

Final
Environmental Assessment
for
Implementation of the Privatization of Army Lodging Program at
Fort Jackson, South Carolina



Prepared for

Commander, Fort Jackson, South Carolina

Prepared by

U.S. Army Corps of Engineers, Mobile District

With technical assistance from

Tetra Tech, Inc.
Fairfax, VA

September 2012

ENVIRONMENTAL ASSESSMENT ORGANIZATION

This environmental assessment (EA) addresses the proposed action to implement the Privatization of Army Lodging (PAL) Program at Fort Jackson, South Carolina. 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 Jackson and examines alternatives to implementing the proposed action.

SECTION 3.0: AFFECTED ENVIRONMENT AND CONSEQUENCES describes the existing environmental and socioeconomic setting at Fort Jackson and identifies potential effects of implementing the proposed action.

SECTION 4.0: FINDINGS summarizes the environmental and socioeconomic effects of implementing the proposed action.

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.

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- A** Record of Non-Applicability and Emission Calculations
- B** Agency Coordination Documentation
- C** Economic Impact Forecast System Model

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



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Draft Finding of No Significant Impact Privatization of Army Lodging Program Fort Jackson, South Carolina

Pursuant to the Council on Environmental Quality (CEQ) Regulations (Title 40 of the *Code of Federal Regulations* [CFR] Parts 1500–1508) for implementing the procedural provisions of the National Environmental Policy Act (Title 42 of the *United States Code* 4321 *et seq.*) and 32 CFR Part 651 (Environmental Analysis of Army Actions), Fort Jackson, South Carolina, conducted an environmental assessment (EA) of the potential environmental and socioeconomic effects associated with executing a lease at Fort Jackson under the Army's Privatization of Army Lodging (PAL) program.

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, Energy, and Environment. The Army would convey specified lodging facilities and lease the underlying land to its selected development partner, Lend Lease. Lend Lease has formed a special-purpose entity, Rest Easy, LLC (Rest Easy) to execute the lease with Army as lessor and Rest Easy as lessee. Lend Lease would redevelop the lodging facilities, and InterContinental Hotels Group, its contracted hotelier, would manage the lodging operations. The Army would grant a 46-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 Jackson'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 Jackson would result in the conveyance of as many as 11 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 7-year development period beginning in 2013 and provide a final inventory of about 865 lodging units. The proposed action would improve the quality of life for Soldiers, their families, and other personnel eligible to use Army transient lodging. Under a separate support lease, the Army also would convey four storage and maintenance facilities for short-term use by Rest Easy. Under separate license agreements, the Army also would grant Rest Easy non-exclusive use of three parking lots to ensure adequate parking spaces for lodging guests.

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.

Alternatives Considered

The alternative to the proposed action that was considered is to rely 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 Jackson would result in abandoning or repurposing of the existing lodging 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. As prescribed by the CEQ regulations, the EA also evaluates the No Action Alternative, which would consist of the Army's not implementing the PAL program at Fort Jackson.

Factors Considered in Determining that No Environmental Impact Statement is Required

The EA, which is attached and incorporated by reference into this Finding of No Significant Impact (FNSI), examines the potential effects of the proposed action and the No Action Alternative on the following resource areas of environmental and socioeconomic concern: 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), traffic and transportation, utilities, and hazardous and toxic materials.

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, biology, traffic, and utilities (solid waste) would be expected, primarily associated with demolition, construction, and renovation activities. Long-term minor adverse effects would be expected on aesthetics and visual, water, and biological resources from constructing a new hotel and parking lots on undeveloped areas resulting in the loss of green space and an increase in impervious surface. Long-term minor adverse effects would be expected on utilities from a slight increase in utility systems usage. Long-term minor adverse effects would result from changes in traffic from the proposed hotel, which would contribute to on-post congestion during peak periods. 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 on surface water and groundwater would be expected from replacing formerly impervious surfaces with vegetated cover. Long-term minor beneficial effects on utilities would result from modernized lodging facilities with energy-efficient and low-usage utility systems, appliances, and fixtures. The EA does not identify the need for any mitigation measures.

Public Review

The final EA and draft FNSI are available for review and comment for 30 days, beginning upon publication of a notice of availability in *The State* newspaper. Copies of the final EA and draft FNSI are available for review and comment at the following local libraries: Thomas Lee Hall Library, Building 4679 Lee Road, Fort Jackson, SC 29207; Richland County Library, Main Branch, 1431 Assembly Street, Columbia, SC 29201. Comments on the EA and draft FNSI should be submitted to Mr. Patrick Metts, Fort Jackson DPW Environmental Division, NEPA Specialist, Building 2563 Essayons Way, Fort Jackson, SC 29207, or by e-mail to william.p.metts.ctr@mail.mil. Comments on the EA and draft FNSI should be submitted to Mr. Metts no later than the end of the 30-day review period.

Conclusions

On the basis of the EA, it has been determined that implementing the proposed action 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 proposed action.

MICHAEL S. GRAESE
Colonel, U.S. Army
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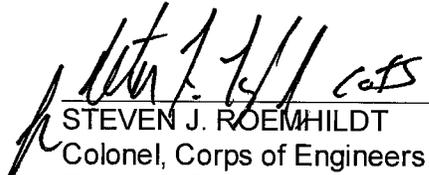
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ENVIRONMENTAL ASSESSMENT

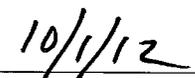
IMPLEMENTATION OF THE PRIVATIZATION OF ARMY LODGING PROGRAM AT FORT JACKSON, SOUTH CAROLINA

Prepared by

**U.S. Army Corps of Engineers
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Date

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ENVIRONMENTAL ASSESSMENT

LEAD AGENCY: Office of the Assistant Secretary of the Army, Installations, Energy, and Environment (OASA [IE&E])

TITLE OF PROPOSED ACTION: Implementation of the Privatization of Army Lodging Program at Fort Jackson, South Carolina

AFFECTED JURISDICTION: Fort Jackson, South Carolina

PREPARED BY: Steven J. Roemhildt, Colonel, Corps of Engineers, Commanding, U.S. Army Corps of Engineers, Mobile District

APPROVED BY: Michael S. Graese, Colonel, Commanding, U.S. Army Garrison, Fort Jackson, South Carolina

ABSTRACT: This environmental assessment (EA) considers the proposed implementation of the Privatization of Army Lodging Program, including the transfer of lodging assets at Fort Jackson, South Carolina. 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. Implementing 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 *The State* newspaper. Copies of the final EA and draft FNSI are available for review and comment at the following local libraries: Thomas Lee Hall Library, Building 4679 Lee Road, Fort Jackson, SC 29207; and Richland County Library, Main Branch, 1431 Assembly Street, Columbia, SC 29201. Comments on the EA and draft FNSI should be submitted to Mr. Patrick Metts, Fort Jackson DPW Environmental Division, NEPA Specialist, Building 2563 Essayons Way, Fort Jackson, SC 29207, or by e-mail to william.p.metts.ctr@mail.mil. Comments on the EA and draft FNSI should be submitted to Mr. Metts 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 Jackson, South Carolina.

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, Energy, and Environment. The Army would convey specified lodging facilities and lease the underlying land to its selected development partner, Lend Lease. Lend Lease has formed a special-purpose entity, Rest Easy, LLC (Rest Easy) to execute the lease with Army as lessor and Rest Easy as lessee. Lend Lease would redevelop the lodging facilities, and InterContinental Hotels Group, its contracted hotelier, would manage the lodging operations. The Army would grant a 46-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 Jackson's lodging requirements through operating and maintaining the existing facilities and by renovating inadequate facilities and constructing new ones. Under a separate support lease, the Army also would convey four storage and maintenance facilities for short-term use by Rest Easy. Under separate license agreements, the Army also would grant Rest Easy non-exclusive use of parking lots to ensure adequate parking spaces for lodging guests.

Implementing the PAL program at Fort Jackson would result in the conveyance of as many as 11 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 7-year development period beginning in 2013 and provide a final inventory of about 865 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 Jackson is the Army's Preferred Alternative. Under the Preferred Alternative, the Army would implement the PAL program at Fort Jackson. The Army would convey specified lodging facilities to Rest Easy, a private developer. Under a separate support lease, the Army also would convey four storage and maintenance facilities for short-term use by Rest Easy, and under separate license agreements the Army would allow Rest Easy non-exclusive use of three parking lots to ensure adequate parking spaces for lodging guests. The Army would also grant to the developer a 46-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 Jackson'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 Jackson would result in abandoning or repurposing of the existing lodging 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), traffic and 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.

**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- and long-term minor adverse	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

Table ES-1. (continued)

Environmental and socioeconomic effects		
Resource	Proposed Action (Preferred Alternative)	No Action Alternative
Biological resources	Short- and long-term minor adverse	No effect
Cultural resources	No effect	No effect
Socioeconomics	Short- and long-term minor beneficial	Long-term minor adverse
Traffic and transportation	Short- and long-term minor adverse	No effect
Utilities	Short- and long-term minor adverse Long-term minor beneficial	No effect
Hazardous and toxic substances	No effect	No effect

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.

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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 and permanent change of station 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 has been found to fall short of acceptable quality standards.

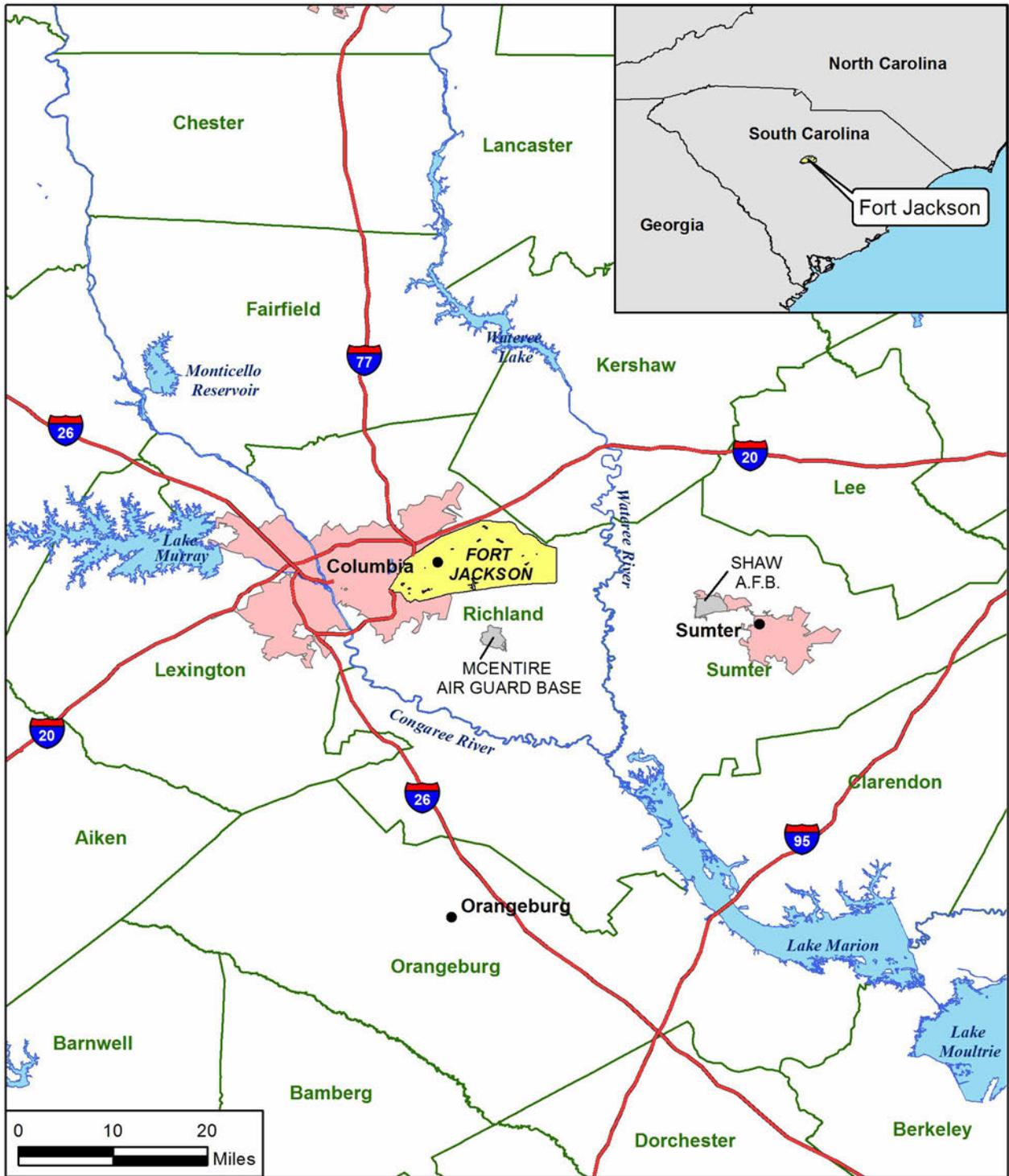
The Privatization of Army Lodging (PAL) program is an initiative to improve facilities and services for transient lodging users. It is founded on the Military Housing Privatization Initiative (MHPI) established in the 1996 Defense Authorization Act.¹ The MHPI authorizes the Army to obtain private capital by leveraging 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 Jackson, South Carolina (Figure 1-1).

All Army installations in the Continental United States, Alaska, Hawaii, and Puerto Rico that have a need for on-post transient housing will participate in the PAL program. The Army divided its installations into three groups (A, B, and C) for implementing the PAL program. Group A consisted of 10 installations; Group B consisted of 11 installations; and Group C, of which Fort Jackson is a part, will involve implementing the program at the remaining 21 participating Army installations. The installations participating in the PAL Program are identified in Table 1-1.

**Table 1-1.
Installations participating in PAL by group**

Group A installations	Group B installations	Group C installations
Fort Hood, TX	Fort Bliss, TX	Fort Meade, MD
Fort Sam Houston, TX	Fort Buchanan, PR	Aberdeen Proving Ground, MD
Fort Sill, OK	Fort Belvoir, VA	Fort Drum, NY
Fort Riley, KS	Fort Hamilton, NY	USAG West Point, NY
Fort Leavenworth, KS	Fort Gordon, GA	Fort McCoy, WI
Fort Rucker, AL	White Sands Missile Range, NM	Dugway Proving Ground, UT
Fort Myer, VA	Fort Huachuca, AZ	Fort Carson, CO
Yuma Proving Ground, AZ	Fort Leonard Wood, MO	Carlisle Barracks, PA
Fort Polk, LA	Fort Wainwright, AK	Fort Lee, VA
Fort Shafter Tripler AMC, HI	Fort Knox, KY	Fort Bragg, NC
	Fort Campbell, KY/TN	Fort Jackson, SC
		Redstone Arsenal, AL
		Fort Hunter Liggett, CA
		Presidio of Monterey, CA
		Camp Parks, CA
		BT Collins, CA
		Fort Stewart, GA
		Hunter Army Air Field, GA
		Fort Benning, GA
		JB Lewis-McChord, WA
		Yakima Training Range, WA

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).



LEGEND

- Interstate Highway
- County Boundary
- Surface Water
- Urban Area

N

Installation Location

Figure 1-1

1.2 PURPOSE AND NEED

The Army proposes to privatize operation of its lodging at Fort Jackson. This is the Army's Preferred Alternative. The purpose of the Preferred Alternative is to transfer ownership and 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 Jackson are old, and their rehabilitation is not economically feasible. 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 resources on its core competencies.

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) and the Army.² 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 decision makers and the public of the likely environmental consequences of privatizing transient lodging at Fort Jackson.

This EA focuses on evaluating environmental effects that are reasonably foreseeable within the initial development period (IDP), which is approximately the first seven years of implementing 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 owning, operating, and maintaining the on-post lodging facilities. Potential environmental effects beyond 2020 would be speculative; 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 decision-making 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. The 30-day comment period will also serve as the public's opportunity to review and comment on cultural

² CEQ 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.

resources addressed in the EA, as required under Section 106 of the National Historic Preservation Act (as applicable). 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.”³

The Army has competitively selected Lend Lease as its development entity to privatize the Army lodging at Fort Jackson. Lend Lease has formed a special-purpose entity, Rest Easy, LLC (Rest Easy) to execute the lease. Lend Lease would perform the redevelopment of the lodging facilities, and InterContinental Hotels Group (IHG), its contracted hotelier, would take over the lodging operations. Lend Lease completed a Lodging Development Management Plan (LDMP) to serve as the initial business plan for the project. The LDMP served as a guide to the PAL lease. The PAL lease will be expanded to include additional installations, including Fort Jackson. Upon implementation of the amended and restated PAL lease, transfer of assets and transition to privatized operations would begin. For its part, the Army would 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 equal to 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 the 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. EOs 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/>.

³ Section 2803(b), National Defense Authorization Act for Fiscal Year 2003, Public Law 107-314.

SECTION 2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The Army proposes to implement the PAL program at Fort Jackson. The Army would convey specified lodging facilities to Rest Easy. The Army would also grant a 46-year lease of the land underlying the existing facilities and other land for constructing new lodging facilities. Under a separate support lease, the Army also would convey four storage and maintenance facilities for short-term use by Rest Easy. Under separate license agreements, the Army also would grant Rest Easy non-exclusive use of three parking lots to ensure adequate parking spaces for lodging guests.

Rest Easy would be expected to meet Fort Jackson's lodging requirements by owning, operating, and maintaining the existing facilities, as well as renovating or demolishing inadequate facilities and constructing new ones.

Implementing the PAL program at Fort Jackson 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 and cultural resource issues (e.g., protected species, cultural resources, past hazardous waste sites, and the like). Fort Jackson 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 other 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

The No Action Alternative, whose inclusion is 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 Jackson. 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 government would be unable to dedicate additional resources to support the Army Lodging operation and that maintenance backlogs would remain at present levels or increase. 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 given current funding levels.

2.3 PREFERRED ALTERNATIVE

2.3.1 Description of Existing Lodging and Available Land

Fort Jackson provides on-post transient lodging services through the use of 847 lodging units in 11 lodging buildings. For the purposes of this project, the lodging units, associated ancillary support buildings, and areas available for new construction have been grouped into 13 distinct parcels, labeled A through M. Table 2-1 identifies the existing lodging inventory by parcel. Figures 2-2 through 2-8 provide more detailed views of each parcel, and Figures 2-9 through 2-11 consist of photos of the lodging parcels at Fort Jackson.

Table 2-1.
Existing lodging facilities, Fort Jackson

Parcel	Building	Building name	Year built	Lodging units	Square footage	Notes
Parcel A	2785	Kennedy Hall	1972	0	80,130	B2785 is not in use. Geothermal system in field south of building.
Parcel B	3265	Magruder Barracks	1966	84	41,000	
	3275	Magruder Barracks	1966	87	41,000	
	3276	Magruder Barracks	1966	87	41,000	
	3260	N/A—Company operations and warehouse	1967	0	44,224	
	3270	N/A—Former dining facility converted to a classroom	1966	0	17,119	
Parcel C	3235	Magruder Barracks	1966	87	41,000	
Parcel D	3215	Magruder Barracks	1966	87	41,000	
	3210	N/A—Former dining facility converted to storage	1967	0	13,282	
Parcel E	10300	Dozier Hall	1998	136	102,700	
Parcel F	7550	Fort Jackson Inn	2010	209	130,000	Potential issue with stormwater discharge
Parcel G	6000	Palmetto Lodge	1984	70	42,443	Operates on geothermal system.
Parcel H	2462	Administrative—Battalion HQ	1976	0	4,693	B2464 was diverted for other use; B2466 is not in use.
	2464	Anderson Hall lodging	1976	0	27,048	
	2466	Anderson Hall lodging	1976	0	22,266	
Parcel I	1531	N/A—Army Lodging storage and maintenance buildings	1941	0	5,113	Mechanical, electrical, and paint shops and storage for lodging supplies and equipment.
	1532		1941	0	2,572	
	1541		1941	0	3,128	
Parcel J	3230	N/A—Company operations	1966	0	19,358	The PAL parcel consists of Bay C (3,055 square feet) in this building.
Parcel K	N/A	N/A—Parking lot	N/A	0	N/A	
Parcel L	N/A	N/A—Parking lot	N/A	0	N/A	
Parcel M	N/A	N/A—Parking lot	N/A	0	N/A	
Total lodging units				847		

Notes: HQ = headquarters; N/A = not applicable.

The following paragraphs describe each parcel.

Parcel A. This parcel consists of Building (B) 2785 (Kennedy Hall) and about 13 acres of land in the southern portion of the cantonment area at the intersection of Semmes Road and Lee Road. (See Figure 2-2 for a map of the site and Figure 2-9 for photos of the site.) Built in 1972, it is a six-story, 80,130-square-foot structure with 146 lodging units; however, the building is vacant and no longer used for lodging. Parcel A includes the land around B2785, which has parking lots, wooded areas, and open land. In the open land in the southern part of the parcel is a geothermal system that was built for Kennedy Hall but is no longer in use.

Parcel B. B3265, B3275, and B3276 (part of the Magruder Barracks Complex) are situated on about 11 acres of land in the western cantonment area along Magruder Avenue just west of the intersection with Early Street. (See Figure 2-3 for a map of the site and Figure 2-9 for photos of the buildings.) Constructed in 1966, these three-story buildings are 41,000 square feet each, with a total 258 lodging units. Also included in Parcel B just west of these buildings are two non-lodging buildings: B3260 is about 44,000 square feet, was built in 1967, and is an active company operations building with five different tenants and warehouse space for storage of small arms, office supplies, and furniture; B3270 is about 17,000 square feet, was built in 1966, and is a former dining facility converted to a classroom.

Parcel C. Magruder Barracks B3235 is on about 2 acres of land bordered by Magruder Avenue to the east and Sumter Avenue to the west. (See Figure 2-4 for a map of the site and Figure 2-9 for photos of the Magruder Barracks.) This three-story lodging building was constructed in 1966, is 41,000 square feet, and has 87 lodging units. Parcel C includes land to the north and west of B3235. This land is grass-covered open space with a few trees. Sidewalks traverse the space.

Parcel D. Magruder Barracks B3215 is on about 4 acres of land bordered by Magruder Avenue to the east, Sumter Avenue to the west, and Cheatham Street to the south. (See Figure 2-4 for a map of the site and Figure 2-9 for photos of the Magruder Barracks.) B3215 is a three-story building constructed in 1966, is 41,000 square feet, and has 87 lodging units. Parcel D includes land to the north and west of B3215. This land is grass-covered open space with a few trees. Sidewalks traverse the space. There is one non-lodging building (B3210) on the parcel to the west of B3215, along Sumter Avenue. (See Figure 2-9 for photos of B3210.) B3210 was built in 1967 and is about 13,300 square-feet. Originally built as a dining facility, it was converted to an administrative facility, and then to its current use as a storage facility.

Parcel E. Dozier Hall (B10300) is on about 15 acres of land in the northern cantonment area at the intersection of Hampton Parkway and Winder Street, between the Drill Sergeant School and the Soldier Support Institute, and just north of Fort Jackson Inn. (See Figure 2-5 for a map of the site and Figure 2-10 for photos of the site.) Dozier Hall is a 102,700-square-foot, four-story structure built in 1998. The building has 136 lodging units and a breakfast room. Parcel E includes land just to the south/southeast of Dozier Hall, which has tennis and basketball courts, parking lots, and open space.

Parcel F. Fort Jackson Inn (B7550) is on about 13 acres of land in the northern cantonment area on Benning Road, just south of Dozier Hall, the Soldier Support Institute, and the Chaplain Center and School. (See Figure 2-5 for a map of the site and Figure 2-10 for photos of the site.) Fort Jackson Inn is a 130,000-square-foot, four-story structure built in 2010. It has 209 lodging units, a breakfast room, and a check-in desk that serves all the lodging on Fort Jackson.

Parcel G. Palmetto Lodge (B6000) is on about 4 acres of land in the northern cantonment area at the intersection of Lee Road and Brown Avenue. (See Figure 2-6 for a map of the site and Figure 2-10 for a photo of the building.) Palmetto Lodge is a 42,443-square-foot, two-story structure built in 1984. It has 70 lodging units and a conference room.

Parcel H. The Anderson Hall Complex (B2462, B2464, and B2466) is on about 10 acres of land in the southern portion of the cantonment area bordered by Anderson Street to the south, Jackson Boulevard to the west, Bragg Street to the north, and a shoppette and open space to the east. (See Figure 2-7 for a map of the site and Figure 2-10 for a photo of one of the buildings.) B2462 is an administrative facility used as a Battalion Headquarters. B2464 is a three-story building constructed in 1976, is about 27,000 square feet, and has 44 former lodging units. B2466 is also a three-story building constructed in 1976, is about 22,000 square feet, and has 44 former lodging units. However, B2464 and B2466 are not used for lodging: B2464 has been diverted to another use, and B2466 is vacant. Parcel H also includes land around the buildings that has parking lots, tennis courts, and open space.

Parcel I. Parcel I (B1531, B1532, and B1541) is in the southern cantonment area, south of the intersection of Marion Avenue and Washington Road, off Hall Street. (See Figure 2-8 for a map of the site and Figure 2-11 for photos of two of the buildings.) These ancillary buildings are used by Fort Jackson Army Lodging for maintenance and storage. The buildings were constructed in 1941, are one-story buildings, and range in size from about 2,500 to 5,000 square feet. B1531 is used for storage of supplies and materials such as sheet rock, light fixtures, and air-conditioning units. B1532 is an electrical shop and paint shop. B1541 houses the maintenance administrative office and a mechanical shop.

Parcel J. Parcel J (B3230) is in the western cantonment area on Sumter Avenue and adjacent to Parcel C (Magruder Barracks B3235). (See Figure 2-4 for a map of the site and Figure 2-11 for a photo of the building.) B3230 was built in 1966, is about 19,000 square feet, and is a company operations facility. The PAL parcel consists of only one 3,055-square-foot bay (Bay C) in the building. Bay C is used as an office (780 square feet) and for storage (2,275 square feet).

Parcels K, L, and M. Parcels K, L, and M are parking lots along Sumter Avenue, west of the Magruder Barracks (Parcels B, C, and D). (See Figures 2-3 and 2-4 for maps of the parcels and Figure 2-11 for photos of the parking lots.) These are fully improved, paved parking lots with curbs, stormwater drainage, and lighting.

2.3.2 Proposed Lodging Actions

Implementing the PAL program at Fort Jackson would involve short-term hold (STH) lease; long-term hold (LTH) lease; and building renovation, demolition, and construction actions as described in the following paragraphs and listed in Table 2-2. Upon conveyance and grants of the leases noted in the following, Rest Easy would assume responsibility for all transient lodging assets and IHG would take over operations as provided for in the leases. Under the Preferred Alternative, the total number of lodging units at Fort Jackson would increase from 847 to about 865. Under a separate support lease, the Army also would lease B1531, B1532, and B1541 (ancillary storage and maintenance facilities) and storage Bay C in B3230 for short-term use by Rest Easy. Under separate license agreements, the Army also would grant Rest Easy non-exclusive use of three parking lots to ensure adequate parking spaces for lodging guests.

**Table 2-2.
Fort Jackson PAL Preferred Alternative**

Parcel	Acres	Buildings	Lodging units		PAL action
			Beginning state	End state	
Parcel A (Kennedy Hall) – LTH (second preference for 139-room new hotel site)					
	13.13	2785	0	139	Demolish and possibly build a 139-room Candlewood Suites (second preference for site).
Parcel B (Magruder Barracks) – STH					
	11.31	3265	84	0	Make minor renovations for STH and then demolish after new hotel goes into operation.
		3275	87	0	
		3276	87	0	
		3260	0	0	Demolish and make a parking lot for STH.
		3270	0	0	Demolish and make a parking lot for STH.
Parcel C (Magruder Barracks) – STH					
	2.33	3235	87	0	Make minor renovations for STH and then demolish after new hotel goes into operation.
Parcel D (Magruder Barracks) – STH					
	4.18	3215	87	0	Make minor renovations for STH and then demolish after new hotel goes into operation.
		3210	0	0	Demolish and make a parking lot for STH.
Parcel E (Dozier Hall) – LTH (309-room new hotel site)					
	15.55	10300	136	136	Renovate and maintain in LTH lodging portfolio. Brand as a Holiday Inn Express.
		New-build site	0	309	Build 309-room Candlewood Suites on Parcel E on land adjacent to Dozier Hall.
Parcel F (Fort Jackson Inn) – LTH					
	13.16	7550	209	209	Renovate and maintain in LTH lodging portfolio. Brand as a Holiday Inn Express.
Parcel G (Palmetto Lodge) – LTH					
	4.56	6000	70	70	Renovate and maintain in LTH lodging portfolio. Brand as a Holiday Inn Express.
Parcel H (Anderson Hall) – LTH (first preference for 139-room new hotel site)					
	10.77	2462	0	139	Demolish and build a 139-room Candlewood Suites (first preference for the site).
		2464	0		
		2466	0		
Parcel I (storage and maintenance buildings) – Support Lease					
	0	1531	0	0	Use in the IDP under a separate support lease for continued use as lodging maintenance and storage buildings.
		1532	0	0	
		1541	0	0	
Parcel J (storage Bay C in building 3230) – Support Lease					
	0	3230	0	0	Use in the IDP under a separate support lease for storing lodging supplies.
Parcel K (parking lot) – License Agreement					
	1.0	N/A	0	0	Use in the IDP under a license agreement for non-exclusive lodging guest parking.

Table 2-2. (continued)

Parcel	Acres	Buildings	Lodging units		PAL action
			Beginning state	End state	
Parcel L (parking lot) – License Agreement					
	3.4	N/A	0	0	Use in the IDP under a license agreement for non-exclusive lodging guest parking.
Parcel M (parking lot) – License Agreement					
	2.9	N/A	0	0	Use in the IDP under a license agreement for non-exclusive lodging guest parking.
Total lodging units			847	863	End-state total based on a 309-room hotel constructed on Parcel E and a 139-room hotel on Parcel H or Parcel A.

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

STH, support lease, and license agreement actions. Initially, all the existing lodging structures (identified in Table 2-1) would be conveyed or leased to Rest Easy. All lodging being conveyed would undergo minor renovations, such as making any necessary life safety and critical repairs, reconfiguring and improving public spaces, and improving the interiors of the guestrooms. In the short term, Magruder Barracks (Parcels B, C, and D) would be conveyed under an STH lease. The lodging and associated land and buildings at Parcel B (B3265, B3275, B3276, B3260, and B3270), Parcel C (B3235), and Parcel D (B3215 and B3210) would be conveyed to Rest Easy under the lease for a 7-year period or until such time that the new replacement hotels are complete. These lodging units would be conveyed to Rest Easy for use as lodging during the IDP to maintain an appropriate number of available rooms while new lodging was being built. On Parcel B, B3260 (company operations building) and B3270 (former dining facility converted to a classroom) would be demolished and replaced with a parking lot for use by lodging residents. On Parcel D, B3210 (former dining facility) would be demolished. The cleared area and existing lawn, pavement, and sidewalks on Parcels C and D would be reconfigured (e.g., minor demolition, grading, paving, stormwater drainage, lighting, signage) to become short-term drop-off and parking areas for guests staying at the Magruder Barracks B3235 and B3215. By the end of the IDP or as the new hotels become operational, the lodging buildings on Parcels B, C, and D (B3265, B3275, B3276, B3235, and B3215) would be demolished; the parcels would revert back to Fort Jackson for other uses following lease termination.

The three buildings in Parcel I (B1531, B1532, and B1541) and storage Bay C in the one building in Parcel J (B3230) would be leased to Rest Easy under a separate support lease. The Parcel I and J separate support leases would be short-term for the 7-year IDP. The leases would apply to the buildings and adjacent parking use only and would not include leasing of underlying land. The buildings would be used as lodging maintenance and storage facilities.

Within the bounds of the Parcels K, L, and M parking lots would be non-exclusive licensed areas to ensure adequate parking spaces for lodging guests. By the end of the IDP or as the new hotels become operational, these license agreements would terminate and the property would no longer be used for lodging guest parking.

LTH lease actions and new construction. The existing lodging and land in Parcel E (Dozier Hall, B10300), Parcel F (Fort Jackson Inn, B7550), and Parcel G (Palmetto Lodge, B6000) would be conveyed to Rest Easy under a long-term 46-year lease. Rest Easy would renovate the buildings, brand the hotels as Holiday Inn Express, and continue to operate them as lodging facilities during

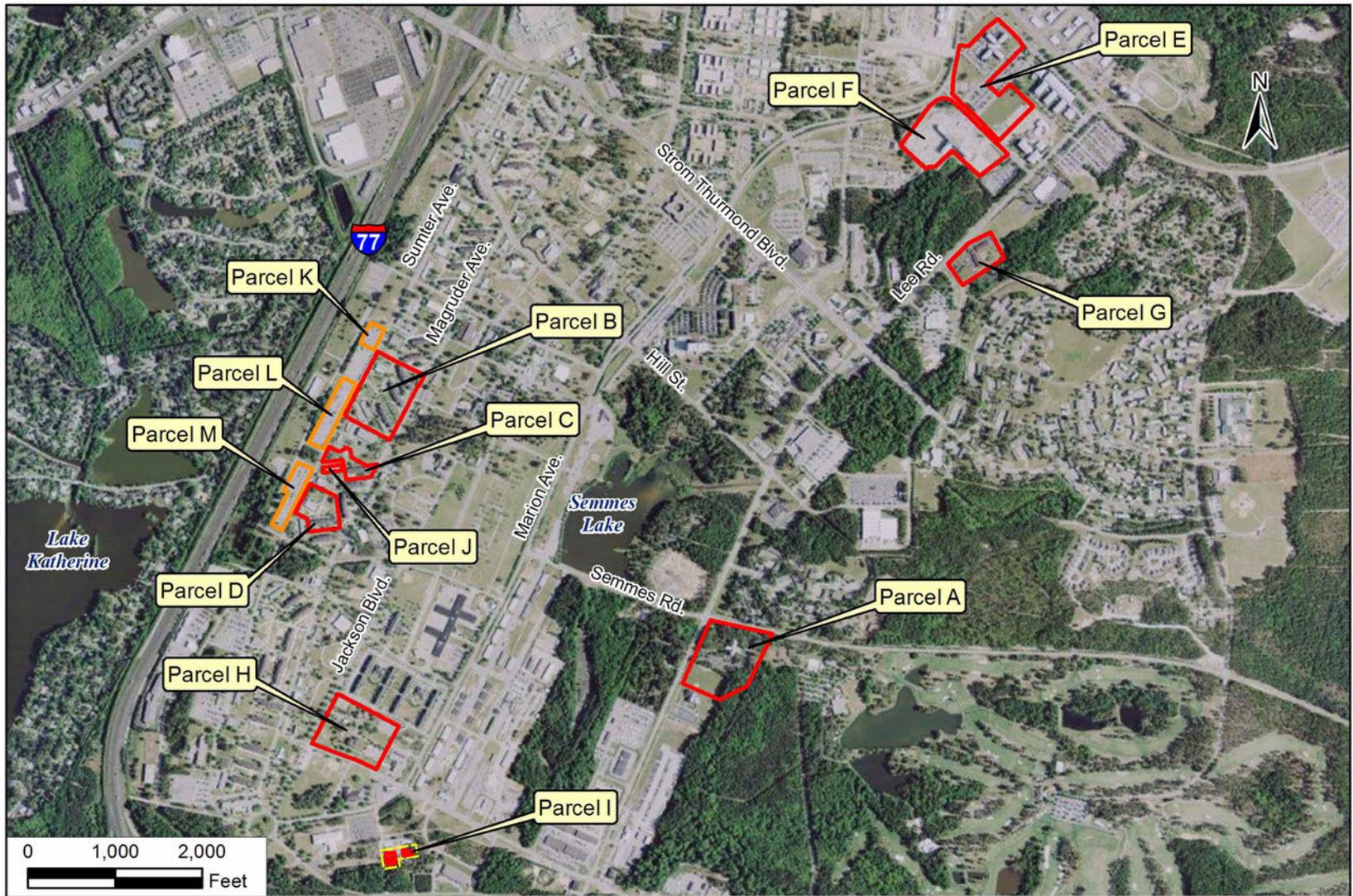
the 46-year lease period. Renovations would include making any necessary life safety upgrades and functional repairs, updating the interiors (e.g., linens and décor, new fixtures, furnishings and equipment), adding some recreational facilities and improved public spaces for guests, and making interior and exterior renovations and structural modifications associated with the Holiday Inn Express brand standard.

Rest Easy would build a 309-room Candlewood Suites (CWS) hotel and associated parking lot on Parcel E. A portion of Parcel E, southeast of Dozier Hall, is an undeveloped, mostly grass-covered open space. The Parcel E tennis and basketball courts and parking lots (shown on Figure 2-5) also would be conveyed and converted to parking.

The Army also would grant Rest Easy a 46-year lease for one of two parcels of land on which Rest Easy plans to build a 139-room CWS. The first-choice location for the 139-room CWS would be Parcel H (Anderson Hall Complex, B2462, B2464, and B2466). If this site is selected for inclusion in the lease, the buildings would be demolished and a 139-room CWS with parking would be built. The second-choice location for the 139-room CWS would be Parcel A (Kennedy Hall, B2785). If the Parcel A site was selected over Parcel H, Kennedy Hall (B2785) would be demolished and Rest Easy would build a 139-room CWS and associated parking. Although the EA analyzes two possible locations for a new 139-room CWS in the Preferred Alternative, only one of the new-build sites—Parcel H or A—would be included in the PAL lease.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

The Army now provides transient lodging to Soldiers, their dependents, and other authorized patrons. 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. Across the Army, many of the occupants of Army lodging are attending Army schools on-post. Eliminating on-post lodging would lengthen the students' workdays because of commuting; increase their transportation costs (without specific authorization, personnel on temporary duty might be ineligible for rental vehicle reimbursement); and, in some instances, cause them to encounter lodging shortages in adjacent communities. Local hospitality providers could experience wide swings in occupancy rates, especially between Army school sessions. At Fort Jackson, termination of the Army's lodging program would result in abandoning or repurposing of existing lodging buildings. The Army could incur substantial costs to convert the 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.



LEGEND

-  Proposed PAL Footprint
-  Parcel Consisting of Multiple Buildings Under Support Lease (No Associated Land)
-  License Agreement

Site Map

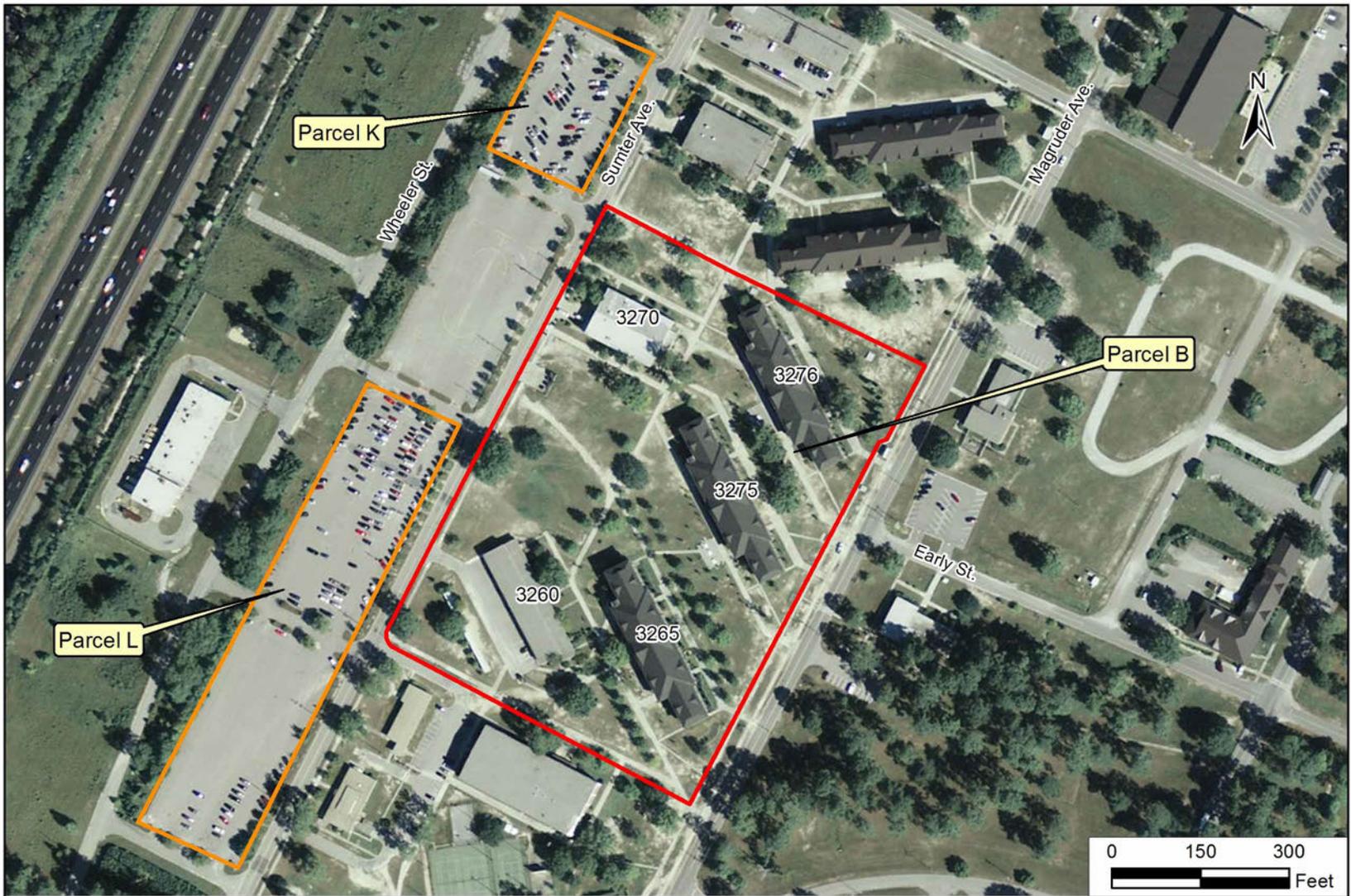
Figure 2-1



LEGEND
[Red outline] Proposed PAL Footprint

Parcel A

Figure 2-2

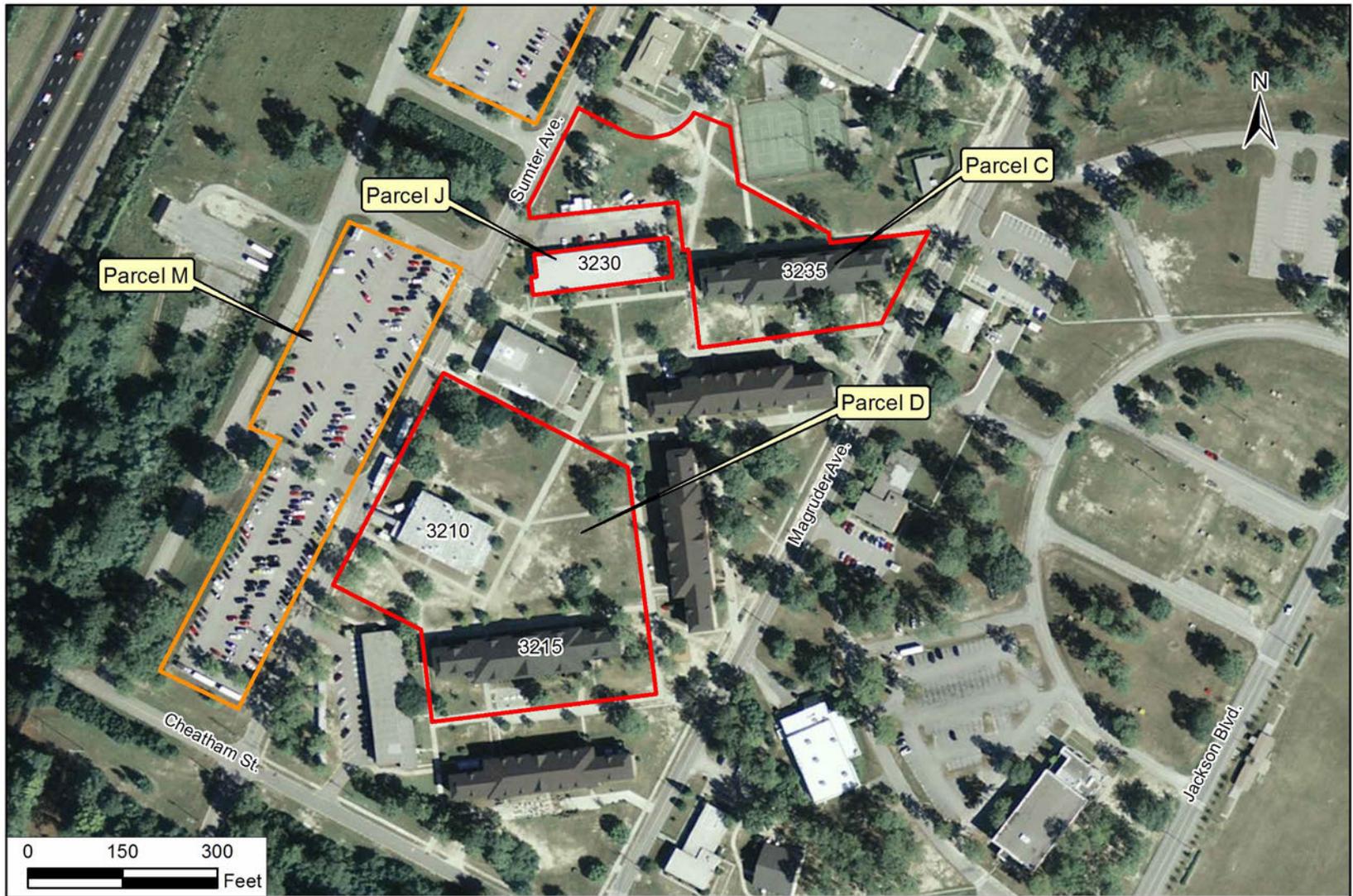


LEGEND

-  Proposed PAL Footprint
-  License Agreement

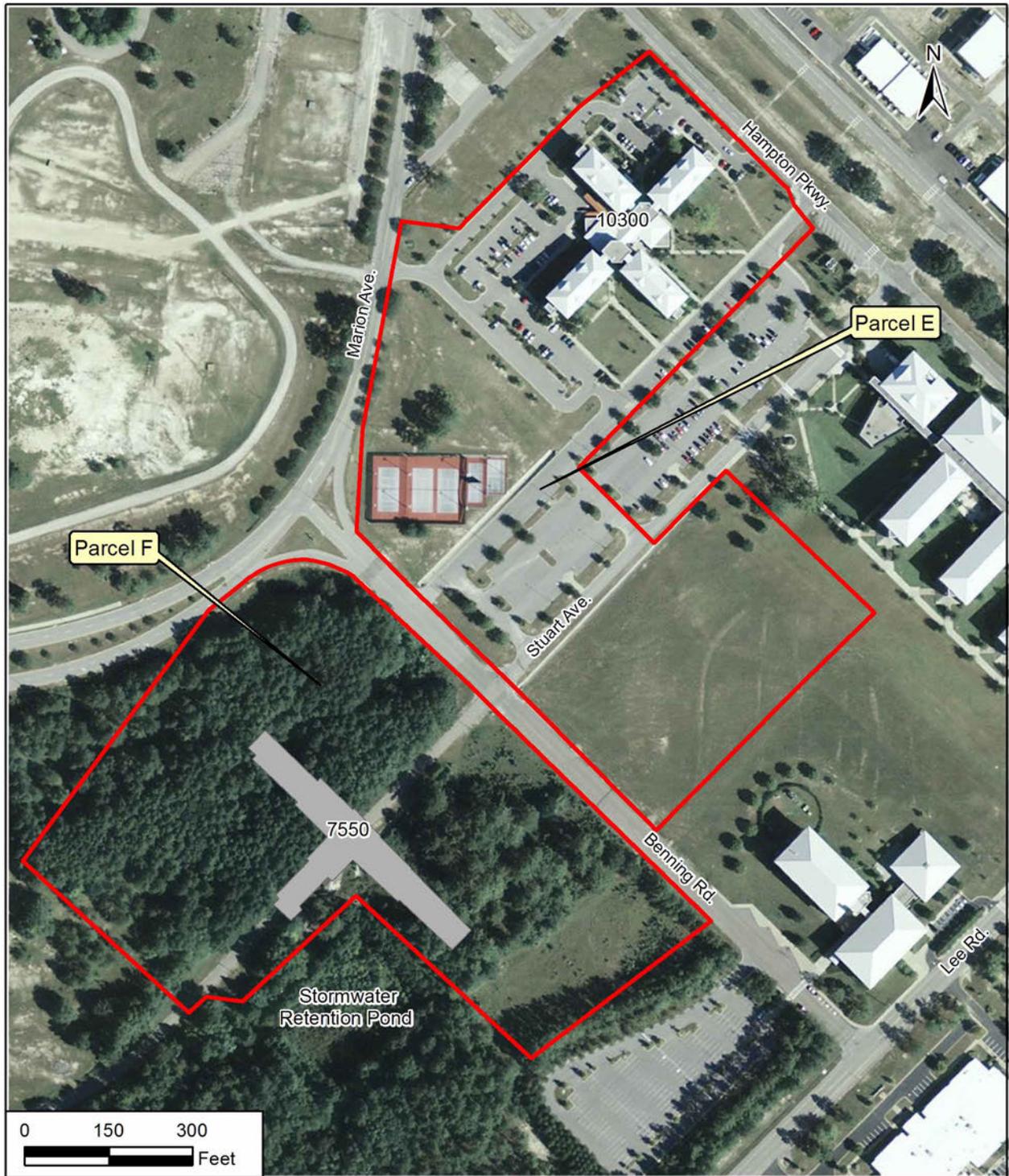
Parcels B, K, and L

Figure 2-3



Parcels C, D, J, and M

Figure 2-4



LEGEND
[Red Outline] Proposed PAL Footprint

Parcels E and F

Figure 2-5



LEGEND

 Proposed PAL Footprint

Parcel G

Figure 2-6

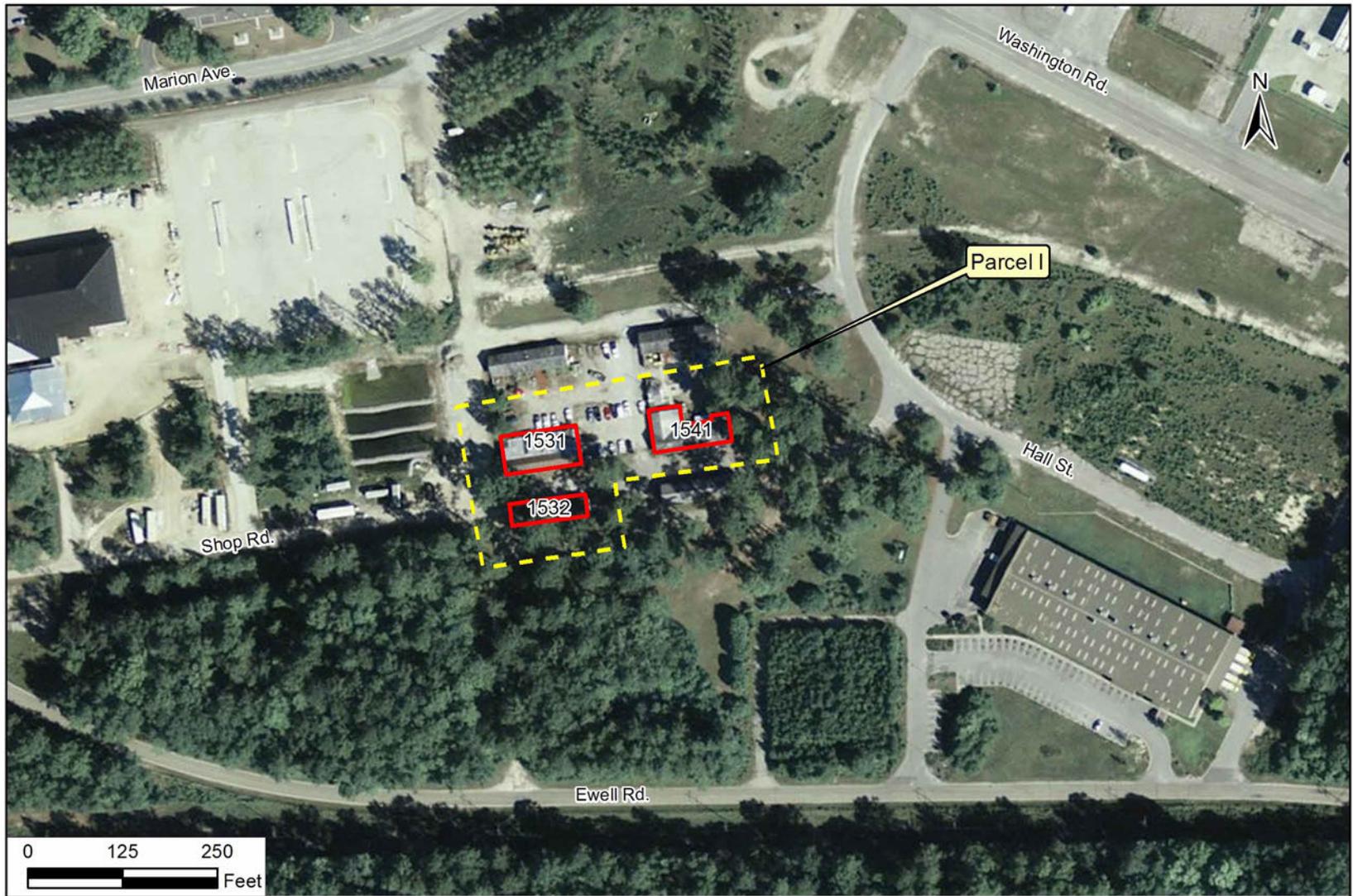


LEGEND

 Proposed PAL Footprint

Parcel H

Figure 2-7



LEGEND

-  Proposed PAL Footprint
-  Parcel Consisting of Multiple Buildings Under Support Lease (No Associated Land)

Parcel I

Figure 2-8

	
<p>Parcel A: Kennedy Hall</p>	<p>Parcel A: Field south of Kennedy Hall</p>
	
<p>Parcels B, C, and D: Magruder Barracks</p>	<p>Parcels B, C, and D: Magruder Barracks</p>
	
<p>Parcel D: Building 3210</p>	<p>Parcel D: Building 3210</p>

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



Parcel E: Dozier Hall



Parcel E: View of field, with Dozier Hall visible in the top right corner



Parcels E and F: View of Parcel E field, with Parcel F Fort Jackson Inn visible in the distance.



Parcel F: Fort Jackson Inn



Parcel G: Palmetto Lodge



Parcel H: Anderson Hall

Figure 2-10. Photos of Parcels E through H.



Parcel I: Building 1531



Parcel I: Building 1541



Parcel J: Building 3230



Parcel K: Parking lot



Parcel L: Parking lot



Parcel M: Parking lot

Figure 2-11. Photos of Parcels I through M.

SECTION 3.0

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 LAND USE

3.1.1 Affected Environment

Fort Jackson covers approximately 52,000 acres of land in Richland County in central South Carolina. It is incorporated into and surrounded on the northwest, west, and southwest by the city of Columbia, the state capital. The majority of the installation is used for training purposes, such as general use training, range/impact area, and noise buffers. The cantonment area, in the southwestern portion of the installation, encompasses about 10 percent of the total installation property. All the proposed PAL parcels are in the cantonment area. Land use categories in the cantonment area consist of administration, community facilities, housing, barracks, industrial, medical, recreation, and open space. The PAL parcels themselves are designated as either community facilities or barracks, with the exception of Parcel I, which is designated as industrial. 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

The overall visual impression of the Fort Jackson cantonment areas is one of functional efficiency and focused activity. Because grounds maintenance is provided at a high level, there is an appearance of cleanliness and general order throughout the cantonment area. The installation has liberally used heat-tolerant landscaping, such as crepe myrtle, which lines major thoroughfares and imposes a formality to the post's natural environment. In addition, selected parcels that were cleared by demolition are being allowed to grow back to their natural states, thereby increasing the volume of flora in the Fort Jackson cantonment and providing buffer space between structures (Parsons 2008).

The PAL buildings vary in size and style, having been constructed from the 1940s to the present. The lodging areas are generally characterized by mowed common areas, well-maintained landscaping around the buildings, and mature trees. Vegetation observed on and around the PAL

parcels includes pine and oak trees, crepe myrtles, boxwood shrubs, and ornamental palm trees. The typical view from the PAL parcels is of other installation buildings and landscaped, well-maintained open space.

Parcel A includes Kennedy Hall, which is a six-story, early 1970s, brown brick building (Figure 2-9). The building is vacant and is in need of repair. It is in a grove of mature pine trees, with a view of an open field to the south (Figure 2-2).

Parcels B, C, and D are in the Magruder Barracks complex. The barracks (B3215, B3235, B3265, B3275, B3276) are identical, three-story brick buildings (nicknamed *the rolling pins* because of their shape; see Figures 2-3, 2-4, and 2-9) between Magruder and Sumter Avenues, with landscaped open space between the buildings. The parcels have a very orderly, campus-like appearance. B3210 on Parcel D is a 1-story brick building, formerly a dining facility and currently used as storage. Parcel J (B3230) is adjacent to Parcel C to the west and is a one-story brick warehouse with a paved parking area.

Parcels E and F include Dozier Hall and Fort Jackson Inn, respectively, which are recently constructed brick buildings that fit well with their surroundings, which includes other more recently constructed buildings in a similar style (height, size, and materials) such as the Drill Sergeant School, the Soldier Support Institute (one of Fort Jackson's landmark buildings), and the Chaplain Center and School. In addition to Dozier Hall, Parcel E includes tennis courts, basketball courts, parking lot, and an open field. The open field is bound by parking lots, the Soldier Support Institute, the Chaplain Center and School, and Fort Jackson Inn. Views south/southwest of Parcel F (Fort Jackson Inn) are of a wooded area (Figures 2-5 and 2-10).

Parcel G includes Palmetto Lodge, which is a two-story, brick hotel built in the 1980s with exterior corridors and a playground behind the hotel. Views from Palmetto Lodge are of an open field to the north and wooded areas to the east, south, and west (Figures 2-6 and 2-10).

Parcel H includes the Anderson Hall lodging buildings (B2464 and B2466) which are three-story, concrete structures built in the mid-1970s. B2466 is vacant and is in need of repair. Parcel H is in a well-developed area of Fort Jackson, bordered by barracks, administrative buildings, a shoppette and gas station, parking lots, and recreational facilities (e.g., tennis courts, running track) (Figures 2-7 and 2-10).

Parcel I includes 1940s-era maintenance and storage buildings (B1531, B1532, and B1541), which are in the southern cantonment in a quiet setting bordered by mature pine trees (Figure 2-8). The buildings are one-story, concrete block buildings painted white, with lodging maintenance equipment and supplies and landscaping materials in or around the buildings (Figure 2-11).

Parcels K, L, and M are fully improved parking lots (i.e., paved with lighting and stormwater drainage). The parking lots are west of the Magruder Barracks Parcels B, C, and D (Figures 2-3, 2-4, and 2-11).

3.2.2 Environmental Consequences

3.2.2.1 Preferred Alternative

Short-term minor adverse and long-term minor beneficial effects would be expected. Short-term minor adverse effects would result from demolition and construction activities, which are inherently aesthetically displeasing. Under the proposed action, the older lodging buildings

(Anderson Hall on Parcel H, Kennedy Hall on Parcel A, and Magruder Barracks on Parcels B, C, and D) as well as other non-lodging buildings on Parcels B, D, and H (B2462, B3210, B3260, B3270) would be demolished by the end of the IDP or as the new hotels become operational. New hotels would be constructed on Parcels E and H or A. During demolition and construction, views in the immediate area of these parcels (Parcels A, B, C, D, E, and H) would be disrupted by construction equipment and buildings in a state of construction or deconstruction. The visually disrupting effects from demolition and clearing would be short term and localized to these areas. These activities would be limited to daylight hours; therefore, night-time construction activities and associated lighting would not occur. There would be no change to and therefore no effect on the license agreement Parcels K, L, or M.

Long-term beneficial effects would be expected from the improvement in the aesthetic appeal of the lodging. The proposed new lodging would be in keeping with Fort Jackson's Installation Design Guidelines for architectural character, color, materials, and landscaping, to maintain a positive visual image throughout the installation, and to IHG's standards for a CWS hotel. Renovations would be done to repair or update the interior or exterior of existing lodging buildings that would be used in the short term for lodging (Parcels B, C, and D [Magruder Barracks]), and in the long term (Parcel E [Dozier Hall], Parcel F [Fort Jackson Inn], and Parcel G [Palmetto Lodge]). Dozier Hall, Fort Jackson Inn, and Palmetto Lodge would be kept for long-term use as lodging and would be renovated to the standards and exterior and interior visual appeal of a Holiday Inn Express. Parcels A (Kennedy Hall) and H (Anderson Hall) would be improved from removal of lodging buildings that are no longer in use and in a state of disrepair.

3.2.2.2 No Action Alternative

Long-term minor adverse effects would be expected. The Army would continue to do 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 given current funding levels.

3.3 AIR QUALITY

3.3.1 Affected Environment

The U.S. Environmental Protection Agency (EPA) Region 4 and South Carolina Department of Natural Resources (SCDNR) regulate air quality in South Carolina. The Clean Air Act (42 U.S.C. 7401-7671q), as amended, gives the EPA responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 *Code of Federal Regulations* [CFR] Part 50) that set acceptable concentration levels for six criteria pollutants: particulate matter (measured as both particulate matter [PM₁₀] and, fine particulate matter [PM_{2.5}]), sulfur dioxide, carbon monoxide (CO), nitrogen oxides (NO_x), ozone, and lead. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. While each state has the authority to adopt standards stricter than those established under the federal program, South Carolina accepts the federal standards.

Federal regulations designate Air Quality Control Regions (AQCRs) in violation of the NAAQS as *nonattainment* areas. Federal regulations designate AQCRs with levels below the NAAQS as *attainment* areas. According to the severity of the pollution problem, nonattainment areas can be

categorized as marginal, moderate, serious, severe, or extreme. Fort Jackson is in Richland County, South Carolina. Richland County is in the Columbia Intrastate AQCR and is in attainment for all NAAQS criteria pollutants (USEPA 2012a).

Activities that produce air emissions at Fort Jackson include boilers, generators, ordnance detonation, fueling operations, storage tanks, and paint booths (USAEC 2009). A Title V operating permit (Number 1900-0016) was issued August 1, 2001, and although the permit was slated to expire in July 2005, the facility operates under a permit shield because South Carolina Department of Health and Environmental Control (SCDHEC) has not yet issued a permit renewal. Fort Jackson has submitted several permit renewal applications; the latest was submitted on March 26, 2010, requesting that the permit be converted to a synthetic minor/conditional major permit. The permit requirements include annual inventory for all significant stationary sources of air emissions and covers monitoring, recordkeeping, and reporting requirements. Fort Jackson's 2011 installation-wide air emissions for all significant stationary sources are tabulated below (Table 3.3-1) (Pollock 2012, personal communication).

Table 3.3-1.
2011 Annual emissions for significant statutory sources at Fort Jackson

Pollutant	Emissions (tons/year)
NO _x	28.6
CO	34.2
VOCs	17.0
PM10/PM2.5	4.9
SO ₂	2.2

Source: VDEQ 2012

Note: SO₂ = sulfur dioxide; VOCs = Volatile organic compounds

Greenhouse Gases and Climate Change. Greenhouse gases (GHGs) are components of the atmosphere that trap heat relatively near the surface of the earth and, therefore, contribute to the greenhouse (or heat-trapping) effect and climate change. 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, methane, NO_x, and other GHGs to the atmosphere. Whether rainfall will increase or decrease remains difficult to project for specific regions (USEPA 2012b; 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 their GHG emissions from both their direct and indirect activities. The Department of Defense has committed to reduce GHG emissions from noncombat 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 per year (25,000 metric tons per year) of carbon dioxide-equivalent emissions from a federal action (CEQ 2010).

3.3.2 Environmental Consequences

3.3.2.1 Preferred Alternative

Short- and long-term minor adverse effects would be expected. Implementing the Preferred Alternative could affect air quality through airborne dust and other pollutants generated during construction and demolition and by introducing new stationary sources of pollutants, such as heating boilers. Air quality effects would be considered minor unless the 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 vehicle trips. Note that the increase in lodging units would constitute a small net increase in operational emissions. The estimated emissions from the Preferred Alternative would be below the applicability thresholds; therefore, the General Conformity Rule does not apply (Table 3.3-2). These effects would be minor. A Record of Non-Applicability is in Appendix A.

**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	14.4	27.8	4.5	< 0.1	2.5	1.8	100	No
Operations	0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1		

Note: CO = carbon monoxide; NO_x = nitrogen oxides; SO_x = sulfur oxides; PM_{2.5} = fine particulate matter; PM₁₀ = particulate matter; VOC = volatile organic compound.

For analysis purposes, it was assumed that all the construction would be compressed into one 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those shown here. 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 determination under the General Conformity Rule or level of effects under NEPA.

The leased hotels would be equipped with individual furnaces or boilers for heating. These 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. Operational emissions could be reduced by using more energy-efficient units than were used in the lodging slated for demolition.

The new lodging facilities would be owned, operated, and maintained by Rest Easy and IHG on property leased by Fort Jackson. In general, leased activities would not be considered under the direct control of Fort Jackson. These leased activities would normally be considered tenants, and Rest Easy and IHG would need to perform an air quality regulatory analysis to determine if any

Clean Air Act permitting is required for operating any sources of air emissions. However, leased activities might be considered under common control when they also have a contract-for-service relationship to provide goods or services to a military controlling entity at that military installation. Given the variety and complexity of leased and contract-for-service activities at Fort Jackson, 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 Jackson's Title V permit.

The South Carolina Air Pollution Control Regulations (SCAPCR) outlines precautions that would be required during the construction of the new facilities, such as controlling fugitive dust and open burning. All contractors would comply fully with all federal, state, and local air regulations. 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. In addition, the construction would be accomplished in full compliance with South Carolina regulatory requirements, with compliant practices or products. These requirements include the following:

- VOCs (SCAPCR 61-62.5-5)
- Control of fugitive particulate matter (SCAPCR 61-62.6)
- Prohibition of open burning (SCAPCR 61-62.2)
- Emissions from fuel burning operations (SCAPCR 61-62.5-1)

This listing is not all-inclusive; the Army and any contractors would comply with all applicable air pollution control regulations. Beyond those best management practices (BMPs), no mitigation measures would be required for the Preferred Alternative.

Greenhouse Gases and Climate Change. Under the Preferred Alternative, all construction activities combined would generate approximately 2,292.8 tons (2,084.4 metric tons) of carbon dioxide. A minute increase in GHG would result from the operations increase in lodging units. Regardless, the GHG emissions associated with the Preferred Alternative would be well below the CEQ threshold. By using new heating and cooling systems and centrally locating the lodging units, Fort Jackson is taking steps to help the Army reach its GHG reduction goals in accordance with EO 13514.

3.3.2.2 No Action Alternative

Selecting the No Action Alternative would result in no effect on ambient air-quality. No construction would occur, and no new lodging operations would take place. Ambient air-quality conditions would remain as described in Section 3.3.1.

3.4 NOISE

3.4.1 Affected Environment

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as construction or vehicular traffic.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz are used to quantify sound frequency. The human ear responds differently to different frequencies. *A-weighting*, measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Sounds encountered in daily life and their dBA levels are provided in Table 3.4-1.

**Table 3.4-1.
Common sounds and their levels**

Outdoor	Sound level (dBA)	Indoor
Motorcycle	100	Subway train
Tractor	90	Garbage disposal
Noisy restaurant	85	Blender
Downtown (large city)	80	Ringling telephone
Freeway traffic	70	TV audio
Normal conversation	60	Sewing machine
Rainfall	50	Refrigerator
Quiet residential area	40	Library

Source: Harris 1998

The dBA noise metric describes steady noise levels, although very few noises are, in fact, constant. Therefore, A-weighted Day-night Sound Level (DNL) has been developed. DNL is defined as the average sound energy in a 24-hour period with a 10-dB penalty added to the nighttime levels (10 p.m. to 7 a.m.). DNL is a useful descriptor for noise because (1) it averages ongoing yet intermittent noise, and (2) it measures total sound energy over a 24-hour period. In addition, Equivalent Sound Level (L_{eq}) is often used to describe the overall noise environment. L_{eq} is the average sound level in dB.

The Noise Control Act of 1972 (Public Law 92-574) directs federal agencies to comply with applicable federal, state, and local noise control regulations. In 1974, the EPA provided information suggesting continuous and long-term noise levels in excess of DNL 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, churches, and hospitals.

South Carolina's Environmental Noise Act of 1974 limits noise to that level which will protect the health, general welfare, and property of the people of the state. The Richland County Noise Ordinance (Chapter 18, Section §18-3) maintains that noise levels in excess of 62 dBA between the hours of 7:00 a.m. and 10:00 p.m. and 55 dBA between the hours of 10:00 p.m. and 7:00 a.m. are unlawful, and that non-residential operation of construction equipment shall not be used between the hours of 10:00 p.m. and 6:00 a.m. (Chapter 26, Section §26-97).

Both on- and off-post individuals could be subjected to multiple sources of noise during the day including normal operation of heating, ventilating, and air conditioning systems; military unit physical training activities; lawn maintenance; and general maintenance of streets and sidewalks. Other minor noise sources include traffic, aircraft over flights, and construction activities. McEntire National Guard Joint Air Base is over eight miles south and all the PAL parcels are outside of the helicopter flight paths and 55 dB noise contours (EDAW AECOM 2009).

Fort Jackson has five helicopter landing zones within the cantonment area, which are mainly used for emergency medical evacuation and transporting dignitaries (Fort Jackson 2011a). Aircraft stationed at the Eastover Army Aviation conduct low-level training at Fort Jackson. Traveling to the installation, pilots comply with National Guard Regulation (NGR-95-1) and maintain minimum altitudes of 500 above ground level above unpopulated areas and 1,000 feet above ground level in populated areas, and when entering the installation the aircraft come in at 800 feet above ground level (USACHPPM 2009).

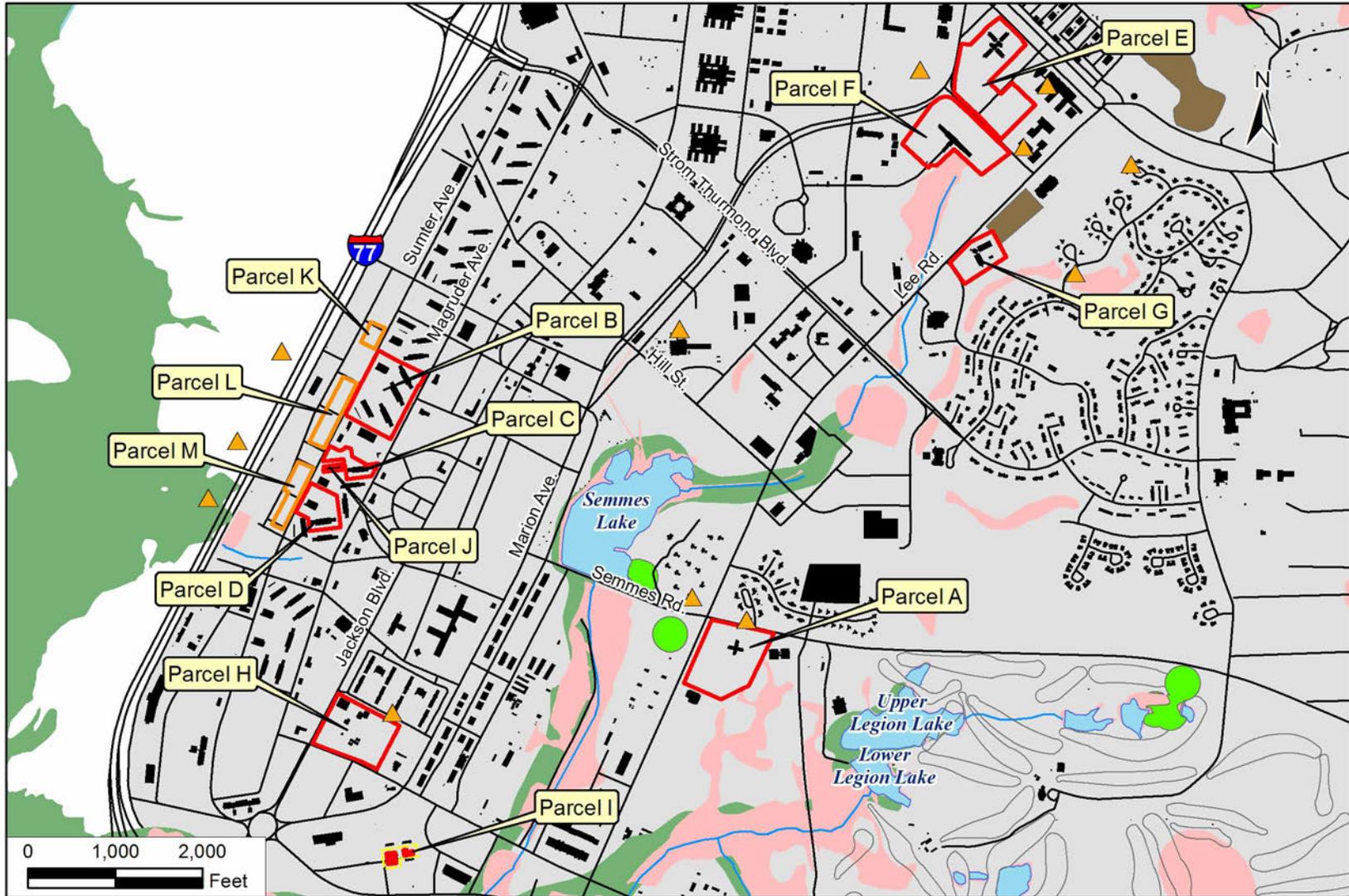
Background noise levels (L_{eq} and DNL) were estimated for the surrounding areas using the techniques specified in the American National Standards Institute's *Quantities and Procedures for Description and Measurement of Environmental Sound Part 3: Short-term measurements with an observer present*. All PAL parcels are in an area that would normally be considered quiet commercial industrial and normal urban residential (ANSI 2003). Table 3.4-2 outlines the closest receptors to each PAL parcel. Noise sensitive areas are shown on Figure 3-1.

**Table 3.4-2.
Estimated background noise levels**

Location	Closest noise sensitive area			Estimated existing sound levels (dBA)			
	Distance	Direction	Type	Land use category	DNL	L_{eq} (daytime)	L_{eq} (nighttime)
Parcel A	100 ft (30 m)	North	Residence	Quiet Commercial, Industrial, and Normal Urban Residential	55	53	47
Parcel B	990 ft (300 m)	West	Residence				
Parcel C	1,280 ft (390 m)	West	Residences				
Parcel D	1,175 ft (360 m)	West	Residence				
Parcel E	66 ft (20 m)	East	Soldier Support Institute				
	512 ft (156 m)	West	Drill Sergeant School				
Parcel F	171 ft (52 m)	East	Chaplain Center School				
Parcel G	810 ft (250 m)	East	Residence				
Parcel H	850 ft (250 m)	Northeast	Residence				
	395 ft (120 m)	North	Church				
Parcel I	200 ft (60 m)	North	Church				
Parcel J	1,020 ft (310 m)	West	Residence				
Parcel K	780 ft (240 m)	West	Residence				
Parcel L	780 ft (240 m)	West	Residence				
Parcel M	780 ft (240 m)	West	Residence				

Source: ANSI 2003

Note: ft = feet; m = meter



LEGEND

- | | | |
|--|-----------------------|----------------------|
| Proposed PAL Footprint | Installation Property | Floodplain |
| Parcel Consisting of Multiple Buildings Under Support Lease (No Associated Land) | Road | Landfill |
| License Agreement | Building | RCW Cavity Tree |
| | Surface Water | Noise Sensitive Area |
| | Wetland | |

Environmental Constraints

Figure 3-1

Source: Fort Jackson GIS 2012.

3.4.2 Environmental Consequences

3.4.2.1 Preferred Alternative

Short-term minor adverse effects would be expected. Short-term increases in noise would result from the use of construction equipment. Table 3.4-3 presents typical noise levels (dBA at 50 feet) that EPA has estimated for the main phases of outdoor construction. Individual pieces of construction equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet. With multiple items of equipment operating concurrently, noise levels can be relatively high during the daytime at locations within several hundred feet of active construction sites. The zone of relatively high construction noise typically extends 400 to 800 feet from the site of major equipment operations. Locations farther than 800 feet from construction sites seldom experience noteworthy levels of construction noise.

**Table 3.4-3.
Noise levels associated with outdoor construction**

Construction phase	L_{eq} (dBA)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

Source: USEPA 1971

Given the temporary nature of proposed construction activities and the limited amount of noise that construction equipment would generate, this effect would be minor. Noise from construction activities would be minimal and confined primarily to construction areas. Limited truck and worker vehicle traffic might be audible at some nearby locations. Such effects would be minor.

No long-term increases in the overall noise environment (e.g., L_{eq} , A-weighted DNL) would be expected from implementing the Preferred Alternative. No military training activities, use of weaponry, demolitions, or aircraft operations would occur as part of the PAL action. Therefore, no changes in the existing noise environment associated with these sources would be expected.

3.4.2.2 No Action Alternative

Selecting the No Action Alternative would result in no effect on the noise environment. No construction would occur, and no new lodging operations would take place. Noise conditions would remain as described in Section 3.4.1.

3.5 GEOLOGY AND SOILS

3.5.1 Affected Environment

Fort Jackson is in Richland County, South Carolina. Richland County contains two physiographic provinces—the Piedmont Plateau and the Atlantic Coastal Plain. The principal landforms extend northwest to southeast. The highest elevations, more than 500 feet, are connected by a ridge

beginning north of Fort Jackson where U.S. Route 21 crosses the county line; southeastward by the town of Killian and Sesquicentennial State Park; and through Fort Jackson to a point south of the installation near the intersection of U.S. Routes 601 and 76.

The Piedmont Plateau Province contains numerous streams and water bodies. Ridge tops are broad and exhibit gentle to moderate sloping toward streams. Stream floodplains are often narrow. Rocks in the Piedmont Plateau Province are grouped in a geologic belt known as the Carolina Slate Belt. The rock is shale and schist, rather than true slate. The principal rock type is argillite and fine-grained rock high in silica and alumina (Gene Stout and Associates 2004).

Fort Jackson is on the northwestern edge of the Atlantic Coastal Plain Province, a region of low to moderate relief and gently rolling plains, known as the Sand Hills. The Fall Line, a zone that marks the boundary between younger softer sediments of the province and ancient crystalline rocks of the Piedmont Plateau Province, is about 4 miles west of the cantonment area (Gene Stout and Associates 2004).

The principal geologic formation in the Sand Hills is the Tuscaloosa, which consists of marine deposits of light-colored sands and kaolin clays. Most soils at Fort Jackson are formed from Tuscaloosa sediment. A Quaternary sand terrace layer overlies the Tuscaloosa formation, which lies on a complex of old metamorphic and igneous rock. The Tuscaloosa complex generally consists of clay strata overlying unconsolidated sands. The Upper Cretaceous-age Tuscaloosa formation outcrops over most of Fort Jackson and consists of unconsolidated, crossbedded, kaolinitic, and arkosic sands. It lies unconformably on the peneplained surface of crystalline rocks. Near the northern boundary of the installation, older crystalline rocks of the Carolina Slate Group outcrop at the surface. In the northwest portions of Fort Jackson, Pleistocene sands and gravel are at the ground surface (Gene Stout and Associates 2004).

In 1886 a major earthquake was recorded near Charleston, South Carolina, and was felt as far as 100 miles away in Columbia. Moderate earthquakes have occurred since then throughout South Carolina, and tremors were felt in the Richland County area in the late 1950s and early 1960s (USGS 2011). Approximately 70 percent of earthquakes occur in the Coastal Plain, and most are clustered around three areas west and north of Charleston (SCDNR 2012).

Soils of the PAL parcels are of seven types. Parcel A soils are Pelion-Urban land complex, 2 to 10 percent slopes. Parcels B, C, D, and J comprise Pelion-Urban land complex, 2 to 10 percent slopes, Fuquay-Urban land complex, 0 to 6 percent slopes, and Vacluse loamy sand, 10 to 15 percent slopes. Parcels E and F comprise Pelion-Urban land complex, 2 to 10 percent, and Lakeland-Urban land complex, 2 to 6 percent slopes, and Udorthents. Parcel G soils are Udorthents, and Parcel H soils are Pelion-Urban land complex, 2 to 10 percent slopes, Fuquay-Urban land complex, 0 to 6 percent slopes, and Dothan-Urban land complex, 0 to 6 percent slopes. Parcel I comprises Pelion-Urban land complex, 2 to 10 percent slopes and Pelion loamy sand, 2 to 6 percent slopes. Parcels K, L, and M are Pelion-Urban land complex, 2 to 10 percent slopes (USDA NRCS 2011).

Pelion-Urban land complex, 2 to 10 percent slopes and Pelion loamy sand, 2 to 6 percent slopes are formed from parent material of loamy marine depots, are moderately well drained, and have a depth to the water table of 12 inches. Vacluse loamy sand, 10 to 15 percent slopes is formed from parent material of loamy marine deposits, is well drained, and has a depth to water table of greater than 80 inches. Lakeland-Urban land complex, 2 to 6 percent slopes is formed from parent material of sandy marine deposits, is excessively drained, and has a depth to water table of greater than 80 inches. Udorthents is formed from parent material of loamy marine deposits and clayey residuum, is moderately well drained, and the depth to the water table is greater than 80 inches.

Fuquay-Urban land complex, 0 to 6 percent slopes is formed from parent material of plinthic loamy marine deposits, is well drained, and the depth to the water table is 60 inches. Dothan-Urban land complex, 0 to 6 percent slopes is formed from parent material from plinthic loamy marine sediments, is well drained, and the depth to the water table is 36 inches (USDA NRCS 2011).

Those soils are highly susceptible to erosion by wind and moderately susceptible to erosion by water. None of the soils are considered hydric soils (i.e., soils associated with wetlands). The southeast corner of Parcel A has not been previously disturbed; however, all other 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. Proposed new construction, demolition, or reconstruction on the PAL parcels (A, B, C, D, E, and H) would be expected to involve minimal vegetation removal because of the previously developed or sparsely vegetated condition of the sites. Any vegetation removal, 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 by using appropriate site-specific BMPs for controlling erosion and runoff. These erosion and sediment control BMPs consist of temporary sediment and multipurpose basins, sediment traps, silt fences, rock and composite check dams, inlet protection, vegetated filter strips, and rock sediment dikes (Fort Jackson 2003). 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, and in accordance with requirements of the Fort Jackson SCDHEC Multi-Sector General Storm Water Permit (SCR03000), Phase II Small Municipal Separate Storm Sewer System General Permit (SCS03000), and Construction General Permit (SCR100000) for construction activities disturbing one acre or more.

No effect on soils would be expected on PAL parcels F and G where the only activities would be interior and minor exterior building renovations. No effect on soils would be expected for Parcels I and J (where only a support lease of property would occur) or Parcels K, L, and M (where only license agreements of property would occur). No construction activities or renovations would occur on these parcels.

No effects on geologic or topographic conditions 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

This section includes a description of surface water, groundwater, and floodplains within Fort Jackson and the PAL footprint. Wetlands are discussed in Section 3.7, Biological Resources.

3.6.1 Affected Environment

Fort Jackson is between two major river systems east and west of the installation—Wateree River and Congaree River, respectively. The eastern half of the installation, which is primarily composed of wooded and vegetated open space, drains into Colonels Creek, which flows southeast along the installation and drains into the Wateree River 8 to 10 miles east of the installation (Gene Stout and Associates 2004). The western half of Fort Jackson, which includes the PAL footprint, drains to the Congaree River (USACE, Mobile District 2007a). That river originates at the confluence of the Broad and Saluda Rivers just west of Columbia, South Carolina. The Congaree and Wateree Rivers merge approximately 16 miles south of Fort Jackson to form the Santee River, which drains into the Atlantic Ocean.

Fort Jackson has 26 lakes, ponds and impoundments, ranging in size from 0.5 to 173 acres (Gene Stout and Associates 2004). Surface water features near the PAL parcels include a tributary south of Parcel A and a perennial stream south of Parcel F. Parcel A is north of a wetland that drains into a tributary from the Lower Legion Lake. Runoff from Parcel F drains into a perennial stream that flows south to Semmes Lake. Water discharging from Fort Jackson flows through Gills Creek, Wildcat Creek, Mill Creek, Weston Lake and Colonel's Creek. Colonel's Creek (water quality station CW-250) and Mill Creek (water quality station C-021) at South Carolina State Route 262 are listed on South Carolina's 2012 impaired water bodies for fecal coliform bacteria (SCDHEC 2012a). This section of Mill Creek is also on EPA's 2010 Clean Water Act Section 303(d) list of impaired waters, which includes 3.7 miles of waterway south of the PAL footprint near Old Houses Pond and Twin Lakes (USEPA 2010). Cedar Creek (Station C-071) is also listed for impaired biota and Gills Creek (C-001) for fecal coliform bacteria (SCDHEC 2012a).

Fort Jackson's Stormwater Management Program (SWMP) includes an active management program that addresses surface water impairments by reducing pollutant loads by implementing BMPs. The SWMP also includes a public education and outreach initiative for improper dumping of oil and household chemicals (Woolpert, Inc. 2010). A construction management program is also included under the SWMP to control sediment runoff and construction waste and construction oversight.

Lakes and streams on Fort Jackson are primarily groundwater fed, because virtually no water drains onto Fort Jackson from off-post. The primary source of groundwater is from the Tuscaloosa Formation, of the Upper Cretaceous age, which supports a water table at ground level throughout most of the installation (Gene Stout and Associates 2004).

No designated 100-year floodplain occurs on any of the proposed PAL parcels (Figure 3-1).

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 B, C, D, E, and H (or possibly A) 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 stormwater retention ponds. Potential adverse effects on the groundwater and surface water systems would be minimized by adhering to the SWMP guidance document. In cases where additional impervious areas are added to an existing parcel (i.e., Parcels B, C, D, and E), additional BMPs would be implemented to account for added stormwater runoff (see Section 3.11, Utilities).

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 gravel scaping) and net increase in impervious surface area (Parcel E and either Parcel A or H). 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 stormwater management, including developing an effective site-specific SWMP and incorporating BMPs for stormwater management into the site design.

Long-term minor beneficial effects would be expected to result from any PAL parcels on which demolition of existing buildings is followed by replacement with vegetated cover, or with pervious, un-vegetated, land-stabilizing gravel-scaping, rather than redevelopment (e.g., Parcels B, C, and D would be used in the short-term for lodging but the buildings would be demolished by the end of the IDP or as the new hotels become operational). 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 activities would be limited to interior and minor exterior building renovations (Parcels F and G) or where there would be no renovation or construction (Parcels K, L, and M).

3.6.2.2 No Action Alternative

No effects on surface or groundwater resources or floodplains would be expected from implementing the No Action Alternative.

3.7 BIOLOGICAL RESOURCES

This section describes the biological resources found throughout Fort Jackson's diversity of habitats that may be affected by the implementation of the preferred alternative. The biological resources discussed are vegetation, wildlife, threatened and endangered species, and wetlands.

3.7.1 Affected Environment

3.7.1.1 Vegetation

Fort Jackson encompasses a wide range of diverse and abundant vegetation communities. Field investigations and surveys have confirmed the occurrence of more than 750 species of flora throughout the installation (USACE, Mobile District 2006). Forest cover is the dominant vegetative type at Fort Jackson. Eight major forest types have been identified including Natural Pine, Pine Plantation, Pine-Scrub Oak, Pine-Hardwood, Scrub Oak, Upland Hardwood, Bottomland Hardwood and Hardwood-Pine (Gene Stout and Associates 2004). Longleaf pines are prominent in Fort Jackson's natural pine forests. They are also the preferred habitat of the red-cockaded woodpecker (RCW) (USFWS 2011). In 1993 Fort Jackson launched a major initiative, in support of the *Endangered Species Management Plan for the Red-cockaded Woodpecker (Picoides borealis) Fort Jackson, South Carolina*, for conserving the longleaf pine ecosystem (Fort Jackson ENRD 2012a).

Fort Jackson has six specially designated natural forest areas that harbor rare species. Designation of these areas was approved by Fort Jackson's Wildlife Branch, Master Planning Office, Directorate of Plans, Training and Mobilization, and the South Carolina Army National Guard Leesburg Training Center. The designated natural areas are protected from disturbances to avoid impacts (Fort Jackson ENRD 2012a). The PAL footprint is not in the designated natural forest areas.

3.7.1.2 Wildlife

Fort Jackson supports a variety of ecosystems and provides habitat to a diversity of species including mammals, birds, fish, reptiles and amphibians, and invertebrates.

Mammals identified at Fort Jackson are typically occurring species in similar habitats throughout South Carolina. Some mammal species observed are the white-tailed deer (*Odocoileus virginianus*), cottontail rabbit (*Sylvilagus floridianus*), fox squirrel (*Sciurus niger*), Eastern gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginianus*) (Gene Stout and Associates 2004). In addition, five mouse species, three shrew species, and two bat species have been identified on Fort Jackson. Approximately 109 species of birds and 68 species of reptiles and amphibians have been documented (Gene Stout and Associates 2004). Fish inventories conducted at Fort Jackson identified the most common fish species as largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), redear sunfish (*L. microlophus*), chain pickerel (*Esox niger*), and channel catfish (*Ictalurus punctatus*). Although it is estimated that Fort Jackson supports a high abundance and diversity of invertebrates, more comprehensive surveys are required to accurately quantify and describe the variety of species present.

3.7.1.3 Threatened and Endangered Species

Flora. Two federally listed plant species have been documented at Fort Jackson (Gene Stout and Associates 2004), the rough-leaved loosestrife (*Lysimachia asperulaefolia*) and the smooth coneflower (*Echinacea laevigata*). The rough-leaf loosestrife was listed in 1987 as endangered under the provisions of the Endangered Species Act of 1973, as amended. It is a perennial herb. In South Carolina, it is found only in Fort Jackson (Fort Jackson ENRD 2012a). The species generally occurs in longleaf pine uplands and dense areas of shrub and vine (USFWS 2012a). The preferred substrate of the rough-leaved loosestrife is seasonally saturated sands and shallow

organic soils overlaying sands (USFWS 2012a). Common threats to the species are drainage, conversion of habitat, and fire suppression (USFWS 1995).

The smooth coneflowers are a perennial herb typically found in open woods, glades, cedar barrens, roadsides, clear-cut areas, dry limestone bluffs, and power line rights of way (USFWS 2012b). The species' preferred substrate has magnesium and calcium rich soils (USFWS 2012b). Although found at Fort Jackson, research indicates that the species was likely introduced to the site (Nelson and Kelly 1995). Smooth coneflowers are listed as endangered under the provisions of the Endangered Species Act of 1973, as amended. Common threats to the species are fire suppression and habitat destruction from residential and commercial development. To protect the species and promote smooth coneflower survival, Fort Jackson collaborated with the U.S. Fish and Wildlife Service, Clemson University, and the U.S. Forest Service to harvest and sow smooth coneflower seeds (Fort Jackson ENRD 2012a).

Rough-leaved loosestrife is found on the eastern edge of the east (artillery) impact area. Smooth coneflower has been documented in Training Area 29B. Neither species occurs on or near the PAL footprint (USACE, Mobile District 2007a).

Fauna. One federally listed species has been documented at Fort Jackson, the RCW (*Picoides borealis*). The RCW is a non-migratory bird. It has been listed as endangered since the Endangered Species Act was passed in 1973 (USFWS 2003). Mature pine forests, specifically the longleaf pines, are the preferred foraging and nesting habitat of the RCW. Common threats to RCW are the loss of original habitat, fire suppression, and detrimental silvicultural practices (USFWS 2003). To protect the species and its preferred habitat, Fort Jackson has maximized the quality of old-growth habitat, constructed and installed artificial cavities, installed excluder devices to prevent predation, and moved 10 RCW to Fort Jackson (Fort Jackson ENRD 2012a). The PAL footprint is in the cantonment area, and the *Endangered Species Management Plan for the Red-cockaded Woodpecker (Picoides borealis) Fort Jackson, South Carolina* has excluded the cantonment area from the defined RCW Habitat Management Unit (i.e., the area to be managed for RCW current and future use). For some years, RCWs have not used former RCW trees close to the proposed PAL Parcel A, which are no longer considered active (Metts 2012, personal communication).

3.7.1.4 Wetlands

EPA defines wetlands as areas where water covers the soil or is either at or near the surface of the soil all year long or for varying periods during the year (USEPA 2012c). Wetlands are known to support both aquatic and terrestrial species. It is estimated that approximately 5,250 acres of wetlands occur in Fort Jackson (Gene Stout and Associates 2004). Wetlands found in Fort Jackson are nontidal wetlands defined as occurring on floodplains along rivers and streams, in isolated depressions surrounded by dry land, along the margins of lakes and ponds, and in other low-lying areas where precipitation sufficiently saturates the soil (USEPA 2012c).

No wetlands are located in, or within close proximity to, PAL Parcels B, C, D, E, H, I, J, K, L, or M. Wetlands have been documented near Parcels A, F, and G (Figure 3-1). In accordance with the Clean Water Act section 404(b)(1) guidelines, wetland impacts are first avoided, and if unavoidable are minimized to the maximum extent practicable. Section 404 delegates jurisdictional authority over wetlands to the U.S. Army Corps of Engineers and EPA (Gene Stout and Associates 2004). Permits from the U.S. Army Corps of Engineers should be obtained for unavoidable effects on wetlands.

3.7.2 Environmental Consequences

3.7.2.1 Preferred Alternative

Vegetation. Short- and long-term minor adverse effects on vegetation would occur from removing trees or other vegetation for drop-off area and parking lot construction on Parcels B, C, and D and new hotel construction at Parcel E and at Parcel A or H. BMPs would be employed for all equipment staging and construction activities to minimize potential effects on surrounding vegetation. Buffers would be maintained during construction. The project would also comply with the Fort Jackson *Integrated Natural Resources Management Plan* to minimize potential effects on vegetative communities.

Wildlife. Short- and long-term minor adverse effects on transitory wildlife (i.e., birds, mammals) could occur. As a result of renovation and demolition activities at Parcels B, C, D, E, F, G, H, and J, effects would be expected to be minor to negligible because the parcels are in developed areas. Effects would be minimized or avoided by implementing BMPs. Long-term minor adverse effects on wildlife would be likely from removing vegetation and earth-moving activities if a new hotel would be constructed at Parcel A. Development on the wooded area of Parcel A would result in the loss of habitat for associated wildlife. BMPs would be implemented, and buffer zones around the construction site would be maintained to minimize potential effects. These effects would be avoided if Parcel H (the preferred new build site) is selected for the new hotel construction.

Threatened and Endangered Species. No effects on threatened and endangered species would be expected from implementing the proposed action. No federally listed species have been documented in the PAL parcels, and the *Endangered Species Management Plan for the Red-cockaded Woodpecker (Picoides borealis) Fort Jackson, South Carolina* excludes the cantonment area from the defined RCW Habitat Management Unit. Because no RCW or other threatened or endangered species are in the proposed PAL areas, formal consultation with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act is not required.

Wetlands. Short- and long-term, minor, adverse effects on wetlands could be expected. Short-term effects on wetlands could result from renovation activities at Parcels F and G. Such minor effects would be minimized or avoided by implementing BMPs and maintaining buffer zones around construction equipment and activities. Long-term minor adverse effects on wetlands could result from vegetation- and land-clearing activities if a new hotel is constructed at Parcel A. Wetlands delineation is needed to confirm the wetland boundary near Parcel A. Once identified, a buffer zone would be maintained to avoid potential effects on wetlands. Effects on wetlands can be avoided if Parcel H (the preferred new build site) is selected for the new hotel construction.

3.7.2.2 No Action Alternative

No effects on biological resources would be expected under the No Action Alternative. No flora or fauna would be disturbed under the No Action Alternative.

3.8 CULTURAL RESOURCES

3.8.1 Affected Environment

Cultural resources are historic properties (buildings, structures, districts, landscapes, and viewsheds as defined by the National Historic Preservation Act, Native American sites,

archaeological sites, districts, and objects that are eligible for or listed on the National Register of Historic Places (NRHP); cultural items, as defined in the Native American Graves Protection and Repatriation Act of 1990; Native American sites for which access is protected under the American Indian Religious Freedom Act of 1978; archaeological resources, as defined by the Archaeological Resources Protection Act of 1979 and Antiquities Act of 1906; Army Regulation 200-4; and archaeological artifact collections and associated records, as defined at 36 CFR Part 79. The cultural resources region of influence (ROI) for the proposed action includes the project footprint, project depths, and adjacent properties.

The significance of cultural resources is measured with reference to the criteria for inclusion in the NRHP. Cultural resources can be of three categories: archaeological, built environment, and traditional. Archaeological resources are locations where prehistoric or historic activity altered the earth or produced deposits of physical remains. Built environment resources are architectural/engineering resources that include standing buildings, dams, canals, bridges, and other structures of historic significance. Built environment resources generally must be more than 50 years old to be considered for inclusion in the NRHP. However, more recent structures, such as Cold War era resources, might warrant protection if they manifest *exceptional significance* or the potential to gain significance in the future. Traditional cultural properties (TCPs) are resources associated with the cultural practices and beliefs of a living community that are rooted in its history and are important in maintaining the continuing cultural identity of the community.

The South Carolina Department of Archives and History State Historic Preservation Office and federally recognized Native American Indian tribes have been contacted concerning the proposed action (see Appendix B). If the agency or the tribes raise concerns regarding the resources under their jurisdictions, discussion of the issues will be added to this EA.

3.8.1.1 Archaeological Resources

Prehistoric and historic-era archaeological resources have been identified at Fort Jackson. The Fort Jackson Integrated Cultural Resources Management Plan provides a summary of known cultural resources and the prehistoric and historic setting of the installation, a framework for complying with historic preservation regulations, and procedures for identifying cultural resources and managing cultural resources. While both prehistoric and historic era sites have been identified during archaeological survey of Fort Jackson, no archaeological resources have been recorded in the ROI for the proposed PAL project (SCIAA 2008).

An archaeological survey has been completed at Fort Jackson in all areas where surveying is permitted (SCIAA 2008). Cultural resources surveys have been conducted for the PAL project sites (Fort Jackson ENRD 2012b). To date, 26 archaeological investigations have been completed at Fort Jackson, including 11 surveys (Phase I), 13 site evaluations (Phase II), 1 combined Phase I/II effort, and 1 data recovery (Phase III). A total of 672 archaeological sites have been recorded at Fort Jackson, of which 608 have been determined not eligible for listing in the NRHP. No sites, either eligible or not eligible, are in the ROI of the proposed PAL action.

3.8.1.2 Built Environment Resources

According to an inventory taken in 2007, Fort Jackson has approximately 1,400 buildings (SCIAA 2008). To document and evaluate these built environment resources, four historic resources surveys have been conducted at Fort Jackson. No eligible historic landscapes or

military landscapes were identified at Fort Jackson, and no NRHP-eligible structures are in the PAL project ROI (Knight Newlan, and Associates 1997; SCIAA 2008).

The proposed action includes 19 buildings in the Fort Jackson cantonment area. None of the buildings involved are NRHP-eligible properties (Table 3.8-1). Three of the buildings (1531, 1532, and 1541) were storage and maintenance structures built in 1941, and the other 15 buildings (2785, 3265, 3275, 3276, 3260, 3270, 3235, 3215, 3210, 10300, 7550, 6000, 2462, 2464, 2466, and 3230) are less than 50-years old. Because they are over 50 years old, buildings 1531, 1532, and 1541 (Parcel I) could be eligible because of their association with the Cold War. However, support facilities, such as these three buildings, are normally not considered of exceptional importance when evaluating Cold War facilities if they are within the context of standard Army development. As support buildings, buildings 1531, 1532, and 1541 would have been built regardless of the Cold War, and they have been evaluated as not eligible resources at Fort Jackson (SCIAA 2008).

**Table 3.8-1.
NRHP status of Fort Jackson PAL Preferred Alternative structures**

Parcel	Building	Building name	Year built	NRHP status
A	2785	Kennedy Hall	1972	Not eligible
B	3265	Magruder Barracks	1966	Not eligible
B	3275	Magruder Barracks	1966	Not eligible
B	3276	Magruder Barracks	1966	Not eligible
B	3260	N/A – company operations	1967	Not eligible
B	3270	N/A – classroom	1966	Not eligible
C	3235	Magruder Barracks	1966	Not eligible
D	3215	Magruder Barracks	1966	Not eligible
D	3210	N/A – former dining facility	1967	Not eligible
E	10300	Dozier Hall	1998	Not eligible
F	7550	Fort Jackson Inn	2010	Not eligible
G	6000	Palmetto lodge	1984	Not eligible
H	2462	Administrative – Battalion HQ	1976	Not eligible
H	2464	Anderson Hall	1976	Not eligible
H	2466	Anderson Hall	1976	Not eligible
I	1531	N/A – storage	1941	Not eligible
I	1532	N/A – electrical/paint shop	1941	Not eligible
I	1541	N/A – admin./mechanical	1941	Not eligible
J	3230	N/A – company operations	1966	Not eligible

Comments issued by the Advisory Council on Historic Preservation in 2002 and the Army's fulfillment of those requirements in 2003 negates further compliance actions for family housing, associated structures, and landscape features built between 1949 and 1962. In August 2006 the Advisory Council on Historic Preservation issued Program Comments for Cold War Era (1946–1974) Unaccompanied Personnel Housing and World War II and Cold War Era (1939–1974)

Ammunition Storage Facilities. The program comments fulfill all section 106 consultation and mitigation responsibilities for those properties (SCIAA 2008).

3.8.1.3 Traditional Resources

A TCP is defined as a place that is eligible for the NRHP because of its association with cultural practices or beliefs of a living community that (1) are rooted in that community's history, and (2) are important in maintaining the continuing cultural identity of the community. Fort Jackson has no identified TCPs, and the federally recognized Native American Indian tribes have not inquired about or informed Fort Jackson of any TCPs or sacred sites in the installation.

3.8.2 Environmental Consequences

3.8.2.1 Preferred Alternative

In accordance with 36 CFR Part 800, the implementing regulations for the National Historic Preservation Act, an adverse effect on cultural resources is found when the proposed action could alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion on the NRHP in a manner that would diminish the integrity of a property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects could include reasonably foreseeable effects caused by the proposed action that occur later or farther removed in distance or that are cumulative.

Adverse effects on historic properties include any of the following:

- Physical destruction of or damage to all or part of the property
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines
- Removal of the property from its historic location
- Change of the character of the property's use or of physical features within its setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

For the purposes of this EA analysis, effects on cultural resources are considered significant if prehistoric or historic-era resources that are eligible for listing or are formally listed on the NRHP are disturbed or destroyed. Direct effects are those in which project activities disturb or destroy the integrity of NRHP-listed or NRHP-eligible cultural resources. This can include ground-disturbing activities, noise or other vibrations, renovation, or removal. Indirect effects are those that might occur later but that can be reasonably predicted at the time of project implementation. A significant adverse impact also could occur if the project activities were not to abide by the established management documents, such as the Integrated Cultural Resources Management Plan, or agreement documents, such as a Programmatic Agreement and specified lease provisions.

Archaeological resources. No effects would be expected. No archaeological sites have been identified or are suspected to be on the PAL parcels. Implementing the PAL program as proposed would have no adverse effects on Fort Jackson archaeological resources.

Built environment resources. No effects would be expected. No historic structures have been identified or are suspected to be on the PAL parcels. Implementing the PAL program as proposed would have no adverse effects on NRHP-eligible structures at Fort Jackson.

Traditional resources. No effects would be expected. No TCPs or sacred sites have been identified at Fort Jackson by the federally recognized Native American Indian tribes or by local community groups. Implementing the PAL program as proposed would have no adverse effects on traditional resources at Fort Jackson.

3.8.2.2 No Action Alternative

Under the No Action Alternative, the Army would not implement the PAL program at Fort Jackson. The No Action Alternative would have no adverse effects on Fort Jackson cultural resources because no activities would occur.

3.9 SOCIOECONOMICS

3.9.1 Affected Environment

This section describes the economy and the sociological environment of the ROI surrounding Fort Jackson. An ROI is a geographic area selected as a basis on which social and economic impacts of project alternatives are analyzed. The ROI for the social and economic environment is defined as Lexington and Richland counties, South Carolina. Socioeconomic data for South Carolina and the United States are presented for comparative purposes.

3.9.1.1 Regional Economy

Employment and Industry. Labor force and unemployment data are shown in Table 3.9-1. The region's labor force increased 11 percent between 2000 and 2010, higher than the state and national labor force growth of 8 percent. The ROI 2010 annual unemployment rate was 9 percent, lower than the state and national unemployment rates of 11 percent and 10 percent, respectively. The primary sources of ROI employment were government and government enterprises; retail trade; health care and social assistance; and other services (such as equipment and machinery repairing, religious activities, grant making, advocacy, dry cleaning, and such, except public administration). Together, those industry sectors accounted for almost 50 percent of regional employment (BEA 2012). Fort Jackson is a major contributor to the local, regional, and state economy. The fort is the largest and most active Initial Entry Training Center in the U.S. Army, training 50 percent of all Soldiers. More than 3,500 active duty Soldiers and about 12,000 family members are assigned to the installation. Fort Jackson employs almost 3,500 civilians and provides services for more than 46,000 retirees and their family members. An additional 10,000 students annually attend courses at the Soldier Support Institute, Chaplain Center and School, and Drill Sergeant School (Fort Jackson 2012).

**Table 3.9-1.
Labor force and unemployment**

	2000 civilian labor force	2010 civilian labor force	Change in labor force, 2000–2010	2010 annual unemployment rate
ROI	282,345	314,608	11%	9%
South Carolina	1,988,159	2,150,576	8%	11%
United States	142,583,000	153,889,000	8%	10%

Source: BLS 2012

Income. ROI income levels were higher than state but lower than national income levels (Table 3.9-2). The ROI per capita personal income (PCPI) was \$24,985, which is 113 percent of the state PCPI of \$22,128 and 96 percent of the national per capita income of \$26,059. The ROI median household income of \$48,760 was 116 percent of the state median household income of \$42,018 and 97 percent of the national median household income of \$50,046 (U.S. Census Bureau 2012).

**Table 3.9-2.
2010 Income**

	PCPI	Median household income
ROI	\$24,985	\$48,760
South Carolina	\$22,128	\$42,018
United States	\$26,059	\$50,046

Source: U.S. Census Bureau 2012

Population. The ROI's 2010 population was almost 646,900, an increase of about 110,200 persons since 2000. The ROI's population growth of 21 percent was higher than the state and national growth rates of 15 percent and 10 percent, respectively (Table 3.9-3).

**Table 3.9-3.
Population**

	2000 population	2010 population	Change in population, 2000–2010
ROI	536,691	646,895	21%
South Carolina	4,012,012	4,625,364	15%
United States	281,421,906	308,745,538	10%

Source: U.S. Census Bureau 2011a, 2011b

3.9.1.2 Quality of life

Lodging. The Fort Jackson lodging facilities are described in Section 2.3. During a 6-year (Fiscal Year 2001 through 2006) Army market study of the lodging program, demand for on-post lodging was found to average 93 percent official temporary duty, 3 percent permanent change of station, and 4 percent unofficial travelers. The large number of temporary duty travelers is the result of Fort Jackson's school requirements because the installation is the largest and most active Initial Entry Training Center in the U.S. Army. Over the 6-year study period, the Fort Jackson Army Lodging operation maintained an average annual occupancy rate of 76 percent.

Typically, Fort Jackson lodging experiences reduced daily demand from late November to early January, when the students are not in session. When Soldiers on temporary duty, permanent change of station, or unofficial demand cannot be accommodated on-post, they receive Certificates of Non-Availability to stay at an off-post hotel.

Emergency services. The Fort Jackson Directorate of Emergency Services provides professional law enforcement and firefighting operations for the installation. Fort Jackson law enforcement oversee policing operations, physical security, patrols, general and absent without leave investigations, training, traffic accident and criminal investigations, force protection, fish and wildlife law enforcement, and crime prevention education. The Fort Jackson Fire Department provides emergency response to all fire-related incidents, response to hazardous materials accidents, specialized rescues, fire prevention inspections and code enforcement, and fire safety training. It also assists Moncrief Army Hospital's ambulance section with emergency medical services response.

Moncrief Army Community Hospital, Fort Jackson's primary medical service facility, offers a wide range of medical and dental services to active duty personnel, their dependents, and military retirees. McWethy Troop Clinic, adjacent to the hospital, provides health care for Soldiers-in-training, Soldiers on temporary duty, and reserve component personnel on drill or annual training status. The installation also has three dental clinics.

3.9.1.3 Environmental Justice

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, was issued by President Clinton on February 11, 1994. 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.

According to the U.S. Census Bureau 2010 census, minority populations composed 42 percent of the ROI's total population. That is higher compared to the South Carolina and national minority population of 36 percent (U.S. Census Bureau 2011c). The ROI poverty rate was 15 percent, lower compared to the South Carolina poverty rate of 18 percent but the same as the national poverty rate (U.S. Census Bureau 2012).

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 at Fort Jackson as residents and visitors (e.g., residing in on-post family housing, using recreational facilities, attending on-post events). The Army takes precautions for their safety through a number of means, including using fencing, limiting access to certain areas, and requiring 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 a given 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 is 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. That 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 C discusses the 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 Jackson lodging would increase ROI sales volume, employment, and income, as determined by the EIFS model (Table 3.9-4 and Appendix C). The economic benefits would last only for the duration of the construction and development period. Such changes in sales volume, employment, and income would be within historical fluctuations (i.e., within the RTV range) and would be considered minor.

**Table 3.9-4.
EIFS model output**

Variable	Projected total change	Percent change	RTV range
Sales (business) volume	\$35,899,590	0.13%	-5.71% to 10.01%
Income	\$6,174,130	0.05%	-5.35% to 9.68%
Employment	155	0.04%	-3.02% to 2.22%
Population	0	0.00%	-0.65% to 2.59%

Source: EIFS model

Lodging. Long-term minor beneficial effects on on-post lodging would be expected to occur. The availability of quality, on-post lodging facilities that meet government per diem rates is important to Soldiers when they are on temporary duty or permanent change of station. It also is important to the installation to be able to accommodate Soldiers and guests in suitable lodging equal to that of off-post lodging. Under the Preferred Alternative, the developer would renovate existing lodging and construct two new facilities to provide a sufficient number of on-post rooms to meet Fort Jackson's lodging requirements. The installation would have renovated and new hotels with standard rooms, distinguished visitor quarters, and suites having living space, kitchenettes, bedrooms, and baths; and guest amenities preferred by today's travelers such as high-speed

Internet access, complimentary breakfast, business and fitness centers, guest laundry, and 24-hour convenience stores.

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 Jackson property within the jurisdiction of the Fort Jackson Directorate of Emergency Services, which would respond to emergencies at privatized lodging facilities as it does with existing facilities on the installation, at a cost-reimbursable basis to the developer. 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).

Environmental Justice and Protection of Children. No effects would be expected. The Preferred Alternative of renovating and constructing lodging facilities on Fort Jackson would not result in disproportionate adverse environmental or health effects on low-income or minority populations or children. The Preferred Alternative is not 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 would be expected on quality of life. 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 do 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 given current funding levels.

3.10 TRAFFIC AND TRANSPORTATION

3.10.1 Affected Environment

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

On-Post Roadways and Gate Traffic. Fort Jackson has more than 207 miles of roads, of which approximately 110 are paved and 74 are unpaved. The paved roads have a bituminous surface and are in generally fair condition. The loose surface and dirt roads are in the training and range areas outside the cantonment area. In the cantonment area, the roadways form a loose grid pattern. The east-west primary roads are Boyden Arbor Road, Hampton Parkway, Strom Thurmond Boulevard, Semmes Road, and Washington Road. The north-south primary roads are Jackson Boulevard, Lee Road, and Dixie Road. In general, few issues with traffic congestion or circulation occur in the cantonment on normal weekdays (Fort Jackson 2011a). Several intersections along Strom Thurmond Boulevard, Semmes Road, and Forest Drive are congested or partially congested during peak travel periods (MSD and DCTEA 2011).

Fort Jackson can be accessed by four gates that are equipped with common access card readers that allow efficient for registered holders. All visitors are to enter through Gate 4 (Boyden Arbor Road). Gate 1 (Fort Jackson Boulevard), 2 (Main Gate to Strom Thurmond), and 5 (Semmes Road) are all for registered Army and Department of Defense card holders. Those gates also use

the common access card system. During peak commuter periods on normal weekdays, queuing and congestion occur at Gates 1, 2, and 4 causing substantial delays. Inbound, the queue of traffic waiting to be processed through the gates can accumulate onto I-77 (Fort Jackson 2011a).

Off-Post Roadways. Primary access to the installation is provided by Forest Drive, Jackson Boulevard, and I-77. Strom Thurmond Boulevard and Fort Jackson Boulevard provide access to Fort Jackson's main cantonment via interchanges with I-77. Fort Jackson Boulevard and Gate 1 connect the southern portion of the cantonment to I-77; Forest Drive/South Carolina State Route 12 (SC 12)/Strom Thurmond Boulevard and Gate 2 provide access to the western and northern portion of the cantonment. Since I-77 was completed, most personnel residing off-post use Gate 2 for daily access to the installation. Various secondary roads provide access to the installation from the north, south, east, and west. Table 3.10-1 highlights nearby roadways and their annual average daily traffic (AADT) volumes (Fort Jackson 2011a).

**Table 3.10-1.
Fort Jackson nearby roadways and AADT**

Roadway	AADT
I-77 at Fort Jackson Boulevard Exit	58,300
I-77 to SC 12/Strom Thurmond Boulevard	71,400
Strom Thurmond Boulevard at SC 12	17,100
Fort Jackson Boulevard	60,000
Carmers Ferry Road (378) to Fort Jackson Boulevard	77,000

Source: SCDOT 2010

Air, Rail, Bicycle, and Public Transportation. McEntire Joint Air National Guard Base provides air operations 8.5 miles south of Fort Jackson (Fort Jackson 2011a). The closest regional airport to Fort Jackson is Jim Hamilton L.B. Owens Airport, approximately 3 miles southwest of the cantonment. This regional airport provides 153 average daily operations (AirNav 2012). Two permanent concrete helicopter landing pads are in the cantonment area and are used mainly for medical evacuation (Fort Jackson 2011a).

An Amtrak station is on Pulaski Street in downtown Columbia. This station is part of the Silver Service/Palmetto Amtrak route, which connects to New York, New York; Washington, DC; Charleston, South Carolina; Savannah, Georgia; Jacksonville, Orlando, Tampa, and Miami, Florida (MSD and DCTEA 2011).

Public transit on Fort Jackson is provided by Central Midlands Regional Transit Authority, which serves the Midlands area of South Carolina. The transit authority provides service to the perimeter of the installation by Route 5. Bus service is offered Monday through Saturday from 7:20 a.m. to 8:55 p.m. and 7:20 a.m. to 5:05 p.m. on Sunday. Route 5 begins at the Sumter and Laurel Training Center and has 14 stops on-post within walking distance of all PAL parcels (CMRTA 2012).

3.10.2 Environmental Consequences

3.10.2.1 Preferred Alternative

Short- and long-term minor adverse effects would be expected. Short-term effects would be from construction related traffic. Long-term effects would be from changes in on- and off-post traffic from the proposed hotels. Construction vehicles would be scheduled and routed to minimize conflicts with other traffic. During these phases, construction vehicles and day labor traffic would have a minor adverse effect.

On-Post Roadways, Gate Traffic, and Parking. Implementing the Preferred Alternative would increase overall on-post vehicle trips per day by 139 at full occupancy. Specifically, the increase in units would reduce traffic from patrons and lodging staff to Parcels B, C, and D, by 3,758 vehicle trips per day and 2,688 trips would be routed to Parcel E and 1,209 trips would be routed to Parcel H or A, depending on which site is selected (ITE 2003).

Vehicles accessing the proposed hotel on Parcel E would contribute to the congestion along Strom Thurmond Boulevard during peak periods. Failing lanes at intersections along Strom Thurmond Boulevard are primarily from northbound traffic on the south side of the roadway (MSD and DCTEA 2011). Because the additional traffic from the proposed hotel at Parcel E would be north of the roadway, it would have only a small effect. Rerouting traffic away from Parcels B, C, and D would have a minor beneficial effect on the intersection of Strom Thurmond Boulevard and Magruder Avenue. The effects would be minor.

No congested intersections are adjacent to Parcel H; therefore, vehicles accessing the proposed lodging would not have an appreciable effect on any failing intersection. Vehicles accessing the proposed hotel on Parcel A would contribute to the congestion at the intersection of Lee Road and Semmes Road during peak periods, particularly for traffic traveling east from the hotel (MSD and DCTEA 2011). As with Parcel E, rerouting traffic away from Parcels B, C, and D would have a minor beneficial effect on the intersection of Strom Thurmond Boulevard and Magruder Avenue. The effects would be minor.

In general, implementing the Preferred Alternative would correspond to a small net increase in the miles traveled on-post. Individuals accessing the renovated hotels would use similar gates as currently used to access the existing lodging facilities. It is not expected that traffic at any gate would change substantially from implementing the Preferred Alternative. The effects would be minor.

Rest Easy would ensure that adequate parking is provided at the hotels. Short-term drop-off and parking areas for guests staying at the Magruder Barracks would be built on Parcels B, C, and D to accommodate tenants in the Magruder Barracks lodging buildings and, in addition, within the bounds of the Parcels K, L, and M parking lots would be non-exclusive licensed areas to ensure adequate parking spaces for lodging guests. Drop-off areas and parking lots would be constructed with the new hotels at Parcels E and A or H. These effects would be minor.

Fort Jackson has planned improvements to the on-post transportation network to alleviate congestion by creating new roadways, a specific truck inspection gate and route providing direct access to the cantonment area, and expanding existing roadways with signaling improvements (Fort Jackson 2011a). These planned improvements would reduce the already minor effects the Preferred Alternative would have.

Off-Post Roadways. The small net increase in lodging units would constitute a corresponding increase of approximately 139 vehicle trips per day at full occupancy either originating at or destined to the installation (ITE 2003). Many of those trips would occur at peak periods and would account for some small amount of off-post traffic. This would constitute a minute change in off-post traffic and not appreciably affect any nearby roadways or intersections. Note that the overall increases in the traffic would be from the changes in mission requirements and not from implementing the PAL program in and of itself. These effects would be negligible.

Air, Rail, and Public Transportation. The Preferred Alternative would have no appreciable effect on air, rail, or public transportation.

3.10.2.2 No Action Alternative

Selecting the No Action Alternative would result in no effect on transportation resources. No construction would occur, and no new lodging operations would take place. Traffic and transportation conditions would remain as described in Section 3.10.1.

3.11 UTILITIES

3.11.1 Affected Environment

All utility services, including water, wastewater, gas, electricity, and communications, are available near the proposed parcels. The utility components discussed in this section include water supply, wastewater system, stormwater drainage, electricity, natural gas, solid waste management, and communications.

Wastewater. Sanitary sewage generated at Fort Jackson is collected in sewer mains ranging from 2 to 16 inches in diameter. The layout of the wastewater collection system conforms to the installation's three major drainage basins and extends throughout the cantonment area. The on-post collector system discharges sanitary sewage into Columbia's sanitary sewage system at a metering station. In February 2008, operation and maintenance of the installation wastewater collection system, including the Weston Lake Recreation Area, was contracted to Palmetto States Utility Service for 50 years. Major upgrades to the sanitary sewer system are underway (Fort Jackson 2011a).

Stormwater. Fort Jackson operates from a National Pollutant Discharge System Permit (Number SCG731156) effective April 2011 and expires December 2015 (USEPA 2012d). Four stormwater detention basins are on the installation. They are at Tank Hill landfill, Ivy Road landfill, and two at inactive landfills at Washington Road (east of Parcel A) and Lee Road (East of Parcels E and F) (Fort Jackson 2011b). Note that the retention pond directly south of Parcel E and F (see Figure 2-5) is at maximum capacity.

Solid Waste. An inactive landfill adjacent to Parcel G on Lee Road is now a stormwater detention basin (Fort Jackson 2011b). Municipal solid wastes generated on-post are placed in dumpsters and collected, transported, and disposed of by a private contractor in an off-post municipal solid waste landfill. The Department of Defense has directed Fort Jackson to continuously reduce the quantity of nonhazardous solid waste generated, increase the percentage of nonhazardous solid waste diverted from disposal facilities (diversion rate), and increase the economic benefit of solid waste diversion (Metts 2011).

Fort Jackson was part of the Deconstruction Waste Diversion project where 100 percent of the concrete from seven structures (including a 19,750-square-foot cold-storage building) was stockpiled for crushing and later reuse throughout the installation. The project reused approximately 95 percent of the processed concrete on the installation for road improvements (USAEC 2012).

Potable Water Supply. The primary water source for Fort Jackson is the city of Columbia. The Fort Jackson water system connects to the city's water system at six points in the cantonment area and at one point outside the installation. The installation's water system was privatized in 2008. Palmetto State Utility Service is responsible for supplying water and operating the potable water system. The main potable water source is the Broad River (PSUS 2011).

Natural Gas. The Fort Jackson Directorate of Public Works owns, operates, and maintains the natural gas distribution system at Fort Jackson, which is used primarily for heat and hot water generation. South Carolina Electric and Gas (SCE&G) supplies natural gas to the installation through a regulator and meter station north of Gate 1. The system can be supplemented by three 60,000-gallon buried propane tanks adjacent to Central Energy Plant (CEP) #2 when supply is limited (Fort Jackson 2011a).

Geothermal. Palmetto Lodge (on Parcel G) and Kennedy Hall (on Parcel A) have geothermal heating and cooling systems; however, Kennedy Hall is no longer operational. These geothermal systems are included in the PAL parcel boundaries.

Electricity. The installation owns, operates, and maintains the electric distribution system at Fort Jackson. The distribution system provides power for about 800 buildings, including the four CEPs. The CEPs consume the largest amount of electricity on-post. SCE&G supplies the power to the installation through a single substation. A 115-kilovolt ampere overhead distribution line connects to SCE&G's substation at the intersection of Lee Road and Hill Street. Current conditions indicate that the electric capacity has exceeded 80 percent. There are plans to construct a second 44.8-megavolt ampere substation in the northwest corner of the installation to provide redundancy to the electric distribution system. Both substations will have expandable capability if the future consumption exceeds 89.6 megavolt amperes (Fort Jackson 2011a).

Communications. The Network Enterprise Center, which is essentially the Army's defense network, provides the telephone and Internet connections to all the buildings on-post, with the exception of the family housing areas, which have a system independent of the post's telecommunications system (Fort Jackson 2011a).

3.11.2 Environmental Consequences

3.11.2.1 Preferred Alternative

Short- and long-term minor adverse and long-term minor beneficial effects on utilities would be expected. Short-term effects would result from adding debris from construction of the new lodging facilities and demolition of existing buildings to the landfill. Long-term effects would be from the small increase in utility systems usage from the changes in operations of on-post lodging. The existing infrastructure for all utilities would be adequate for projected demands from the proposed lodging facilities. B2785 (Kennedy Hall, Parcel A) is connected to a geothermal system that, if abandoned, would require the prior approval of the SCDHEC.

Implementing the Preferred Alternative would generate approximately 17,270 tons of construction and demolition debris (Table 3.11-1). Approximately half of the debris would be recycled, which would result in about 8,635 tons of nonhazardous construction and demolition debris for disposal in an off-site landfill. Note that as part of the recycling effort, the Deconstruction Waste Diversion project would reuse the concrete for on-post roadway projects.

**Table 3.11-1.
Summary of construction and demolition debris**

	Type	Debris generation rate (lb/sq ft)	Debris generated (tons)	Quantity recycled (50%) (tons)	Total quantity disposed of in the landfill (tons)
Construction					
246,400 sq ft	Nonresidential	4.4	542.1	271.0	271.0
Demolition					
250,930 sq ft	Nonresidential	115.0	14,428.5	7,214.2	7,214.2
Renovation					
229,900 sq ft	Nonresidential	20.0	2,299.0	1,149.5	1,149.5
Total			17,269.6	8,634.8	8,634.8

Source: USEPA 1998

Note: lb = pound; sq ft = square feet.

A slight increase in utility systems usage would be expected from implementing the Preferred Alternative. Utility lines are at the adjacent residential and commercial properties with full utility service, alleviating the need for new service connections. The quantities of potable water, wastewater, electricity, natural gas, and solid waste that the occupants in the proposed lodging would produce might affect a slight increase in utility usage. Note that the overall utility needs per lodging unit would be lower than existing because newer construction would conform to Leadership in Energy and Environmental Design standards. Responsibility of utilities would be transferred to Rest Easy. As a result of the Preferred Alternative, Rest Easy would need to establish separate metered utility service for potable water, electricity, natural gas, and communications.

The retention pond south of Parcel F is at maximum capacity. Parcel F does not include this retention pond, but the PAL lease would give Rest Easy the ability to expand the retention pond or construct an additional supporting retention/detention pond under a different U.S. Army Corps of Engineers real estate tool (e.g., right-of-entry), to account for the additional stormwater runoff. The pond would need to be rehabilitated to accommodate the additional runoff from the proposed hotel on Parcel E. In the final design stage, the contractor must ensure that the proposed lodging facility construction on Parcel E does not aggravate the existing stormwater issues on Parcel F or in the immediate area. The effects would be minor. New parking lots at Parcels B, C, D, and E would be connected to the existing stormwater system and BMPs would be implemented to account for runoff from the increase in impervious surfaces.

3.11.2.2 No Action Alternative

No effects on utility systems would be expected from implementing the No Action Alternative, under which the environmental baseline would not change. Utility conditions would remain as described in Section 3.11.1.

3.12 HAZARDOUS AND TOXIC SUBSTANCES

3.12.1 Affected Environment

According to GIS data and an environmental questionnaire that Fort Jackson installation personnel completed for the PAL effort, Parcel G (the Palmetto Lodge, B6000) abuts an inactive sanitary landfill identified as Solid Waste Management Unit (SWMU) #2. The landfill was used as Fort Jackson's primary landfill from 1941 to 1951. Refuse such as domestic waste; petroleum, oil, and lubricants; and water and wastewater treatment plant sludge were burned and buried in trenches (USACE, Mobile District 2007b). On the basis of geophysical investigations that were conducted after the Palmetto Lodge was constructed, the extent of the landfill boundary and an area of disturbance were determined. The landfill boundary stops short of the northeastern property boundary; however, the area of disturbance that was associated with the landfill encompasses the lodge area (Arcadis 2006). Historical sampling at the SWMU has included surface and subsurface soil, groundwater, surface water, sediment, and soil gas. Laboratory analysis and human health and ecological risk assessments of identified contaminants revealed no unacceptable risks associated with the constituents or media; therefore, no extensive evaluation of remedial alternatives were required (Fort Jackson No Date a). The installation has implemented measures such as establishing land use controls, erosion control measures, and inspecting and monitoring soil cover and groundwater at the SWMU and the proposed PAL Parcel G. In accordance with Fort Jackson's Resource Conservation and Recovery Act permit, any construction activities at Parcel G will require installation and SCDHEC approval.

Other SWMUs that are near the PAL parcels are the inactive Tank Hill Landfill site (SWMU #6), which is more than 1,000 feet to the east of Parcel E, and the former Weapons Pool Solvent Tank (SWMU #49), which is more than 500 feet west of Parcel B. These sites would not be expected to affect the environmental condition of the PAL parcels. Fort Jackson holds a Hazardous Waste Permit (Number SC3210020449) for storage of hazardous waste, which was issued February 2010 and expires March 2020 (SCDHEC 2012b).

Some of the PAL parcels are known to have had underground storage tanks (USTs). At Parcel B, a 3,000-gallon petroleum UST was between B3275 and B3276. The UST was removed in 1992, and samples collected from the site were clean. At Parcel E, a gasoline service station was once near the Marion Avenue entrance to Dozier Hall (B10300). According to a project summary report for UST removals, two 6,000-gallon petroleum USTs were removed from this area in 1992. The report indicates that the site was clean, and no additional sampling was performed (Fort Jackson No Date b). No known tanks are on Parcel D; however, B3216, which is east of the parcel on abutting property was once served by a 3,000-gallon petroleum UST. The UST was removed in 1992. The tank pit was sampled and considered clean, but a background sample showed contamination. Another sample collected from a different location was not contaminated.

North of Parcel H are Single Soldier Housing Barracks. During construction of this housing, several small areas of petroleum hydrocarbon vapors and sheens were unearthed. No clear evidence of a source for the contamination was determined, but it was confirmed that no UST was on the site. Preliminary sampling results indicated no significant contamination in soil or groundwater (Fort Jackson 2005). South of Parcel H is a gas station. The station has three 12,000-gallon gasoline USTs that have leak detection systems.

Approximately 40 feet west of the west-central Parcel K Wheeler Street boundary is a former UST site known as UST 4 or Site J. Two 6,000-gallon USTs (gasoline and diesel) were below Wheeler Street before being removed in 1992. After review of a *Long Term Monitoring Report* in

2008, SCDHEC concluded that according to the report findings, the UST site presented no significant threat to human health or the environment and issued conditional no further action (SCDHEC 2009). About 80 feet west of the west-central Parcel L boundary is another former UST site known as UST 3 or Site I. This site, near B3058, had two 6,000-gallon heating oil USTs. The USTs were removed in 1992. After review of a *Phase II Site Assessment Report*, SCDHEC concluded that on the basis of the report findings, no additional contaminant characterization was warranted (SCDHEC 1997). There is no indication that Parcels K or L have affected the sites.

An aboveground storage tank containing heating oil was observed on the east side of Building 1541 on Parcel I. There were no indications of spills or leaks associated with the aboveground storage tank. A leaking pad-mounted transformer was observed next to B2462 on Parcel H. The leak appeared to be confined to the area surrounding the transformer.

There are no indications that munitions and explosives of concern are on the parcels; however, the area west of Parcel A, across Lee Road, was once a high-explosive magazine storage area. The Reserve Officer Training Corps units now use the storage igloos for storage.

Also, there are no indications that hazards such as radon or polychlorinated biphenyls are present. Fort Jackson is in an area of the state where the predicted average indoor radon screening level is less than 2 picocuries per liter (USEPA 2012e). An installation-wide polychlorinated biphenyls survey was conducted in 1989, and the installation took actions to properly dispose of polychlorinated biphenyl-identified materials (Fort Jackson 2011a). The following paragraphs discuss other special hazards that are likely present on the proposed PAL sites.

Pesticides. Pesticides are listed commercial products that become a hazardous waste when discarded in a manner not consistent with their intended use. The regulation at 40 CFR 261.2(c)(1)(B)(ii) states that the commercial chemical products listed at 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 the property.

Pesticide application at Fort Jackson is done in accordance with the installation's Pest Management Plan and uses integrated pest management. All chemicals are applied by Department of Defense-certified pesticide applicators. All label directions and safety precautions are followed. All chemicals used on Fort Jackson are EPA-approved and are on the Army-approved pesticide list (Gene Stout and Associates 2004).

Lead-Based Paint. Except for the Fort Jackson Inn (Parcel F) and the Palmetto Lodge (Parcel G), the lodging structures included in the PAL parcels were constructed before 1978, and it is possible that painted surfaces in those structures contain lead. Army policy calls for controlling lead-based paint (LBP) by using in-place management (as opposed to mandated removal procedures). In-place management is used to prevent deterioration over time for surfaces likely to contain LBP, followed by replacement as necessary. Major renovations and unit demolition would require that contractors remove LBP in accordance with state and federal guidelines. At Fort Jackson, LBP surveys are conducted for facilities on a project-by-project basis when facility demolition or renovation is necessary. As the scheduled demolitions or renovations occur, contractors would remove and dispose of LBP (Fort Jackson 2011a).

Asbestos-Containing Material. In accordance with SCDHEC regulations, facilities that are suspected or known to contain asbestos must have asbestos inspections no earlier than 3 years

before renovation or demolition, or, if more than 3 years have elapsed since the most recent inspection, the previous inspection must be confirmed and verified by a licensed inspector. Fort Jackson must maintain the 3-year period required for facility inspections (Fort Jackson 2011a).

Asbestos survey data are available for Parcel A B2785 (Kennedy Hall); Parcel B B3265, B3275, B3260, and B3270 (Magruder Barracks); Parcel C B3235 (Magruder Barracks); Parcel D B3210 and B3215 (Magruder Barracks); Parcel E B10300 (Dozier Hall); Parcel G B6000 (Palmetto Lodge); Parcel H B2464 and B2466 (Anderson Hall); and Parcel I B1531, B1532, and B1541 (warehouses). The surveys took place between 2007 and 2011.

Asbestos was found in all the buildings except for Parcel E (Dozier Hall), Parcel G (Palmetto Lodge), and warehouse B1531 on Parcel I. Asbestos-containing materials are roofing, flashing, textured ceiling, joint compound, mastic, vibration dampers, floor tile, caulking, and thermal pipe insulation.

The Fort Jackson Inn, Magruder Barracks, Anderson Hall, Palmetto Lodge, and Dozier Hall have surveys in progress. Survey data for Parcel B B3276, Parcel H B2462, and Parcel J B3230 were not available.

Asbestos-containing material at Fort Jackson are managed in accordance with all applicable federal, state, and local regulations and the Fort Jackson Asbestos Management Plan.

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. Inhaling fungal spores, fragments, or metabolites (e.g., mycotoxins, VOCs) from a variety of fungi can lead to or exacerbate allergic reactions, cause toxic effects, or cause infections.

Extensive mold was observed in Kennedy Hall (B2785, Parcel A) and Anderson Hall (B2466, Parcel H). Both of these buildings are not suitable for occupancy. Kennedy Hall has significant water damage from a leaking roof that has resulted in extensive mold. Anderson Hall B2466 also has mold issues related to climate control and has not been occupied for several years. Extensive water leaks from faulty piping in Magruder Barracks have also resulted in mold issues; however, as leaks are detected, they are repaired and affected surfaces are addressed. These leaks typically occur in the basement mechanical rooms. However, Magruder Barracks B3275 was unused for more than 6 months in 2009 because of a major leak on the third floor. The building required major renovations, but before the renovation could begin, mold began growing on damaged surfaces. The building has since been repaired and is in use. Leaking pipes and mold have also been observed in Dozier Hall mechanical rooms.

3.12.2 Environmental Consequences

3.12.2.1 Preferred Alternative

No adverse effects would be expected from implementing the Preferred Alternative. All hazardous materials and waste associated with renovation, demolition, construction and lodging management would be handled and disposed of in accordance with local, state, and federal regulations and in accordance with established installation procedures. Rest Easy would be

required to coordinate disposal of any hazardous materials and waste with the Fort Jackson Environmental Management Branch. Additionally, no adverse effects would be expected from the SWMU #2 near Parcel G because only renovations to the Palmetto Lodge are expected. However, if construction is needed, coordination with the installation and the SCDHEC would be required before ground-disturbing activities begin. No adverse effects would be expected from former and existing UST or aboveground storage tank sites. If unknown USTs, monitoring wells, or contamination from former UST sites are found during construction activities, the installation environmental office would be contacted immediately. No adverse effects are expected from mold issues in Kennedy Hall or Anderson Hall because the buildings are not occupied and the PAL action calls for demolition if the parcels are conveyed. Other mold issues would be addressed as they are identified. Hazardous materials that could be used during PAL project-related activities include paints, solvents, and petroleum products. The construction contractors and lodging management would be responsible for preventing spills by implementing proper storage and handling procedures.

3.12.2.2 No Action Alternative

No adverse effects would be expected under the No Action Alternative. Current environmental management procedures would continue to be implemented in accordance with applicable laws.

3.13 CUMULATIVE EFFECTS SUMMARY

No measurable cumulative effects would be expected on any of the resource areas analyzed in this EA. Other construction or development activities in the Fort Jackson region could produce air emissions, noise, economic benefits, water pollution, or other effects typically associated with such activities, but the magnitude of the effects created by the PAL program action at Fort Jackson would not be sufficient to create substantial cumulative effects.

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 Jackson. 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), traffic and 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, biology, traffic, and utilities (solid waste) would be expected, primarily associated with demolition, construction, and renovation activities. Long-term minor adverse effects would be expected on aesthetics and visual, water, and biological resources from constructing a new hotel and parking lots on undeveloped areas resulting in the loss of green space and an increase in impervious surface. Long-term minor adverse effects would be expected on utilities from a slight increase in utility systems usage. Long-term minor adverse effects would result from changes in traffic from the proposed hotel, which would contribute to on-post congestion during peak periods. 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 on surface water and groundwater would be expected from replacing formerly impervious surfaces with vegetated cover. Long-term minor beneficial effects on utilities would result from 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- and long-term minor adverse	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	Short- and long-term minor adverse	No effect
Cultural resources	No effect	No effect
Socioeconomics	Short- and long-term minor beneficial	Long-term minor adverse
Traffic and transportation	Short- and long-term minor adverse	No effect
Utilities	Short- and long-term minor adverse Long-term minor beneficial	No effect
Hazardous and toxic substances	No effect	No effect

SECTION 5.0

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**Appendix A
Record of Non-Applicability (RONA)**

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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 Jackson, South Carolina**

The Army proposes to privatize the ownership and operations of its lodging at Fort Jackson, South Carolina. The Army would convey specified lodging facilities to Rest Easy. The Army would also grant 46-year leases of the land underlying the existing facilities and other land for construction of new lodging facilities. Rest Easy, LLC, would be expected to meet Fort Jackson's lodging requirements through operation and maintenance of the existing facilities and by renovating inadequate facilities and constructing new ones. As a result of the action, the lodging inventory at Fort Jackson would increase from 847 units to about 865 units. The action would generate new direct and indirect emissions from the construction and operation of the additional facilities.

General Conformity under the Clean Air Act section 176 has been evaluated according to the requirements of Title 40 of the *Code of Federal Regulations* Part 93, Subpart B. The requirements of this rule are not applicable to any of the alternatives because

All activities associated with the action 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
- Other (Not Necessary)



W. KEN BURGHARDT
Chief, Environmental Division
Directorate of Public Works

18 September 2012

Date

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Emissions Calculations

Table A-1. Construction equipment use

Equipment Type	Number of Units	Days on Site	Hours Per Day	Operating Hours
Excavators Composite	3	115	4	1,380
Rollers Composite	3	173	8	4,152
Rubber Tired Dozers Composite	3	115	8	2,760
Plate Compactors Composite	6	115	4	2,760
Trenchers Composite	6	58	8	2,784
Air Compressors	6	115	4	2,760
Cement & Mortar Mixers	6	115	6	4,140
Cranes	3	115	7	2,415
Generator Sets	6	115	4	2,760
Tractors/Loaders/Backhoes	6	230	7	9,660
Pavers Composite	1	58	8	464
Paving Equipment	2	58	8	928

Table A-2. Construction 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 2011

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

Equipment	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Excavators Composite	0.6703	1.5236	0.1949	0.0015	0.0836	0.0836	137.5184
Rollers Composite	1.5020	2.9780	0.4595	0.0027	0.2079	0.2079	232.0030
Rubber Tired Dozers Composite	3.6709	7.5145	0.8381	0.0056	0.3240	0.3240	549.9430
Plate Compactors Composite	0.0606	0.0756	0.0119	0.0002	0.0048	0.0048	9.9217
Trenchers Composite	1.1786	1.9110	0.4294	0.0016	0.1597	0.1597	136.2334
Air Compressors	0.8698	1.8354	0.2834	0.0016	0.1296	0.1296	146.2968
Cement and Mortar Mixers	0.1544	0.2269	0.0389	0.0004	0.0153	0.0153	25.0061
Cranes	1.2097	3.2402	0.3579	0.0028	0.1440	0.1440	258.9426
Generator Sets	0.7960	1.6054	0.2472	0.0016	0.0989	0.0989	140.2832
Tractors/Loaders/Backhoes	3.2711	6.2352	0.9693	0.0062	0.4820	0.4820	537.7913
Pavers Composite	0.1363	0.2505	0.0455	0.0002	0.0178	0.0178	18.0811
Paving Equipment	0.0247	0.0492	0.0077	0.0001	0.0029	0.0029	5.8593
Total	13.54	27.45	3.88	0.0245	1.67	1.67	2197.88

Table A-4. Painting

VOC Content	0.84	lbs/gallon	
Coverage	400	sqft/gallon	
Emission Factor	0.0021	lbs/sqft	
Building/Facility	Area [sqft]	Wall Surface	VOC [tpy]
All Buildings Combined	246,400	492,800	0.517
Total	246,400	492,800	0.52

Source: SCAQMD 1993

Table A-5. Delivery of equipment and supplies

Number of Deliveries	2						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	230						
Total Miles	27,600						
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)	605.8	654.5	82.6	0.7	23.6	20.4	75,056.4
Total Emissions (tpy)	0.30	0.33	0.04	0.0004	0.01	0.01	37.53

Source: CARB 2011

Table A-6. Surface disturbance

TSP Emissions	11.13	lb/acre				
PM ₁₀ /TSP	0.45					
PM _{2.5} /PM ₁₀	0.15					
Period of Disturbance	30	days				
Capture Fraction	0.5					
Building/Facility	Area [acres]	TSP[lbs]	PM ₁₀ [lbs]	PM ₁₀ [tons]	PM _{2.5} [lbs]	PM _{2.5} [tons]
Demolition	11.3	3,760	1,692	0.85	127	0.06
Total	11.3	3,760	1,692	0.85	127	0.06

Sources: USEPA 1995, 2005

Table A-7. Worker commutes

Number of Workers	30						
Number of Trips	2						
Miles Per Trip	30						
Days of Construction	58						
Total Miles	104,400.00						
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)	1,101.3	115.1	112.7	1.1	8.9	5.5	114,791.2
Total Emissions (tpy)	0.55	0.06	0.06	0.0006	0.00	0.00	57.40

Source: CARB 2007

Table A-8. Total construction emissions (tons per year)

Activity/Source	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	CO ₂
Construction Equipment	13.54	27.45	3.88	0.0245	1.67	1.67	2197.88
Painting	0.00	0.00	0.52	0.0000	0.00	0.00	0.00
Delivery of Equipment and Supplies	0.30	0.33	0.04	0.0004	0.01	0.01	37.53
Surface Disturbance	0.00	0.00	0.00	0.0000	0.85	0.06	0.00
Worker Commutes	0.55	0.06	0.06	0.0006	0.00	0.00	57.40
Total Construction Emissions	14.40	27.83	4.50	0.03	2.53	1.75	2292.80

Table A-9. Boiler emissions

Gross Area	8,800	sf					
Heating Requirements	99,000	btu/sf					
Total Annual Heat Required	871	MMBtu					
Heating Value	150	MMBtu/1000 Gallons					
Total #2 Oil Used	5.8	10 ³ Gallons					
Pollutant	CO	NO _x	VOC	SO _x	PM ₁₀	PM _{2.5}	
Emission Factor (lb/1000 gal)	5	24	2.493	0.1	2	2	
Total Emissions (tons)	0.01	0.07	0.01	0.00	0.01	0.01	

1. Emission factors for all pollutants were obtained from USEPA's AP-42, Section 1.3. Conservatively assume that PM₁₀ = PM.

2. Assumed sulfur concentration 1 percent.

3. Heating requirements obtained from Commercial Buildings Energy Consumption Survey, DOE 2003.

Table A-10. Solid waste

Action	Debris generation (lb/sq ft)	Debris from proposed action (lb)	Debris from proposed action (tons)	Quantity recycled -50%	Total quantity landfill disposed of (tons)
Construction	4.4	1,084,160	542.1	271.0	271.0
Demolition	115.0	28,856,950	14,428.5	7,214.2	7,214.2
Renovation	20.0	4,598,000	2,299.0	1,149.5	1,149.5
Total		34,539,110	17,269.6	8,634.8	8,634.8

Source: USEPA 1998

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Appendix B
Agency Coordination Letters

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DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 11, 2012

Environmental Division

Dr. Jodi Barnes
South Carolina Department of Archives and History
State Historic Preservation Office
8301 Parklane Road
Columbia, South Carolina 29223

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Dr. Barnes:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

When completed, the EA will evaluate the potential effects on the natural and human environment associated with implementation of the PAL program, which will privatize the management, operation, and maintenance of lodging facilities at Fort Jackson. All proposed activities would take place within Fort Jackson's cantonment area (see attached Figure 1).

Under the proposed PAL action, the Army would convey the existing Fort Jackson lodging buildings to a private development company who would operate and maintain the lodging buildings. The lodging buildings are grouped in to 10 distinct parcels labeled A through J, as shown in attached Figure 1, with a total of 850 lodging units that would be conveyed to the private company. The number of on-post lodging units is anticipated to increase to about 865 lodging units as a result of implementing the PAL action at Fort Jackson.

The Army would grant the private developer a 46-year lease of underlying land. The developer would be expected to meet Fort Jackson's lodging requirements through renovating existing lodging as needed, constructing two new hotels (one on Parcel E and one on either Parcel A or H), and then operating and maintaining the facilities during the 46-year lease. Renovations would include any necessary life safety upgrades (e.g., smoke alarms, sprinklers) and critical repairs, updating the interiors (e.g., linens and décor, new fixtures and furnishings), and improved public spaces for guests. Several of the existing buildings (on Parcels A, B, C, D, and H) will be demolished. None of the buildings on any of the PAL parcels are eligible for listing on the NRHP. The buildings on the PAL parcels are listed in Table 1 below.

**Table 1.
Fort Jackson Buildings on the PAL Parcels**

Parcel	Building(s)	Building name
Parcel A	2785	Kennedy Hall
Parcel B	3265 3275 3276	Magruder Barracks Magruder Barracks Magruder Barracks
	3260 3270	N/A—Company operations N/A—Former dining facility converted to classroom
Parcel C	3235	Magruder Barracks
Parcel D	3215	Magruder Barracks
Parcel E	10300	Dozier Hall
Parcel F	7550	Fort Jackson Inn
Parcel G	6000	Palmetto Lodge
Parcel H	2462 2464 2466	N/A—General purpose storage building Anderson Hall Complex Anderson Hall Complex
Parcel I	1531 1532 1541	N/A—Army Lodging storage and maintenance buildings
Parcel J	3230	N/A—Company operations building

Notes: AAFES = Army and Air Force Exchange Service; B = building; N/A = not applicable.

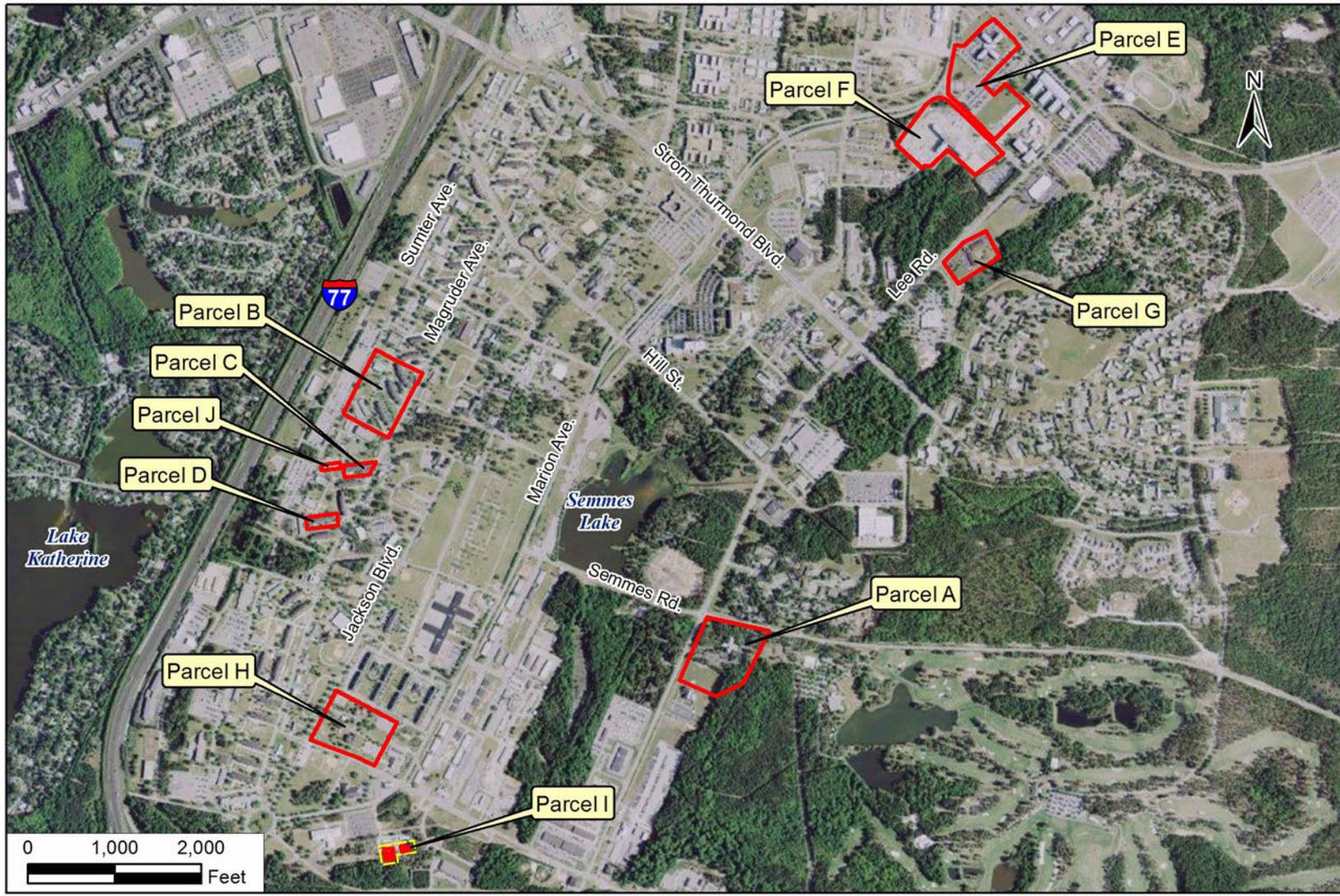
To our knowledge, no cultural resources will be impacted by this action. However, to comply with its obligation under the National Environmental Policy Act, and in compliance with Section 106 of the National Historic Preservation Act and the Archeological Resources Protection Act, the U.S. Army respectfully requests any comments your agency may have regarding cultural resources that may be potentially affected by project activities in the project area as depicted on Figure 1 (see enclosure 1).

Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil for further inquiries.

Sincerely,


Thomas L. Robertson
Director of Public Works

Enclosure



LEGEND

- Proposed PAL Footprint
- Parcel Consisting of Multiple Buildings Under Support Lease (No Associated Land)

Site Map

Figure 1

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May 2, 2012

Mr. Chan Funk
U.S. Army Garrison, Fort Jackson
Environmental Division
2563 Essayons Way
Fort Jackson, SC 29207



Re: Fort Jackson Privatization of Army Lodging Environmental Assessment
Richland County, South Carolina
SHPO Project No. 12JB0055

Dear Mr. Funk:

Our office has received the scoping letter dated April 16 that Thomas Robertson, Director of Public Works submitted as part of your agency's National Environmental Policy Act (NEPA) process for the project referenced above. This letter is for preliminary, informational purposes only and does not constitute consultation or agency coordination with our office as defined in 36 CFR 800: "Protection of Historic Properties" or by any state regulatory process. If the Army chooses to substitute the NEPA process for the process outlined in Section 106 of the National Historic Preservation Act, your agency must notify our office of the proposed substitution.

Our office maintains several resources for identifying historic properties. ArchSite is an online Geographic Information System (GIS) mapping program that includes all known historic and archaeological sites in South Carolina. Information on ArchSite can be found here: <http://archsitere.cas.sc.edu/ArchSite>. A list of properties listed in the National Register of Historic Places can be found here: <http://www.nationalregister.sc.gov/nrlinks.htm>. Additional historic contexts, survey reports, and related historic property documents can be found here: <http://shpo.sc.gov/research/Pages/conreps.aspx>. These sources should assist your agency in identifying historic properties for NEPA scoping. In addition, the Department of the Army has, in concert with the Advisory Council on Historic Preservation, developed a Prototype Programmatic Agreement for the Privatization of Army Lodging. It states that archeological investigations may be necessary if there will be significant ground disturbance in previously undisturbed areas.

The State Historic Preservation Office will provide comments regarding historic and archaeological resources and effects to them once the federal or state agency initiates consultation. Project Review Forms and additional guidance regarding our office's role in the compliance process and historic preservation can be found on our website at: <http://shpo.sc.gov/programs/revcomp>.

If you have any questions, please contact me at (803) 896-6181 or at jbarnes@scdah.state.sc.us.

Sincerely,

Jodi Barnes, PhD
Staff Archaeologist/GIS Coordinator
State Historic Preservation Office

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DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Jennifer Onzawah, Governor
Absentee-Shawnee Tribe of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, OK 74801

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Governor Onzawah:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

When completed, the EA will evaluate the potential effects on the natural and human environment associated with implementation of the PAL program, which will privatize the management, operation, and maintenance of lodging facilities at Fort Jackson. All proposed activities would take place within Fort Jackson's cantonment area (see attached Figure 1).

Under the proposed PAL action, the Army would convey the existing Fort Jackson lodging buildings to a private development company who would operate and maintain the lodging buildings. The lodging buildings are grouped into 10 distinct parcels labeled A through J, as shown in attached Figure 1, with a total of 850 lodging units that would be conveyed to the private company. The number of on-post lodging units is anticipated to increase to about 865 lodging units as a result of implementing the PAL action at Fort Jackson.

The Army would grant the private developer a 46-year lease of underlying land. The developer would be expected to meet Fort Jackson's lodging requirements through renovating existing lodging as needed, constructing two new hotels (one on Parcel E and one on either Parcel A or H), and then operating and maintaining the facilities during the 46-year lease. Renovations would include any necessary life safety upgrades (e.g., smoke alarms, sprinklers) and critical repairs, updating the interiors (e.g., linens and décor, new fixtures and furnishings), and improved public spaces for guests. Several of the existing buildings (on Parcels A, B, C, D, and H) will be demolished.

To our knowledge, no cultural resources will be impacted by this project. In order to comply with our obligation under the National Environmental Policy Act (NEPA), and in compliance with the Native American Graves and Repatriation Act, Section 106 of the National Historic Preservation Act and the Archeological Resources Protection Act, the U.S. Army respectfully requests any comments you may have regarding project activities in the project area as depicted on Figure 1 (see enclosure 1).

Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Henryetta Ellis, Tribal Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Tarpie Yargee, Chief
Alabama-Quassarte Tribal Town
P. O. Box 187
Wetumka, OK 74883

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Yargee:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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To our knowledge, no cultural resources will be impacted by this project. In order to comply with our obligation under the National Environmental Policy Act (NEPA), and in compliance with the Native American Graves and Repatriation Act, Section 106 of the National Historic Preservation Act and the Archeological Resources Protection Act, the U.S. Army respectfully requests any comments you may have regarding project activities in the project area as depicted on Figure 1 (see enclosure 1).

Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Augustine Asbury, 2nd Chief / Cultural Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

The Chickasaw Tribal Legislature,
Bill Anoatubby, Governor
The Chickasaw Nation
P.O. Box 1548
Ada, OK 74821-1548

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Governor Anoatubby:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

When completed, the EA will evaluate the potential effects on the natural and human environment associated with implementation of the PAL program, which will privatize the management, operation, and maintenance of lodging facilities at Fort Jackson. All proposed activities would take place within Fort Jackson's cantonment area (see attached Figure 1).

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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Giny Nail, Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 11, 2012

Environmental Division

Chief Glenna J. Wallace
Eastern Shawnee Tribe
P.O. Box 350
Seneca, MO 64865

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Wallace:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

When completed, the EA will evaluate the potential effects on the natural and human environment associated with implementation of the PAL program, which will privatize the management, operation, and maintenance of lodging facilities at Fort Jackson. All proposed activities would take place within Fort Jackson's cantonment area (see attached Figure 1).

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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Ms. Robin Dushane, Cultural Preservation Director



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Michell Hicks, Principal Chief
The Eastern Band of Cherokee Indians
Qualla Boundary
810 Acquoni Road
Cherokee, NC 28719

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Hicks:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Mr. Russell Townsend, Tribal Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Tiger Hobia, Mekko
Kialegee Tribal Town
P.O Box 332
Wetumka, OK 74883

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Honorable Hobia:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Kialegee Tribal Town



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 11, 2012

Environmental Division

Honorable Donald Rogers, Chief
Catawba Indian Nation
996 Avenue of Nations
Rock Hill, SC 29730

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Rogers:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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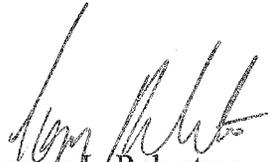
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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Dr. Wenonah Haire, Tribal Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Buford Rolin, Chairman
Poarch Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chairman Rolin:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Robert Thrower, Acting Tribal Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Mitchell Cypress, Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, FL 33024

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chairman Cypress:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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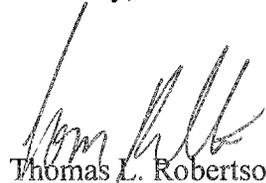
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Please contact Chan Funk at (803) 751-7153 or paul.s.funk.ctr@mail.mil if you require additional information.

Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Mr. Willard Steele, THPO



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 11, 2012

Environmental Division

Honorable George Scott, Town King
Thlopthlocco Tribal Town
Post Office Box 188
Okemah, OK 74859

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Honorable Scott:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

When completed, the EA will evaluate the potential effects on the natural and human environment associated with implementation of the PAL program, which will privatize the management, operation, and maintenance of lodging facilities at Fort Jackson. All proposed activities would take place within Fort Jackson's cantonment area (see attached Figure 1).

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Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Mr. Charles Coleman, THPO/NAGPRA Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable Stuart Patterson, Chief
Tuscarora Nation
1983 Upper Mountain Road
Sanborn, NY 14132

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Patterson:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Neil Patterson



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable George Wickliffe, Chief
United Keetoowah Band
2450 South Muscogee Ave
Tahlequah, OK 74464

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Wickliffe:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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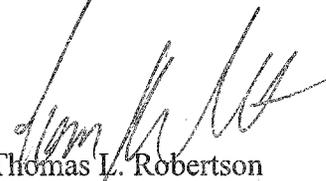
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Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Ms. Lisa Stopp, Acting Tribal Historic Preservation Officer



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 11, 2012

Environmental Division

The Shawnee Tribe
Chairman Ron Sparkman
29 South Highway 69A
Miami, OK 74354

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chairman Sparkman:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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Sincerely,



Thomas L. Robertson
Director of Public Works

Enclosure

cc: Kim Jumper, THPO



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY TRAINING CENTER AND FORT JACKSON
4325 JACKSON BOULEVARD
FORT JACKSON, SC 29207-5015

April 10, 2012

Environmental Division

Honorable A.D. Ellis, Principal Chief
Muscogee Creek Nation of Oklahoma
P.O. Box 580
Highway 75 & Loop 56
Okmulgee, OK 74447

Re: Privatization of Army Lodging Environmental Assessment, Fort Jackson, South Carolina.

Dear Chief Ellis:

This letter is intended to notify you that the Department of the Army at Fort Jackson is preparing an Environmental Assessment (EA) for the implementation of the Privatization of Army Lodging (PAL) program at Fort Jackson. At this time, we do not yet have a date of when the draft will be prepared.

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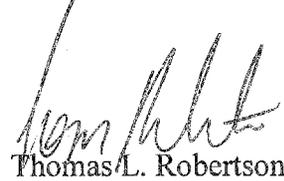
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Thomas L. Robertson
Director of Public Works

Enclosure

cc: Ted Isham, Historic Preservation Office

Appendix C
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 this regard, Fort Jackson lodging demolition, renovations, and construction would have a multiplier effect on the local and regional economy. With the proposed action, 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 National Environmental Policy Act-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 National Environmental Policy Act 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 calculated 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. This technique is especially appropriate for estimating aggregate impacts and makes the economic base model ideal for the EA and EIS 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 from an expansion of its military installation. EIFS estimates its multipliers using a location quotient approach on the basis of the concentration of industries in 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 these are entered into the EIFS model, a projection of changes in the local economy is provided. These are projected changes in sales volume, income, employment, and population. These 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 because of the proposed action, including the direct and secondary changes in local employment and also those personnel who are initially affected by the military action. Income is the total change in local wages and salaries because of the proposed action, which includes the sum of the direct and indirect wages and salaries, plus the income of the civilian and military personnel affected by the proposed action. Population is the increase or decrease in the local population as a result of the proposed action.

The PAL program at Fort Jackson would require construction of new lodging and renovation of existing lodging. The working estimate for the cost of renovation and construction of these facilities (about \$73,051,500) was divided over the projected 7-year initial development period and entered as the change in expenditures (about \$ 10,435,930 per year).

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. This analytical tool reviews the historical trends for the defined region and develops measures of local historical fluctuations in sales volume, income, employment, and population. These 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 base 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 proposed action and the RTV values for the ROI.

EIFS REPORT

PROJECT NAME

Fort Jackson PAL EA

STUDY AREA

Lexington County, SC

Richland County, SC

FORECAST INPUT

Change In Local Expenditures	\$10,435,930
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	3.44	
Income Multiplier	3.44	
Sales Volume – Direct	\$10,435,930	
Sales Volume – Induced	\$25,463,660	
Sales Volume – Total	\$35,899,590	0.13%
Income – Direct	\$1,794,805	
Income – Induced	\$ 4,379,324	
Income – Total (place of work)	\$ 6,174,130	0.05%
Employment – Direct	45	
Employment – Induced	110	
Employment – Total	155	0.04%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	10.01%	9.68%	2.22%	2.59%
Negative RTV	-5.71%	-5.35%	-3.02%	-0.65%

RTV DETAILED**SALES VOLUME**

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	908218	3968913	0	0	0
1970	997570	4119964	151052	-62580	-1.52
1971	1107198	4384504	264540	50908	1.16
1972	1260076	4826091	441587	227955	4.72
1973	1437766	5190335	364244	150612	2.9
1974	1634622	5312522	122186	-91446	-1.72
1975	1755237	5230606	-81915	-295547	-5.65
1976	1934016	5453925	223319	9687	0.18
1977	2151007	5678659	224734	11102	0.2
1978	2410143	5928952	250293	36661	0.62
1979	2709529	5988059	59107	-154525	-2.58
1980	2992741	5805918	-182141	-395773	-6.82
1981	3280566	5773796	-32122	-245754	-4.26
1982	3476665	5771264	-2532	-216164	-3.75
1983	3842166	6185887	414624	200992	3.25
1984	4320690	6653862	467975	254343	3.82
1985	4682595	6977067	323204	109572	1.57
1986	5054036	7378893	401826	188194	2.55
1987	5442979	8436617	1057724	844092	10.01
1988	5910354	8038082	-398536	-612168	-7.62
1989	6298459	8125012	86930	-126702	-1.56
1990	6740685	8291043	166031	-47601	-0.57
1991	6896710	8138117	-152925	-366557	-4.5
1992	7281080	8300431	162314	-51318	-0.62
1993	7549053	8379449	79018	-134614	-1.61
1994	7949720	8585698	206249	-7383	-0.09
1995	8434384	8856103	270405	56773	0.64
1996	9046058	9226979	370876	157244	1.7
1997	9572158	9572158	345179	131547	1.37
1998	10338432	10131664	559506	345874	3.41
1999	11000253	10560243	428579	214947	2.04
2000	11618435	10805145	244902	31270	0.29

INCOME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	1027397	4489725	0	0	0
1970	1145276	4729990	240265	-53404	-1.13
1971	1275353	5050398	320408	26739	0.53
1972	1447550	5544116	493718	200049	3.61
1973	1653541	5969283	425166	131497	2.2
1974	1891110	6146108	176825	-116844	-1.9
1975	2074808	6182928	36820	-256849	-4.15
1976	2286054	6446672	263744	-29925	-0.46
1977	2522334	6658962	212290	-81379	-1.22
1978	2819086	6934952	275990	-17679	-0.25
1979	3185449	7039842	104891	-188778	-2.68
1980	3587892	6960511	-79332	-373001	-5.36
1981	4010579	7058619	98108	-195561	-2.77
1982	4290595	7122388	63769	-229900	-3.23
1983	4716535	7593621	471234	177565	2.34
1984	5311189	8179231	585609	291940	3.57
1985	5794593	8633944	454713	161044	1.87
1986	6227666	9092393	458449	164780	1.81
1987	6704177	10391474	1299081	1005412	9.68
1988	7276392	9895893	-495581	-789250	-7.98
1989	7836063	10108521	212628	-81041	-0.8
1990	8503413	10459198	350677	57008	0.55
1991	8833013	10422955	-36243	-329912	-3.17
1992	9297676	10599351	176396	-117273	-1.11
1993	9683576	10748769	149419	-144250	-1.34
1994	10298637	11122528	373759	80090	0.72
1995	10911730	11457316	334788	41119	0.36
1996	11695480	11929389	472073	178404	1.5
1997	12386771	12386771	457382	163713	1.32
1998	13417814	13149458	762687	469018	3.57
1999	14088704	13525156	375698	82029	0.61
2000	14932401	13887133	361977	68308	0.49

EMPLOYMENT

Year	Value	Change	Deviation	%Deviation
1969	161573	0	0	0
1970	166247	4674	-2120	-1.28
1971	171791	5544	-1250	-0.73
1972	180630	8839	2045	1.13
1973	191683	11053	4259	2.22
1974	200942	9259	2465	1.23
1975	198791	-2151	-8945	-4.5
1976	201064	2273	-4521	-2.25
1977	209001	7937	1143	0.55
1978	216434	7433	639	0.3
1979	224824	8390	1596	0.71
1980	229020	4196	-2598	-1.13
1981	230569	1549	-5245	-2.27
1982	231763	1194	-5600	-2.42
1983	240147	8384	1590	0.66
1984	252392	12245	5451	2.16
1985	261972	9580	2786	1.06
1986	272285	10313	3519	1.29
1987	277943	5658	-1136	-0.41
1988	288991	11048	4254	1.47
1989	296362	7371	577	0.19
1990	304182	7820	1026	0.34
1991	299949	-4233	-11027	-3.68
1992	303812	3863	-2931	-0.96
1993	307876	4064	-2730	-0.89
1994	319389	11513	4719	1.48
1995	330685	11296	4502	1.36
1996	343672	12987	6193	1.8
1997	353483	9811	3017	0.85
1998	363956	10473	3679	1.01
1999	371128	7172	378	0.1
2000	378993	7865	1071	0.28

POPULATION

Year	Value	Change	Deviation	%Deviation
1969	313838	0	0	0
1970	325249	11411	4397	1.35
1971	339339	14090	7076	2.09
1972	346589	7250	236	0.07
1973	355936	9347	2333	0.66
1974	372583	16647	9633	2.59
1975	376717	4134	-2880	-0.76
1976	380381	3664	-3350	-0.88
1977	390859	10478	3464	0.89
1978	397444	6585	-429	-0.11
1979	405231	7787	773	0.19
1980	411681	6450	-564	-0.14
1981	417237	5556	-1458	-0.35
1982	419034	1797	-5217	-1.25
1983	424728	5694	-1320	-0.31
1984	428560	3832	-3182	-0.74
1985	429923	1363	-5651	-1.31
1986	436560	6637	-377	-0.09
1987	440227	3667	-3347	-0.76
1988	443535	3308	-3706	-0.84
1989	448627	5092	-1922	-0.43
1990	456398	7771	757	0.17
1991	466523	10125	3111	0.67
1992	474081	7558	544	0.11
1993	482123	8042	1028	0.21
1994	488786	6663	-351	-0.07
1995	496912	8126	1112	0.22
1996	505315	8403	1389	0.27
1997	514377	9062	2048	0.4
1998	523710	9333	2319	0.44
1999	531277	7567	553	0.1
2000	538271	6994	-20	0

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

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Acronyms and Abbreviations

AADT	annual average daily traffic
AQCR	Air-Quality Control Region
B	building
BMP	best management practice
CEP	Central Energy Plant
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CO	carbon monoxide
CWS	Candlewood Suites
dB	decibel
dBA	A-weighted decibel
DNL	day-night sound level
EA	environmental assessment
EIFS	Economic Impact Forecast System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FNSI	Finding of No Significant Impact
ft	feet
GHG	greenhouse gas
IDP	initial development period
IHG	InterContinental Hotels Group
L _{eq}	equivalent sound level
lb	pound
LDMP	Lodging Development Management Plan
LTH	long-term hold
m	meter
MHPI	Military Housing Privatization Initiative
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO _x	nitrogen oxides
NRHP	National Register of Historic Places
PCPI	per capita personal income
PM _{2.5}	fine particulate matter
PM ₁₀	particulate matter
PAL	Privatization of Army Lodging
ROI	region of influence
RTV	rational threshold value
SCAPCR	South Carolina Air Pollution Control Regulations
SCDHEC	South Carolina Department of Health and Environmental Control
SCDNR	South Carolina Department of Natural Resources
SCE&G	South Carolina Electric and Gas
SO _x	sulfur oxides
sq ft	square feet
STH	short-term hold
SWMP	Stormwater Management Program
SWMU	solid waste management unit
TCP	traditional cultural property

U.S.C.	<i>United States Code</i>
UST	underground storage tank
VOC	volatile organic compounds