sound.

The following are the EIFS input and output data for the Preferred Alternative and the RTV values for the ROI.

EIFS REPORT

PROJECT NAME

Fort Bliss PAL EA

STUDY AREA

48141 El Paso County, TX

FORECAST INPUT

Change In Local Expenditures	$11,260,000
Change In Civilian Employment	0
Average Income of Affected Civilian	$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Employment Multiplier	2.98	
Income Multiplier	2.98	
Sales Volume – Direct	$11,260,000	
Sales Volume – Induced	$22,294,800	
Sales Volume – Total	$33,554,800	0.17%
Income – Direct	$1,949,267	
Income - Induced	$3,859,548	
Income – Total (place of work)	$5,808,816	0.05%
Employment – Direct	55	
Employment – Induced	109	
Employment – Total	164	0.05%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	7.74%	7.72%	4.80%	2.49%
Negative RTV	-6.39%	-6.06%	-4.85%	-1.88%

RTV DETAILED

SALES VOLUME

Year	Value	Adj_Value	Change	Deviation	% Deviation
1969	871053	3806502	0	0	0
1970	909976	3758201	-48301	-200361	-5.33
1971	1005178	3980505	222304	70244	1.76
1972	1096384	4199151	218646	66586	1.59
1973	1264877	4566206	367055	214995	4.71
1974	1422439	4622927	56721	-95339	-2.06
1975	1566065	4666874	43947	-108113	-2.32
1976	1762650	4970673	303799	151739	3.05
1977	1955569	5162702	192029	39969	0.77
1978	2203826	5421412	258710	106650	1.97
1979	2488759	5500157	78745	-73315	-1.33
1980	2759923	5354251	-145907	-297967	-5.57
1981	3127148	5503780	149530	-2530	-0.05
1982	3319182	5509842	6062	-145998	-2.65
1983	3513818	5657247	147405	-4655	-0.08
1984	3867836	5956467	299220	147160	2.47
1985	4165914	6207212	250745	98685	1.59
1986	4322503	6310855	103643	-48417	-0.77
1987	4519664	7005479	694624	542564	7.74
1988	4849533	6595365	-410114	-562174	-8.52
1989	5198878	6706552	111187	-40873	-0.61
1990	5532289	6804716	98163	-53897	-0.79
1991	5828561	6877702	72986	-79074	-1.15
1992	6398423	7294202	416500	264440	3.63
1993	6701277	7438418	144215	-7845	-0.11
1994	7094418	7661972	223554	71494	0.93
1995	7355394	7723163	61192	-90868	-1.18
1996	7472096	7621538	-101626	-253686	-3.33
1997	8000874	8000874	379336	227276	2.84
1998	8453802	8284726	283852	131792	1.59
1999	8875052	8520050	235324	83264	0.98
2000	9325192	8672429	152379	319	0

INCOME

Year	Value	Adj_Value	Change	Deviation	% Deviation
1969	1024090	4475273	0	0	0
1970	1077729	4451021	-24252	-251834	-5.66
1971	1186052	4696766	245745	18163	0.39
1972	1289287	4937969	241203	13621	0.28
1973	1474005	5321158	383189	155607	2.92
1974	1665274	5412140	90983	-136599	-2.52
1975	1750839	5217500	-194640	-422222	-8.09
1976	1973864	5566296	348796	121214	2.18
1977	2184074	5765956	199659	-27923	-0.48
1978	2462736	6058331	292375	64793	1.07
1979	2838029	6272044	213714	-13868	-0.22
1980	3171280	6152283	-119761	-347343	-5.65
1981	3857265	6788786	636503	408921	6.02
1982	4137470	6868200	79414	-148168	-2.16
1983	4437903	7145024	276824	49242	0.69
1984	4875121	7507686	362662	135080	1.8
1985	5267499	7848574	340887	113305	1.44
1986	5496991	8025607	177034	-50548	-0.63
1987	5769812	8943208	917601	690019	7.72
1988	6183927	8410141	-533068	-760650	-9.04
1989	6789799	8758840	348700	121118	1.38
1990	7384805	9083310	324470	96888	1.07
1991	7640200	9015436	-67875	-295457	-3.28
1992	8407051	9584038	568602	341020	3.56
1993	8853562	9827454	243416	15834	0.16
1994	9360739	10109599	282145	54563	0.54
1995	9823953	10315150	205552	-22030	-0.21
1996	10164728	10368022	52872	-174710	-1.69
1997	10977125	10977125	609103	381521	3.48
1998	11624424	11391936	414811	187229	1.64
1999	11987951	11508433	116497	-111085	-0.97
2000	12642892	11757890	249457	21875	0.19

EMPLOYMENT

Year	Value	Change	Deviation	% Deviation
1969	154630	0	0	0
1970	149227	-5403	-10799	-7.24
1971	153941	4714	-682	-0.44
1972	157454	3513	-1883	-1.2
1973	171065	13611	8215	4.8
1974	176970	5905	509	0.29
1975	181967	4997	-399	-0.22
1976	188723	6756	1360	0.72
1977	192978	4255	-1141	-0.59
1978	199707	6729	1333	0.67
1979	207562	7855	2459	1.18
1980	214116	6554	1158	0.54
1981	222780	8664	3268	1.47
1982	222226	-554	-5950	-2.68
1983	219050	-3176	-8572	-3.91
1984	227577	8527	3131	1.38
1985	232670	5093	-303	-0.13
1986	235294	2624	-2772	-1.18
1987	245738	10444	5048	2.05
1988	254885	9147	3751	1.47
1989	264814	9929	4533	1.71
1990	269821	5007	-389	-0.14
1991	271930	2109	-3287	-1.21
1992	282642	10712	5316	1.88
1993	290200	7558	2162	0.75
1994	297093	6893	1497	0.5
1995	301205	4112	-1284	-0.43
1996	300842	-363	-5759	-1.91
1997	309696	8854	3458	1.12
1998	316662	6966	1570	0.5
1999	320972	4310	-1086	-0.34
2000	327289	6317	921	0.28

POPULATION

Year	Value	Change	Deviation	% Deviation
1969	364022	0	0	0
1970	360462	-3560	-13500	-3.75
1971	369189	8727	-1213	-0.33
1972	378364	9175	-765	-0.2
1973	398203	19839	9899	2.49
1974	411532	13329	3389	0.82
1975	427292	15760	5820	1.36
1976	440333	13041	3101	0.7
1977	450007	9674	-266	-0.06
1978	460611	10604	664	0.14
1979	472343	11732	1792	0.38
1980	483711	11368	1428	0.3
1981	497523	13812	3872	0.78
1982	511892	14369	4429	0.87
1983	521038	9146	-794	-0.15
1984	529668	8630	-1310	-0.25
1985	538809	9141	-799	-0.15
1986	549592	10783	843	0.15
1987	559479	9887	-53	-0.01
1988	568804	9325	-615	-0.11
1989	580982	12178	2238	0.39
1990	595350	14368	4428	0.74
1991	608206	12856	2916	0.48
1992	619138	10932	992	0.16
1993	634044	14906	4966	0.78
1994	646181	12137	2197	0.34
1995	654250	8069	-1871	-0.29
1996	656482	2232	-7708	-1.17
1997	665066	8584	-1356	-0.2
1998	671250	6184	-3756	-0.56
1999	675397	4147	-5793	-0.86
2000	682111	6714	-3226	-0.47

****** End of Report ******

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Appendix C

Solid Waste Calculations

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Fort Bliss PAL Group B—Debris from construction, demolition, and renovation of lodging facilities

Parcel	Action	Building number	Building or site name	Building square footage	Renovation debris (lb/sq ft)	Demolition debris (lb/sq ft)	Construction debris (lb/sq ft)	Total renovation debris	Total demolition debris	Total construction debris
A	Renovate	B213	Historic DVQ	2487.0	20			49,740		
B	Renovate	B205	Historic DVQ	3867.0	20			77,340		
B	Renovate	B206	Historic DVQ	3867.0	20			77,340		
C	Renovate	B243	Historic DVQ	25589.0	20			511,780		
D	Renovate/ demolish	B5015	5000 Series	23145.0	20	115		462,900	2,661,675	
D	Renovate/ demolish	B5016		16124.0	20	115		322,480	1,854,260	
D	Renovate/ demolish	B5017		23145.0	20	115		462,900	2,661,675	
D	Renovate/ demolish	B5018		23145.0	20	115		462,900	2,661,675	
D	Renovate/ demolish	B5020		23145.0	20	115		462,900	2,661,675	
D	Renovate/ demolish	B5023		23145.0	20	115		462,900	2,661,675	
D	Renovate/ demolish	B5040		8457.0	20	115		169,140	972,555	
F	Renovate/ demolish	B11265		26465.0	20	115		529,300	3,043,475	
F	Renovate/ demolish	B11266	N/A	26465.0	20	115		529,300	3,043,475	
F	Renovate/ demolish	B11332		26465.0	20	115		529,300	3,043,475	
H	Renovate/ demolish	B11345	N/A	41379.0	20	115		827,580	4,758,585	
H	Renovate/ demolish	B11340		19961.0	20	115		399,220	2,295,515	
M	Renovate	B1744	Fort Bliss Inn	89131.0	20			1,782,620		
-	New build	150-rm	-	82,500			4.4			363,000
-	New build	150-rm	-	82,500			4.4			363,000
-	New build	170-rm	-	93,500			4.4			411,400
							Pounds	**8,119,640**	**32,319,715**	**1,137,400**
							Tons	**4,060**	**16,160**	**569**
							Recycled quantity:			
							Pounds	**4,059,820**	**16,159,858**	**568,700**
							Tons	**2,030**	**8,080**	**284**
							Total:			
							Recycled tons:	**2,030**	**8,080**	**284**
							Disposed tons:	**2,030**	**8,080**	**284**

PAL A CWS construction data*		
	No Rooms	**Sq Ft of CWS**
	183	96,000
	300	157,000
	200	105,000
	150	79,000
	120	63,000
	200	73,000
	178	94,000
	161	84,000
Total:	**1492**	**751,000**
Average sq ft/100 rooms:		50,335.12
Rounded to:		**50,500**

* Data was taken from the draft Records of Environmental Consideration prepared for the PAL Group A installations.

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Acronyms and Abbreviations

$\mu g/m^3$	micrograms per cubic meter
AAF	Army airfield
AAFES	Army & Air Force Exchange Service
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
AQCR	Air Quality Control Region
AQCR 153	El Paso-Las Cruces-Alamogordo Interstate AQCR
BMP	best management practice
BRAC	Base Realignment and Closure
C&D	construction and demolition
CEQ	Council of Environmental Quality
CFR	*Code of Federal Regulations*
de minimis	of minimal importance
DES	Directorate of Emergency Services
DoD	Department of Defense
DVQ	Distinguished Visitors Quarters
EA	environmental assessment
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPWU	El Paso Water Utilities
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FNSI	Finding of No Significant Impact
FPPA	Farmland Policy Protection Act
GHG	greenhouse gasses
ICRMP	Integrated Cultural Resources Management Plan
IDP	initial development period
IHG	InterContinental Hotels Group
INRMP	Integrated Natural Resources Management Plan
kV	kilovolt
LBP	lead-based paint
LDMP	Lodging Development Management Plan
LTH	long-term hold
mgd	million gallons per day
MHPI	Military Housing Privatization Initiative
MICC	Mission and Installation Contracting Command
MSAT	Mobile Source Air Toxics
MSGP	Multi-Sector General Storm Water Permit
MSWF	Municipal Solid Waste Facility
MVA	megavolt-ampere
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO_x	nitrogen oxides
NRHP	National Register of Historic Places
NSPS	New Source Performance Standards
NSR	New Source Review
NZ	noise zones

O_3	ozone
PA	Programmatic Agreement
PAL	Privatization of Army Lodging
PCBs	polychlorinated biphenyls
PCPI	per capita personal income
PCS	permanent change of station
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PSD	Prevention of Significant Deterioration
ROI	region of influence
RONA	Record of Non-Applicability
RTV	rational threshold value
SHPO	State Historic Preservation Officer
SIP	State Implementation Plans
SO_2	sulfur dioxide
STH	short-term hold
SWPPP	Storm Water Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDY	temporary duty
TPWD	Texas Parks and Wildlife Department
TXDOT	Texas Department of Transportation
tpy	tons per year
UPH	Unaccompanied Personnel Housing
USACE	U.S. Army Corps of Engineers
U.S.C.	*United States Code*
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VOC	volatile organic compound
vpd	vehicles per day