Final
Environmental Assessment
for
Implementation of the Privatization of Army Lodging Program at Fort George G. Meade, Maryland

Prepared for

Commander, Fort George G. Meade, Maryland

Prepared by

U.S. Army Corps of Engineers, Mobile District

With technical assistance from

Tetra Tech, Inc.
Fairfax, VA

July 2012

ENVIRONMENTAL ASSESSMENT

IMPLEMENTATION OF THE PRIVATIZATION OF ARMY LODGING PROGRAM AT FORT GEORGE G. MEADE, MARYLAND

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ENVIRONMENTAL ASSESSMENT ORGANIZATION

This environmental assessment (EA) addresses the proposed action to implement the Privatization of Army Lodging (PAL) Program at Fort George G. Meade (FGGM), Maryland. 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 FGGM and examines alternatives to implementing the proposed action.

SECTION 3.0: AFFECTED ENVIRONMENT AND CONSEQUENCES describes the existing environmental and socioeconomic setting at FGGM 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.

APPENDICES
- ***A*** Agency Coordination Documentation
- ***B*** Air Emissions Calculations and Record of Non-applicability
- ***C*** Economic Impact Forecast System Model

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

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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 George G. Meade, Maryland

AFFECTED JURISDICTION: Fort George G. Meade, Maryland

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ABSTRACT: This environmental assessment (EA) considers the proposed implementation of the Privatization of Army Lodging Program, including the transfer of lodging assets at Fort George G. Meade, Maryland. The EA identifies, evaluates, and documents the effects of obtaining private sector funding for maintenance, management, renovation, replacement, rehabilitation, and development of transient lodging facilities. This is the Army's Preferred Alternative. A No Action Alternative is also evaluated. Implementation of the Preferred Alternative is not expected to result in significant environmental impacts. Preparation of an environmental impact statement, therefore, is not required, and a finding of no significant impact (FNSI) will be published in accordance with Title 32 of the *Code of Federal Regulations* Part 651 (Environmental Effects of Army Actions) and the National Environmental Policy Act, 42 United States Code section 4331 *et seq*.

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 Baltimore Sun* (Baltimore, Maryland), the *Annapolis Capital* (Annapolis, Maryland), and *SoundOff!* (Fort Meade, Maryland). Copies of the EA and draft FNSI are available for review at the Medal of Honor Memorial Library, Fort Meade; the West County Area Library, 1325 Annapolis Road, Odenton, MD; and online at www.ftmeade.army.mil. Copies of the EA and draft FNSI also can be obtained by contacting Ms. Suzanne Teague, Directorate of Public Works, Environmental Division, 2212 Chisholm Avenue, Suite 5115, Fort Meade, MD 20755, by phone at 301-677-9185, or by e-mail requests to suzanne.m.teague.civ@mail.mil. Comments on the EA and draft FNSI should be submitted to Ms. Teague at the above mailing or e-mail address no later than the end of the 30-day review period.

EXECUTIVE SUMMARY

ES.1 BACKGROUND

This environmental assessment (EA) evaluates the proposal of the Privatization of Army Lodging (PAL) at Fort George G. Meade (FGGM), Maryland.

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 short-term (7-year) lease for two existing lodging facilities and the land underlying them for building renovation and operation. One facility (Kuhn Hall) would be returned to the Army at the end of the lease. The other facility (Abrams Hall) would be demolished following coordination and approval from the Maryland Historic Trust, and the land would be returned to the Army at the end of the lease. The Army would grant a 46-year lease of an undeveloped 15.5-acre parcel of land for construction and operation of a new lodging facility. The Army also would convey select buildings (B4703, B4704, B4705, B4707, and B4709) under a separate support lease for short-term use by Rest Easy to maintain available lodging units while new lodging was being built. Rest Easy would be expected to meet FGGM's lodging requirements through operating and maintaining the existing facilities and by renovating inadequate facilities. The renovation, demolition, and construction actions would occur over about a 7-year development period beginning in 2013 and would provide a final inventory of about 275 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 improvements to existing facilities to ensure that they meet current commercial standards for mid-scale hotels.

ES.4 ALTERNATIVES

The Army identified four alternatives: the Preferred Alternative, the reliance on the off-post hotel market alternative, providing lodging at the same location as the existing facilities, and the No Action Alternative. Implementing the PAL program at FGGM is the Army's Preferred Alternative (described above in section ES.2). Rest Easy would be expected to meet FGGM's lodging requirements by operating and maintaining the existing facilities and by renovating inadequate existing facilities. That would achieve the purpose of and need for the proposed action.

One alternative to the Preferred Alternative that was considered was 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. However, sufficient demand exists to warrant continued operation of lodging facilities on-post at FGGM. The reduced time and expense to the official traveler, cost avoidance because a private firm would pay the costs of utilities and operation and maintenance, and the reduced traffic through the access control points led to the removal of the alternative of reliance on off-post hotels and motels from official consideration. Finally, terminating the Army's lodging program at FGGM would result in abandoning or repurposing of the existing lodging buildings. For those reasons, the off-post hotel market alternative is not feasible and is not evaluated in detail in this EA.

Providing lodging at the same location as the existing facilities (Buildings 4703–4705, 4707, and 4709) either by renovating the existing facilities or constructing a new facility at the same location is not feasible because of a preceding decision to demolish the buildings and construct apartments for unaccompanied Soldiers, making the land unavailable for use under the PAL program. This alternative is not evaluated in detail in this EA.

A No Action Alternative 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 minor beneficial effects on the subject environmental resources and conditions. Mitigation measures identified in the EA in association with implementing the proposed action primarily include best management practices normally used during construction projects. No mitigation measures are necessary to reduce any adverse effects to below a level of significance. Construction activities would be covered under an approved plan for erosion and sediment control and the Maryland Department of the Environment *General Permit for Stormwater Associated with Construction Activity*. Post-construction stormwater runoff would be managed under an approved stormwater management plan. Additionally, asbestos-containing materials (ACM) and lead-based paint (LBP) encountered during demolition or construction would be characterized and disposed of in accordance with applicable federal, state, and local solid waste management regulations. LBP would be encapsulated and removed in accordance with applicable federal guidelines, and if environmentally-impacted soils, ACM, or LBP were encountered during construction/demolition activities, they would be mitigated or removed completely.

The project will be in compliance with the FGGM Forest Conservation Act and Tree Management Policy and the Maryland Department of Natural Resources Forest Conservation Act. Street trees on Parcel D will be preserved to the maximum extent practical. Impacts on Kuhn Hall, the National Register of Historic Places-listed property, would be mitigated through strict compliance with the historic property requirements identified in the deed of conveyance. A Programmatic Agreement would be developed between Fort Meade, Rest Easy, and the Maryland Historic Trust before any action or commencement of work.

The lease will require that Lend Lease construct the hotel to the U.S. Green Building Council's Leadership in Energy and Environmental Design program Silver standards, which would limit the amount by which the new hotel would increase demand for utilities.

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

ES.6 CONCLUSION

On the basis of the EA, it has been determined that implementing the Preferred Alternative would have no significant adverse effects on the quality of human life or the natural environment. Preparation of an environmental impact statement is not required before implementing the Preferred Alternative, and issuance of a Finding of No Significant Impact for the proposed action would be appropriate.

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

	Environmental and socioeconomic effects	
Resource	**Preferred Alternative**	**No Action Alternative**
Land use	Long-term minor adverse effect	No effect
Aesthetic and visual resources	Long-term minor adverse	No effect
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	Long-term minor adverse	No effect
Biological resources	Long-term minor adverse and minor beneficial	No effect
Cultural resources	No effect[1]	No effect
Socioeconomics	Short- and long-term minor beneficial Long-term minor adverse	Long-term minor adverse
Transportation	Short- and long-term minor adverse Long-term minor beneficial	No effect
Utilities	Long-term minor adverse	No effect
Hazardous and toxic substances	No effect	No effect

[1] The adverse effect of transferring the National Register of Historic Places-eligible Kuhn Hall out of federal control will be fully mitigated through implementation of the Programmatic Agreement, thereby resulting in no adverse effects on cultural resources.

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CONTENTS

SECTION 1.0 PURPOSE, NEED, AND SCOPE 1-1
1.1 INTRODUCTION 1-1
1.2 PURPOSE AND NEED 1-1
1.3 SCOPE OF ANALYSIS 1-1
1.4 PUBLIC INVOLVEMENT 1-2
1.5 PRIVATIZATION AUTHORITIES 1-4
1.6 ENVIRONMENTAL LAWS AND REGULATIONS 1-4

SECTION 2.0 PROPOSED ACTION AND ALTERNATIVES 2-1
2.1 INTRODUCTION 2-1
2.2 NO ACTION ALTERNATIVE 2-1
2.3 PREFERRED ALTERNATIVE 2-3
2.3.1 Description of Existing Lodging and Available Land 2-3
2.3.2 Proposed Lodging Actions 2-8
2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY 2-10

SECTION 3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES 3-1
3.1 LAND USE 3-1
3.1.1 Affected Environment 3-1
3.1.2 Environmental Consequences 3-1
3.2 AESTHETICS AND VISUAL RESOURCES 3-3
3.2.1 Affected Environment 3-3
3.2.2 Environmental Consequences 3-3
3.3 AIR QUALITY 3-3
3.3.1 Affected Environment 3-3
3.3.2 Environmental Consequences 3-5
3.4 NOISE 3-6
3.4.1 Affected Environment 3-6
3.4.2 Environmental Consequences 3-9
3.5 GEOLOGY AND SOILS 3-9
3.5.1 Affected Environment 3-9
3.5.2 Environmental Consequences 3-10
3.6 WATER RESOURCES 3-11
3.6 1 Affected Environment 3-11
3.6.2 Environmental Consequences 3-12
3.7 BIOLOGICAL RESOURCES 3-13
3.7.1 Affected Environment 3-13
3.7.2 Environmental Consequences 3-14
3.8 CULTURAL RESOURCES 3-15
3.8.1 Affected Environment 3-15
3.8.2 Environmental Consequences 3-17
3.9 SOCIOECONOMICS 3-18
3.9.1 Affected Environment 3-18
3.9.2 Environmental Consequences 3-20
3.10 TRANSPORTATION 3-22
3.10.1 Affected Environment 3-22
3.10.2 Environmental Consequences 3-23
3.11 UTILITIES 3-25
3.11.1 Affected Environment 3-25

3.11.2 Environmental Consequences....3-26
3.12 HAZARDOUS AND TOXIC SUBSTANCES....3-27
3.12.1 Affected Environment....3-27
3.12.2 Environmental Consequences....3-33
3.13 CUMULATIVE EFFECTS....3-34
3.12 MITIGATION....3-34

SECTION 4.0 CONCLUSIONS....4-1

SECTION 5.0 REFERENCES AND PERSONS CONSULTED....5-1

SECTION 6.0 LIST OF PREPARERS....6-1

SECTION 7.0 DISTRIBUTION LIST....7-1

ACRONYMS & ABBREVIATIONS (at end)

APPENDICES

APPENDIX A: Agency Coordination Documentation....A-1
APPENDIX B: Air Emissions Calculations and Record of Non-Applicability....B-1
APPENDIX C: Economic Impact Forecast System (EIFS) Model....C-1

TABLES

Table 1-1 Installations participating in PAL by group....1-2
Table 2-1 Existing lodging facilities, Fort Meade....2-3
Table 2-2 Fort Meade PAL Preferred Alternative....2-9
Table 3-1 Annual emissions for significant stationary sources at Fort Meade....3-4
Table 3-2 Annual air emissions compared to applicability thresholds....3-5
Table 3-3 Common sounds and their levels....3-7
Table 3-4 State of Maryland overall environmental noise standards....3-8
Table 3-5 Maximum allowable noise level (dBA) for receiving land use categories....3-8
Table 3-6 Estimated existing noise levels at preferred site....3-8
Table 3-7 Noise levels associated with outdoor construction....3-9
Table 3-8 Labor force and unemployment....3-18
Table 3-9 Income....3-19
Table 3-10 Population....3-19
Table 3-11 EIFS model output....3-21
Table 3-12 ACPs and their accessible roadway, operations hours, and restrictions....3-23
Table 3-13 Average daily traffic counts (AADT) for gate accessible off-post roadways....3-23
Table 3-14 Estimated trip generation from the proposed lodging....3-24
Table 3-15 Level of service in 2015 at intersections adjacent to Parcel D....3-24
Table 3-16 Summary of construction and demolition debris....3-27
Table 4-1 Summary of potential environmental and socioeconomic consequences....4-2

FIGURES

Figure 1-1 Installation location....1-3
Figure 2-1 Site map....2-2
Figure 2-2 Parcel A (Ruffner Road)....2-4
Figure 2-3 Parcel B (Abrams Hall)....2-5
Figure 2-4 Parcel C (Kuhn Hall)....2-6
Figure 2-5 Parcel D (New Build)....2-7
Figure 2-6 Photos of Parcels A through D....2-8
Figure 3-1 Environmental constraints....3-2

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 does not meet acceptable quality standards.

The Privatization of Army Lodging (PAL) program is an initiative to improve facilities and services for transient lodging users. 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 George G. Meade (Fort Meade), Maryland.

All Army installations in the Continental United States, Alaska, Hawaii, and Puerto Rico 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 Meade 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.

1.2 PURPOSE AND NEED

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

The need for the proposed action is to improve the quality of life for Soldiers, their families, and other personnel eligible to use Army lodging. Many lodging facilities at Fort Meade 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 (42 United States Code section 4331 *et seq*) 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.

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

[2] 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.

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	Fort Jackson, SC
		Redstone Arsenal, AL
		Fort Hunter Liggett, CA
		Presidio of Monterey, CA
		Camp Parks, CA
		Moffett Field, CA
		BT Collins, CA
		Fort Stewart, GA
		Hunter Army Air Field, GA
		Fort Benning, GA
		JB Lewis-McChord, WA
		Yakima Training Range, WA

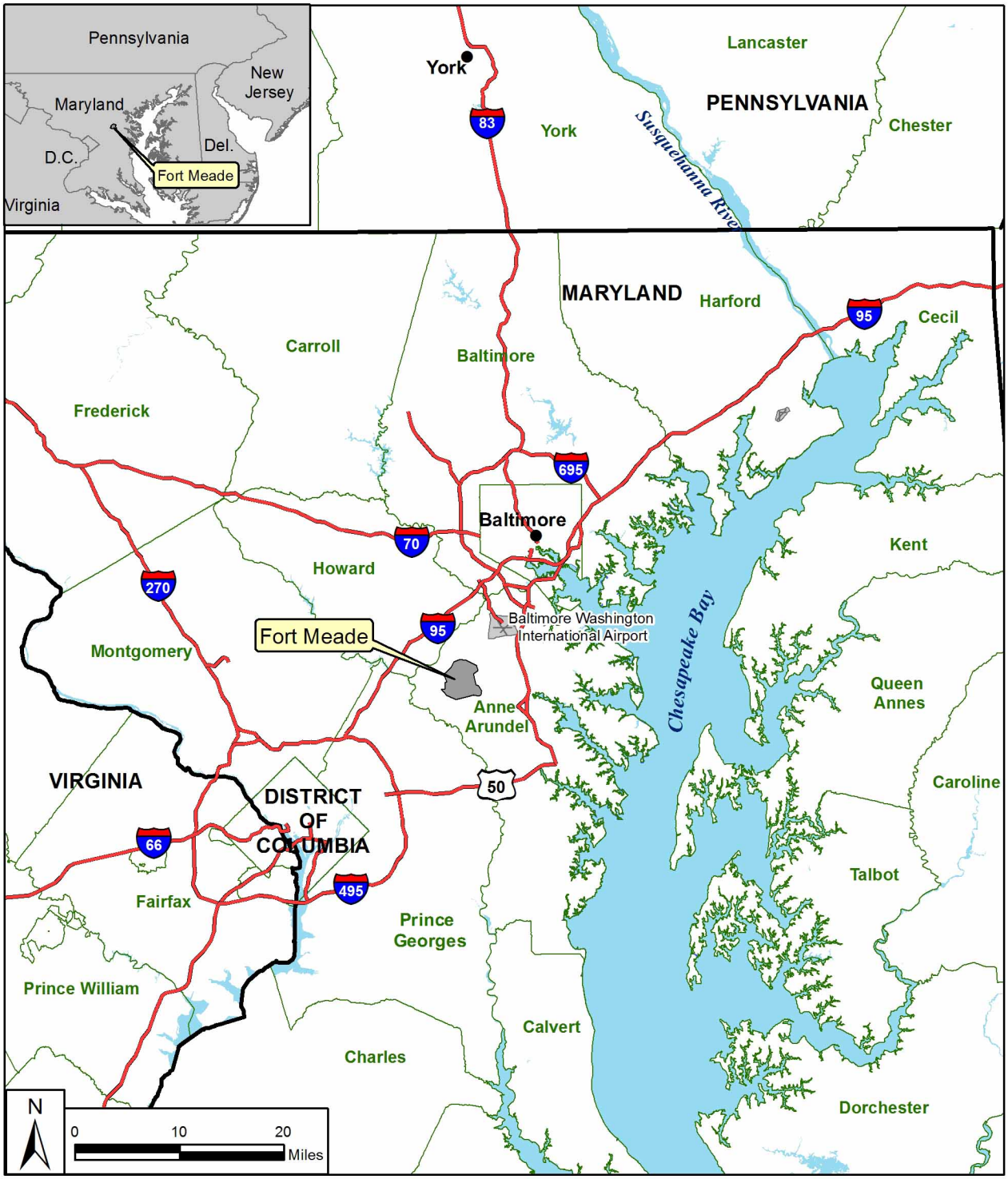
The purpose of the EA is to inform Army decision makers and the public of the likely environmental consequences of privatizing transient lodging at Fort Meade.

This EA focuses on evaluating environmental effects that are reasonably foreseeable within the initial development period (IDP), which is approximately the first 7 years of implementing privatization, described in detail in Section 2.3. This is the period during which the Army's privatization entity would accomplish renovation, demolition, 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 decisionmaking process.

Army guidance provides for public participation in the NEPA process. If the EA concludes that the proposed action would not result in significant environmental effects, the Army may issue a draft Finding of No Significant Impact (FNSI). The Army will then observe a 30-day period during which agencies and the public may submit comments on the EA or draft FNSI. The 30-day comment period will also serve as the public's opportunity to review and comment on cultural 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,



LEGEND

- Interstate Highway
- State Boundary
- County Boundary
- Surface Water

Location Map

Figure 1-1

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 Meade. 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 Meade. 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 Meade. The Army would convey specified lodging facilities to Rest Easy. The Army would also grant a 7-year lease of the land underlying two of the existing facilities and a 46-year lease of other land for constructing a new lodging facility. Under a separate support lease, the Army would convey five existing lodging buildings for short-term use by Rest Easy. Rest Easy would be expected to meet Fort Meade's lodging requirements by owning, operating, and maintaining the existing facilities, as well as renovating inadequate facilities and constructing new ones.

Implementing the PAL program at Fort Meade would entail constructing a new lodging facility and renovating existing facilities. When siting facilities, garrison commanders take into account the following criteria: availability of developable land, consistency with the land use allocations of the installation's master plan, compatibility with adjacent functions, proximity to relevant community services (e.g., Commissary, Post Exchange, and recreation and entertainment venues), and avoidance of evident environmental issues (e.g., protected species, cultural resources, past hazardous waste sites, and the like). Fort Meade 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 Meade. The Army would continue to provide lodging on Fort Meade, though because of a previously approved project to demolish five lodging buildings (Buildings 4703–4705, 4707, and 4709) and construct apartments for unaccompanied Soldiers in their location, the lodging inventory at Fort Meade would be reduced to Abrams Hall (with 54 lodging units) and Kuhn Hall (with 7 lodging units). Off-post lodging facilities would have to meet the rest of Fort Meade's lodging demand. The lodging program on Fort Meade would continue to be funded by Congressional appropriations and by Army Lodging resources that rely on the use of nonappropriated funds. On the basis of historical trends, it is assumed that the amount of Congressional funding for personnel on temporary duty would not change and that maintenance backlogs would remain at present levels or increase.(Lodging facility maintenance is lacking across military installations. For instance, several facilities in PAL Groups A and B were found to be non-compliant with Federal Emergency Management Agency requirements and prevailing off-post safety codes.) In the absence of implementing the PAL program, the Army would forego opportunities to leverage private-sector financing for the lodging function. Quality of life for personnel using the lodging facilities would in all likelihood decline based on current funding levels.

LEGEND

Proposed PAL Footprint

Parcel With Buildings Under Support Lease (No Associated Land)

Site Map

Figure 2-1

2.3 PREFERRED ALTERNATIVE

2.3.1 Description of Existing Lodging and Available Land

Fort Meade currently provides on-post transient lodging services through the use of 196 lodging units within seven buildings. For the purposes of this project, the lodging units and areas available for new construction have been grouped into four distinct parcels, labeled A through D. Table 2-1 identifies the existing lodging inventory by parcel. Figures 2-2 through 2-5 provide more detailed views of each parcel, and Figure 2-6 consists of photos of a representative sample of the lodging structures at Fort Meade.

Table 2-1
Existing Lodging Facilities, Fort Meade

Parcel	Building(s)	Building name	Year built	Lodging units	Square footage	Notes
Parcel A	B4703	Norton Hall	1954	16	14,878	
	B4704	Nicholson Hall	1954	30	14,878	
	B4705	Trott Hall	1954	30	24,850	
	B4707	Brett Hall	1954	28	24,850	
	B4709	Heard Hall	1954	31	24,850	
Parcel B	B2793	Abrams Hall	1975	54	26,246	
Parcel C	B4415	Kuhn Hall	1931	7	9,175	NRHP eligible.
Parcel D	N/A	N/A	N/A	N/A	N/A	Undeveloped land
	Total lodging units			196		

Notes: NRHP = National Register of Historic Places.

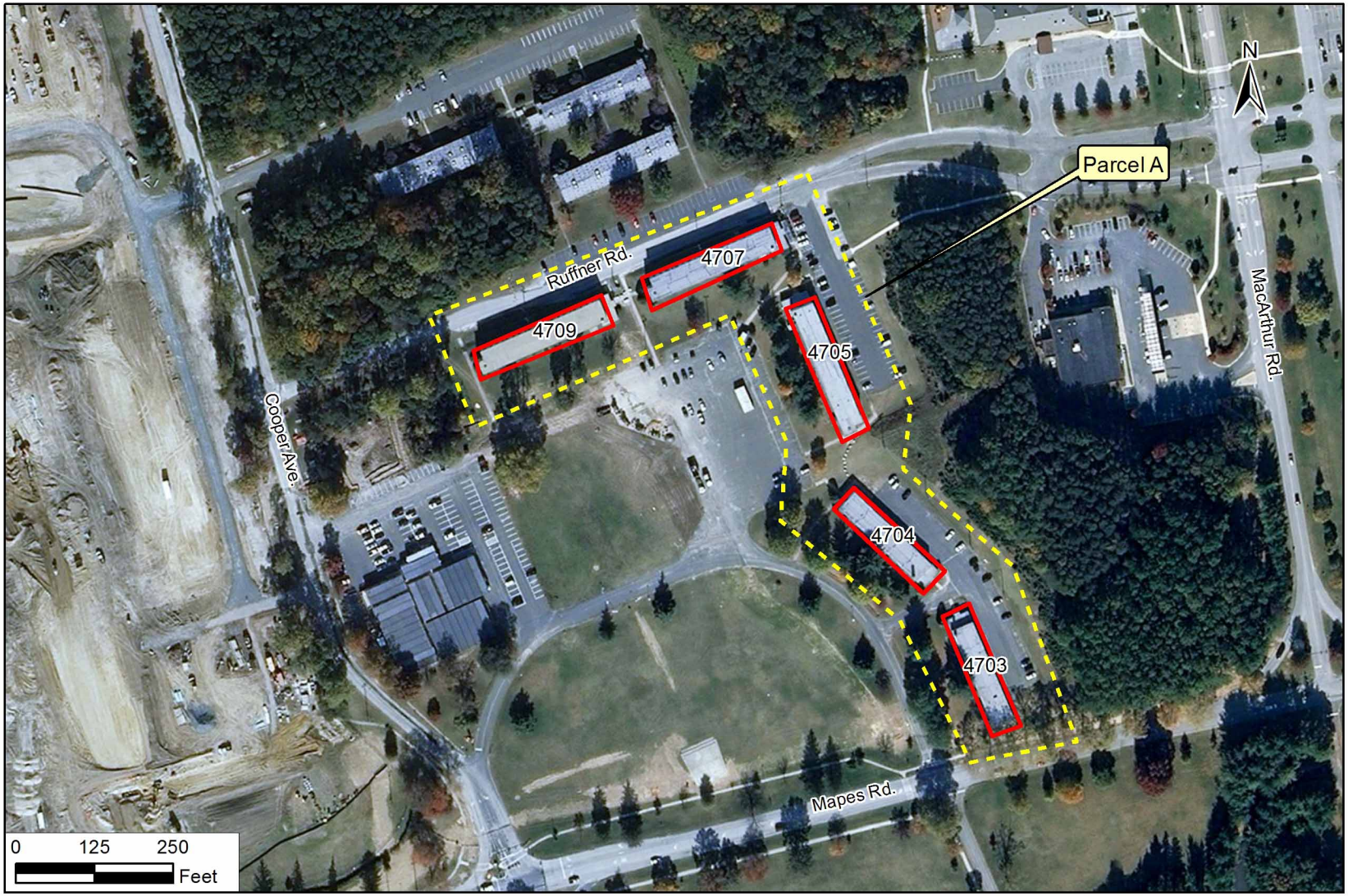
The following paragraphs describe each parcel containing existing lodging facilities and the parcel of land being made available to Rest Easy for siting new lodging facilities.

Parcel A. This parcel consists of Buildings 4703, 4704, 4705, 4707, and 4709 between Ruffner Road to the north and Mapes Road to the south. (See Figure 2-2 for a view of the site and Figure 2-6 for representative photos of the buildings.) The concrete block, flat-roofed buildings were constructed in 1954 as transient housing quarters for personnel who had short-term stays on Fort Meade or were changing duty assignments. Buildings 4703 and 4704 have two stories, and Buildings 4705, 4707, and 4709 are three-story buildings. Together the five buildings provide 135 lodging units.

Parcel B. This parcel consists of Building 2793, Abrams Hall, and 5.2 acres of associated land on Hawkins Drive just north of Mapes Road. (See Figure 2-3 for a map of the site and Figure 2-6 for a photo of the building.) The structure was built in 1975 for use as a guesthouse. It is a two-story, wood-frame building that offers 54 lodging units.

Parcel C. This parcel consists of Building 4415, Kuhn Hall, and about 1 acre of land on the south side of Llewellyn Avenue just east of its intersection with English Avenue. (See Figure 2-4 for a map of the site and Figure 2-6 for a photo of the building.) Kuhn Hall was constructed in 1931 as quarters for nurses serving at the neighboring post hospital. It is in the heart of the Historic District and provides seven distinguished visitor's quarters. The two-story Colonial Revival-style brick building has been determined eligible for the National Register of Historic Places (NRHP).

Parcel D. This parcel consists of 15.5 acres of undeveloped, mostly grass-covered open space bordered by Mapes Road to the north, Leonard Wood Avenue to the west, Bundy Street to the



LEGEND

Proposed PAL Footprint

Parcel With Buildings Under Support Lease (No Associated Land)

Parcel A (Ruffner Road)

Figure 2-2

LEGEND

Proposed PAL Footprint

Parcel B (Abrams Hall)

Figure 2-3

LEGEND

Proposed PAL Footprint

Parcel C (Kuhn Hall)

Figure 2-4

LEGEND

Proposed PAL Footprint

Parcel D (New Build)

Figure 2-5

Parcel B Abrams Hall (B2793)	**Parcel C Kuhn Hall DVQ (B4415)**
Parcel A Norton Hall (B4703)	**Parcel A Nicholson Hall (B4704)**

Figure 2-6. Photos of buildings on Parcels A, B, and C.

South, and Cooper Road to the east. A portion of Griffin Avenue runs through the parcel, approximately bisecting it, from Mapes Road south to Bundy Street. There are no structures within the boundaries of the parcel. Mature trees line the streets that bound the parcel. See Figure 2-5 for an aerial view of the parcel.

2.3.2 Proposed Lodging Actions

Implementing the PAL program at Fort Meade 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. The Army also would convey B4703, B4704, B4705, B4707, and B4709 under a separate support lease for short-term use by Rest Easy to maintain available lodging units while new lodging was being built. 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 lease. Under the Preferred Alternative, the total number of lodging units at Fort Meade would increase from 196 to 275 to meet current and projected on-post demand resulting from recent mission changes.

STH and Support lease actions. Initially, the existing lodging structures (identified in Table 2-1) would be conveyed and/or leased to Rest Easy. Abrams Hall (B2793, Parcel B) and Kuhn Hall (B4415, Parcel C) would be conveyed under an STH lease, while the five buildings on Parcel A

Table 2-2
Fort Meade PAL Preferred Alternative

			Lodging units		
Parcel	**Acres**	**Building(s)**	**Beginning state**	**End state**	**PAL action**
Parcel A (Ruffner Road Complex) – Support Lease					
	0	B4703	16	0	Make minor renovations for short-term use under a support lease. Following support lease period, return buildings to installation to be demolished to make way for UPH being constructed under a separate and unrelated action.
		B4704	30	0	
		B4705	30	0	
		B4707	28	0	
		B4709	31	0	
Parcel B (Abrams Hall) – STH					
	5.2	B2793	54	0	Make minor renovations for STH and then demolish after new hotel goes into operation.
Parcel C (Kuhn Hall Historic DVQs) – STH					
	1.0	B4415	7	0	Renovate in accordance with historic property requirements for STH and then return to installation inventory at end of IDP.
Parcel D (Griffin Avenue Site) – LTH					
	15.5	N/A	0	275	Build 275-room Candlewood Suites

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

(B4703, B4704, B4705, B4707, and B4709) would be leased under a separate support lease. The Parcel A support lease would apply to buildings and adjacent parking lot use only and would not include leasing of underlying land. The five buildings on Parcel A are part of a larger parcel of property that is to be developed for unaccompanied personnel apartments under a program separate from and unrelated to the PAL program. The term of the support lease for Parcel A would likely be less than the full 7-year IDP. The lodging and associated land at Parcel B (Abrams Hall, B2793) and Parcel C (Kuhn Hall, B4415) would be conveyed to Rest Easy under a short-term (7-year) lease. The support lease and STH-lease lodging units would be used during the IDP to maintain an appropriate number of available rooms while new lodging was being built. At the end of the IDP or as the new hotel became operational, Abrams Hall (B2793) would be demolished following coordination and approval from the Maryland Historic Trust and the land would revert back to Fort Meade. Kuhn Hall would be returned to installation inventory. The decision to not use these two buildings for future lodging is based on Abrams Hall's not meeting Holiday Inn Express standards and Kuhn Hall's being too expensive to run as a stand-alone facility in the long term, largely because of its historic status (see below).

All lodging being leased or 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. Kuhn Hall (B4415, Parcel C) is eligible for the NRHP, and therefore it would be renovated in strict accordance with the historic property requirements identified in the deed of conveyance.

LTH lease actions and new construction. Rest Easy plans to replace the existing lodging infrastructure at Fort Meade by building a 275-room Candlewood Suites hotel and associated parking on Parcel D (Figure 2-5). The new hotel rooms would generally be occupied by one Soldier, but could lodge up to 2–4 people per room (depending on the final room mix, and not to exceed prevailing fire code occupancy limits). The Army would grant Rest Easy a 46-year lease of the 15.5-acre parcel of undeveloped land. A portion of Griffin Avenue that currently runs through the parcel would be closed as part of the proposed action.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Sources of lodging services. The Army now provides transient lodging to Soldiers, their dependents, and other authorized patrons. 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. Many of the current occupants of Army lodging are attending Army schools located on-post. Eliminating on-post lodging would lengthen the students' workdays because of commuting and increase their transportation costs (without specific authorization, personnel on temporary duty might be ineligible for rental vehicle reimbursement). Local hospitality providers could experience wide swings in occupancy rates, especially between Army school sessions. At Fort Meade, termination of the Army's lodging program would result in abandoning existing lodging buildings that have a total of 196 lodging rooms. The Army could incur substantial costs to convert the buildings to alternative uses. Sufficient official demand exists to warrant continued operation of the lodging facilities on Fort Meade; the occupancy rate for Fort Meade on-post lodging in 2011 was 82 percent and 30 percent of prospective lodgers needed to find lodging at off-post facilities. For these reasons, the alternative to discontinue all lodging operations on Fort Meade is not feasible and is not evaluated in detail in this EA.

Alternate location for lodging. The options of renovating and continuing to use Buildings 4703–4705, 4707, and 4709, or constructing a new lodging facility in the same location as those buildings were dismissed from consideration because of a preceding decision to demolish the buildings and construct apartments for unaccompanied Soldiers at that location, making the land unavailable for use under the PAL program.

SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 LAND USE

3.1.1 Affected Environment

The officially designated land uses on Fort Meade are Administrative Operations, Community Support, Family Housing and Support, Industrial/Installation Support, Open Space/Outdoor Recreation/Forested, and Unaccompanied Housing/Support (NSA 2010). The parcels proposed to be included in the PAL lease are in the central part of the installation and are mostly designated as Administrative Operations land use. (The eastern portion of Parcel A is Community Support land use.) Areas surrounding the parcels are designated as Administrative Operations; Community Support; Family Housing and Support; and Open Space, Outdoor Recreation, and Forested land uses. The PAL parcels are within a roughly half-square-mile area off Leonard Wood Avenue, Mapes Road, Rose Street, and Llewellyn Avenue. Within and surrounding this area are family housing developments, a Child Development Center, the Post Exchange (PX), the Shoppette, the Commissary, a Burger King, the Post Library, the Post Theatre and bowling alley, the Defense Information Systems Agency (DISA) headquarters complex, and the garrison headquarters facilities (Figure 3-1). A recreational area (Burba Park) lies south of Parcel C across Llewellyn Avenue, and an undeveloped parade field that is part of a historic district lies east of Parcel D. There are forested areas east and north of Parcel A and east of Parcel B, and there is an undeveloped area with many trees west of Parcel D. Mature trees also line the edges of Parcel D.

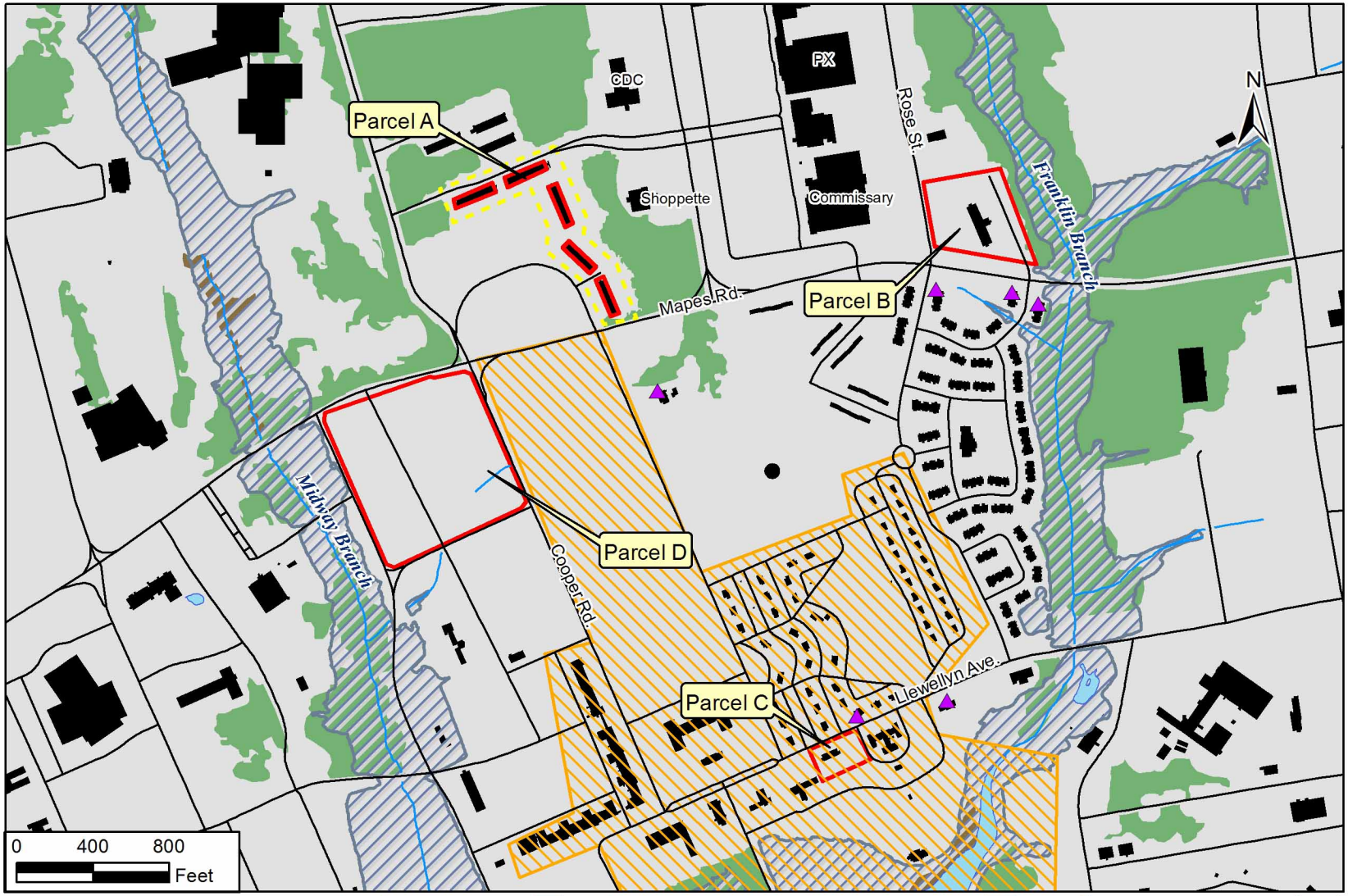
3.1.2 Environmental Consequences

3.1.2.1 Proposed Action (Preferred Alternative)

Long-term minor adverse effects on land use would be expected from implementing the PAL program on Fort Meade. The uses of Parcels A and C would not change under the PAL program. Parcel B would continue to be used for lodging in the short term, and its use after the demolition of Abrams Hall and its return to the Army would be determined by the Army. Parcel D would be changed from open space to developed land for lodging use—a long-term adverse effect, but the use would be compatible with the administrative land uses surrounding Parcel D. Therefore, no land use incompatibilities would be created by implementing the proposed action. The new hotel on Parcel D would be constructed to meet force protection security requirements, and stand-off distances would be maintained as required for the proposed building occupancy within the Fort Meade cantonment area, in compliance with Unified Facilities Criterion 4-010-01, *DOD* [Department of Defense] *Minimum Antiterrorism Standards for Buildings*. Although certification would not be required, the lease will require that the hotel be constructed to meet the Leadership in Energy and Environmental Design (LEED) Silver standards of the U.S. Green Building Council.

3.1.2.2 No Action Alternative

No effects on land use would be expected from implementing the No Action Alternative. All parcels would remain as they are, and the current land uses of the parcels would not change.



LEGEND

- Proposed PAL Footprint
- Parcel With Buildings Under Support Lease (No Associated Land)
- Installation Property
- Road
- Building
- Surface Water
- Stream
- Wetland
- Floodplain
- Noise Sensitive Area
- Historic District
- Forest Compartment

Environmental Constraints

Figure 3-1

3.2 AESTHETICS AND VISUAL RESOURCES

3.2.1 Affected Environment

The proposed PAL parcels are in the Central Administrative Zone of Fort Meade, which contains a variety of support uses such as operations and administration, housing and lodging, and community uses (USACE Mobile District 2007). The areas surrounding the proposed parcels are a mixture of developed and undeveloped areas, giving the area a campus-like atmosphere. Mapes Road passes three of the parcels (Parcels A, B, and D); it is a busy street that crosses the installation from the east at Gate 2 (Mapes Road and Maryland [MD] 175) to the west at Gate 1 (Mapes Road and Route 32). South of Parcel D and near Parcel C is the Headquarters area, which has a lot of daily activity. Rose Street, which is behind Parcel B, provides access to the Commissary and PX and is also a location of considerable daily activity. The wooded areas west of Parcel D, east of Parcel B, and north and east of Parcel A provide a natural element to the surroundings. Parcel D, which is undeveloped and bordered by other undeveloped areas to the west, east, and partially to the north, is the parcel that appears most natural.

3.2.2 Environmental Consequences

3.2.2.1 Proposed Action (Preferred Alternative)

Long-term minor adverse effects on aesthetics would be expected from implementing the proposed action. Parcels A and C would remain as they are, with no major changes to the buildings or their surroundings anticipated as a result of the PAL action. Abrams Hall would be demolished on Parcel B, after which it would become a grass-covered or vegetated lot. Hotel construction would occur on Parcel D, changing it from an open field to a modern lodging building. The building would be designed to be attractive and to blend with its architectural surroundings, resulting in a different but still attractive visual appearance. The adverse aesthetic effects of demolition and construction would be short lived, but the change of Parcel D from open space to developed land would be a long-term effect.

3.2.2.2 No Action Alternative

No effects on aesthetics would be expected under the No Action Alternative. The proposed action would not be implemented under the No Action Alternative, and therefore there would be no changes in the aesthetics of the parcels.

3.3 AIR QUALITY

3.3.1 Affected Environment

U.S. Environmental Protection Agency (EPA) Region 3 and the Maryland Department of the Environment (MDE) regulate air quality in Maryland. The Clean Air Act (42 U.S.C. 7401-7671q), as amended, gives EPA responsibility for establishing the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50), which set acceptable concentration levels for six criteria pollutants: particulate matter (measured as both particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$)), sulfur dioxide (SO_2), carbon monoxide (CO), nitrous oxides (NO_X), ozone (O_3), and lead. Short-term NAAQS (for 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. Although

each state has the authority to adopt standards stricter than those established under the Federal program, the State of Maryland accepts the Federal standards.

Federal regulations designate Air Quality Control Regions (AQCRs) in violation of the NAAQS as *nonattainment* areas; AQCRs with levels below the NAAQS are designated as *attainment* areas. According to the severity of the pollution problem, ozone nonattainment areas may be categorized as marginal, moderate, serious, severe, or extreme. Anne Arundel County (and therefore Fort Meade) is within the Metropolitan Baltimore Interstate AQCR, AQCR 115 (40 CFR 81.28). AQCR 115 is in the ozone transport region that includes 12 states and Washington, DC. EPA has designated Anne Arundel County as the following:

- Moderate nonattainment for the 1997 8-hour O_3 NAAQS
- Nonattainment for the 1997 $PM_{2.5}$ NAAQS
- Attainment for all other criteria pollutants (USEPA 2011a)

Fort Meade maintains a Synthetic Minor Permit to Operate (SPTO) (MDE 2011). The permit requirements include an annual inventory for all significant stationary sources of air emissions and also covers monitoring, recordkeeping, and reporting. Fort Meade's 2010 installation-wide air emissions for all significant stationary sources are shown in Table 3-1.

Table 3-1
Annual Emissions for Significant Stationary Sources at Fort Meade

Pollutant	Emissions (tons/year)
Volatile organic compounds (VOCs)	9.5
Nitrogen oxides (NO_x)	4.5
Carbon monoxide (CO)	4.1
Sulfur dioxide (SO_2)	0.1
Fine particulate matter (PM_{10})	0.1

Source: U.S. Army Fort Meade 2011c.

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 effect and climate change. Most GHGs occur naturally in the atmosphere, but increases in their concentration result from human activities such as the burning of fossil fuels. Global temperatures are expected to continue to rise as human activities continue to add carbon dioxide (CO_2), methane, nitrous oxide, and other greenhouse (or heat-trapping) gases to the atmosphere. Whether rainfall will increase or decrease remains difficult to project for specific regions (IPCC 2007, USEPA 2011b).

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 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 the GHG emissions from both its direct and indirect activities. The DOD has committed to reducing GHG emissions from non-combat activities 34 percent by 2020 (DOD 2010). In addition, the CEQ recently released draft guidance on when and how Federal agencies should consider GHG emissions and climate change in NEPA analyses. The draft guidance includes a presumptive effects threshold of 27,563 tons per year (25,000 metric tons per year) of CO_2 equivalent emissions from a Federal action (CEQ 2010).

3.3.2 Environmental Consequences

3.3.2.1 Proposed Action (Preferred Alternative)

Short- and long-term minor adverse effects on air quality would be expected. Implementation of the proposed action could affect air quality through airborne dust and other pollutants generated during construction and demolition, and through the introduction of new stationary sources of pollutants, such as heating boilers. Air quality impacts would be considered minor unless the emissions were greater than the General Conformity Rule applicability threshold; exceeded the GHG threshold in the draft CEQ guidance; or contributed 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, and architectural coatings. Operational emissions would be due primarily to heating emissions from the building and patron vehicle trips. The estimated emissions from the proposed action would be below the General Conformity Rule applicability thresholds (Table 3-2); the effects would be minor.

Table 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	9.0	17.0	2.8	<0.1	1.6	1.1	100(50)a	No
Operations	0.3	0.7	<0.1	<0.1	<0.1	<0.1		

Note: SOx = oxides of sulfur, VOC = volatile organic compound.

[a] *De minimis* threshold for VOC is 50 tons per year.

For analysis purposes, it was assumed that all the construction would be compressed into a single 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those shown here. Small changes in the facilities' siting, and 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 the level of effects under NEPA.

The hotel on Parcel D 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 the use of more energy-efficient units than those previously used in the lodging slated for demolition. The new lodging facilities would be owned, operated, and maintained by IHG on leased Army property. In general, the leased activities would not be considered under the direct control of Fort Meade.

These leased activities would normally be considered "tenants," and IHG would need to perform an air quality regulatory analysis to determine whether any Clean Air Act permitting is required for the operation of any sources of air emissions. Leased activities may be considered under

common control if 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 Meade, case-by-case determinations would be necessary to determine whether the existing sources of emissions would remain on, or new sources would be added to, Fort Meade's SPTO.

The Code of Maryland Regulations (COMAR) outlines precautions that would be required during the construction of the new facilities, such as control of 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 the use of water to control dust from building demolition, construction, road grading, or land clearing.

In addition, best management practices (BMPs) would be required and implemented for activities associated with the proposed action. The construction would be done in full compliance with current Maryland regulatory requirements, including compliant practices and/or products. These requirements include:

- Visible emissions (COMAR 26.11.06.02)
- Asphalt paving operations (COMAR 26.11.11.02)
- Open fires allowed without authorization (COMAR 26.11.07.05)
- Portable fuel containers (COMAR 26.11.13.07)
- Architectural coatings (COMAR 26.11.33.00)
- Consumer products (COMAR 26.11.32.00)

This list is not all-inclusive; the Army and any contractors would comply with all applicable air pollution control regulations. Other than these 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 1,423 tons (1,293 metric tons) of CO_2. There would be a minute increase in GHG from operating more lodging units. Regardless, the GHG emissions associated with the Preferred Alternative would fall well below the CEQ threshold. By using new heating and cooling systems and centrally locating the lodging units, Fort Meade would take steps to help the Army reach its GHG reduction goals in accordance with EO 13514.

3.3.2.2 No Action Alternative

No effects on air quality would be expected from selecting the No Action Alternative. No construction would be undertaken, 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, the

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 decibel is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. The Hertz is used to quantify sound frequency. The human ear responds differently to different frequencies. "A-weighing," measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Sounds encountered in daily life and their A-weighted decibel levels are provided in Table 3-3.

Table 3-3
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	Ringing telephone
Freeway traffic	70	TV audio
Normal conversation	60	Sewing machine
Rainfall	50	Refrigerator
Quiet residential area	40	Library

Source: Harris 1998.

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

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 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.

The State of Maryland'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. Maryland limits both the overall noise environment and the maximum allowable noise level for residential, industrial, and commercial areas (COMAR 26.02.03) (Tables 3-4 and 3-5). Construction and demolition activities are exempt from the limits outlined in Tables 3-4 and 3-5 during the daytime hours. For construction and demolition activities, a person may not cause or permit noise levels that exceed 90 dBA during daytime hours (7 a.m. to 10 p.m.) or the levels specified in Table 3-5 during nighttime hours (COMAR 26.02.03).

Table 3-4
State of Maryland Overall Environmental Noise Standards

Zoning District	Level (dBA)	Measure
Industrial	70	$L_{eq}(24)$
Commercial	64	L_{dn}
Residential	55	L_{dn}

Source: COMAR 26.02.03.

Table 3-5
Maximum Allowable Noise Level (dBA) for Receiving Land Use Categories

Day/Night	Industrial	Commercial	Residential
Day	75	67	65
Night	75	62	55

Source: COMAR 26.02.03.
Note: The daytime construction noise limit is 90 dBA for all land use categories.

During the day both on- and off-post individuals may be subjected to multiple sources of noise, including normal operation of HVAC (heating, ventilation, and air-conditioning) systems, military unit physical training activities, lawn maintenance, snow removal, and general maintenance of streets and sidewalks. Other minor noise sources include traffic, aircraft overflights, and construction activities. Tipton Army Airfield is approximately one mile from the proposed new hotel. Existing daytime and nighttime noise levels were estimated for the surrounding areas using the techniques specified in the American National Standard *Quantities and Procedures for Description and Measurement of Environmental Sound Part 3: Short-term measurements with an observer present.* The four parcels are in areas that would normally be considered normal urban residential (ANSI 2003). Table 3-6 outlines the closest receptors to the construction and demolition activities.

Table 3-6
Estimated Existing Noise Levels at Preferred Site

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	493 feet (150 meters)	South	Residence	Quiet commercial, quiet industrial, and normal urban residential	55	53	47
	680 feet (207 meters)	East	Residence				
	2,000 feet (612 meters)	North	School				
Parcel B	315 feet (96 meters)	South	Residence				
Parcel C (renovation only)	110 feet (33 meters)	North					
	490 feet (148 meters)	South					
Parcel D	880 feet (268 meters)	East	Residence				

Source: ANSI 2003

3.4.2 Environmental Consequences

3.4.2.1 Proposed Action (Preferred Alternative)

Short-term minor adverse effects would be expected. Short-term increases in noise would result from the use of construction equipment. Table 3-7 presents typical noise levels (in A-weighted decibels 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 daytime periods at locations within several hundred feet of active construction sites. The zone of relatively high construction noise typically extends to distances of 400 to 800 feet from the site of major equipment operations. Locations more than 800 feet from construction sites seldom experience noteworthy levels of construction noise.

Table 3-7
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 1974.

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

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

3.4.2.2 No Action Alternative

No effects on the noise environment would be expected from selecting the No Action Alternative. No construction would be undertaken, 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 Meade is in the Atlantic Coastal Plain Physiographic Province. The region is underlain by a wedge-shaped mass of unconsolidated sediments that thickens to the southeast and overlies crystalline rock of Precambrian to early Cambrian age (USACE Mobile District 2007).

3.5.1.1 Topography

Fort Meade has approximately 210 feet of topographic relief. The installation property slopes gradually to the south and southwest from the highest point, 310 feet above mean sea level (msl), in the northernmost central portion of the installation to the lowest elevation, less than 100 feet, in the southwestern corner of Fort Meade along the Little Patuxent River. Slopes exceeding 10 percent are rare and occur primarily in pockets in the north-central and central parts of the installation and along stream corridors (USACE Mobile District 2007). All the parcels are at approximately 160 feet above msl to 140 feet above msl (USGS 2011). Parcel B slopes from about 160 feet above msl west to east downward toward Franklin Branch, which is at about 140 feet above msl. Parcel D slopes downward from about 160 feet above msl at the northeast corner of the parcel westward to about 140 feet above msl at Midway Branch.

3.5.1.2 Soils

The majority of the land at Fort Meade is suitable for building (USACE Mobile District 2007). Most of the soil is part of the Evesboro complex, which is a very deep, well-drained to excessively drained, sandy loam soil on uplands. Such soils are easily worked over a wide range of moisture content but are subject to erosion, particularly soil blowing, when the surface becomes dry and is not covered by protective vegetation. The soils make good building sites (USACE Mobile District 2007).

The soils on Parcels B and D (where ground disturbance would occur under the proposed action) are Patapsco-Fort Mott-Urban land complex. The soils of this type are somewhat excessively drained, do not exhibit ponding or flooding, and are not highly subject to sheet and rill erosion (USDA NRCS 2012). The eastern edge of Parcel B near Franklin Branch also has Zekiah and Issue soils, 0 to 2 percent slopes. These soils are poorly drained, exhibit frequent ponding and flooding, and are moderately subject to sheet and rill erosion. The soils on Parcel D are rated as somewhat limited for dwellings with basements because of a shallow depth to saturated zone, but the soil has features that are moderately favorable for such buildings. The limitations of the soils can be overcome or minimized by special planning, design, or installation (USDA NRCS 2012).

3.5.1.3 Hydric Soils

The National Soils List for Anne Arundel County, Maryland, published by the U.S. Department of Agriculture Natural Resources Conservation Service, indicates that no mapped soils within the subject parcel are classified as hydric (BCG 2011).

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action (Preferred Alternative)

Short-term minor adverse effects on soils on Parcels B and D would be expected from implementing the proposed action. Demolition of Abrams Hall on Parcel B and construction of a hotel on Parcel D would involve soil disturbance. Construction and demolition activities conducted under the proposed action would comply with Maryland's regulatory program for sediment and erosion control at construction sites, which requires that erosion control BMPs be employed at all sites with disturbances of more than 5,000 square feet. Erosion and sedimentation controls would be in place during construction and demolition to control erosion and siltation effects on areas outside the sites. An erosion and sediment control plan would be designed in

accordance with MDE regulations, as published in the draft *2010 Standards and Specifications for Soil Erosion and Sediment Control* (MDE 2010a), and with *Maryland Erosion and Sediment Control Guidelines for State and Federal Projects* (MDE 2004).

The site plan for the hotel would include measures to prevent to the maximum extent possible the quantity of soil transported off-site, and Parcel D would be revegetated with native species after construction was completed. Eventually the grounds of Parcels B and D would return to a pre-construction (or demolition), minimal-erosion state. No effects on the underlying geology or general topography of the two parcels would be expected from implementing the proposed action.

3.5.2.2 No Action Alternative

No effects on geology, topography, or soils would result from implementing the No Action Alternative. No construction would be undertaken, and no new hotel would be built. No changes in the geology, topography, or soils of the parcels would result.

3.6 WATER RESOURCES

3.6 1 Affected Environment

3.6.1.1 Surface Water

There are three primary tributaries and associated subwatersheds on Fort Meade, all of which drain to the Little Patuxent River (Baker 2007). Midway Branch, which passes just west of Parcel D, originates off-post to the north and flows southward through the western half of the installation, draining approximately 1,461 acres on-post. The second, Franklin Branch, which passes just east of Parcel B, originates as an intermittent stream near Meade Senior High School and flows to the south, draining 1,176 acres of the eastern half of the post. Franklin Branch merges with Midway Branch at Fort Meade's southern boundary. A small area of Fort Meade is within the Severn River subwatershed. No PAL parcels are associated with the Severn River subwatershed. The flow from these tributaries eventually flows into the Little Patuxent River. Midway Branch and Franklin Branch are on Maryland's 303(d) list of impaired waters because of excess sediment. Both are classified by MDE as I-P streams (streams suitable for water contact recreation, protection of aquatic life, and public water supply).

The U.S. Army Corps of Engineers (USACE), Baltimore District, performed a bioassessment of Midway and Franklin branches using EPA guidelines to establish a baseline habitat condition for the streams on Fort Meade in 2002 (Baker 2007). Habitat was assessed at 18 stations along Midway Branch and Franklin Branch. The assessment sites on Midway Branch were directly west of Parcel D and northwest and southwest of Parcel D. The condition at each of the three assessment sites was rated as "good." On Franklin Branch, an assessment site north of Parcel B was rated as "good" and a site south of Parcel B was rated as "fair."

A topographic map of Parcel D shows an intermittent stream passing from the eastern edge southwest to cross the southern boundary of the parcel about midway along its length (USGS 2011). Bowman Consulting Group performed a wetland delineation survey of Parcel D in October 2011 (BCG 2011). Bowman reported that this drainage is an intermittent stream from a culvert underneath Leonard Wood Avenue until it flows into Midway Branch, but Bowman did not indicate whether the drainage qualifies as an intermittent stream at any place on Parcel D.

3.6.1.2 Groundwater

Three aquifers underlie Fort Meade. The lowest, the Patuxent Aquifer, has a thickness of 200–400 feet below the installation and provides potable water for the installation. The primary sources of potable water at Fort Meade are six groundwater wells on the south side of the installation. Fort Meade complies with standards in the Safe Drinking Water Act and COMAR. Drinking water is tested according to permit requirements (USACE Mobile District 2007).

3.6.1.3 Floodplains

There are delineated 100-year floodplain areas along both Midway and Franklin branches (FGGM 2012). The 500-year floodplain of Midway Branch extends very slightly into Parcel D along Leonard Wood Avenue about midway along the parcel's western boundary.

3.6.1.4 Coastal Zone

Fort Meade is entirely within Maryland's Coastal Zone Management Program area, which includes the Chesapeake Bay. The streams and their tributaries on Fort Meade eventually flow to the Chesapeake Bay. MDE regulates activities proposed within Maryland's Coastal Management Zone through Federal consistency requirements. Federal agencies are required to determine whether their activities are reasonably likely to affect any coastal use or resource and to conduct such activities in a manner that is consistent to the maximum extent practicable with the goals and objectives of Maryland's Coastal Zone Management Program.

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action (Preferred Alternative)

Long-term minor adverse effects on surface waters would be expected from implementing the proposed action. Potential effects associated with demolishing Abrams Hall and constructing a hotel on Parcel D, should erosion controls fail, include sediment-laden stormwater runoff from the site and minor quantities of contamination associated with construction equipment use in stormwater runoff during times of heavy rain. Contaminants could infiltrate soils and percolate to groundwater.

The construction phase of the project would require coverage under the Maryland General Permit for Stormwater Associated with Construction Activity, based on EPA's National Pollutant Discharge Elimination System (NPDES). Construction activities would comply with the *Maryland Erosion and Sediment Control Guidelines for State and Federal Projects* (MDE 2004) and the *Maryland Stormwater Management Guidelines for State and Federal Projects* (MDE 2010b) to avoid and minimize erosion at the sites and sediment runoff in the vicinity of the sites. A stormwater management plan and system meeting MDE's environmental site design standards would ensure that stormwater migrating off the sites is within acceptable volumes both during and after construction and demolition. Measures necessary to prevent sediment-laden water from leaving the sites would be implemented. No effects on Maryland's coastal zone or floodplains would be expected.

The Coastal Zone Federal Consistency Determination statement would be covered and included in the permit language and approval from MDE.

3.6.2.2 No Action Alternative

No effects on water resources would result from implementing the No Action Alternative. No construction or demolition activities would occur under the No Action Alternative.

3.7 BIOLOGICAL RESOURCES

3.7.1 Affected Environment

3.7.1.1 Vegetation

Vegetative cover on the PAL parcels, three of which are developed, is a mixture of individual mature trees, shrubbery and other landscaping plants, and mowed lawns. Parcel D, which fronts the parade field, contains many mature street trees.

Fort Meade has an established Forest Conservation Act and Tree Management Policy to maintain a campus like environment and preserve forested areas to the maximum extent practical in accordance with the Maryland Forest Conservation Act, while continuing to sustain and support current and future missions. Fort Meade complies with the Maryland Forest Conservation Act to the maximum extent practicable and manages its Forest Conservation Program in agreement with the Maryland Department of Natural Resources (MDNR). The installation supports Army, federal, state, and local laws, regulations, policies, and initiatives to the fullest extent possible (USACE Mobile District 2007). Under the Maryland Forest Conservation Act, 20 percent of forest conservation areas must be preserved as Forest Conservation Mitigation Areas to mitigate project effects. The removal of any reforestation areas and previously recorded Forest Conservation Act areas would be done in accordance with the current Forest Conservation Act and Fort Meade Tree Management Policy. No previously recorded Forest Conservation Act areas are known to be within the project boundaries.

3.7.1.2 Wildlife

Wildlife species found on Fort Meade are typical of those found in urban-suburban areas. White-tail deer (*Odocoileus virginianus*) and groundhogs (*Marmota monax*) occur on the installation. Other mammals include gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), eastern chipmunk (*Tamias striatus*), field mouse and vole (*Microtus* sp.), mole (*Scalopus aquaticus*), and fox (*Vulpes vulpes*) (USACE Mobile District 2007).

Birds common to the installation are limited to those species that have adapted to an urban-suburban habitat, such as American robin (*Turdus migratorius*), catbird (*Dumetella carolinensis*), mockingbird (*Mimus polyglyottos*), Carolina wren (*Thryothorus ludovicianus*), downy woodpecker (*Picoides pubescens*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), and song sparrow (*Melospiza melodia*) (USACE Mobile District 2007).

There is no aquatic habitat on the PAL parcels.

3.7.1.3 Threatened and Endangered Species

Except for occasional transients, such as migrating birds, no federally listed or proposed endangered or threatened species are known to exist on Fort Meade (USASMDC 2011). Rare, threatened, and endangered species habitat searches performed in 1993–1994 (Eco-Science Professionals and C.A. Davis 1994) and in 2001 (Eco-Science Professionals 2001), as well as a

2009 Flora and Fauna Survey (USACE Baltimore District 2009), did not identify federally listed endangered or threatened species on Fort Meade.

In accordance with the requirements of the Endangered Species Act, the U.S. Fish and Wildlife Service and the MDNR Natural Heritage Program were contacted to identify state and Federal listed species of concern on the parcels (Appendix A).

Fort Meade voluntarily maintains four habitat protection areas on the installation. Habitat protection areas are Fort Meade designated areas that have been found to support state threatened or endangered species, primarily vegetation. Development within these areas, although not preferable, is not precluded. No habitat protection areas are on the subject parcels.

3.7.1.4 Wetlands

A preliminary wetland delineation study performed by Baltimore USACE in 2011 did not locate wetlands or any other Waters of the US within the project boundaries (USACE Baltimore District 2011a). Previous FGGM GIS data also indicate that there are no wetlands within any of the PAL parcels (FGGM 2012).

3.7.2 Environmental Consequences

3.7.2.1 Proposed Action (Preferred Alternative)

Long-term minor adverse and minor beneficial effects on biological resources would be expected from implementing the proposed action. Construction of the hotel and associated structures on Parcel D would require clearing a large portion of the parcel of vegetation. The parcel, however, is a maintained lawn that is not important as habitat. Although the lawn would mostly be removed by the development, revegetation with native species and grass after construction is completed would provide marginal habitat for common species on the installation. The mature trees left on the parcel would provide some habitat for urban-friendly species.

Rest Easy would comply with the Fort Meade Forest Conservation Act and Tree Management Policy, and the Maryland Forest Conservation Act by coordinating with the Fort Meade Directorate of Public Works (DPW) to preserve or replant trees on the project site or perform reforestation at another location on Fort Meade acceptable to the installation. Structurally sound specimen trees and street trees would be preserved to the maximum extent practical. Tree preservation practices would be incorporated into construction plans to minimize damage to any trees that are to be preserved. Native plants would be used when re-landscaping the property after construction. Final determination of how compliance would be met would be determined in concert with the approval of construction site plans. Fort Meade DPW would determine whether marketable timber exists for harvesting, and if so, the USACE, Real Estate Division would determine its fair market value. The fair market value of the forest products removed because of the proposed action would be deposited in the Army Forestry Account to support Army forestry programs.

No effects on wetlands would be expected because there are none on the proposed PAL parcels.

3.7.2.2 No Action Alternative

No effects on biological resources would result from implementing the No Action Alternative. No Federal construction activities would occur under the No Action Alternative.

3.8 CULTURAL RESOURCES

Cultural resources assessed herein can be grouped in three general categories: archaeological resources, architectural resources, and Native American resources. Section 106 of the National Historic Preservation Act (NHPA) ensures that Federal agencies consider historic properties—defined as any prehistoric or historic districts, sites, buildings, structures, or objects eligible for inclusion in the NRHP—in their proposed programs, projects, and actions before initiation and allow the Advisory Council on Historic Preservation an opportunity to comment. Under this process, the Federal agency evaluates the NRHP eligibility of resources within the proposed undertaking's Area of Potential Effect (APE) and assesses the possible effects of the proposed undertaking on historic resources in consultation with the State Historic Preservation Office (SHPO) and other parties. The APE is defined as the geographic area(s) "within which an undertaking may directly or indirectly cause alterations in the character of use of historic properties, if any such properties exist." Under Section 110 of the NHPA, Federal agencies are required to establish programs to inventory and nominate cultural resources under their purview to the NRHP.

Cultural resources at Fort Meade are managed according to the 2011 Fort Meade Integrated Cultural Resources Management Plan (ICRMP) (USACE Baltimore District 2011c). The ICRMP provides guidelines and procedures to enable Fort Meade to meet its legal responsibilities pertaining to cultural resources. It includes processes for internal consultation and coordination with installation directorates and divisions, the ongoing identification and protection of archaeological and architectural resources and historic landscapes, external consultation and coordination with non-installation regulatory agencies and other interested parties, and implementation of standard operating procedures for cultural resources actions (USACE Baltimore District 2011c).

3.8.1 Affected Environment

Numerous cultural resources investigations have been conducted at Fort Meade. Part of the ICRMP was the development of an archaeological sensitivity model that designated areas of high and low potential for containing archaeological sites, taking into consideration the extent of modern disturbances. The ICRMP recommended 2,710.6 acres for archaeological survey and identified 1,852.9 acres where no additional surveys were recommended. To test the validity of the archaeological sensitivity model, a reconnaissance survey (i.e., Phase I testing) was conducted on 407.7 acres. The field investigation identified six additional archaeological sites on Fort Meade (USACE Baltimore District 2011c). In 1995, additional investigations were conducted at Fort Meade. The work is described in the report *Phase I Archaeological Survey of Approximately 2,210 Acres at Fort George G. Meade, Anne Arundel County, Maryland*. The fieldwork resulted in the identification and documentation of an additional 29 archaeological sites on Fort Meade. The sites include prehistoric, historic, and multiple occupation (prehistoric/historic) sites. There are nine cemeteries on Fort Meade, none of which are eligible for the NRHP listing for Section 106 purposes.

To date, 42 archaeological sites have been documented at Fort Meade. Of these, 19 contain prehistoric cultural components, 11 contain historic cultural components, 3 contain both historic and prehistoric components, and 9 are cemeteries (USACE Baltimore District 2011c). All the prehistoric sites are along upland terraces or ridges next to tributaries of the Little Patuxent River or Severn Run. NRHP eligibility status for all 40 sites has been determined through consultation with the Maryland Historic Trust (MHT), which serves as Maryland's SHPO. One site (18AN1240) is eligible for listing in the NRHP under Criterion D. The site consists of a Late Archaic subperiod base camp that contains stratified cultural deposits. The remaining 39 sites are not eligible for listing in the NRHP (USACE Baltimore District 2011c).

The APE for archaeological resources for the proposed action consists of approximately 15.5 acres bordered by Mapes Road to the north, Leonard Wood Avenue to the west, Bundy Street to the South, and Cooper Avenue to the east in the cantonment area. There are no known NRHP-eligible archaeological resources within the APE.

During the development and implementation of the Fort Meade ICRMP, a systematic inventory and assessment of all architectural resources constructed before 1954 was evaluated for NRHP eligibility (USACE Baltimore District 2011c). The inventory and assessment documented 501 buildings. Among those, 23 World War I-era and 62 World War II-era buildings were recommended for additional investigation to determine NRHP eligibility; the remaining 416 buildings were determined ineligible. A Phase II architectural survey of those buildings was conducted in 1996. As part of Fort Meade's 2001 ICRMP update, the USACE Baltimore District evaluated buildings constructed at Fort Meade between 1946 and 1960, under MIHP survey number AA-2220. Among others, this evaluation included Building numbers 4703, 4704, 4705, 4707, and 4709. The ICRMP, including the evaluation, was provided to the MHT for review and comment. By letter dated 14 March 2001, the MHT concurred with Fort Meade's determination that the subject five buildings were not eligible for the NRHP.

Currently, no buildings or structures at Fort Meade are listed in the NRHP although the Fort Meade Historic District (FMHD) and a Water Treatment Plant (WTP) (Building 8688) were determined eligible for listing (USACE Baltimore District 2011c, USACE Mobile District 2007). The Fort Meade Historic District contains 13 contributing Georgian Revival brick buildings constructed between 1928 and 1940 within the planned portion of the original post. The district originally consisted of 132 buildings and structures; however, with the privatization of several military housing units, many of the contributing elements of the original district are no longer under Army jurisdiction. The WTP (Building 8688) was built in 1941 in the Art Modern style. It is constructed of concrete and brick and retains most of its original architectural features.

In addition, three stone culverts—Llewellyn Avenue Bridge, Redwood Avenue Bridge, and Leonard Wood Avenue Bridge—built on the installation by German prisoners of war (POWs) between 1944 and 1946 were evaluated for NRHP eligibility. During World War II, many POWs were detained in Maryland and, due to labor shortages, were put to work in agriculture and industry. During their internment at Fort Meade, German POWs operated the post laundry and were used as laborers in constructing the three culverts. The evaluation found that the stone culverts are historically significant for their association with German POWs in Maryland during World War II. Therefore, the three culverts were recommended as eligible for listing in the NRHP (USACE Baltimore District 2011c).

Finally, to assess potential visual impacts on nearby or adjacent historic buildings, a visual APE was established and all architectural resources within an approximate 0.25-mile radius of Parcels

A, B, C, and D were identified. No architectural resources occur within the visual APE of Parcel A. Several architectural resources, as well as the FMHD, are within the visual APE of Parcels B, C, and D.

Parcel C consists of Kuhn Hall (Building 4415), which was constructed in 1931 as Nurses' Quarters. It is now used as the Distinguished Visitors' Quarters. This rectangular, two-and-a-half-story building has a symmetrical façade that is nine bays wide. The building sits on a reinforced concrete foundation. The concrete frame walls are clad with brick veneer. Building 4415 has Georgian Colonial style architectural elements. The hipped roof is clad with composition shingles. The windows have limestone sills and lintels, and the window units are six-over-six, light, double-hung sash units. Building 4415 is significant under the National Register Areas of Significance for architecture and military history. The Areas of Significance are associated with the development of Fort Meade as a permanent Army installation in the 1920s through 1940s.

The Fort Meade Historic District's western boundary abuts 15.5-acre Parcel D, and its northern boundary abuts Parcel A. The closest architectural resource, Van Deman Hall, is approximately 0.16 mile to the south of Parcel D and approximately 0.34 mile to the southeast of Parcel A. Van Deman Hall (Building 4552), a contributing element of the Fort Meade Historical District, is one of three large barracks buildings constructed between 1929 and 1940. This barracks complex also includes Buildings 4553 (Tallmadge Hall) and 4554 (Hale Hall). Constructed in 1940 as a 250-man barracks, it is now used as an administrative building. It has Georgian Colonial Revival design elements. Building 4552 is significant under the National Register Areas of Significance for architecture and military history.

At present, no known traditional cultural properties or Native American sacred sites occur within or near the preferred site. In addition, no traditional cultural properties or Native American sacred sites have been recorded at Fort Meade. Although there are no federally recognized Indian tribes present in Maryland, seven federally recognized tribes elsewhere in the United States are believed to have a historical affiliation. Accordingly, the Cultural Affairs Manager for Fort Meade has initiated consultation in accordance with American Indian Religion Freedom Act and Native American Graves Protection and Repatriation Act to ascertain the tribes' interest in Fort Meade matters (USACE Baltimore District 2011c).

3.8.2 Environmental Consequences

3.8.2.1 Proposed Action (Preferred Alternative)

No adverse effects on the sole NRHP-eligible archaeological site at Fort Meade would be expected. There would be no effects on any Native American resources or sacred sites.

The proposed action would have direct impacts on Kuhn Hall (Building 4415), an NRHP-eligible property. The impacts would be mitigated through strict compliance with the historic property requirements identified in the deed of conveyance. A programmatic agreement between Fort Meade, Rest Easy, and the MHT would be developed prior to any action.

The proposed action would potentially have minor, adverse, indirect impacts on architectural resources eligible for the NRHP because the site is adjacent to the FMHD. Temporary impacts would be expected during active construction, and they would be limited to minor adverse, impacts on setting and viewshed. Upon the completion of construction, permanent changes in viewshed would be expected. However, due to the distance of the closest contributing element of

the FMHD and mitigation efforts (including vegetative screening), these impacts would be minor. Nevertheless, a programmatic agreement would be established between Fort Meade, Rest Easy, and the MHT.

3.8.2.2 No Action Alternative

No effects on cultural resources would be expected. The No Action Alternative would not noticeably affect any of the cultural resources known to exist on the installation, nor would it violate any state and/or federal regulations. All known cultural resource sites would continue to be managed in accordance with the ICRMP. Newly discovered cultural resource sites would also be managed by the standard operating procedures from the ICRMP.

3.9 SOCIOECONOMICS

3.9.1 Affected Environment

This section describes the economy and the sociological environment of the region of influence (ROI) surrounding Fort Meade. 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 Anne Arundel, Baltimore, and Howard counties, Maryland, and Baltimore City, Maryland. Socioeconomic data for the state of Maryland and the United States are presented for comparative purposes.

3.9.1.1 Regional Economy

Employment and Industry. Civilian labor force and unemployment data are shown in Table 3-8. The region's labor force increased 4 percent between 2000 and 2010, lower than the state and national growth rates of 6 percent and 8 percent, respectively. The ROI 2010 annual unemployment rate was 8 percent, which was the same as the state unemployment rate but lower than the national unemployment rate of 10 percent. As of December 2011 (the most recent unemployment data available), preliminary unemployment data for the month is a 7 percent unemployment rate for the ROI, higher than the Maryland unemployment rate of 6.5 percent and lower than the national unemployment rate of 8 percent (BLS 2012).

Table 3-8
Labor Force and Unemployment

	2000 civilian labor force	2010 civilian labor force	Change in labor force, 2000–2010	2010 annual unemployment rate
ROI	1,103,503	1,143,226	4%	8%
Maryland	2,811,657	2,980,772	6%	8%
United States	142,583,000	153,889,000	8%	10%

Source: BLS 2012.

The primary sources of ROI employment were government and government enterprises (which includes Federal, military, and state and local government); health care and social assistance; professional, scientific, and technical services; and retail trade. Together, those four industry sectors account for almost 50 percent of regional employment (BEA 2011). Fort Meade is a major contributor to the regional and state economies, with more than $9 billion per year in funding.

Fort Meade is Maryland's largest employer; it has the fourth-largest workforce of any Army installation in the continental United States. There are 56,777 people working on Fort Meade; of these, 11,986 are military, 29,840 are DOD civilian, and 14,951 are contractors (Parker, personal communication, 2012).

Income. Income data are presented in Table 3-9. ROI income levels were higher than state and national income levels. The ROI per capita personal income (PCPI) was $35,266, which is 103 percent of the Maryland state level PCPI of $34,389 and 134 percent of the national per capita income of $26,409. The ROI median household income of $72,603 was 105 percent of the Maryland state median household income of $69,272 and 145 percent of the national median household income of $50,221.

Table 3-9
Income

	PCPI	Median household income
ROI	$35,266	$72,603
Maryland	$34,389	$69,272
United States	$26,409	$50,221

Source: U.S. Census Bureau 2011a.

Population. The ROI's 2010 population was about 2,250,000, an increase of approximately 107,000 persons since 2000. (Table 3-10) The ROI's population growth of 5 percent was lower than the Maryland state and the national population growth of 9 percent and 10 percent, respectively. In the ROI, the Anne Arundel, Howard, and Baltimore county populations grew, with Howard County having the highest growth at 16 percent. Baltimore City's population declined by 5 percent (U.S. Census Bureau 2011b, 2011c). There are about 10,500 people living on Fort Meade, including service members and their dependents (Parker, personal communication, 2012).

Table 3-10
Population

	2000 population	2010 population	Change in population, 2000–2010
ROI	2,142,944	2,250,731	5%
Maryland	5,296,486	5,773,552	9%
United States	281,421,906	308,745,538	10%

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

3.9.1.2 Quality of life

Lodging. The Fort Meade lodging facilities are described in Section 2.3. During the 4-year period from Fiscal Year 2008 through 2011, Fort Meade Army Lodging had an occupancy rate of 81 percent. Fort Meade Army Lodging receives little to no demand from unofficial travelers; demand is primarily official temporary duty or permanent change of station. 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 lodging facility.

Emergency services. The Fort Meade Directorate of Emergency Services provides police and fire protection for the installation. The Police Services Division provides physical security, law

enforcement, crime prevention and investigation, traffic enforcement and control, apprehension of military deserters, and animal control. The Fort Meade Fire and Emergency Services Department provides fire suppression, rescue, fire prevention, emergency medical response, hazardous materials response, and aircraft crash response (U.S. Army Fort Meade 2011a).

On-post healthcare is provided at the Kimbrough Ambulatory Care Clinic. Kimbrough is the headquarters of the U.S. Army Medical Department Activity. Kimbrough provides primary care, selected specialty care, and same-day surgery for TRICARE Prime patients, but it is not a hospital and does not provide emergency services. Off-post health care facilities include the Anne Arundel Medical Center, Howard County General Hospital, Baltimore Washington Medical Center, and Johns Hopkins Hospital. Fort Meade has two dental clinics (AMEDD 2010; Fort Meade Alliance 2010; MHA 2011).

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's 2010 census, minority populations composed 45 percent of the ROI's total population (U.S. Census Bureau 2011d). That is the same as the Maryland statewide minority population percentage but higher than the national minority population of 36 percent (U.S. Census Bureau 2011c). The ROI poverty level was 11 percent, higher than the Maryland poverty rate of 9 percent but lower than the national poverty rate of 14 percent (U.S. Census Bureau 2011e).

3.9.1.4 Protection of Children

EO 13045, *Protection of Children from Environmental Health and Safety Risks*, was issued by President Clinton on April 21, 1997. It requires Federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. Children are present at Fort Meade as residents and visitors (e.g., residing in on-post family housing or lodging, using recreational facilities, attending 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 Proposed Action (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 falls outside the historical range of ROI economic variation. To determine that range, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. That analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes of these four variables for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of an action falls 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 proposed action. The expenditures and employment associated with the construction and renovation of Fort Meade lodging would increase ROI sales volume, employment, and income, as determined by the EIFS model (Table 3-11 and Appendix C). The economic benefits would last only for the duration of the development and construction period. Such changes in sales volume, employment, and income would fall within historical fluctuations (i.e., within the RTV range) and would be considered minor.

Table 3-11
EIFS Model Output

Variable	Projected total change	Percent change	RTV range
Sales (business) volume	$22,978,870	0.02%	-4.82% to 11.54%
Income	$4,454,484	0.01%	-4.53% to 10.44%
Employment	98	0.01%	-3.28% to 2.75%
Population	0	0.00%	-0.46% to 1.16%

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 at a cost that meets government per diem rates is important to Soldiers and visitors when they are on temporary duty or permanent change of station. It is also important to the Army to be able to accommodate Soldiers and guests in on-post lodging equal in quality to off-post lodging. Under the Preferred Alternative, the developer would renovate existing lodging for short-term use and then replace these buildings with a new hotel to provide a sufficient number of on-post rooms to meet Fort Meade's lodging requirements. The PAL program would provide the installation with a modern hotel with suites that have private living space, kitchenettes, bedrooms, and baths, as well as the 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. These improvements would benefit the quality of life of those who stay at the facilities.

Emergency services. No effects on law enforcement, fire protection, or emergency medical response would be expected. The proposed building and renovated buildings would be on Fort Meade property within the jurisdiction of the Fort Meade Directorate of Emergency Services, which would respond to emergencies at the privatized lodging facilities as it does with the existing facilities, on a cost-reimbursable basis to the developer. The new lodging facilities would be built to installation design guidelines and would have all the safety equipment required by law (such as smoke alarms, fire alarms, sprinklers).

Environmental Justice and Protection of Children. No effects would be expected. The proposed action, renovating and constructing lodging facilities on Fort Meade, would not result in disproportionate adverse environmental or health effects on low-income or minority populations or children. The proposed action 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 on quality of life would be expected. Continuation of the present lodging programs would perpetuate deficiencies in quality of life for Soldiers, their families, and other personnel eligible to use Army lodging. The Army would continue to 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 on the basis of current funding levels.

3.10 TRANSPORTATION

3.10.1 Affected Environment

Transportation in and around Fort Meade 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 recreation trips.

On-Post Roadways and Gate Traffic. Transportation on roadways in and around Fort Meade during the morning and afternoon peak periods typically operates smoothly at the gates for access to the installation. Local roadways include the Patuxent Freeway (MD 32), Fort Meade Road (MD 198), Reece Road (MD 174), and Annapolis Road (MD 175). Farther to the west is the Baltimore–Washington Parkway (MD 295). MD 295 can be congested during the morning and afternoon peak hours in the peak direction of flow carrying traffic north-south from Baltimore and Washington, DC. A system of sidewalks along many streets and walkways between buildings accommodates pedestrian traffic. Troop pathways are provided between foot traffic high-volume areas.

Fort Meade (not including the National Security Agency [NSA]) can be accessed by five access control points (ACPs). All ACPs are gated entry, and vehicle occupants undergo identification card checks and random vehicle inspections at these points. Gate 7 (Demps Control Center, Reece Road Gate) is the only gate that provides 24-hour access, and all visitors without a DOD decal and identification badge must use this gate. Table 3-12 provides information on hours of operation, accessible roadways, and restrictions for all Fort Meade ACPs.

Off-Post Roadways. MD 295 is adjacent to Fort Meade, extending southwest-northeast. It is a freeway that links Fort Meade to Washington, DC, to the southwest and Baltimore, Philadelphia, Pennsylvania, and Wilmington, Delaware, to the northeast. Interstate 95 generally parallels MD-295 and is approximately five miles from the post. Average daily traffic counts for off-post roads are listed in Table 3-13.

Air, Rail, and Public Transportation. The closest airport—Baltimore Washington Thurgood International (BWI)—is approximately 10 miles from Fort Meade. It provides commercial and

passenger air service. Amtrak passenger rail service has stations in Washington, DC, Baltimore, and BWI, where connections can be made to areas throughout the country. The Metro heavy rail

Table 3-12
ACPs and Their Accessible Roadways, Operations Hours, and Restrictions

ACP and Access Road	Hours	Restrictions
Gate 1, Mapes Road and Route 32	5 a.m. to 9 p.m. M–F	Military and DOD only
Gate 2, Mapes Road and MD 175	5 a.m. to 7 p.m. M–F	Military and DOD only
Gate 3, Rockenbach Road	5 a.m. to 9 p.m. daily	Military and DOD only
Gate 6, Llewellyn Avenue and MD 175	6 a.m. to 8 a.m. M–F 3 p.m. to 6 p.m. M–F	Military and DOD inbound traffic only outbound traffic only
Gate 7, Reece Road and MD 175	24 hours daily	Must have sponsor or preauthorization

Source: US Army Fort Meade 2011.

Table 3-13
Average Daily Traffic Counts for Gate Accessible Off-post Roadways

Roadway	AADT
Annapolis Road (MD 175) at Baltimore Washington Parkway (MD 295)	24,670
Mapes Road at Patuxent Freeway (MD 32)	42,740
Reece Road at Annapolis Road (MD 175)	21,530
Rockenbach Road at Annapolis Road (MD 175)	9,971

Source: MDSHA 2010.

Note: ADDT = average daily traffic count.

system provides high-speed transit service in a 15.5-mile corridor from Owings Mills in western Baltimore County through downtown Baltimore to Johns Hopkins Hospital, with the potential to transfer to light rail (MARC) service (Camden line) covering additional service portions of Baltimore City and County. Maryland Transit Administration (MTA) light rail provides medium-speed transit service from Baltimore County to Anne Arundel County. This service connects with the MARC, Metro Washington (Washington Metropolitan Area Transportation Authority [WMATA]) intercity and commuter rail, and many local bus routes provided by MTA, WMATA, and Connect-A-Ride (sponsored by Anne Arundel and Howard counties) (USASMDC 2011). Fort Meade operates a shuttle service to the Odenton MARC station during the morning and evening rush hours.

3.10.2 Environmental Consequences

3.10.2.1 Proposed Action (Preferred Alternative)

Short- and long-term minor adverse effects would be expected on-post, and long-term minor beneficial effects would be expected at the gates and off-post. During construction phases, construction vehicles and day-labor traffic would have a minor adverse effect on gate and installation traffic. Construction vehicles would be scheduled and routed to minimize conflicts with other traffic. Currently, the future patrons of the additional 79 rooms under the PAL program occupy hotels off-post and access the installation for training, work, and personal trips during

their visit. The proposed action would consolidate these activities with current on-post lodging activities at a single location on Parcel D.

On-Post Roadways, Gate Traffic, and Parking. The proposed hotel would generate 2,393 vehicle trips per day on weekdays either originating at or destined to Parcel D. The removal of lodging would eliminate 1,131 vehicle trips per day at Parcels A, B, and C. Specifically, traffic from patrons and staff would be rerouted to Parcel D as opposed to off-post hotels and Parcels A, B, and C. In general, this would correspond to a net increase in the miles traveled on-post and a small net benefit would result from reducing traffic passing through the gates each morning and evening.

Direct effects associated with the additional localized traffic would include an increase in daily and peak period traffic volumes on roadways and at intersections adjacent to Parcel D. Table 3-14 contains a detailed breakdown of the weekday and weekend increases in traffic expected at the site.

Table 3-14
Estimated Trip Generation from the Proposed lodging

Period of Interest	Trips Generation Rate		Trips Generated	
Average daily	8.7	trips/unit/day	2,393	trips/day
Weekday a.m. peak hour	0.67	trips/unit/hour	184	trips/hour
Weekday p.m. peak hour	0.76	trips/unit/hour	209	trips/hour
Saturday daily	10.5	trips/unit/day	2,888	trips/day
Saturday peak hour	0.87	trips/unit/hour	239	trips/hour
Sunday daily	8.5	trips/unit/day	2,338	trips/day
Sunday peak hour	0.75	trips/unit/hour	206	trips/hour

Source: ITE 2003.

At full occupancy, an additional 209 trips would be generated during the evening peak hour from the proposed hotel, whereas all other periods would have fewer additional trips. These additional trips would be split between the access points to the proposed hotel, and they would account for fewer than 209 trips per hour at any intersection, and a fraction thereof for any turning movement at any intersection. These effects would be directly proportional to the occupancy of the hotel.

The most recent analysis of traffic in the area was conducted during preparation of the *Final Environmental Impact Statement for Campus Development* (NSA 2010). The predicted level of service (LOS) for the intersections adjacent to Parcel D under future conditions is shown in Table 3-15. The LOS includes all trips generated by the campus development for NSA and prior growth activities at Fort Meade.

Table 3-15
Level of Service in 2015 at Intersections Adjacent to Parcel D

Intersection	Level of Service	
	Morning Peak Hour	Evening Peak Hour
Cooper and Mapes Road	C	E
Macarthur Road and Mapes Road	C	B
Reece and Macarthur Roads	C	C

Source: NSA 2010.

The proposed action might have small but mixed effects on the intersections outlined in Table 3-15, as well as the intersections of Ruffner and Cooper Roads, Ruffner and Macarthur Roads, and Reece Road and Cooper Avenue. The increase in the number of trips at any given intersection would be small in and of itself. Therefore, it is not expected that the proposed action would change the LOS at any intersection analyzed.

People accessing the proposed hotel would most likely use the gates in a pattern similar to patrons currently using the gates to access existing lodging facilities. There would likely be a small decrease in traffic at Mapes Road Gate because many patrons who previously lodged off-post would no longer access the installation from off-post hotels; however, it is not expected that traffic at any gate would change substantially because of implementation of the proposed action.

Roadway improvements (including upgrades of intersections, turn lanes, and roadways) to reduce the level of effect from previous growth actions at Fort Meade to less than significant levels were addressed in a 2007 environmental impact statement (USACE Mobile District 2007) and the *Environmental Assessment for Fort George G. Meade Roadway Improvements, Fort George G. Meade Fort George G. Meade Ann Arundel County, Maryland* (FGGM 2010). Infrastructure upgrades to the Rockenbach/Cooper and Mapes/Cooper intersections are expected to be completed before full occupancy of the proposed hotel, and they would help relieve local intersection impacts during morning and evening peak travel times.

Off-Post Roadways. The small net increase in on-post lodging would constitute a corresponding decrease of approximately 1,131 vehicle trips per day either originating at or destined to the installation. Many of these trips would occur at peak periods and would account for some small beneficial decrease in the amount of off-post traffic. This would constitute a minute change in off-post traffic, and it would not appreciably affect any nearby roadways or intersections. The effects would be negligible.

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

3.10.2.2 No Action Alternative

No effects on transportation resources would be expected from selecting the No Action Alternative. No construction would be undertaken, 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 PAL parcels. The utility components discussed in this section include water supply, sanitary sewer and wastewater system, stormwater drainage, electricity, natural gas, solid waste management, and communications.

Potable Water. American Water owns and operates the potable water system on Fort Meade. Fort Meade receives most of its potable water from six groundwater wells, the source for which is the Patuxent Aquifer. Water is stored in three aboveground, clearwell, storage tanks with a combined

capacity of 2.3 million gallons and seven active water storage tanks with capacities that range from 200,000 to 600,000 gallons (USASMDC 2011).

Wastewater System—On-Post. American Water owns and operates the wastewater treatment system on Fort Meade. The wastewater treatment plant (WWTP) has the capacity to process and treat 12.3 million gallons per day (MGD) of wastewater, but the current average flow is 4.6 MGD. The 10-year average flow to the plant is 2.3 MGD, with a maximum instantaneous flow of 12 MGD. The maximum flow to the plant typically occurs during wet weather. Once treatment of the wastewater is complete, most of the treated water is discharged into the Little Patuxent River.

Stormwater System. Fort Meade's storm drainage system consists of two major defined watersheds and one minor undefined watershed. The three natural drainage areas are supplemented with an extensive network of storm drainpipes and attendant drainage structures supplemented by swales, ditches, other drains, and retention ponds. The drainage areas are generally north-south-oriented, emanate in the northern portion of the installation, and ultimately discharge into the Little Patuxent River, a tributary of the upper Chesapeake Bay (USASMDC 2011).

The provisions of COMAR 26.09.01–26.09.02 require that all jurisdictions within the state implement a stormwater management program to control the quality and quantity of stormwater runoff resulting from new development. The regulations require that the release rate from newly developed areas not exceed the rate generated by the site under undeveloped conditions. Furthermore, Fort Meade maintains a stormwater pollution prevention plan that establishes BMPs for controlling and preventing siltation and other contaminants associated with construction and industrial activity sites from reaching area surface waters (USASMDC 2011).

Solid Waste. All solid waste from existing buildings is collected by the Fort Meade Base Operations contractor and transported to an offsite landfill. For the PAL construction project, solid waste disposal would be a project cost. All construction and demolition debris and refuse would be recycled to the maximum extent possible.

Electricity. Baltimore Gas and Electric (BG&E) supplies all electricity used at Fort Meade. A 115-kilovolt (kV) transmission line brings electricity to government-owned master substations on the installation. The existing primary source for approximately 79 percent of on-post power is a 110-kV feeder line from the BG&E Waugh Chapel Power Station. In 2004 Fort Meade followed a government initiative to privatize utilities on the installation and partnered with BG&E. Since then, BG&E has upgraded 75 percent of the installation's gas and electrical systems (FGGM 2011).

Natural Gas. BG&E supplies Fort Meade with natural gas. The natural gas distribution system at Fort Meade is extensive and runs throughout the installation. New gas-fired boilers installed throughout the installation have replaced old centralized oil-fired boilers (USASMDC 2011).

3.11.2 Environmental Consequences

3.11.2.1 Proposed Action (Preferred Alternative)

Long-term minor adverse effects on utilities would be expected. The existing infrastructure for all other utilities would be adequate for projected demands from the proposed lodging facilities, but the project would increase demand on all utilities. The lease will require that Lend Lease

construct the hotel to the U.S. Green Building Council's LEED program Silver standards, incorporating energy and water-saving fixtures into the hotel's construction, which would limit the amount by which the new hotel would increase demand for utilities.

Implementation of the proposed action would generate approximately 5,198 tons of construction and demolition (C&D) debris (Table 3-16). Approximately half of the debris would be recycled, which would result in about 2,600 tons of non-hazardous C&D debris for disposal. All

Table 3-16
Summary of Construction and Demolition Debris

	Type	Debris generation rate (lb/sq ft)	Debris generated (tons)	Quantity recycled (50%) (tons)	Total quantity landfill disposed (tons)
Construction					
151,250 sq ft	Non Residential	4.4	332.8	166.4	166.4
Demolition					
71,500 sq ft	Non Residential	115.0	4,111.3	2,055.6	2,055.6
Renovation					
75,350 sq ft	Non Residential	20	753.5	376.8	376.8
Total			**5,197.5**	**2,598.8**	**2,598.8**

Source: USEPA 1998.
Note: sq ft = square feet, lb/sq ft = pounds per square foot.

solid waste generated by the proposed action would be disposed of in accordance with Fort Meade recycling policies.

A slight increase in utility systems usage would be expected from implementing the proposed action. There are already utility lines at the adjacent residential and commercial properties with full utility service, alleviating the need for new service connections. The overall utility demand attributable to post-wide lodging would increase only slightly because old lodging facilities would be demolished (removing their demand) and the new hotel would be constructed to meet LEED Silver standards.

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

Specific environmental statutes and regulations govern hazardous material and hazardous waste management activities at Fort Meade. For the purpose of this analysis, the terms *hazardous waste, hazardous materials, and toxic substances* include those substances defined as hazardous by the

Comprehensive Environmental Response, Compensation, and Liability Act; the Resource Conservation and Recovery Act; or the Toxic Substances Control Act. In general, they include substances that, because of their quantity, concentration, or physical, chemical, or toxic characteristics, might present substantial danger to public health or welfare or the environment when released into the environment. Numerous maintenance activities, such as vehicle operation and maintenance, hospital services, and grounds maintenance, require the use and storage of regulated and non-regulated hazardous materials. Examples of hazardous wastes generated at the installation are waste paint, spent solvents, photographic waste, contaminated fuel, battery waste, pharmaceutical waste, aerosols, alcohols, acids, pesticides, and paint thinners.

DOD policy requires that the environmental condition of property (ECP) be determined before any real property may be sold, leased, transferred, or acquired. Therefore, an ECP report was prepared by Tetra Tech, Inc., for the parcel and structures included in the Proposed Action. The ECP report documents the physical and environmental condition of the four PAL parcels resulting from the past storage, use, release, and disposal of hazardous substances and petroleum products within or directly adjacent to the parcels. The findings from the ECP report, independent research, and data collection conducted by Tetra Tech personnel were used to prepare this section.

3.12.1.1 Polychlorinated biphenyls

Pad-mounted transformers were identified on all four parcels. The transformers were described as relatively new and in good condition, but whether any of the transformers contain polychlorinated biphenyls (PCBs) is unknown. There are no historical records of PCB releases occurring on the parcels. BG&E manages and maintains the installation's electrical infrastructure.

3.12.1.2 Installation Restoration Program and Solid Waste Management Units

The DOD established the Installation Restoration Program (IRP) in 1975 to provide guidance and funding for the investigation and remediation of hazardous waste sites caused by historical disposal activities at military installations. The fundamental goal of the Fort Meade IRP is to protect human health, safety, and the environment. The IRP is carried out in accordance with all federal, state, and local laws. The primary federal laws are the Comprehensive Environmental Response, Compensation and Liability Act and the Superfund Amendments and Reauthorization Act. In 2009, Fort Meade signed a Federal Facility Agreement with the EPA, U.S. Department of the Interior, and U.S. Architect of the Capitol. This document establishes the role that Fort Meade and the EPA each play in the restoration of the installation and the formal mechanisms of this process. The IRP staff work closely with the EPA, MDE, and local government agencies to ensure that cleanup processes are conducted properly and efficiently. The staff also receive input from community groups and nearby residential areas.

Although no IRP sites or solid waste management units (SWMUs) are within the boundaries of the PAL parcels, there are approximately 63 IRP sites within half a mile of the PAL parcels. Each site was studied using information and documents provided by Fort Meade and research conducted by Tetra Tech. Sites that could affect the parcels are described below.

Building 4411, Former Hospital (SWMU-99), is directly east of Parcel C. The site is described in the 2011 Fort Meade Site Management Plan (SMP) as the building being used as a hospital from 1926 to 1974. A 1,000-gallon underground heating oil tank (HOT) was once located on the southern side of the building; it supplied heating oil to the building's boiler. Previous

investigations around Building 4411 were performed in 1999 and 2002. They included the collection of 5 surface soil, 13 subsurface soil, and 10 groundwater samples. Concentrations of mercury and chromium were detected above the site-specific action levels. An additional site investigation is being conducted, and it includes the installation and use of four groundwater monitoring wells. Groundwater samples will be analyzed for Semivolatile Organic Compounds (SVOCs), Total Petroleum Hydrocarbons-Gasoline Range Organics (TPH-GRO), Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO), and Target Analyte List metals.

Former Motor Pool -1 (MP-1) and Wash Rack-4 (WR-4) are on the adjacent property directly south of Parcel D, across Bundy Street. According to the 2011 Fort Meade SMP, the Former Motor Pool -1 and Wash Rack-4 were identified on a land-use map from 1952 during the 1996 aerial photograph study of the installation. An aerial photograph from 1954 showed a vehicle service and storage area. The 1975 aerial write-up stated that the site was no longer used for storing vehicles and had become a parking lot. No potential environmental concerns have been documented at this location, and there are no records of releases or potential sources of contamination. It is believed that this area might have been used as a parking lot and the wash rack was used for washing vehicles. There were four building within the area of interest, three of which have been torn down over the years and the areas regraded. No previous site investigations have been performed at the site. A Preliminary Assessment/Site Inspection (PA/SI) is under way with a recommendation to collect 14 surface soil samples and analyze them for VOCs, SVOCs, and metals. Groundwater investigations were not recommended. Whether this site has affected Parcel D is unknown (USACE Baltimore District 2011b).

Former Motor Pool-2 (MP-2) is 0.15 mile southwest of Parcel D, along Griffin Avenue and north of Simonds Street. According to the 2011 Fort Meade SMP, Former Motor Pool-2 was identified on a land-use map from 1952 during the 1996 aerial photograph study. A vehicle service and storage area is shown at this location in aerial photographs from 1963, 1970, 1975, and 1988. Areas exhibiting staining, standing liquid, and stressed vegetation were identified in the photographs; however, none of these environmental indicators were observed during more recent site visits to the site. A soil and groundwater site investigation was conducted at MP-2 in 2009. It included five surface soil, five sub-surface, and four groundwater samples. The investigation concluded that there had not been a release into the surrounding area; however, four areas that had been identified in historical photographs as being stained had not been fully evaluated. An ongoing PA/SI includes the collection of four surface soil and four groundwater monitoring well samples that analyzed for VOCs, SVOCs, TPH-GRO, TPH-DRO, and metals. Whether this site has affected Parcel D is unknown (USACE Baltimore District 2011b).

3.12.1.3 Munitions and Explosives of Concern

According to the 2007 Final Site Inspection Report, six sites at Fort Meade are eligible for the Military Munitions Response Program (MMRP). No further MMRP action was required at five of the sites, and the former Mortar Range Munitions Response Area is currently under investigation. However, none of the six MMRP sites are on the PAL parcels or on adjacent lands (Malcolm Pirnie 2007). Existing records and available information provided by Fort Meade during the drafting of the ECP provided evidence that munitions and explosives of concern (MEC) are not known to be present on the PAL parcels. None of the parcels are within the boundaries of any current or former training or munitions areas (ECC 2011).

Because the project is on a military installation, there is a potential for encountering MEC. If the lessee or any person associated with the project encounter or suspect they have encountered MEC

on the project, they must not attempt to disturb, remove, or destroy it. Instead, they must cease any intrusive or ground-disturbing activities being conducted at the project and immediately notify the installation police, Fort Meade Provost Marshall's Office, and the Fort Meade DPW Environmental Division (ED).

3.12.1.4 Storage tanks

According to the historical records search, Fort Meade-provided geographic information system (GIS) data, and information provided by Fort Meade DPW personnel, it was determined that there are no aboveground storage tanks (ASTs) or underground storage tanks (USTs) within the boundaries of the four PAL parcels.

During the Visual Site Inspection conducted on March 1, 2012, Tetra Tech personnel did not observe any evidence of existing or former ASTs or USTs on the parcels. Slanted floors in the basements of Buildings 4703, 4704, 4705, and 4707, and 4709 (Parcel A) were observed. The slanted floors appeared to be coal chutes, suggesting that the buildings might have been heated by coal-fired furnaces.

Although most buildings at Fort Meade were once heated with heating oil, no records verifying that ASTs or USTs had ever been present on the PAL parcels were available. The ASTM-E1527-05-compliant records search performed on the parcels and adjacent lands for this EA did not provide any records of spills or leaks occurring on the parcel associated with ASTs or USTs.

No USTs/ASTs were found on the PAL parcels. With the aid of GIS data provided by Fort Meade, Tetra Tech conducted a search of former and in-use USTs/ASTs near the parcels. The information below describes the USTs/ASTs found through the geodatabase query of each parcel. Further information regarding the former USTs was provided by installation personnel from the DPW in a meeting March 1, 2012.

Three active 12,000-gallon gasoline USTs are located directly northeast of Parcel A at the installation's shoppette and gas station on MacArthur Road (InfoMap 2011a). The USTs are at their closest point approximately 130 feet from the parcel (FGGM GIS 2011). They are actively monitored by a leak detection system, and no releases have been reported. Therefore, these USTs should not affect Parcel A. (DPW ED, personal correspondence, 2012).

A former AST was located northwest of Parcel B at the Commissary along MacArthur Avenue. The case was closed March 20, 1999, without any evidence of release (InfoMap 2011b). A 500-gallon diesel AST (ID#32786B) used to store diesel fuel for an emergency generator is at the southeastern corner of the Commissary, 0.1 mile from Abrams Hall (Parcel B). According to installation personnel, no recorded releases have been associated with this AST (DPW ED, personal correspondence, 2012).

A 1,000-gallon underground HOT (4407B) was once 0.2 mile south of Parcel C at Building 4407 on Llewellyn Road. The UST had been filled with inert material, and it was closed in place December 8, 1997. Fort Meade personnel indicated that an additional tank (a 2,000 gallon No. 2 Fuel Oil UST (4407A)) was located at Building 4407. MDE records indicate that the tank was closed in place and filled with inert material on November 17, 1997. Final closure was granted by MDE on June 9, 1998. Based on the location of the HOT and the fact that the site was closed, it is not believed that this site would affect the parcel.

An underground HOT was located 0.15 mile southeast of the Parcel D at Building 4680 on Redwood Avenue. The case was closed June 9, 1998, without any evidence of release (InfoMap 2011d). Based on the Fort Meade-provided GIS, there are currently four 6,000-gallon inactive gasoline ASTs (ASTs 4680 H, I, J, and K) at this site (FGGM GIS 2011). There is no evidence of a release (DPW ED, personal correspondence, 2012).

3.12.1.5 Pesticides

Pesticides have been applied at Fort Meade as needed for pretreatment and maintenance control. Fort Meade has an Integrated Pesticide Management Plan (IPMP) that covers the storage and application of pesticides (U.S. Army Fort Meade 2005). Pest management is performed in accordance with the U.S. Army's Integrated Pest Management techniques. The IPMP is intended to reduce the use of pesticides. According to the installation's 2005 IPMP, pesticides classified as moderately or highly toxic are stored in Building 294, in the southeastern corner of the installation. That facility meets the standard set forth in *Military Handbook 1028/8A* and the criteria described in 40 CFR Part 165 (USACE Mobile District 2007).

Although an active installation-wide IPMP is in effect for Fort Meade, pesticides might have been used around the existing structures across the PAL parcels. Because the buildings were constructed between 1931 and 1975 and have been occupied through the present, the historical use of pesticides might have resulted in residual pesticides on the parcels.

3.12.1.6 Lead-Based Paint

Limited surveys were performed in the late 1990s for Buildings 4704, 4705, and 4709 on Parcel A. The surveys were performed using an X-ray fluorescent device and appear to have included only the exterior surfaces of the site structures. The survey from Building 4705 identified door screens, door casings, stair handrails, and baseboards as building components coated with lead-based paint (LBP). LBP was identified on metal exterior doors and their trim on Buildings 4704 and 4707 on Parcel A. No abatement reports could be found on record at Fort Meade DPW. The DPW ED LBP Program Manager stated that LBP had been identified on exterior door trim and a white metal door in the basement. The DPW ED's LBP Program Manager also mentioned that some LBP areas in Abrams Hall on Parcel B and Kuhn Hall on Parcel C had also been identified; however, no abatement had been completed. An excessive amount of flaking paint was identified in the storage rooms of Kuhn Hall; however, the DPW ED's LBP Program Manager said that the rooms had been surveyed and were found not to contain lead. Minimal amounts of LBP would be expected to be found in Abrams Hall because it was built in 1975. Typically, LBP surveys have been and continue to be completed on an as needed basis at Fort Meade (DPW ED LBP Program Manager, personal communication, 2012).

Before initiating any demolition or renovation activities, the potential for environmental effects from LBP would be evaluated and addressed as specified in the appropriate regulatory requirements. Demolition that involves LBP would be evaluated for compliance with the Occupational Safety and Health Administration standard at 29 CFR 1926.62; EPA and U.S. Department of Housing and Urban Development standards; and state, federal, and Army regulations. Measures to control airborne lead dust would be implemented.

3.12.1.7 Asbestos-Containing Material

An asbestos survey of Buildings 4703, 4704, 4705, and 4707 was conducted by BCM Engineers in 1996 and 1997 as part of a larger installation-wide survey to determine the presence of asbestos-containing material (ACM) in the facilities on Fort Meade. Only accessible areas of the buildings were inspected for ACM; areas behind walls or ceilings were not inspected. The asbestos surveys identified various types of vinyl floor tile, floor tile mastic, and baseboard mastic as non-friable ACM. Damaged and undamaged thermal system insulation (e.g., pipe insulation, pipe fittings) identified as friable ACM were found in the boiler rooms and crawl spaces of Building 4704. A trace amount of asbestos was also detected in a bulk sample of drywall in Building 4705 (BCM 1996a, 1996b, 1996c, 1996d).

An asbestos survey/inspection for Building 4709 was not available; therefore, the presence/absence of ACM in that structure is not known. The building materials for the structure are similar to that used in the four structures surveyed for ACM; therefore, it is likely that the structure also contains similar ACM building materials.

No ACM reports or surveys were on file at Fort Meade DPW for Abrams Hall (Parcel B) or Kuhn Hall (Parcel C). According to the DPW ED ACM Manager, it is possible that ACM is present in Abrams Hall and Kuhn Hall. He indicated that some removal had occurred, mainly when ACM tiles were damaged and needed to be replaced or pipe coverage was removed in the building's boiler room. Inaccessible areas might contain ACM, and very little abatement has been done (DPW ED ACM Program Manager, personal communication, 2012).

During the Visual Site Inspection conducted March 1, 2012, by Tetra Tech personnel for the ECP report, suspect ACM was observed throughout the buildings on Parcel A and Parcel C, including 9x9 vinyl floor tiles, vinyl floor mastic, drywall systems, acoustic ceiling tiles, and cement board siding on the exterior stairway of the structure. Suspect ACM pipe insulation was observed in the basement boiler room of Kuhn Hall (Parcel B).

Asbestos regulations require that comprehensive asbestos surveys be performed on all structures before demolition or renovation to determine whether special handling or abatement is required before construction or demolition. Before initiating any demolition or renovation activities, the potential of environmental impacts from ACM would be evaluated and addressed as specified in the appropriate regulatory requirements.

3.12.1.8 Radon

Fort Meade is in Anne Arundel County, which EPA has classified as being within a Zone 2 moderate potential area for radon. That means existing properties could have an average indoor radon screening level between 2 and 4 picocuries per liter (USEPA 2008). An installation-wide radon survey of the structures on Fort Meade was completed in 1990. Reportedly, none of the representative buildings tested for radon had results in excess of applicable standards. Therefore, radon is not considered significant (ECC 2011).

3.12.1.9 Mold

Fungi are present almost everywhere in indoor and outdoor environments. Molds or fungi typically grow on common building components (e.g., walls, ventilation systems, support beams) that are chronically moist or water-damaged. Elevated fungal exposure in humans can result in flu-like symptoms, including runny nose, eye irritation, cough, congestion, and aggravation of

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

Mold was observed in most of the boiler rooms and basements of the buildings on the PAL parcels. Mold is typically caused by faulty steam pipes or leaking water pipes in the walls. When mold is found, maintenance personnel usually remove it.

3.12.2 Environmental Consequences

3.12.2.1 Proposed Action (Preferred Alternative)

No adverse effects related to radon, mold, and MEC would be expected from implementing the proposed action. Several environmental concerns that could have adverse short- and long-term effects have been identified on the PAL parcels. These concerns are discussed below.

All available historical records and information related to former USTs/ASTs at Fort Meade were made available for review. Although most buildings at Fort Meade were once heated with heating oil, no records verifying the existence of USTs or ASTs on the parcels could be found.

No residual contamination is known to exist on the parcels, but impacted soil and groundwater might be encountered on Parcel C (Kuhn Hall) and Parcel D (new build site) because of activities previously conducted at the IRP sites SWMU 99 directly east of Parcel C and MP-1 and WR-4 directly south of the Parcel D. Site investigations are planned for fiscal year 2012 for these IRP sites; that include sampling of soil and groundwater at SWMU 99 and only soil borings at MP-1/WR-4. If residual contamination is encountered during site clearing or excavation, the contractor would immediately stop work and notify appropriate installation personnel. No effects on site workers would be expected because they would be required to work under the requirements of a project-specific health and safety plan.

ACM and LBP encountered during demolition or construction would be characterized and disposed of in accordance with applicable federal, state, and local solid waste management regulations. LBP would be encapsulated and removed in accordance with applicable federal guidelines, which cover contractor training, notification requirements, use of personal protective equipment, and approved disposal methods.

However, if environmentally-impacted soils or ACM and LBP were encountered during construction/demolition activities, they would be mitigated or removed completely, resulting in an improved condition of the parcels.

Construction would involve the use of heavy equipment, which could result in minor spills from engines and equipment operation. Appropriate BMPs would be implemented during construction to ensure that any leaks or spills would have negligible environmental effect. Any spills occurring during construction would be reported to the Fort Meade Environmental Division in accordance with the installation *Spill Prevention, Control and Countermeasure Plan*. Hazardous and toxic substances would be managed in accordance with established installation and regulatory requirements.

3.12.2.2 No Action Alternative

No adverse environmental or health effects related to the use, disposal, or storage of hazardous or toxic materials would be expected from implementing the No Action Alternative.

3.13 CUMULATIVE EFFECTS

Recent changes have occurred at Fort Meade recently as a result of the 2005 BRAC Commission recommendations and associated actions. The BRAC Commission recommended that three major activities relocate to Fort Meade: DISA, the Defense Media Activity, and the Adjudication Activities co-location offices. Additionally, a National Security Agency campus development project will begin late in 2012 west of the DISA development site and along Rockenbach Road. Smaller projects are also planned on Fort Meade, including construction of a new Army and Air Force Exchange Service in 2012 and construction of a new hotel along Mapes Avenue between 2012 and 2013. These projects, combined with the proposed action, would create cumulative effects. The cumulative effects are described below by resource area. Although these cumulative effects are adverse, none are considered significant.

- Air quality. The State of Maryland takes into account the effects of all past, present, and reasonably foreseeable emissions during the development of the State Implementation Plan. The state accounts for all significant stationary, area, and mobile emission sources in the development of this plan. Estimated emissions generated by the Preferred Alternative would be *de minimis* and would not be regionally significant. Therefore, the Preferred Alternative would not contribute significantly to adverse cumulative effects to air quality.
- Noise. The Preferred Alternative would introduce short- and long-term incremental increases the noise environment from construction, building demolition, and minute increases in vehicle traffic. These changes would be minor and have negligible cumulative effects.
- Water quality: Development projects increase stormwater runoff to surrounding surface waters and to ground water, both during construction when sedimentation is increased and after construction is complete when the increase in impervious area creates a local permanent increase in stormwater runoff. The proposed action would also have these effects. A MDE-approved stormwater management plan will be developed to manage runoff. Development projects are required to maintain post-construction runoff from the project site at pre-development levels through onsite stormwater management.
- Transportation. The proposed action could occur concurrently with other proposed development projects, including the Enhanced Use Lease, East Campus Development at NSA, Unaccompanied Personnel Housing, upgrading of the PX, roadway improvements, and other potential Military Construction projects. Traffic issues could arise along Fort Meade's major roadways from the additional construction and operational traffic. Existing traffic problems identified on-post include traffic delays during the morning and evening peak hours at installation entrance gates and several on-post intersections. A new hotel would be a small component of the overall growth associated with these activities, incrementally contributing to traffic increases, particularly on post. Therefore, the proposed action would have minor adverse cumulative effects on traffic.
- Utilities. The size and scope of the changes in utilities associated with the proposed action would be extremely small when compared to other planned projects in the area. As a result, the utility impacts during construction would not contribute appreciably to cumulative effects.

3.14 MITIGATION

No significant adverse effects resulting from implementation of the proposed action have been identified. Mitigation measures that would be implemented in association with the proposed action include using appropriate BMPs during and after construction to avoid and minimize adverse environmental effects, including those mentioned below.

- Compliance with an MDE-approved stormwater management plan and erosion and sediment control plan, using stormwater management and erosion control BMPs required by MDE.
- Compliance with the Fort Meade Tree Management Policy through coordination with the Fort Meade DPW. Tree preservation measures will be incorporated in construction plans. Street trees on Parcel D will be preserved to the maximum extent practical.
- Compliance with all applicable federal, state, and local air regulations, such as those for the control of fugitive dust.
- Conducting construction activities during normal weekday work hours (generally 7 a.m. to 5 p.m.) and avoiding conducting construction activities on evenings and weekends to the extent practical.
- Compliance with the historic property requirements identified in the deed of conveyance. A Programmatic Agreement would be developed between Fort Meade, Rest Easy, and the MHT before any action or commencement of work.
- Mitigating or removing completely any petroleum-impacted soils or ACM and LBP building materials, if they are encountered during construction and demolition activities. ACM and LBP materials encountered during demolition would be characterized and disposed of in accordance with applicable federal, state, and local solid waste management regulations. LBP would be encapsulated and removed in accordance with applicable federal guidelines.
- The amount by which the new hotel would increase demand for utilities would be limited because the lease would require that Lend Lease construct the hotel to meet LEED Silver standards.

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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 Meade. The EA examines the proposed action (Preferred Alternative) and a No Action Alternative. The No Action Alternative is prescribed by CEQ regulations to serve as the baseline against which the proposed action and alternatives are analyzed.

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

Implementing the proposed action would result in a combination of short- and long-term minor adverse and short- and long-term minor beneficial effects. Short-term minor adverse effects would be expected on air quality, noise, soils, and transportation, primarily associated with construction and renovation activities. Long-term minor adverse effects would be expected on land use from the loss of green space, aesthetics and visual resources from a loss of open space, water resources from stormwater runoff from the new hotel, biological resources from development of a currently vegetated area, the local economy from lost local business because of a decline in demand for off-post lodging and restaurant use, on-post transportation resources from concentrating lodging traffic at a single location, and utilities because of a slightly increased demand on all utility systems. Short-term minor beneficial effects would be expected on the local economy from expenditures and employment associated with lodging renovation and construction. Long-term minor beneficial effects would be expected on local wildlife from revegetating disturbed areas with native species and grass after construction is completed, socioeconomics (quality of life) from the overall improved quality of the lodging facilities, and off-post transportation resources because of a slight reduction in gate and off-post traffic.

Mitigation actions are used to reduce, avoid, or compensate for adverse effects. Mitigation measures would include the use of best management practices during and after construction to avoid and minimize adverse environmental effects. Construction activities would be covered under an approved plan for erosion and sediment control and the Maryland Department of the Environment General Permit for Stormwater Associated with Construction Activity, and post-construction stormwater runoff would be managed under an approved stormwater management plan. Additionally, ACM and LBP encountered during demolition or construction would be characterized and disposed of in accordance with applicable federal, state, and local solid waste management regulations; LBP would be encapsulated and removed in accordance with applicable federal guidelines; and if environmentally-impacted soils or ACM and LBP were encountered during construction/demolition activities, they would be mitigated or removed completely.

The project would be in compliance with the FGGM Forest Conservation Act and Tree Management Policy and the MDNR Forest Conservation Act. Street trees on Parcel D will be preserved to the maximum extent practical. Impacts on Kuhn Hall, the NRHP-listed property, will be mitigated through strict compliance with the historic property requirements identified in the deed of conveyance. A Programmatic Agreement will be developed between Fort Meade, Rest Easy, and the Maryland Historic Trust before any action or commencement of work.

The lease would require that Lend Lease construct the hotel to the U.S. Green Building Council's LEED Silver standards, which would limit the amount by which the new hotel would increase demand for utilities.

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	Long-term minor adverse effect	No effect
Aesthetic and visual resources	Long-term minor adverse	No effect
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	Long-term minor adverse	No effect
Biological resources	Long-term minor adverse and minor beneficial	No effect
Cultural resources	No effect[1]	No effect
Socioeconomics	Short- and long-term minor beneficial Long-term minor adverse	Long-term minor adverse
Transportation	Short- and long-term minor adverse Long-term minor beneficial	No effect
Utilities	Long-term minor adverse	No effect
Hazardous and toxic substances	No effect	No effect

[1] The adverse effect of transferring the NRHP-eligible Kuhn Hall out of federal control will be fully mitigated through implementation of the Programmatic Agreement, thereby resulting in no adverse effects on cultural resources.

SECTION 5.0
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Maryland Department of Environment
1800 Washington Boulevard
Baltimore, MD 21230

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Maryland Department of Natural Resources
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580 Taylor Avenue
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Mr. Leopoldo Miranda
Chesapeake Bay Field Office
U.S. Department of the Interior Fish and Wildlife Service
177 Admiral Cochrane Drive
Annapolis, MD 21401

Mr. Bill Arguto
US Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19106

Libraries

Anne Arundel County Public Library
West County Area Library
1325 Annapolis Rd
Odenton, MD 21113

Medal of Honor Memorial Library
Fort Meade
4418 Llewellyn Avenue
Fort Meade, MD 20755

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APPENDIX A

Agency Coordination

(Note: *The figures that follow the first letter were sent with all letters, but are not duplicated here*.)

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TETRA TECH

March 23, 2012

Ms. Linda C. Janey
Maryland State Clearinghouse
Maryland Office of Planning, Room 1104
301 West Preston Street
Baltimore, MD 21201-2365

Dear Ms. Janey:

On behalf of private developer, Rest Easy, LLC, Tetra Tech, Inc. is preparing an Environmental Assessment (EA) for the proposed program implementation and construction of Privatized Army Lodging (PAL) to be located at Fort George G. Meade, Maryland. Fort Meade is located in northern Anne Arundel County, Maryland, southeast of the Baltimore-Washington Parkway and west of I-97. The EA will be prepared in accordance with the National Environmental Policy Act of 1969, as amended.

The proposed PAL action to be evaluated in the EA includes the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The purpose of the new lodging is to eventually replace the existing six deteriorated lodging facilities. The proposed site is a grassy field area (Encl 1), that is located within view of Fort Meade's historic district. Additionally, historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters (Encl 2), would be renovated in accordance with historic property requirements.

To assist us in identifying issues that may affect the implementation of this project, please provide written comments within 30 days of receipt of this letter to: Sam Pett, 10306 Eaton Place, Suite 340, Fairfax, VA 22030. You may contact Mr. Pett by calling 703-385-6000 extension 329 or email to sam.pett@tetratech.com if you have any comments or questions regarding this matter.

Sincerely,

Sam Pett
Tetra Tech, Inc.

Enclosures

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LEGEND

Proposed PAL Footprint

Parcel D (New Build)

Enclosure 1

LEGEND

Proposed PAL Footprint

Parcel C (Kuhn Hall)

Enclosure 2

TETRA TECH

March 23, 2012

Mr. Bill Arguto
US Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19106

Dear Mr. Arguto:

On behalf of private developer, Rest Easy, LLC, Tetra Tech, Inc. is preparing an Environmental Assessment (EA) for the proposed program implementation and construction of Privatized Army Lodging (PAL) to be located at Fort George G. Meade, Maryland. Fort Meade is located in northern Anne Arundel County, Maryland, southeast of the Baltimore-Washington Parkway and west of I-97. The EA will be prepared in accordance with the National Environmental Policy Act of 1969, as amended.

The proposed PAL action to be evaluated in the EA includes the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The purpose of the new lodging is to eventually replace the existing six deteriorated lodging facilities. The proposed site is a grassy field area (Encl 1), that is located within view of Fort Meade's historic district. Additionally, historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters (Encl 2), would be renovated in accordance with historic property requirements.

To assist us in identifying issues that may affect the implementation of this project, please provide written comments within 30 days of receipt of this letter to: Sam Pett, 10306 Eaton Place, Suite 340, Fairfax, VA 22030. You may contact Mr. Pett by calling 703-385-6000 extension 329 or email to sam.pett@tetratech.com if you have any comments or questions regarding this matter.

Sincerely,

Sam Pett
Tetra Tech, Inc.

Enclosures

Tetra Tech, Inc.
10306 Eaton Place, Suite 340, Fairfax, VA 22030
Tel 703.385.6000 Fax 703.385.6007 www.tetratech.com www.ttwater.com

TETRA TECH

March 23, 2012

Ms. Brigid E. Kenney
Office of the Secretary
Maryland Department of Environment
1800 Washington Boulevard
Baltimore, MD 21230

Dear Ms. Kenney:

On behalf of private developer, Rest Easy, LLC, Tetra Tech, Inc. is preparing an Environmental Assessment (EA) for the proposed program implementation and construction of Privatized Army Lodging (PAL) to be located at Fort George G. Meade, Maryland. Fort Meade is located in northern Anne Arundel County, Maryland, southeast of the Baltimore-Washington Parkway and west of I-97. The EA will be prepared in accordance with the National Environmental Policy Act of 1969, as amended.

The proposed PAL action to be evaluated in the EA includes the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The purpose of the new lodging is to eventually replace the existing six deteriorated lodging facilities. The proposed site is a grassy field area (Encl 1), that is located within view of Fort Meade's historic district. Additionally, historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters (Encl 2), would be renovated in accordance with historic property requirements.

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Sincerely,

Sam Pett
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Enclosures

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10306 Eaton Place, Suite 340, Fairfax, VA 22030
Tel 703.385.6000 Fax 703.385.6007 www.tetratech.com www.ttwater.com

TETRA TECH

March 23, 2012

Ms. Lori Byrne
Maryland Department of Natural Resources
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401

Dear Ms. Byrne:

On behalf of private developer, Rest Easy, LLC, Tetra Tech, Inc. is preparing an Environmental Assessment (EA) for the proposed program implementation and construction of Privatized Army Lodging (PAL) to be located at Fort George G. Meade, Maryland. Fort Meade is located in northern Anne Arundel County, Maryland, southeast of the Baltimore-Washington Parkway and west of I-97. The EA will be prepared in accordance with the National Environmental Policy Act of 1969, as amended.

The proposed PAL action to be evaluated in the EA includes the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The purpose of the new lodging is to eventually replace the existing six deteriorated lodging facilities. The proposed site is a grassy field area (Encl 1), that is located within view of Fort Meade's historic district. Additionally, historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters (Encl 2), would be renovated in accordance with historic property requirements.

To assist us in identifying issues that may affect the implementation of this project, please provide written comments within 30 days of receipt of this letter to: Sam Pett, 10306 Eaton Place, Suite 340, Fairfax, VA 22030. You may contact Mr. Pett by calling 703-385-6000 extension 329 or email to sam.pett@tetratech.com if you have any comments or questions regarding this matter.

Sincerely,

Sam Pett
Tetra Tech, Inc.

Enclosures

Tetra Tech, Inc.
10306 Eaton Place, Suite 340, Fairfax, VA 22030
Tel 703.385.6000 Fax 703.385.6007 www.tetratech.com www.ttwater.com

TETRA TECH

March 23, 2012

Mr. Leopoldo Miranda
Chesapeake Bay Field Office
U.S. Department of the Interior Fish and Wildlife Service
177 Admiral Cochrane Drive
Annapolis, MD 21401

Dear Mr. Miranda:

On behalf of private developer, Rest Easy, LLC, Tetra Tech, Inc. is preparing an Environmental Assessment (EA) for the proposed program implementation and construction of Privatized Army Lodging (PAL) to be located at Fort George G. Meade, Maryland. Fort Meade is located in northern Anne Arundel County, Maryland, southeast of the Baltimore-Washington Parkway and west of I-97. The EA will be prepared in accordance with the National Environmental Policy Act of 1969, as amended.

The proposed PAL action to be evaluated in the EA includes the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The purpose of the new lodging is to eventually replace the existing six deteriorated lodging facilities. The proposed site is a grassy field area (Encl 1), that is located within view of Fort Meade's historic district. Additionally, historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters (Encl 2), would be renovated in accordance with historic property requirements.

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Sincerely,

Sam Pett
Tetra Tech, Inc.

Enclosures

Tetra Tech, Inc.
10306 Eaton Place, Suite 340, Fairfax, VA 22030
Tel 703.385.6000 Fax 703.385.6007 www.tetratech.com www.ttwater.com

TETRA TECH

March 23, 2012

Ms. Elizabeth Cole, Administrator
Project Review / Compliance
Maryland Historical Trust
100 Community Place
Crownsville, Maryland 21032

Dear Ms. Cole:

On behalf of private developer, Rest Easy, LLC, Tetra Tech, Inc. is preparing an Environmental Assessment (EA) for the proposed program implementation and construction of Privatized Army Lodging (PAL) to be located at Fort George G. Meade, Maryland. Fort Meade is located in northern Anne Arundel County, Maryland, southeast of the Baltimore-Washington Parkway and west of I-97. The EA will be prepared in accordance with the National Environmental Policy Act of 1969, as amended.

The proposed PAL action to be evaluated in the EA includes the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The purpose of the new lodging is to eventually replace the existing six deteriorated lodging facilities. The proposed site is a grassy field area (Encl 1), that is located within view of Fort Meade's historic district. Additionally, historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters (Encl 2), would be renovated in accordance with historic property requirements.

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Sincerely,

Sam Pett
Tetra Tech, Inc.

Enclosures

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10306 Eaton Place, Suite 340, Fairfax, VA 22030
Tel 703.385.6000 Fax 703.385.6007 www.tetratech.com www.ttwater.com

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Joseph P. Gill, Deputy Secretary

December 8, 2011

Brian Wolfe
Bowman Consulting Group
2530 Riva Rd., Suite 200
Annapolis, MD 21401

RE: Environmental Review for Fort Meade Area G2, Fort Meade, BCG Job #5319-01-001, near Mapes Rd. and Cooper Ave., Anne Arundel County, MD.

Dear Mr. Wolfe:

The Wildlife and Heritage Service has determined that there are no State or Federal records for rare, threatened or endangered species within the boundaries of the project site as delineated. As a result, we have no specific comments or requirements pertaining to protection measures at this time. This statement should not be interpreted however as meaning that rare, threatened or endangered species are not in fact present. If appropriate habitat is available, certain species could be present without documentation because adequate surveys have not been conducted.

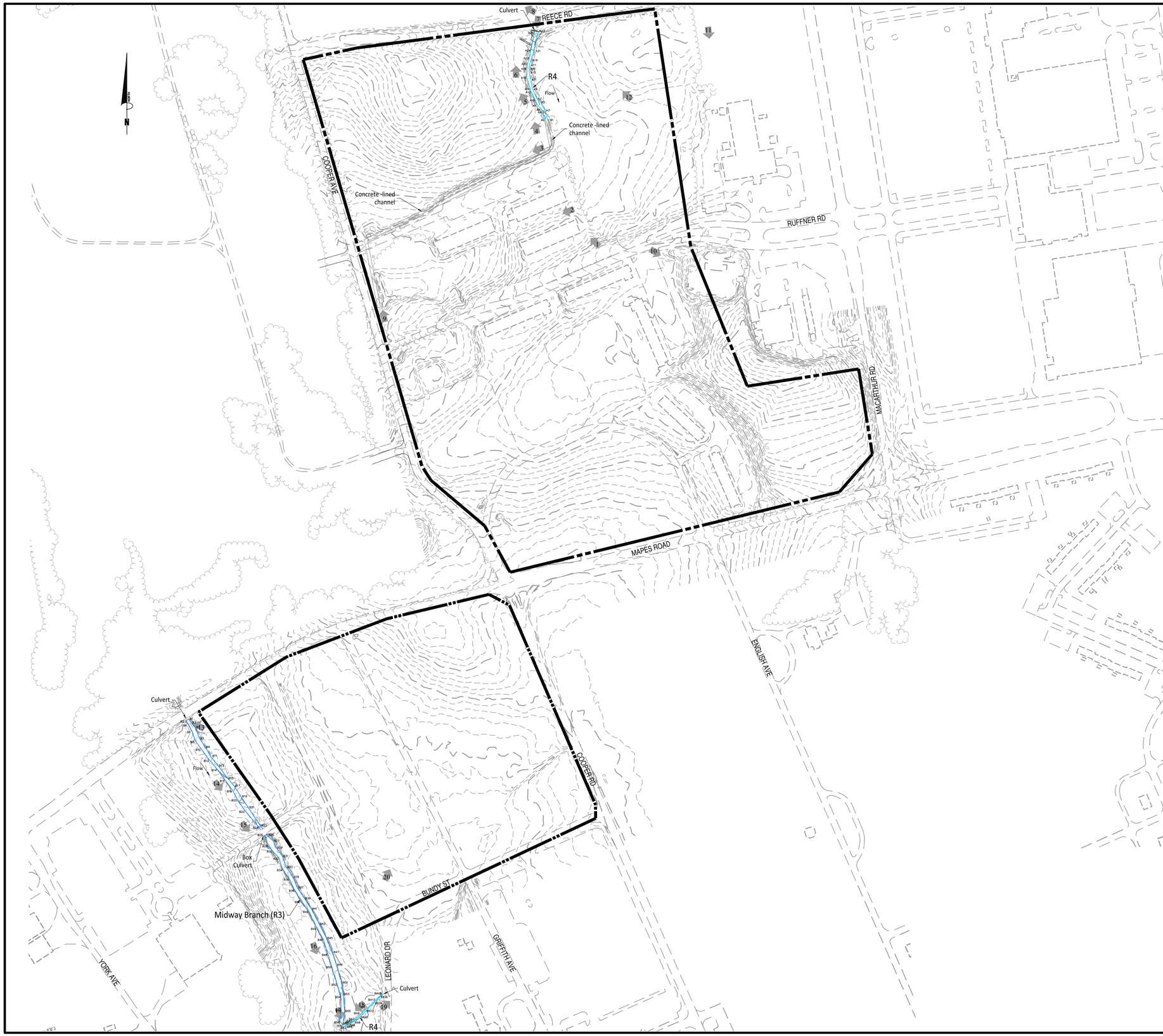
Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2011.1517.aa



Legend

- Project Area
- Index Contours
- Contours (CI = 2')
- Treeline
- Perennial Stream (R3)
- Intermittent Stream (R4)
- A1 Flag #s
- Photographs

Soils Summary Table

Map Unit	Map Unit Name	Drainage Class [1]	National Hydric Soils List [2]	Hydric Component
EVC	Evesboro and Galestown soils, 5 to 10 percent slopes	ED	No	N/A
PeB	Patapsco-Evesboro-Fort Mott complex, 0 to 5 percent slopes	SED	No	N/A
PgB	Patapsco-Fort Mott-Urban land complex, 0 to 5 percent slopes	SED	No	N/A
PgD	Patapsco-Fort Mott-Urban land complex, 5 to 15 percent slopes	SED	No	N/A
Uz	Urban land	N/A	N/A	N/A

[1] *ED – Excessively Drained, SED – Somewhat Excessively Drained, N/A –Not Available*
[2] *Per National Hydric Soils List for Anne Arundel, Maryland published by USDA Natural Resources Conservation Service*

Waters of the U.S. and Wetlands Summary Table[1]

Classification	Length (LF)
Perennial Stream (R3)	1,146
Intermittent Stream (R4)	480
Total Waters of the U.S.	**1,626**

[1] *This inventory reflects those areas identified within the limits of the investigation. The perennial stream and the intermittent stream located south of Mapes Road are located offsite but within the limits of investigation.*

NOTES:

1. The approximately 67-acre Fort Meade Area G2 Project area is located along either side of Mapes Road in Anne Arundel, Maryland. The Project comprises a medium-aged mixed hardwood forest, existing infrastructure, and open maintained grassy areas.
2. The Property is generally located at 39°06'10"N Latitude and -76°44'34"W Longitude on the Odenton, Maryland USGS Quadrangle Map. The site generally slopes to the south and west towards Midway Run, which is located within Hydrologic Unit Code (HUC) 020600006 (Patuxent Watershed).
3. Property boundaries, topography, and existing conditions mapping provided by Bowman Consulting Group, Ltd. (BCG).
4. The waters of the U.S., including wetlands, identified during this investigation of the Project area were delineated by BCG on August 18, 2011 based on the requirements of the *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0, November 2010) and reflect those areas that will likely by considered jurisdictional by the USACE.
5. The flagged waters of the U.S. wetland boundaries were field located by BCG in August 2011 using conventional survey methods. Survey information is provided at NAV83, Zone 18N, U.S. Survey Feet.
6. The flagged waters of the U.S. boundaries should be considered preliminary until they have been confirmed by the USACE during a Jurisdictional Determination.
7. Refer to the Fort Meade Area G2 Wetland Delineation Report for more information.

GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150 ft.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151

Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

WETLAND DELINEATION MAP

FORT MEADE AREA G2

ANNE ARUNDEL COUNTY, MARYLAND
PREPARED FOR PICERNE MILITARY HOUSING

PLAN STATUS	
DATE	DESCRIPTION

DESIGN	EML DRAWN	JLF CHKD
SCALE	H: 1"=150' V:	
JOB No. 5319-01-003		
DATE : October 19, 2011		
FILE No.		
SHEET 1 OF 1		

Maryland Department of Planning

Martin O'Malley
Governor
Anthony G. Brown
Lt. Governor

Richard Eberhart Hall
Secretary
Matthew J. Power
Deputy Secretary

April 5, 2012

Mr. Sam Pett, Project Manager
Tetra Tech, Inc.
10306 Eaton Place, Suite 340
Fairfax, VA 22030

STATE CLEARINGHOUSE REVIEW PROCESS

State Application Identifier: MD20120326-0174
Reviewer Comments Due By: May 1, 2012
Project Description: Scoping prior to EA: Proposed Program Implementation and Construction of Privatized Army Lodging: part of the Base's Housing and Lodging Program: renovate Kuhn Hall Distinguished Visitor Quarters; short-term use and long-term demolition of Abrams Hall
Project Address: Fort George G. Meade, intersection of Mapes Road, and Cooper Road
Project Location: County of Anne Arundel
Clearinghouse Contact: Bob Rosenbush

Dear Mr. Pett:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments. MIRC enhances opportunities for approval and/or funding and minimizes delays by resolving issues before project implementation.

The following agencies and/or jurisdictions have been forwarded a copy of your project for their review: the Maryland Department(s) of Natural Resources, the Environment, Transportation, Housing and Community Development, Business and Economic Development; the Maryland Military Department; the County of Anne Arundel; and the Maryland Department of Planning; including the Maryland Historical Trust. They have been requested to contact your agency directly by **May 1, 2012** with any comments or concerns and to provide a copy of those comments to the State Clearinghouse for Intergovernmental Assistance. Please be assured that after **May 1, 2012** all MIRC requirements will have been met in accordance with Code of Maryland Regulations (COMAR 34.02.01.04- .06). The project has been assigned a unique State Application Identifier that should be used on all documents and correspondence.

If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at brosenbush@mdp.state.md.us. Thank you for your cooperation with the MIRC process.

Sincerely,

Linda C. Janey

Linda C. Janey, J.D., Assistant Secretary

LCJ:BR

cc: Beth Cole - MHT
Greg Golden - DNR
Joane Mueller - MDE
Melinda Gretsinger - MDOT
Hara Wright-Smith - DHCD
Tammy Edwards - DBED
Lawrence Leone - MILT
John Dodds - ANARP
Mike Paone - MDPL

12-0174_NDC.NEW.doc

301 West Preston Street • Suite 1101 • Baltimore, Maryland 21201-2305
Telephone: 410.767.4500 • Fax: 410.767.4480 • Toll Free: 1.877.767.6272 • TTY Users: Maryland Relay
Internet: PlanningMaryland.gov

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore, Maryland 21230
410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us

MDE

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D
Secretary

April 24, 2012

Mr. Sam Pett
Tetra Tech, Inc.
10306 Eaton Place, Suite 340
Fairfax, VA 22030

RE: State Application Identifier: MD20120326-0174
Project: Proposed Program Implementation and Construction of Privatized Army Lodging

Dear Mr. Pett:

Thank you for the opportunity to review the above referenced project. The document was circulated throughout the Maryland Department of the Environment (MDE) for review, and the following comments are offered for your consideration.

1. If the applicant suspects that asbestos is present in any portion of the structure that will be renovated/demolished, then the applicant should contact the Community Environmental Services Program, Air and Radiation Management Administration at (410) 537-3215 to learn about the State's requirements for asbestos handling.

2. Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land Management Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.

3. If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.

4. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Waste Diversion and Utilization Program at (410) 537-3314 for additional information regarding recycling activities.

5. Any contract specifying "lead paint abatement" must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1950 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.

6. The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to you in this project. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about these programs and eligibility, please contact the Land Restoration Program at (410) 537-3437.

Again, thank you for giving MDE the opportunity to review this project. If you have any questions or need additional information, please feel free to call me at (410) 537-4120.

Sincerely,

Joane D. Mueller
MDE Clearinghouse Coordinator
Office of Communications

cc: Bob Rosenbush, State Clearinghouse

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Joseph P. Gill, Deputy Secretary

April 26, 2012

Sam Pett
Tetra Tech, Inc.
10306 Eaton Place, Suite 340
Fairfax VA 22030

RE: Environmental Review for Rest Easy LLC developer, Privatized Army Lodging (PAL) located at Fort George G. Meade, Army to lease 15.5 acres to developer for construction of 275-room Candlewood Suites hotel at Parcel D Mapes Road and Cooper Rd., Parcel C 4415-renovate, Anne Arundel County, MD.

Dear Mr. Pett:

The Wildlife and Heritage Service has determined that there are no State or Federal records for rare, threatened or endangered species within the boundaries of the project site as delineated. As a result, we have no specific comments or requirements pertaining to protection measures at this time. This statement should not be interpreted however as meaning that rare, threatened or endangered species are not in fact present. If appropriate habitat is available, certain species could be present without documentation because adequate surveys have not been conducted.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2012.0406.aa

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

April 18, 2012

Mr. Sam Pett
Tetra Tech, Inc.
10306 Eaton Place, Suite 340
Fairfax, Virginia 22030

Re: Scoping for the Proposed Environmental Assessment for the Implementation and Construction of Privatization of Army Lodging at Fort George G. Meade, Maryland

Dear Mr. Pett:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) has reviewed the scoping letter dated March 23, 2012 for the Proposed Environmental Assessment for the Implementation and Construction of the Privatization of Army Lodging (PAL) program at Fort George G. Meade in Maryland.

The purpose of the proposed EA is to evaluate the potential environmental effects associated with the implementation and construction of the PAL program at Fort Meade which would consist of the Army leasing a 15.5 acre parcel of land to Rest Easy, LLC for the construction of a 275-room Candlewood Suites hotel. Rest Easy, LLC would operate and maintain the hotel for a lease period of 46 years. The new lodging will eventually replace the existing six deteriorated lodging facilities. In addition, "...historical Building 4415, the Kuhn Hall Distinguished Visitor Quarters, would be renovated in accordance with historic property requirements." Because limited information was provided in your letter, EPA is not able to provide detailed comments. However, general comments are offered for your information and consideration.

The EA should include information regarding the purpose and need, alternatives analyzed, avoidance and minimization of resources, and cumulative effects for the proposed project. The Purpose and Need statement should explain why the proposed action is being undertaken and what objectives the project intends to achieve. The purpose of the proposed action should specify the objective of the activities and the need should explain the underlying problem as to why the project is necessary. The proposed PAL action involves leasing a 15.5 acre parcel of land for the construction of a hotel and as well as renovation of an historic building (4415), the Kuhn Hall Distinguished Visitor Quarters. Please discuss the relationship of these two actions, their proximity to each other and how each will meet the Purpose and Need for the Proposed Action.

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Customer Service Hotline: 1-800-438-2474

The EA should have an Alternatives Analysis presenting all sites and/or facilities that were considered and the rationale for not carrying these alternatives forward for detailed study. As described in the regulations for the Council on Environmental Quality (CEQ) (40 CFR §1502.14), the examination and comparison of the alternatives under consideration is the heart of the environmental document. It is through this comparison that the lead agency is able to incorporate agency and public input to make informed decisions with regard to the merits of the project and the advantages and disadvantages of each of the alternatives being studied. Consequently, the CEQ regulations require that the details of each alternative, including the "no action" alternative be clearly presented in a comparative form for easy analysis by the reader. The rationale for the selection of the preferred alternative should be clearly stated in the analysis. For those alternatives that are eliminated from consideration, the reasons for their elimination should be given.

The EA should describe the existing parcels (hotel site and Building 4415) and discuss past and potential impacts to the natural and human environments. The project areas should be described in detail and quantified, specifying the type and acreage of land impacted. Existing resources should be identified and EPA encourages that adverse impact to natural resources, especially wetlands and other aquatic resources are avoided and/or minimized, whenever possible. The EA should describe the total size or length of wetlands or streams in the study area as well quantify the resource(s) impacted by each of the proposed alternatives. Stormwater ponds and best management practices (BMP) should not be located in wetlands and streams. An assessment of biological and terrestrial resources as well as potential impacts should be presented. EPA suggests coordinating with other appropriate federal, state, and local resource agencies on possible impacts to wetlands, streams, historic resources, and rare, threatened and endangered species. In particular, consultation with the State Historic Preservation Officer throughout the planning process is recommended because of potential impacts to the historic district and resources.

An evaluation of community impacts (both within the base and outside of the base) including noise, socioeconomic and traffic and transportation impacts should be included in the EA. Environmental Justice (EJ) should also be evaluated to include the identification of potential communities of concern as well as meaningful and timely community involvement, public outreach, and access to information.

EPA suggests that pollution prevention, low impact development (LID), and Leadership in Energy and Environmental Design (LEED) be incorporated into the design of new and renovated buildings. In addition, Executive Order 13514 *Federal Leadership in Environmental, Energy, and Economic Performance* should be incorporated into the proposed action, if feasible. In addition, EPA strongly encourages a thorough cumulative impact analysis for past, present and reasonably foreseeable projects occurring in the project area. The EA should discuss potential indirect and cumulative effects in the project area.

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Customer Service Hotline: 1-800-438-2474

Thank you for providing EPA with the opportunity to review this project. If you need assistance in the future, the staff contact for this project is Karen DelGrosso; she can be reached at 215-814-2765.

Sincerely,

Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs

Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.
Customer Service Hotline: 1-800-438-2474

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species-list.

Endangered Species Act species-list information for your project is available online and listed below for the following FWS Field Offices:

CHESAPEAKE BAY ECOLOGICAL SERVICES FIELD OFFICE
177 ADMIRAL COCHRANE DRIVE
ANNAPOLIS, MD 21401
(410) 573-4500

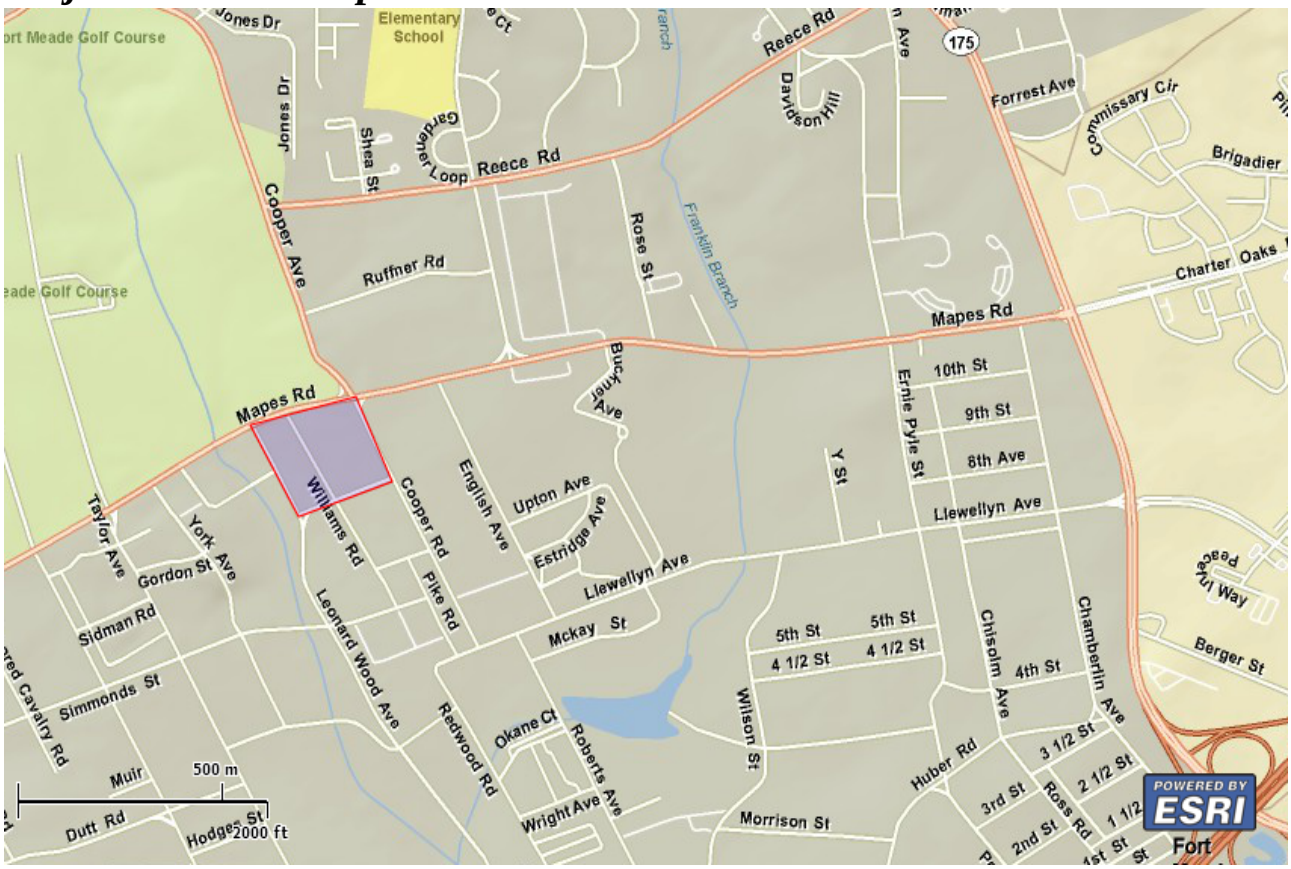
Project Name:

Ft Meade PAL C

U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:



Project Counties:

Anne Arundel, MD

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-76.7455654 39.1021606, -76.7425613 39.1028901, -76.7415314 39.1007014, -76.7441921 39.0998002, -76.7455654 39.1021606)))

Project Type:

Development

U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species-list

There are no listed species found within the vicinity of your project.

FWS National Wildlife Refuges

There are no refuges found within the vicinity of your project.

FWS Migratory Birds

Not yet available through IPaC.

FWS Delineated Wetlands

Not yet available through IPaC.

IPaC - Information, Planning, and Conservation System

Environmental Conservation Online System

Step 1 (/ipac/wizard/chooseLocation!prepare.action)
Location

Step 2 (/ipac/wizard/chooseActivities!prepare.action)
Activities

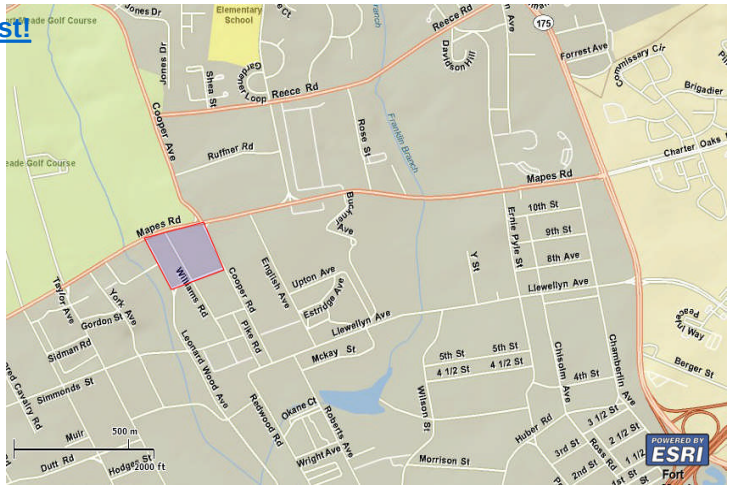
Step 3 (/ipac/wizard/trustResourceList!prepare.action)
Trust resources list

Step 4
Conservation measures

Conservation Measures (CM) Report

Caution!
This portion of the IPaC system is still under development and testing by the U.S. Fish & Wildlife Service. Conservation Measures obtained at this time should not be used as authoritative recommendations for your project.

Project location map:



Project Counties: Anne Arundel, MD

Project type: Development

Conservation Measures (Grouped by Category)

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species-list.

Endangered Species Act species-list information for your project is available online and listed below for the following FWS Field Offices:

CHESAPEAKE BAY ECOLOGICAL SERVICES FIELD OFFICE
177 ADMIRAL COCHRANE DRIVE
ANNAPOLIS, MD 21401
(410) 573-4500

Project Name:

Ft Meade PAL C-2

U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:

Project Counties:

Anne Arundel, MD

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-76.7328196 39.1058727, -76.7318754 39.1040488, -76.734107 39.1043063, -76.7344718 39.1057869, -76.7328196 39.1058727)))

Project Type:

Development

U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species-list

There are no listed species found within the vicinity of your project.

FWS National Wildlife Refuges

There are no refuges found within the vicinity of your project.

FWS Migratory Birds

Not yet available through IPaC.

FWS Delineated Wetlands

Not yet available through IPaC.

IPaC - Information, Planning, and Conservation System

Environmental Conservation Online System

Step 1 (/ipac/wizard/chooseLocation!prepare.action)
Location

Step 2 (/ipac/wizard/chooseActivities!prepare.action)
Activities

Step 3 (/ipac/wizard/trustResourceList!prepare.action)
Trust resources list

Step 4
Conservation measures

Conservation Measures (CM) Report

Caution!
This portion of the IPaC system is still under development and testing by the U.S. Fish & Wildlife Service. Conservation Measures obtained at this time should not be used as authoritative recommendations for your project.

Project location map:

Project Counties: Anne Arundel, MD

Project type: Development

Conservation Measures (Grouped by Category)

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Appendix B

Record of Non-Applicability (RONA) and Emission Calculations

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RECORD OF NON-APPLICABILITY

In Accordance with the Clean Air Act General Conformity Rule for
the Proposed Privatization of Army Lodging, Fort Meade, Maryland

The Army proposes to privatize the ownership and operations of its lodging at Fort Meade, Maryland. The Army would convey specified lodging facilities to Intercontinental Hotels Group (IHG). The Army would also grant a 46-year lease of the land underlying the existing facilities, as well as other land for construction of new lodging facilities. IHG would be expected to meet Fort Meade's lodging requirements through operation and maintenance of the existing facilities, as well as by renovating inadequate facilities and constructing new ones. As a result of the action, the lodging inventory at Fort Meade would increase from 196 units to 275 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 applicable to the action because:

> The highest total annual direct and indirect emissions from this Preferred Alternative or any of the alternatives have been estimated at 17.0 tons of nitrous oxides (NO_x), 2.8 tons of volatile organic compounds (VOCs), 1.1 tons fine particulate matter ($PM_{2.5}$), and <0.1 tons sulfur dioxide (SO_2) per year, which would be below the applicability threshold values of 50 tons VOCs, and 100 tons for SO_2, $PM_{2.5}$ and NO_x.

Supported documentation and emission estimates:

(X) Are attached
( ) Appear in the National Environmental Policy Act documentation
( ) Other (not necessary)

_____
Signature

_____
Date

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Table B-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 B-2 Construction Equipment Emission Factors (pounds per hour)

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

Source: CARB 2007a and 2007b.

Table B-3 Construction Equipment Emissions (tons per year)

Equipment	CO	NO_x	VOC	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Excavators Composite	0.4022	0.9142	0.1170	0.0009	0.0502	0.0502	82.5110
Rollers Composite	0.9012	1.7868	0.2757	0.0016	0.1248	0.1248	139.2018
Rubber Tired Dozers Composite	2.2026	4.5087	0.5029	0.0034	0.1944	0.1944	329.9658
Plate Compactors Composite	0.0363	0.0453	0.0071	0.0001	0.0029	0.0029	5.9530
Trenchers Composite	0.7072	1.1466	0.2576	0.0010	0.0958	0.0958	81.7400
Air Compressors	0.5219	1.1012	0.1700	0.0010	0.0777	0.0777	87.7781
Cement and Mortar Mixers	0.0926	0.1361	0.0233	0.0002	0.0092	0.0092	15.0037
Cranes	0.7258	1.9441	0.2147	0.0017	0.0864	0.0864	155.3655
Generator Sets	0.4776	0.9632	0.1483	0.0010	0.0593	0.0593	84.1699
Tractors/Loaders/Backhoes	1.9626	3.7411	0.5816	0.0037	0.2892	0.2892	322.6748
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	**8.19**	**16.59**	**2.35**	**0.0148**	**1.01**	**1.01**	**1328.30**

Table B-4 Painting

VOC Content	0.84	Pounds per gallon	
Coverage	400	Square feet per gallon	
Emission Factor	0.0021	Pounds/square foot	
Building/Facility	Wall Surface	VOC [pounds]	VOC [tons per year]
All Buildings Combined	151,250	302,500	635.3
Total	**151,250**	**302,500**	**635.3**

Source: SCAQMD 1993.

Table B-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 (pounds/mile)	0.0219	0.0237	0.0030	0.0000	0.0009	0.0007	2.7
Total Emissions (pounds)	605.8	654.5	82.6	0.7	23.6	20.4	75,056.4
Total Emissions (tons per year)	**0.30**	**0.33**	**0.04**	**0.0004**	**0.01**	**0.01**	**37.53**

Source: CARB 2007a.

Table B-6 Surface Disturbance

TSP Emissions	15.5	Pounds per 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[pounds]**	**PM_{10}[pounds]**	**PM_{10}[tons]**	**$PM_{2.5}$[pounds]**	**$PM_{2.5}$[tons]**
Demolition	5.4	2,500	1,125	0.56	84	0.04
Total	**5.4**	**2,500**	**1,125**	**0.56**	**84**	**0.04**

Sources: USEPA 1995 and USEPA 2005.

Table B-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 (pounds per mile)	0.0105	0.0011	0.0011	0.0000	0.0001	0.0001	1.1
Total Emissions (pounds)	1,101.3	115.1	112.7	1.1	8.9	5.5	114,791.2
Total Emissions (tons per year)	**0.55**	**0.06**	**0.06**	**0.0006**	**0.00**	**0.00**	**57.40**

Source: CARB 2007a.

Table B-8 Total Construction Emissions (tons per year)

Activity/Source	**CO**	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Construction Equipment	8.19	16.59	2.35	0.0148	1.01	1.01	1328.30
Painting	0.00	0.00	0.32	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	0.56	0.04	0.00
Worker Commutes	0.55	0.06	0.06	0.0006	0.00	0.00	57.40
Total Construction Emissions	**9.04**	**16.97**	**2.77**	**0.02**	**1.59**	**1.07**	**1423.23**

Table B-9 Boiler Emissions

Gross Area	75,900	Square feet				
Heating Requirements	99,000	Btu per square foot				
Total Annual Heat Required	7,514	MMBTU				
Total Consumption	7,366,765	Cubic feet per year				
	CO	**NO_x**	**VOC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Emission Factors (pounds per 10^6 cubic feet[1]	84	190	5.5	0.6	7.6	7.6
Total Emissions	0.31	0.70	0.02	0.0022	0.03	0.03

[1] Natural gas emission factors for all pollutants were obtained from U.S. EPA's AP-42, Section 1.4.
Note: Btu = British thermal unit, MMBTU = million British thermal units.

Table B-10 Solid Waste Calculations

Action	Debris generation (pounds per square foot)	Debris from proposed action (pounds)	Debris from proposed action (tons)	Quantity recycled -50% (tons)	Total quantity landfill disposed of (tons)
Construction	4.4	665,500	332.8	166.4	166.4
Demolition	115	8,222,500	4,111.3	2,055.6	2,055.6
Renovation	20	1,507,000	753.5	376.8	376.8
Total		10,395,000	5,197.5	2,598.8	2,598.8

Source: USEPA 1998.

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Appendix C

Economic Impact Forecast System (EIFS) 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 ROI. In this regard, construction and renovation of lodging on Fort Meade 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. This spending generally creates secondary jobs, increases business volume, and increases revenues for schools and other social services.

THE ECONOMIC IMPACT FORECAST SYSTEM

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

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

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

THE EIFS MODEL

The basis of the EIFS analytical capabilities is the calculation of multipliers that are used to estimate the impacts resulting from Army-related changes in local expenditures or employment. In calculating the multipliers, EIFS uses the economic base model approach, which relies on the ratio of total economic activity to basic economic activity. Basic, in this context, is defined as the production or employment engaged to supply goods and services outside the ROI or by federal activities (such as military installations and their employees). According to economic base theory, the ratio of total income to basic income is measurable (as the multiplier) and sufficiently stable so that future changes in economic activity can be forecast. 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 due to an expansion of its military installation. EIFS estimates its multipliers using a location quotient approach based on the concentration of industries within the region relative to the industrial concentrations for the nation.

The user inputs into the model the data elements which 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 due to 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 due to the proposed action, including not only the direct and secondary changes in local employment, but also those personnel who are initially affected by the military action. Income is the total change in local wages and salaries due to the 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 Meade would require construction of new lodging and renovation of existing lodging. The current working estimate for the cost of renovation and construction of these facilities (about $35,352,000) was divided over the projected 7-year initial development period and entered as the change in expenditures (about $5,050,300 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 a particular 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%

These 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 Meade PAL EA

STUDY AREA

24003 Anne Arundel County, MD
24005 Baltimore County, MD
24027 Howard County, MD
24510 Baltimore City, MD

FORECAST INPUT

Change In Local Expenditures	$5,050,300
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	4.55	
Income Multiplier	4.55	
Sales Volume – Direct	$5,050,300	
Sales Volume – Induced	$17,928,570	
Sales Volume – Total	$22,978,870	0.02%
Income – Direct	$979,007	
Income - Induced	$3,475,476	
Income – Total (place of work)	$4,454,484	0.01%
Employment – Direct	22	
Employment – Induced	76	
Employment – Total	98	0.01%
Local Population	0	
Local Off-base Population	0	0%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	11.54%	10.44%	2.75%	1.16%
Negative RTV	-4.82%	-4.53%	-3.28%	-0.46%

RTV DETAILED

SALES VOLUME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	6424141	28073495	0	0	0
1970	6915489	28560970	487475	-163728	-0.57
1971	7403026	29315983	755013	103810	0.35
1972	8045231	30813234	1497251	846048	2.75
1973	8856483	31971903	1158669	507466	1.59
1974	9746284	31675423	-296480	-947683	-2.99
1975	10326483	30772920	-902503	-1553706	-5.05
1976	11299718	31865204	1092284	441081	1.38
1977	12321546	32528883	663679	12476	0.04
1978	13673009	33635603	1106720	455517	1.35
1979	15017482	33188636	-446967	-1098170	-3.31
1980	16390448	31797470	-1391166	-2042369	-6.42
1981	17908358	31518710	-278760	-929963	-2.95
1982	18673095	30997337	-521373	-1172576	-3.78
1983	20144721	32433001	1435664	784461	2.42
1984	22197396	34183989	1750988	1099785	3.22
1985	24081260	35881078	1697089	1045886	2.91
1986	25734801	37572810	1691733	1040530	2.77
1987	27877969	43210851	5638040	4986837	11.54
1988	30379843	41316587	-1894264	-2545467	-6.16
1989	32295547	41661254	344667	-306536	-0.74
1990	34208683	42076681	415426	-235777	-0.56
1991	34816734	41083744	-992936	-1644139	-4
1992	36057090	41105082	21338	-629865	-1.53
1993	37195852	41287396	182314	-468889	-1.14
1994	38614417	41703572	416176	-235027	-0.56
1995	40242771	42254908	551336	-99867	-0.24
1996	41486330	42316056	61148	-590055	-1.39
1997	43640507	43640507	1324451	673248	1.54
1998	45981574	45061943	1421436	770233	1.71
1999	49267308	47296615	2234671	1583468	3.35
2000	52593526	48911980	1615365	964162	1.97

INCOME

Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	7575684	33105738	0	0	0
1970	8227806	33980840	875102	-123510	-0.36
1971	8949433	35439755	1458915	460303	1.3
1972	9819539	37608834	2169079	1170467	3.11
1973	10862106	39212202	1603368	604756	1.54
1974	12061015	39198299	-13903	-1012515	-2.58
1975	13016175	38788202	-410097	-1408709	-3.63
1976	14261925	40218628	1430426	431814	1.07
1977	15592190	41163383	944756	-53856	-0.13
1978	17324537	42618362	1454978	456366	1.07
1979	19194675	42420232	-198129	-1196741	-2.82
1980	21509128	41727710	-692523	-1691135	-4.05
1981	23690280	41694893	-32817	-1031429	-2.47
1982	25130241	41716199	21307	-977305	-2.34
1983	27015580	43495084	1778885	780273	1.79
1984	29775408	45854127	2359043	1360431	2.97
1985	32247965	48049468	2195341	1196729	2.49
1986	34421532	50255438	2205970	1207358	2.4
1987	36920469	57226725	6971287	5972675	10.44
1988	40101651	54538246	-2688479	-3687091	-6.76
1989	42806474	55220350	682104	-316508	-0.57
1990	45377830	55814732	594382	-404230	-0.72
1991	47039391	55506479	-308253	-1306865	-2.35
1992	48935735	55786737	280258	-718354	-1.29
1993	50343824	55881645	94908	-903704	-1.62
1994	52465375	56662607	780962	-217650	-0.38
1995	54601544	57331619	669011	-329601	-0.57
1996	56654475	57787563	455945	-542667	-0.94
1997	59836424	59836424	2048861	1050249	1.76
1998	63206823	61942688	2106264	1107652	1.79
1999	65930012	63292810	1350122	351510	0.56
2000	69958420	65061331	1768521	769909	1.18

EMPLOYMENT

Year	Value	Change	Deviation	%Deviation
1969	910738	0	0	0
1970	913121	2383	-11933	-1.31
1971	913755	634	-13682	-1.5
1972	929466	15711	1395	0.15
1973	956990	27524	13208	1.38
1974	970071	13081	-1235	-0.13
1975	952220	-17851	-32167	-3.38
1976	953208	988	-13328	-1.4
1977	978271	25063	10747	1.1
1978	1013245	34974	20658	2.04
1979	1043362	30117	15801	1.51
1980	1046000	2638	-11678	-1.12
1981	1053260	7260	-7056	-0.67
1982	1044031	-9229	-23545	-2.26
1983	1067027	22996	8680	0.81
1984	1103402	36375	22059	2
1985	1140541	37139	22823	2
1986	1167042	26501	12185	1.04
1987	1214738	47696	33380	2.75
1988	1245426	30688	16372	1.31
1989	1267271	21845	7529	0.59
1990	1274848	7577	-6739	-0.53
1991	1229079	-45769	-60085	-4.89
1992	1208943	-20136	-34452	-2.85
1993	1214935	5992	-8324	-0.69
1994	1234847	19912	5596	0.45
1995	1255133	20286	5970	0.48
1996	1265914	10781	-3535	-0.28
1997	1289225	23311	8995	0.7
1998	1307721	18496	4180	0.32
1999	1342028	34307	19991	1.49
2000	1368856	26828	12512	0.91

POPULATION

Year	Value	Change	Deviation	%Deviation
1969	1873882	0	0	0
1970	1890542	16660	8186	0.43
1971	1921325	30783	22309	1.16
1972	1934529	13204	4730	0.24
1973	1942715	8186	-288	-0.01
1974	1949297	6582	-1892	-0.1
1975	1949523	226	-8248	-0.42
1976	1945497	-4026	-12500	-0.64
1977	1950219	4722	-3752	-0.19
1978	1945229	-4990	-13464	-0.69
1979	1943631	-1598	-10072	-0.52
1980	1934456	-9175	-17649	-0.91
1981	1941483	7027	-1447	-0.07
1982	1944590	3107	-5367	-0.28
1983	1949083	4493	-3981	-0.2
1984	1959732	10649	2175	0.11
1985	1966093	6361	-2113	-0.11
1986	1986757	20664	12190	0.61
1987	1999860	13103	4629	0.23
1988	2019992	20132	11658	0.58
1989	2030097	10105	1631	0.08
1990	2048658	18561	10087	0.49
1991	2067825	19167	10693	0.52
1992	2081380	13555	5081	0.24
1993	2094729	13349	4875	0.23
1994	2103972	9243	769	0.04
1995	2111205	7233	-1241	-0.06
1996	2114490	3285	-5189	-0.25
1997	2119127	4637	-3837	-0.18
1998	2125724	6597	-1877	-0.09
1999	2134673	8949	475	0.02
2000	2145050	10377	1903	0.09

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

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ACRONYMS AND ABBREVIATIONS

AADT	average annual daily traffic
ACM	asbestos containing material
ACHP	Advisory Committee for Historic Preservation
ACP	access control point
ANSI	American National Standards Institute
APE	area of potential effect
AQCR	Air-Quality Control Region
AST	aboveground storage tank
BG&E	Baltimore Gas & Electric Company
BMP	best management practice
BWI	Baltimore Washington Thurgood International Airport
C&D	construction and demolition
CARB	California Air Resources Board
CEQ	Council on Environmental Quality
CFR	*Code of Federal Regulations*
CO	carbon monoxide
CO_2	carbon dioxide
COMAR	Code of Maryland Regulations
dB	decibel
dBA	A-weighted decibel
de minimis	of minimal importance
DISA	Defense Information Systems Agency
DNL	day-night sound level
DOD	Department of Defense
DPW	Directorate of Public Works
EA	environmental assessment
ECP	Environmental Condition of Property
ED	Environmental Division
EIFS	Economic Impact Forecast System
EIS	environmental impact statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FGGM	Fort George G. Meade, Maryland
FMHD	Fort Meade Historic District
FNSI	Finding of No Significant Impact
GHG	greenhouse gas
GIS	geographic information system
HOT	Heating oil tank
HVAC	Heating, ventilating, and air conditioning
I-	Interstate
ICRMP	Integrated Cultural Resource Management Plan
IDP	initial development plan
IHG	InterContinental Hotel Group
IPMP	Integrated Pest Management Plan
IRP	Installation Restoration Program
kV	kilovolt
lb/yr	pounds per year
LBP	lead-based paint
LDMP	Lodging Development Management Plan

L_{eq}	equivalent sound level
LOS	level of service
LTH	long-term hold
m	meter
MARC	Maryland Area Regional Commuter
MD	Maryland
MDE	Maryland Department of the Environment
MDNR	Maryland Department of Natural Resources
MEC	munitions and explosives of concern
mg/l	milligrams per liter
MGD	million gallons per day
MHPI	Military Housing Privatization Initiative
MHT	Maryland Historic Trust
MMRP	Military Munitions Response Program
MP	Motor pool
msl	mean sea level
MTA	Maryland Transit Administation
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSA	National Security Agency
O_3	ozone
PA/SI	Preliminary Assessement/Site Inspection
PAL	Privatization of Army Lodging
PCB	polychlorinated biphenyls
PCPI	per capita personal income
PM_{10}	particulate matter
$PM_{2.5}$	fine particulate matter
POW	prisoner of war
PX	Post Exchange
ROI	region of influence
RONA	Record of Non-Applicability
RTV	rational threshold value
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SMP	Site Management Plan
SO_2	sulfur dioxide
SO_X	oxides of sulfur
SPTO	Synthetic Minor Permit to Operate
sq ft	Square foot/feet
STH	Short-term hold
SVOC	Semivolatile Organic Compounds
SWMU	Solid Waste Management Program
TPO-DRO	Total Petroleum Hydrocarbons-Diesel Range Organics
TPO-GRO	Total Petroleum Hydrocarbons-Gasoline Range Organics
tpy	tons per year 999
U.S.C.	United States Code

USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VOC	Volatile organic compounds
WMATA	Washington Metropolitan Area Transportation Authority
WR	Wash rack
WTP	water treatment plant
WWTP	wastewater treatment plant