LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

March 7, 2007

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street
Leiopapa A Kamehameha, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Enclosed is a copy of the Draft Environmental Assessment (EA) for Construction and Demolition Projects at Keaukaha Military Reservation and a completed Office of Environmental Quality Control Publication Form. Also enclosed is a CD-ROM in Adobe Acrobat format of the EA, and a project summary. This project implements the 2005 recommendations of the Base Realignment and Closure Committee.

As required by Hawaii Revised Statutes Chapter 343, we would like to publish the notice of availability of the draft EA in the March 23, 2007, issue of the Environmental Notice.

If there are any questions, please contact Lieutenant Colonel Marjean Stubbert, HIARNG Facilities Management Officer, at (808) 672-1530; or Mr. Russell Okoji, AMEC Earth and Environmental, at (808) 391-9906.

Sincerely,

ROBERT G. F. LEE
Major General
Hawaii National Guard
Adjutant General

3 Enclosures

FINAL
ENVIRONMENTAL ASSESSMENT

CONSTRUCTION AND DEMOLITION PROJECTS
AT THE
KEAUKAHA MILITARY RESERVATION
HILO, HAWAI'I

Submitted to:

State of Hawai'i
Department of Defense
Office of the Adjutant General
3949 Diamond Head Road
Honolulu, Hawai'i 96816-4495

Submitted by:

AMEC Earth & Environmental, Inc.
Airport Industrial Center
3375 Koapaka Street, Suite F-251
Honolulu, Hawai'i 96819

August 2007

LIST OF ACRONYMS AND ABBREVIATIONS

ACUB	Army Compatible Use Buffers
AFRC	Armed Forces Readiness Center
ANG	Hawaii Air National Guard
ANGRC	Air National Guard Readiness Center
ARNG	Army National Guard
AST	aboveground storage tank
ATFP	Anti-Terrorism Force Protection
BEA	U.S. Bureau of Economic Analysis
BMP	best management practice
BRAC	Base Closure and Realignment Act
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CNEL	community noise equivalent level
CO	carbon monoxide
CSMS	combined support and maintenance shop
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DBE,	Design Basis Earthquake
DD	Decision Document
DLNR	Department of Land and Natural Resources
DoD	Department of Defense
DODI	Department of Defense Instruction
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENMP	Environmental Noise Management Plan
FEMA	Federal Emergency Management Agency
FMS	Field Maintenance Shop
FNSI	Finding of No Significant Impact
FY	fiscal year
HABS	Historic American Building Survey
HIARNG	Hawaii Army National Guard
HUD	U.S. Department of Housing and Urban Development
I-	Interstate
ICRMP	Integrated Cultural Resources Management Plan
IRP	Installation Restoration Program
KJMC	Keaukaha Joint Military Center
KMR	Keaukaha Military Reservation
LAASF	Limited Army Aviation Support Facility
LOS	level-of-service
LUST	leaking underground storage tank database
MILCON	Military Construction
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NG PAM	National Guard Pamphlet
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRHP	National Register of Historic Places
O_3	ozone
OMS	Organizational Maintenance Shop
OTAG	Office of the Adjutant General
OWS	oil/water separator
Pb	lead
PCB	polychlorinated biphenyls
PL	Public Law
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
sf	square foot/feet
SHPD	State Historic Preservation Division
SO_2	sulfur dioxide
SOP	Standard Operating Procedure
SQG	small quantity generator
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
UBC	Uniform Building Code
UBE	Upper Bound Earthquake
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USC	U.S. Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank

DRAFT FINDING OF NO SIGNIFICANT IMPACT (DFNSI)
CONSTRUCTION AND DEMOLITION PROJECTS AT THE
KEAUKAHA MILITARY RESERVATION (KMR)
HILO, HAWAII

Introduction

The Hawaii Army National Guard (HIARNG) prepared an Environmental Assessment (EA) to evaluate potential environmental effects from construction and demolition projects at KMR. The EA was prepared in accordance with the National Environmental Policy Act (NEPA, 42 USC § 4321 to §4370e), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (CEQ Regulations, 40 CFR Parts 1500-1508), and *Environmental Analysis of Army Actions* (32 CFR 651).

1. Description of Proposed Action and Alternatives

Proposed Action. The Proposed Action is the HIARNG's Preferred Alternative. The Proposed Action consists of construction and demolition projects that will transform KMR to the Keaukaha Joint Military Center (KJMC). Transformation is congressionally directed through the 2005 Base Realignment and Closure Act (BRAC). New facilities will accommodate units currently stationed at KMR, and ARNG Readiness Centers at Honoka'a and Kea'au. The EA analyzes BRAC and regular Military Construction.

Transformation involves construction of an Armed Forces Reserve Center (AFRC) and infrastructure for Hawaii Army National Guard (HIARNG), Hawaii Air National Guard (HIANG), U.S. Marine Corps (USMC), Army Corps of Engineers (USACE), and Army Reserve units. Additional projects include a new wash and fuel area, guard shack, main entrance, maintenance shops, a covered equipment storage area, USACE field office, transient barracks and in-active duty and annual training dining facilities, perimeter fencing, parking, and lighting. In addition, the HIARNG is proposing demolition of 16 buildings on the site.

Additional information about the proposed construction and demolition projects can be found in Section 2 of the Final EA.

Alternatives Considered. In addition to the Proposed Action, the HIARNG analyzed 3 alternatives:

a. Alternative 1. Under this alternative, only BRAC-funded projects would be implemented. The projects would be organized into a compact layout that allows existing facilities at KMR to prevent impacts to current operations. Only buildings located near the proposed facilities would be demolished. The primary entrance would remain in its current location. Since the primary entrance to KMR does not meet force protection standards, land acquisitions would be required.

b. Alternative 2. Under this alternative, All existing buildings at KMR would be demolished or relocated. Minimal joint usage of new facilities would occur. The main entrance would be shifted east of its current location to provide a direct path to the AFRC while still meeting force protection standards. This alternative is not preferred because it would reduce the number of joint facilities on the site.

c. Alternative 3 - No Action Alternative. Under the No Action Alternative, the proposed construction and demolition projects would not occur. An environmental analysis of the No Action Alternative is required by CEQ Regulations to serve as a benchmark against which the Proposed Action can be evaluated.

2. Environmental Analysis

Based on the analysis contained in the EA, the HIARNG has determined that the Proposed Action will not have any significant adverse impacts on the environment.

Mitigation. No mitigation measures are required to reduce significant effects to less-than-significant levels. However, the HIARNG will implement the following mitigation measures to reduce minor impacts that could result from this project:

a. Water Resources. The HIARNG will conduct a site-specific evaluation of current and potential groundwater conditions, and investigate any groundwater contamination prior to construction. These evaluations will be conducted under the supervision of the Hawai'i Department of Health's Clean Water Branch.

b. Hazardous Materials and Wastes. The HIARNG will investigate the former grease rack and small arms range before demolition or construction. The investigation will be conducted under the supervision of the department of Health. Any remediation requirements that result from these investigations will be completed prior to implementation of the Proposed Action.

c. Cultural Resources. Due to the high number of buildings being proposed for demolition, Hawaii's State Historic Preservation Division (SHPD) determined that the proposed project will have an adverse effect. To reach a finding of no adverse effects, the following SHPD recommendations will be implemented:

(1) The HIARNG will submit a Historic Resources Inventory Form for all structures to be demolished before ground disturbing activities occur.

(2) A Historic American Building Survey (HABS) will be completed for Building 003, which was deemed eligible for listing on the National Register of Historic Places. This documentation will be completed in coordination with the National Park Service. This building will be avoided during implementation of the Proposed Action.
In addition to the preceding mitigation measures, the HIARNG will implement several Best Management Practices (BMPs) to further reduce any adverse impacts. A complete list of BMPs can be found in Section 5.13 of the Final EA.

3. Regulations

The Proposed Action will not violate NEPA, the CEQ Regulations, 32 CFR 651, or any other Federal, state, or local environmental regulations.

4. Commitment to Implementation

The National Guard Bureau (NGB) and HIARNG affirm their commitment to implement this EA in accordance with NEPA. Implementation is dependent on funding. The HIARNG and NGB's Environmental Programs, Training, and Installations Divisions will ensure that adequate funds are requested in future years' budgets to achieve the goals and objectives set forth in this EA.

5. Public Review and Comment

The Draft EA was available for public review from March 23 – April 23, 2007 at the Kea'au Public and School Library, and all regional libraries on Oahu, Kauai, Hawaii, and Maui. Comments were received from agencies and the public. Copies of the comments and HIARNG responses can be found in Appendix E of the Final EA.

The Final EA and DFNSI will be available for public review for 30 days following release of the public notice. Documents will be available at the same locations as the Draft EA. Copies will also be distributed to individuals that expressed interest in the project. For further information, contact the HIARNG Environmental Office at (808) 733-3456.

6. Draft Finding of No Significant Impact

After careful review of the EA, I have concluded that implementation of the Proposed Action will not generate significant controversy or have a significant impact on the quality of the human or natural environment. Per 32 CFR Part 651, the Final EA and Draft FNSI will be made available for a 30-day public review and comment period. Once any public comments have been addressed, and if a determination is made that the proposed action will have no significant impact, the FNSI will be signed and the action will be implemented. This analysis fulfills the requirements of NEPA and the CEQ Regulations. An Environmental Impact Statement will not be prepared, and the National Guard Bureau is issuing this Finding of No Significant Impact.

_____
Date

_____
Jeffrey G. Phillips
Colonel, US Army
Chief, Environmental
Programs Division

Construction
and
Demolition Projects
At the Keaukaha Military Reservation
Hilo, Hawaii
Environmental Assessment

Signature Page

PREPARED BY: _____ DATE: 11 SEP 07

CHARLES J. NEUMANN
Captain, Hawaii Army National Guard
Environmental Protection Specialist

REVIEWED BY: _____ DATE: 11 Sep 07

MARJEAN R. STUBBERT
Lieutenant Colonel, Hawaii Army National Guard
Facilities Management Officer

APPROVED BY: _____ DATE: 11 SEP 07

GARY M. HARA
Colonel, Hawaii Army National Guard
Chief of Staff

EXECUTIVE SUMMARY

In order to comply with recommendations made in the *2005 Base Realignment and Closure (BRAC) Final Report* (Appendix A) and provide the Hawaii Army National Guard (HIARNG), U.S. Army Reserve (USAR), U.S. Marines, State Maintenance Office, and U.S. Army Corps of Engineers (USACE) with proper, up-to-date facilities, reduce redundancy, improve efficiencies and economies, and create partnerships to help reduce the impact to national funding constraints over the long-term, the HIARNG has proposed a construction and demolition program at the Keaukaha Military Reservation (KMR), in the City of Hilo, Hawaii County, Hawaii.

The Proposed Action would transform KMR to function as the Keaukaha Joint Military Center. This transformation would involve construction of an Armed Forces Reserve Center (AFRC) and infrastructure for the HIARNG and USAR. The new facility would accommodate units that would be transferred from ARNG Readiness Centers at Honoka'a and Kea'au as well as those already stationed at KMR. The Proposed Action was selected as the Preferred Alternative because it met the needs of the ARNG and USAR in the construction of the Armed Forces Reserve Center (AFRC), maximized the amount of shared use space and collocating similar functions, and met the needs of non-BRAC funded portions of the program. Other construction projects which are part of the Proposed Action include:

- A new wash area and fuel area (BRAC funded, FY 2008)
- A new Guard House and relocation of primary entrance (TBD)
- A new maintenance shop (U.S. Marine Corps, TBD)
- A new CSMS (MILCON after 2013)
- Additions to ANG facilities (MILCON, TBD)
- A Hawaii Department of Defense facility with covered equipment storage area (State, FY 2008 request)
- A USACE field office (TBD)
- New training site facilities including barracks and dining facilities (Future MILCON)
- Associated perimeter fencing, parking, and lighting (MILCON after 2013)

Proposed demolition projects include:

- Building 3 – Family Housing (FY 2008)
- Building 4 – Family Housing (FY 2008)
- Building 501 – CSMS (Maintenance Shop) (FY 2014)
- Building 502 – CSMS (Other) (FY 2014)
- Building 505 – AAFES (FY 2014)
- Building 509 – 2/299 Inf Supply (FY 2010)
- Building 564 – Dining Facility (FY 2014)
- Building 621 – ARNG Readiness Center
- Building 622 – Storage Building
- Building 623 – Separated Toilet/Shower
- Building 624 – Storage Building
- Building 625 – State Carpenter Shop
- Building 626 – Facility Office/Shop (FY 2010)
- Building 628 – CSMS (FY 2014)
- Building 629 – CSMS (FY 2014)
- Building 620 – CSMS (FY 2014)

Though the HIARNG considered the following alternatives, the Proposed Action is the Preferred Alternative. Alternatives considered are as follows:

Alternative 1: Implement BRAC-funded Projects Only

This alternative organizes the BRAC funded program elements into a compact layout that locates the primary and supporting facilities in close proximity to each other. This would allow the existing facilities at KMR to continue in operation. Only the buildings located near the proposed facilities would be demolished, reducing the total amount of ground disturbance. Under implementation of this alternative the primary entrance would remain in its current location. Since the existing primary entrance to KMR does not meet Anti-Terrorism Force Protection (ATFP) standards, land acquisition would be required under implementation of this alternative in order to provide ATFP-compliant security and parking at KMR. Negotiations are currently underway with the Hawaii Department of Land and Natural Resources (DLNR) to acquire the necessary parcels. However, if the Proposed Action is implemented, additional lands would not be acquired. Fencing would be required around the

entire site to meet ATFP standards, even if portions of the site are not reconstructed. Additional fencing would be constructed around the motor vehicle parking areas for both the HIARNG and the USAR. Under this alternative no facilities would be provided for the USACE, and Hawaii Air National Guard (ANG)[1], U.S. Marines, or State Maintenance Office.

Alternative 2: Minimal Shared Facilities

Implementation of this alternative would include both the BRAC and non-BRAC funding program elements. All of the existing buildings except CHPs (controlled humidity preservation buildings) at KMR would be demolished or relocated and newly constructed facilities would be individually located with minimal shared facilities. Under this alternative the main entrance onto KMR would be shifted east from its existing location to provide a more formal direct entrance towards the AFRC and meet ATFP standards. Implementation of this alternative would meet the primary purpose and need of the Proposed Action (development of the AFRC) but would not meet the secondary screening criteria of maximizing the amount of shared space at the installation.

Alternative 3: No Action Alternative

An environmental analysis of a No-Action Alternative is required by the Council on Environmental Quality (CEQ) regulations to serve as a benchmark against which the Proposed Action can be evaluated. Under this alternative, the proposed projects at KMR would not be implemented and the present facilities' lack of adequate space would reduce readiness and the ability to achieve mobilization standards. Further, the buildings' maintenance programs would continually increase due to the age of the buildings. The HIARNG has determined that implementation of this alternative would not meet the required purpose and need for this project, but it will be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented.

[1] Proper abbreviation for Hawaii Air National Guard is HIANG. To avoid confusion with HIARNG it has been shortened to ANG.

Based on the analysis in this EA, the Proposed Action does not have the potential to degrade the quality of the environment, to substantially reduce the habitat of a fish or wildlife species, to cause a fish or wildlife population to drop below self-sustaining levels, to threaten to eliminate a plant or animal community, to reduce the number or restrict the range of a rare or endangered plant or animal, or to eliminate important examples of the major periods of Hawaii history or prehistory. In addition, implementation of the Proposed Action Alternative would not have environmental effects that would have substantial adverse effects on humans, either directly or indirectly. Therefore, the Proposed Action would have no significant adverse direct, indirect, or cumulative impacts on the quality of the natural or human environment.

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APPENDICES

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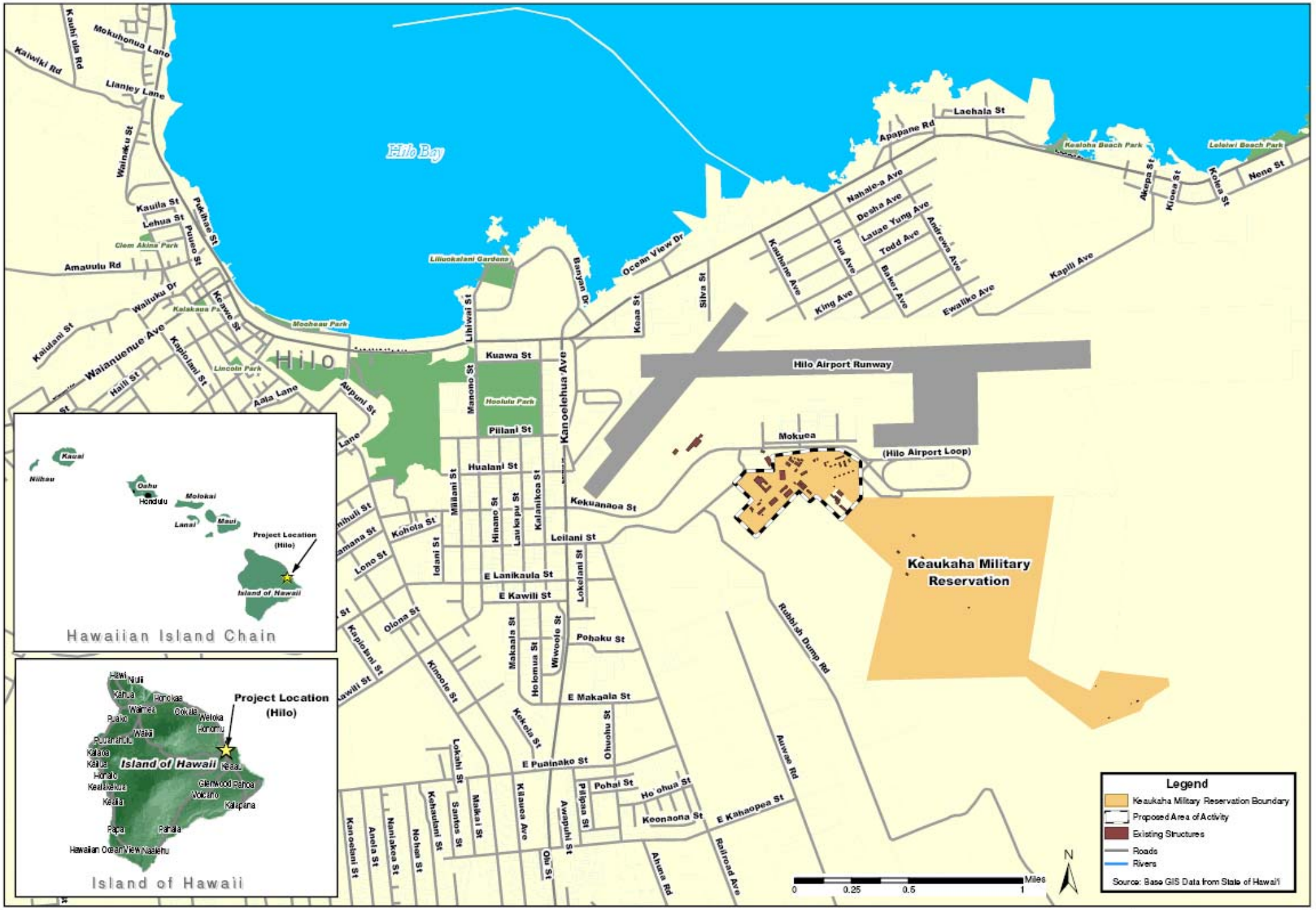
SECTION 1
PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The Hawaii Army National Guard (HIARNG) is preparing an Environmental Assessment (EA) to address the environmental impacts associated with transforming a 60-acre portion of the 506-acre Keaukaha Military Reservation (KMR) to function as the Keaukaha Joint Military Center (KJMC). This EA will address environmental impacts associated with the consolidating of units from closed Readiness Center facilities in Honoka'a, Kea'au, and the older KMR Readiness Center; the construction of an Armed Forces Reserve Center (AFRC), a Combined Support and Maintenance Shop (CSMS), and facilities for the Hawaii Air National Guard (ANG), U.S. Marines, U.S. Army Corps of Engineers (USACE), and the Hawaii Department of Defense Office; and the demolition of 18 buildings at the KMR located in the City of Hilo, Hawaii County, Hawaii (Figures 1-1 and 1-2).

The relocation of units from Honoka'a and Kea'au to KMR, the construction of an AFRC and a portion of the building demolition projects have been mandated by the Readiness Center Transformation recommendations made in the 2005 *Defense Base Realignment and Closure (BRAC) Final Report* (Appendix A). BRAC is the process by which the nation reshapes its installation capacity to become more efficient and effective in supporting its forces. The Department of Defense (DoD) previously conducted BRAC rounds in 1988, 1991, 1993, and 1995. Congress authorized a fifth BRAC round for 2005 in the National Defense Authorization Act of 2002. The BRAC Commission recommendations became official on November 9, 2005 and the DoD has until September 15, 2007 to complete implementation of all recommendations. The other projects analyzed in this EA were identified in the KMR Master Plan (July 2004) and would be implemented after the BRAC-related actions, subject to availability of funds.

The HIARNG is preparing this EA pursuant to: the National Environmental Policy Act (NEPA) of 1969, 42 U.S. Code (USC) Section 4321 et seq.; the Council on Environmental Quality (CEQ) regulations for implementing NEPA, 40 Code of Federal Regulations (CFR) Parts 1500-1508; *Environmental Analysis of Army*



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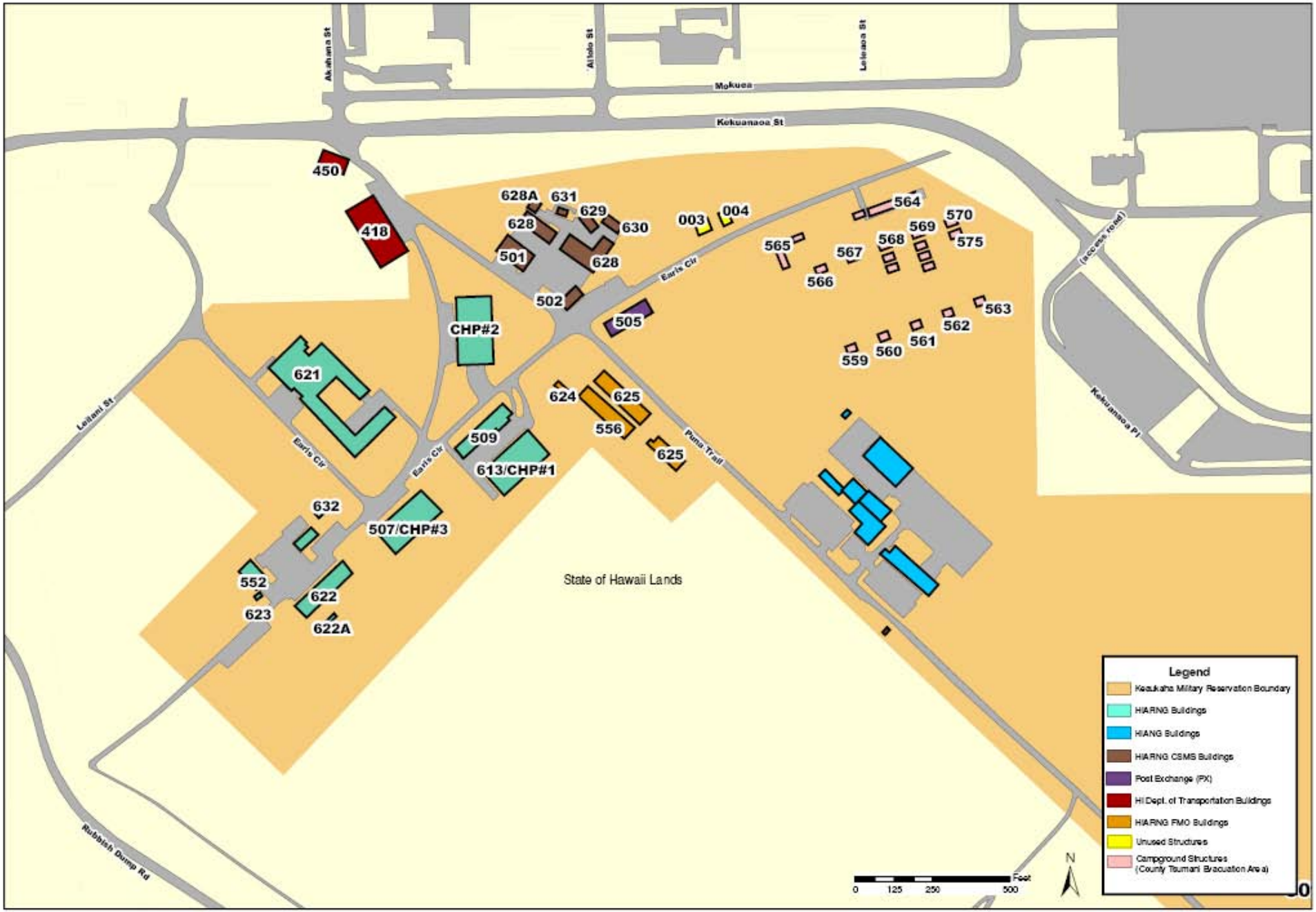
Regional Location Map

Keaukaha Military Reservation

FIGURE 1 - 1



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Current Facility Layout
Keaukaha Military Reservation

FIGURE 1 - 2

Actions (32 CFR 651); the National Guard Bureau (NGB) *NEPA Handbook* (June 2006); and *Hawaii Revised Statutes Chapter 343*. NEPA requires that federal agencies consider and document the potential environmental impacts associated with major federal actions. This document was prepared to discuss potential environmental impacts from the proposed action and alternatives.

The NEPA Lead Federal Agency is the NGB. As the Lead Federal Agency on projects for which the HIARNG is the proponent, the NGB is ultimately responsible for the environmental analysis and documentation; however, the local responsibility for NEPA document preparation falls upon the HIARNG. The NGB is the channel of communication between the Army and Airforce and State National Guards and is responsible for reviewing the Army National Guard NEPA documents. The NGB reviews the draft and final EAs before they are made available for public review and signs the Finding of No Significant Impact (FNSI) decision document at the conclusion of the NEPA process if no significant adverse effects are identified, or adverse effects are mitigated to less than significant. If effects cannot be mitigated to less than significant, HIARNG will publish a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS).

1.2 PURPOSE AND NEED

The **purpose** of the BRAC-related portion of the Proposed Action is to transform Reserve Component facilities in the State of Hawaii by creating an Armed Forces Reserve Center, in order to enhance military value, improve homeland defense capability, and improve training and deployment capability. Further, the Proposed Action would comply with Department of Defense *BRAC Final Report* recommendations mandating the construction of an AFRC at KMR. The AFRC would provide the proper administrative, classrooms, library, learning center, assembly hall, arms vaults, dining facility, and storage areas for the HIARNG and the USAR. The Proposed Action would also provide proper facilities to maintain equipment and issue for mission training and ensure that equipment is prepared for mobilization.

The **purpose** of the non-BRAC related portions of the Proposed Action is to create an interservice partnership among DoD entities on the Island of Hawaii while supporting the individual military entities' respective missions and streamlining interoperability. The Proposed Action would provide updated facilities of adequate size to support vehicular and equipment maintenance requirements, as well as administrative functions of the HIARNG, USAR, U.S. Marines, Hawaii Department of Defense Facilities Office, and USACE.

The **need** for the Proposed Action is to implement the BRAC recommendation for a joint facility for HIARNG and USAR at KMR, which has the force of law. The Proposed Action would provide the HIARNG, USAR, U.S. Marines, Hawaii Department of Defense Office, and USACE with proper, up-to-date facilities, reduce redundancy, improve efficiencies and economies, and create partnerships to help reduce the impact to national funding constraints over the long-term; these up-to-date facilities are not currently available. The AFRC is also needed to establish concurrent services to streamline the missions of the reserve mobilization process, the federal and state homeland security functions, and distant learning and simulation capabilities, as these types of facilities are not currently available.

The current facilities used by the units currently located at, and those which would be transferred to KMR, are aging and deteriorated, do not meet Anti-Terrorism Force Protection (ATFP) standards, do not meet the size authorized to support the facility mission, and are not capable of supporting the facility mission, current or future.

1.3 SCOPE AND ORGANIZATION OF THE DOCUMENT

This EA considers the Proposed Action, Alternative 1, Alternative 2, and the No-Action Alternative. The Proposed Action is described in Section 2.2, and alternatives to the Proposed Action are discussed in Section 3.2.

The EA identifies, evaluates, and documents the environmental impacts of the Proposed Action and alternatives to the Proposed Action. Existing resource conditions at KMR are described in Section 4, *Affected Environment*. Along with information presented for the No-Action Alternative, these conditions constitute

the baseline for analyzing potential effects of the Proposed Action. Section 4 presents baseline information on resources potentially impacted by actions proposed at KMR. Resource discussions include:

- Land Use and Visual Resources
- Air Quality
- Noise/ACUB (Army Compatible Use Buffers)
- Geology and Soils
- Water Resources
- Biological Resources
- Cultural Resources
- Socioeconomics
- Environmental Justice
- Infrastructure, Safety and Risk Management
- Hazardous and Toxic Materials and Waste

The environmental impacts of the Proposed Action and Alternatives are described in Section 5.0, *Environmental Consequences*. This analysis includes *direct* impacts (those directly caused by a specific action and occurring at the same time and place); *indirect* impacts (those caused by an action but occurring later or physically disconnected, but within a reasonably foreseeable time or geographic area); and any *cumulative* effects of the Proposed Action when considered in the context of other past, present, and reasonably foreseeable future actions, regardless of whether they are federal or nonfederal. Actions/measures that could mitigate impacts are identified where appropriate.

Section 6.0 compares and contrasts the environmental impacts of the Proposed Action and Alternatives and presents the conclusions of the analysis.

1.4 PUBLIC INVOLVEMENT

The HIARNG provides opportunities for the public to participate in the NEPA process to promote open communication and improve the decision-making process. All persons and organizations having potential interest in the Proposed Action and Alternatives – including minority, low-income, and Native American groups (including Native Hawaiians) – are encouraged to participate in the environmental analysis process. Formal opportunities to comment include a

public scoping meeting to discuss the proposed action and alternatives, a 30-day period for public review of the draft EA and a second 30-day public review period for the final EA and draft FNSI.

Following internal review of this EA, the draft EA is circulated for a **30-day** public review period. A public notice is published in local newspapers to ensure that interested persons and organizations are notified. In addition, copies of the draft EA are provided to local libraries and are mailed to individuals, organizations, Native American tribes (or Native Hawaiian groups / organizations), and government agencies if requested. Following a review of comments received during the public review period, the HIARNG determines whether the Proposed Action would have significant adverse impacts, and if significant impacts are identified, a NOI to prepare an EIS may be published in the *Federal Register*. If it is determined that significant adverse impacts would not result from the Proposed Action, the NGB and HIARNG issue and publish a draft FNSI. A public notice for the final EA and draft FNSI is published in local newspapers, and copies of the documents are provided to local libraries and interested parties. This second public notice initiates a second public review period, during which HIARNG considers any comments on the final EA and draft FNSI submitted by agencies, organizations, and members of the public. Once any public comments are considered, and if the HIARNG makes a final determination that the project will have no significant adverse impacts on the environment, the NGB will sign the FNSI and the action will be implemented.

SECTION 2
DESCRIPTION OF THE PROPOSED ACTION

This EA evaluates the Proposed Action and three alternatives, including the No-Action Alternative. The No-Action Alternative, as required by the Council on Environmental Quality (CEQ), serves as a benchmark against which project alternatives can be evaluated and is introduced in Section 3.3. This section describes the components, timing, and phasing of the Proposed Actions at Keaukaha Military Reservation (KMR).

2.1 INTRODUCTION

The HIARNG is a dual-mission organization under the control of the federal government (U.S. Department of Defense) and the State of Hawaii (Governor). Its federal mission is *to serve as an integral component of the Total Army by providing fully-manned, operationally ready, and well-equipped units that can respond to any national contingency such as war, peacekeeping missions, or nation building operations.* The HIARNG's "state mission" is to *provide a highly effective, professional, and organized force able to respond to natural or human-caused disasters, human-made crises, or the unique needs of the state and its communities*.

The Proposed Action was selected as HIARNG's Preferred Alternative and would transform the existing KMR to function as the Keaukaha Joint Military Center (KJMC). This transformation would involve construction of an Armed Forces Reserve Center (AFRC) and infrastructure for the HIARNG and USAR, on a 60-acre portion of the 506-acre State-owned parcel at KMR in Hilo, Hawaii. The new facility would accommodate units that would be transferred from ARNG Readiness Centers at Honoka'a and Kea'au as well as those already stationed at KMR. In addition, the Proposed Action would involve demolition of 18 buildings and construction of facilities for other federal entities including the U.S. Marines, USACE, and Hawaii ANG. Funds for construction other than the BRAC-funded AFRC must be provided by the proponent. For example, the BRAC committee excluded the construction of the Combined Support and Maintenance Shop (CSMS); therefore, the HIARNG will have to fund that project through Military Construction (MILCON) separately from BRAC.

2.2 PROPOSED ACTION

The Proposed Action includes construction and demolition projects and associated infrastructure improvements designed to meet Anti-Terrorism Force Protection (ATFP) standards. The Proposed Action was selected as the Preferred Alternative because it met the needs of the ARNG and USAR in the construction of the Armed Forces Reserve Center (AFRC), maximized the amount of shared use space and collocating similar functions, and met the needs of non-BRAC funded portions of the program. The proposed configuration of new facilities and improvements at KMR is provided in Figure 2-1. The proposed configuration of the facilities maximizes site space by collocating similar maintenance program functions into one joint-use CSMS. The administration, classroom, billeting, and dining functions are situated to the north side of Puna Trail and all maintenance shops, work bays, unheated storage, and motor vehicle parking areas occupy the area south of the Puna Trail.

Construction projects include:

- An AFRC including an assembly hall and classroom facilities (BRAC funded, fiscal year [FY] 2008)
- A new wash area and fuel area (BRAC funded, FY 2008)
- A new Guard House and relocation of primary entrance (TBD)
- A new maintenance shop (U.S. Marine Corps, TBD)
- A new CSMS (MILCON, after 2013)
- Additions to ANG facilities (MILCON, TBD)
- A Hawaii Department of Defense facility with covered equipment storage area (State, FY 2008 request)
- A USACE field office (TBD)
- New training site facilities including barracks and dining facilities (future MILCON)
- Associated perimeter fencing, parking, and lighting (MILCON, after 2013)

Demolition projects include:

- Building 3 – Family Housing (FY 2008)
- Building 4 – Family Housing (FY 2008)
- Building 501 – CSMS (Maintenance Shop) (FY 2014)

amec

Proposed Design of Facilities
Keaukaha Military Reservation

FIGURE 2 - 1

- Building 502 – CSMS (Other) (FY 2014)
- Building 505 – AAFES (FY 2014)
- Building 509 – 2/299 Infantry Supply (FY 2010)
- Building 564 – Dining Facility (FY 2014)
- Building 621 – ARNG Readiness Center
- Building 622 – Storage Building
- Building 623 – Separated Toilet/Shower
- Building 624 – Storage Building
- Building 625 – State Carpenter Shop
- Building 626 – Facility Office/Shop (FY 2010)
- Building 628 – CSMS (FY 2014)
- Building 629 – CSMS (FY 2014)
- Building 620 – CSMS (FY 2014)

The Proposed Action would be implemented only after applicable regulatory agencies have been consulted and required permits have been obtained; consultation and permitting through these agencies may result in changes to the mitigation measures proposed in this document. Implementing the Proposed Action would, at a minimum, involve coordination with the following agencies:

- U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act;
- Hawaii State Historic Preservation Office pursuant to Section 106 of the National Historic Preservation Act; and
- Hawaii County Planning Department pursuant to Hawaii Administrative Rules, Section 11-200-9(a)(1).

The proposed activity (construction and demolition) would commence as early as January 2008 and continue through January 2015. Best Management Practices (BMPs) would be used to reduce potentially significant impacts during construction and demolition. Such practices would include:

- Developing a worker awareness program to educate workers about best management practices and safety standards prior to the commencement of activity;
- Dust minimization practices such as regularly watering exposed soils, soil stockpiling, and soil stabilization;
- Use of equipment exhaust mufflers;

- Restricting the parking of construction-related vehicles on-site for the duration of construction;
- Covering exposed areas if not being worked within two days in the wet season and seven days in the dry season;
- Use of Stormwater Pollution Prevention BMPs;
- Seasonal and temporal restrictions on construction activities;
- Compliance with State of Hawaii noise regulations and standards and
- Compliance with County of Hawaii lighting ordinances/standards.

2.3 CONSTRUCTION PROJECTS

2.3.1 Armed Forces Reserve Center

The Proposed Action would provide a specially designed AFRC to serve the respective peacetime missions of the Hawaii National Guard and the USAR. The proposed AFRC would consist of approximately 128,000 square feet (sf) of permanent masonry type construction and include administrative space, classrooms, library, learning center, assembly hall, arms vault, dining facility, maintenance training areas, USAR Organizational Maintenance Shop (OMS), and storage areas. Co-tenancy of the new facility would include four ARNG units with an authorized strength of 225 personnel (HHT RSTA Squadron, CO D, Forward Support Company RSTA BSB(-), Company C, 1-207th Aviation, and Detachment 2 Company B, 3rd Battalion 140th Aviation) and four USAR units with an authorized strength of 132 personnel (portions of the 100/442 Infantry Battalion, and A Company 411th Engineer Battalion). A total of 58 part-time traditional guardsmen personnel would be transferred from the closed Readiness Centers in Honoka'a and Kea'au and occupy the new facility on training weekends. The State of Hawaii will fund within the AFRC, a cost share for approximately 1,000-sf of space for the Hawaii Office of Veterans Services for administrative offices, waiting area, and storage room. Placement of the Office of Veterans Services at KMR would provide a more accessible location for outreach services to the military community. Additionally, the State of Hawaii will fund the State facility maintenance space.

2.3.2 Wash Area/Fuel Area

The Proposed Action would provide a 3,600-sf fueling area and a 2,250-sf wash platform access area for military vehicles in a central location at KMR to allow for shared use by the HIARNG and USAR. Oil-water separators would be installed in both areas to meet environmental regulations regarding pre-treatment of discharge water. The fuel area would contain one 10,000-gallon JP-8 fuel tank and would also provide covered parking for fuel trucks.

2.3.3 Guard House/New Primary Entrance

The primary entrance onto KMR would be shifted east from the existing entrance along the airport access road to create a more formal entrance to the Armed Forces Reserve Center. The Main Entry Control Gate would meet Department of Defense (DoD) Entry Control Point requirements (i.e. auto gate, barricade, etc.). A new 100-sf guard house could be constructed to control entry into the facility.

2.3.4 Maintenance Shop

The Proposed Action would provide the U.S. Marines a 20,000-sf Equipment and Maintenance Storage Facility at KMR, consisting of a 5,000-sf Maintenance Building/Shop, a 15,000-sf Storage Building, and 150-sf office and administration area. The proposed facility would reduce shipping and labor costs currently associated with the transferring of vehicles between bases on the island of Hawaii.

2.3.5 CSMS

The proposed CSMS would provide sustained maintenance to ARNG units in the vicinity of KMR and is authorized by National Guard Pamphlet (NG PAM) 415-12, *Army National Guard Military Construction Program Execution*, dated 23 July 2003. Construction of the CSMS would replace outdated facilities currently occupied at KMR and support the requirements of the HHT RSTA Squadron, a Forward Support Company BSB(-) RSTA, Company C 1-207th Aviation and Detachment 2 Company B, 3rd Battalion 140th Aviation units of the HIARNG. The facility is required to maintain equipment and issue/turn-in for mission

training, as well as to ensure that equipment is prepared for mobilization. The proposed approximately 60,000-sf facility would consist of approximately 56,000-sf of office and maintenance facilities; a 500-sf flammable materials facility; a 300-sf controlled waste accumulation facilities; and a 3,250-sf unheated metal storage building.

2.3.6 Hawaii Department of Defense Facility

The Hawaii Department of Defense Maintenance Area supports the HIARNG with custodial services, grounds keeping, and light-duty construction and maintenance for ranges. The Proposed Action includes construction of an approximately 8,600-sf facility to provide administration, maintenance shops, and covered parking for the State Maintenance Area. The proposed facility would also include 300-sf of space for the HIARNG Environmental Administrative offices.

2.3.7 USACE Field Office

The USACE, Honolulu Engineer District currently operates a field office for managing construction at the U.S. Army's Pohakuloa Training Area. The office is not occupied full time; USACE staff flies to the Island of Hawaii and operates out of this field office on a generally weekly basis. The Proposed Action would provide approximately 500-sf of office space and one parking space for the USACE field office at KMR. The exact location of the USACE field office has not yet been determined.

2.3.8 Training Site Facility

A training site facility is proposed to provide billeting for a battalion/squadron-sized element during training at Pohakuloa Training Area, and to house off-island soldiers during mobilization periods. Facilities authorized for the training site would be used for mobilization platform purposes. Billeting space requirements for a 292-person Battalion total approximately 136,000-sf. This total would include 80 beds in an open bay arrangement, 170 beds in one-by-one suites, 40 private rooms, two VIP/command staff suites, a lounge, and laundry

facilities. Proposed dining area space within the facility totals approximately 5,600-sf for a one-story, 200-person dining hall.

2.3.9 Addition to ANG Facilities

A total of approximately 61,000-sf of offices/administrative areas, maintenance buildings/shops, storage buildings, and warehouses are authorized for the ANG; existing ANG facilities at KMR total approximately 30,000-sf. A total of approximately 31,000-sf new construction would be required to facilitate the ANG's full requirements. The Proposed Action would provide a 1-story, 31,000-sf building adjacent to the existing ANG facilities.

2.3.10 Associated Perimeter Fencing, Parking and Lighting

In 2003, the DoD issued its UFC system, including *DoD Minimum Antiterrorism Standards for Buildings,* developed to minimize the possibility of mass casualties in buildings or portions of buildings owned, leased, privatized, or otherwise occupied, managed, or controlled by or for the DoD (DoD 2003). The standards provide appropriate, implementable, and enforceable measures to establish a level of protection against terrorist attacks. Though established in 2003, these standards were applied to existing facilities starting with the Fiscal Year 2004 (FY 04) program and are mandated when any facility is proposed to undergo: major investments, conversion of use, building additions, or glazing replacement.

In order to comply with ATFP standards, the Proposed Action would fence the entire perimeter of the approximately 60-acre compound. To meet this requirement, an additional 11,000 linear feet (lf) of fencing would be installed around the perimeter of KMR in addition to the fencing that is currently present at the facility. All fencing (both new and existing)

Old Puna Trail at KMR

would be upgraded to comply with Field Manual (FM) 3-19.30, *Physical Security*. Fencing of the perimeter would close off access to the portion of the Puna Trail on the main compound area and pedestrian and cyclists who currently access the Puna Trail would be redirected to Rubbish Dump Road.

Security lighting would also be installed within the compound area as part of the Proposed Action. Lighting would comply with Hawaii County ordinances restricting light levels and lights would be covered and directed downward to reduce glare and light levels in areas off KMR.

In addition, a total of approximately 112,000-sf of paved parking area would be provided to accommodate personnel at the new facilities. All additional parking areas would comply with applicable ATFP setback standards. A total of approximately 60,000-sf would provide additional parking spaces for the HIARNG. The USAR would utilize approximately 51,000-sf of the parking area and approximately 1,350-sf would be provided for the State Maintenance Office and HIARNG Environmental Office.

2.4 DEMOLITION ACTIVITIES

The current facilities at KMR are aging and deteriorating, do not meet current building codes or criteria, do not meet ATFP standards, and are not capable of supporting the facility mission. In order to provide space for the proposed new facilities, a number of old and outdated buildings at KMR would be demolished. A total of approximately 75,000-sf of building space would be demolished to accommodate the proposed new facilities at KMR. The facilities proposed for demolition are described further in Table 2-1. Because portions of the construction are to be funded in the out years, the demolition will be phased to accommodate the construction schedule. Consideration should be given to the documentation of buildings that are approaching or exceed the 50 year age criteria.

Table 2-1. Proposed Demolition Activities at KMR

Building Number	Building Name	Year Constructed	Size (square feet)
003	Family Housing	1950	1,222
004	Family Housing	1950	1,488
501	CSMS (Maintenance Shop)	1942	3,200
502	CSMS (Other)	1956	656
505	AAFES Facility	1942	4,000
509	2/299 Infantry Supply	1942	6,968
564	Dining Facility	1953	2,320
621	ARNG Facility	1955	25,123
622	Storage Building	1956	5,573
622A	Storage Buildings	1956	500
623	Separated Toilet/Shower	1942	100
624	Storage Building	1942	1,120
625	State Carpenter Shop	1949	8,000
626	Facility Office/Shop	1942	3,174
626A	Facility Office/Shop	1942	500
628	CSMS Maintenance Shop	1954	7,600
629	CSMS Maintenance Shop	1954	1,568
630	CSMS Maintenance Shop	1957	1,568
TOTAL			**74,680**

Source: HIARNG 2006a.

SECTION 3
ALTERNATIVES CONSIDERED

3.1 ALTERNATIVES DEVELOPMENT

In accordance with Army Real Property planning policy and regulations, the Hawaii Army National Guard (HIARNG) and the State Reserve Forces Facilities Board evaluated existing Active-duty, Guard and Reserve installations located on the island of Hawaii for possible joint use and expansion, including the following facilities:

- ARNG Readiness Center in Honoka'a (45 miles from the proposed location);
- ARNG Readiness Center in Kea'au (15 miles from the proposed location);
- ARNG Readiness Center in Kealakekua (120 miles from the proposed location)
- USAR Center in Kunieda (10 miles from the proposed location); and
- ARNG Army Aviation Facility in Hilo (1 mile from the proposed location).

Ultimately, the State Reserve Forces Facilities Board determined that construction of the proposed facilities at Keaukaha Military Reservation (KMR) is the most appropriate project development site and is the Preferred Alternative. Land acquisition would be required in order to expand the other Readiness Centers considered by the Facilities Board in order to accommodate the mandated joint use facility. Further, KMR was selected as the location for a joint use facility in the 2005 *Defense Final Base Realignment and Closure (BRAC) Report* recommendation to transform Readiness Centers in Hawaii.

In addition, the HIARNG hosted a Planning Charrette in October 2005 to discuss the Proposed Action at KMR. During this Planning Charrette a range of potential designs and configurations were developed for the facilities at KMR. The primary driver in developing the design configurations was meeting the needs of the ARNG and USAR in the construction of the Armed Forces Reserve Center (AFRC). Other screening criteria applied to the potential configuration alternatives included maximizing the amount of shared use space and collocating similar functions, and meeting the needs of non-BRAC funded portions of the program. Those configuration alternatives which meet the

primary purpose and need of the Proposed Action are described in Sections 3.2 and 3.3 below and are carried forward for analysis throughout this EA.

Table 3-1. Screening Criteria

Primary Screening Criteria
Enhance military value
Improve homeland defense capability
Improve training and deployment capability
Other Criteria
Maximizing shared use space
Collocating similar functions
Provide up-to-date facilities
Reduce redundancy
Improve efficiencies and economies
Create partnerships to reduce the impact to national funding constraints over the long-term
Meeting the needs of non-BRAC funded portions of the program

3.2 ALTERNATIVES TO THE PROPOSED ACTION

3.2.1 Alternative 1 – Implement BRAC-funded Projects Only

This alternative organizes the BRAC funded program elements into a compact layout that locates the primary and supporting facilities in close proximity to each other (Figure 3-1). This would allow the existing facilities at KMR to continue in operation. Only the buildings located near the proposed facilities would be demolished, reducing the total amount of ground disturbance. Under implementation of this alternative the primary entrance would remain in its current location. Since the existing primary entrance to KMR does not meet Anti-Terrorism Force Protection (ATFP) standards, land acquisition would be required under implementation of this alternative in order to provide ATFP-compliant security and parking at KMR. Negotiations are currently underway with the Hawaii Department of Land and Natural Resources (DLNR) to acquire the necessary parcels. Fencing would be required around the entire site to meet ATFP standards, even if portions of the site are not reconstructed. Additional

fencing would be constructed around the motor vehicle parking areas for both the HIARNG and the USAR. Under this alternative no facilities would be provided for the USACE, and Hawaii ANG, U.S. Marines, or State Maintenance Office.

3.2.2 Alternative 2 – Minimal Shared Facilities

Implementation of this alternative would include both the BRAC and non-BRAC funding program elements. All of the existing buildings except CHPs (controlled humidity preservation buildings) at KMR would be demolished or relocated and newly constructed facilities would be individually located with minimal shared facilities (Figure 3-2). Under this alternative the main entrance onto KMR would be shifted east from its existing location to provide a more formal direct entrance towards the AFRC and meet ATFP standards. Implementation of this alternative would meet the primary purpose and need of the Proposed Action (development of the AFRC) but would not meet the secondary screening criteria of maximizing the amount of shared space at the installation.

3.3 NO-ACTION ALTERNATIVE

An environmental analysis of a No-Action Alternative is required by the Council on Environmental Quality (CEQ) regulations to serve as a benchmark against which the Proposed Action can be evaluated. Under this alternative, the BRAC directed projects will not be constructed, the proposed projects at KMR would not be implemented and the present facilities' lack of adequate space would reduce readiness and the ability to achieve mobilization standards. Further, the buildings' maintenance programs would continually increase due to the age of the buildings. The HIARNG has determined that implementation of this alternative would not meet the required purpose and need for this project, but it will be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented.

Legend
- BRAC Funded
- Non-BRAC Funded (not used)
- Existing Buildings

Source: HIARNG 2006

amec

Alternative 1

Keaukaha Military Reservation

FIGURE 3 - 1

Legend
- BRAC Funded
- Non-BRAC Funded
- Existing Buildings

Source: HIARNG 2006

amec

Alternative 2

Keaukaha Military Reservation

FIGURE 3 - 2

SECTION 4
AFFECTED ENVIRONMENT

This section presents baseline information on the resources that could potentially be affected by construction and operation of the Keaukaha Joint Military Center (KJMC) and other proposed facilities at Keaukaha Military Reservation (KMR) in Hilo, Hawaii. CEQ regulations (40 CFR Part 1500), allow federal agencies to focus their NEPA analysis on those resources that could be affected and to omit discussion of resource areas that clearly would not be affected by the Proposed Action (see 40 CFR Section 1501.7[a][3]); however, no resource areas have been omitted from this analysis. The following resources areas will be analyzed in this EA:

- Land Use and Visual Resources
- Air Quality
- Noise
- Geology and Soils
- Water Resources
- Biological Resources
- Cultural Resources
- Socioeconomics
- Environmental Justice
- Infrastructure and Safety
- Transportation and Circulation
- Hazardous and Toxic Materials and Waste

4.1 LAND USE AND VISUAL RESOURCES

This section provides a discussion on zoning/General Plan designations for the site and surrounding land uses, including a discussion of visual resources.

4.1.1 On-Site Land Use

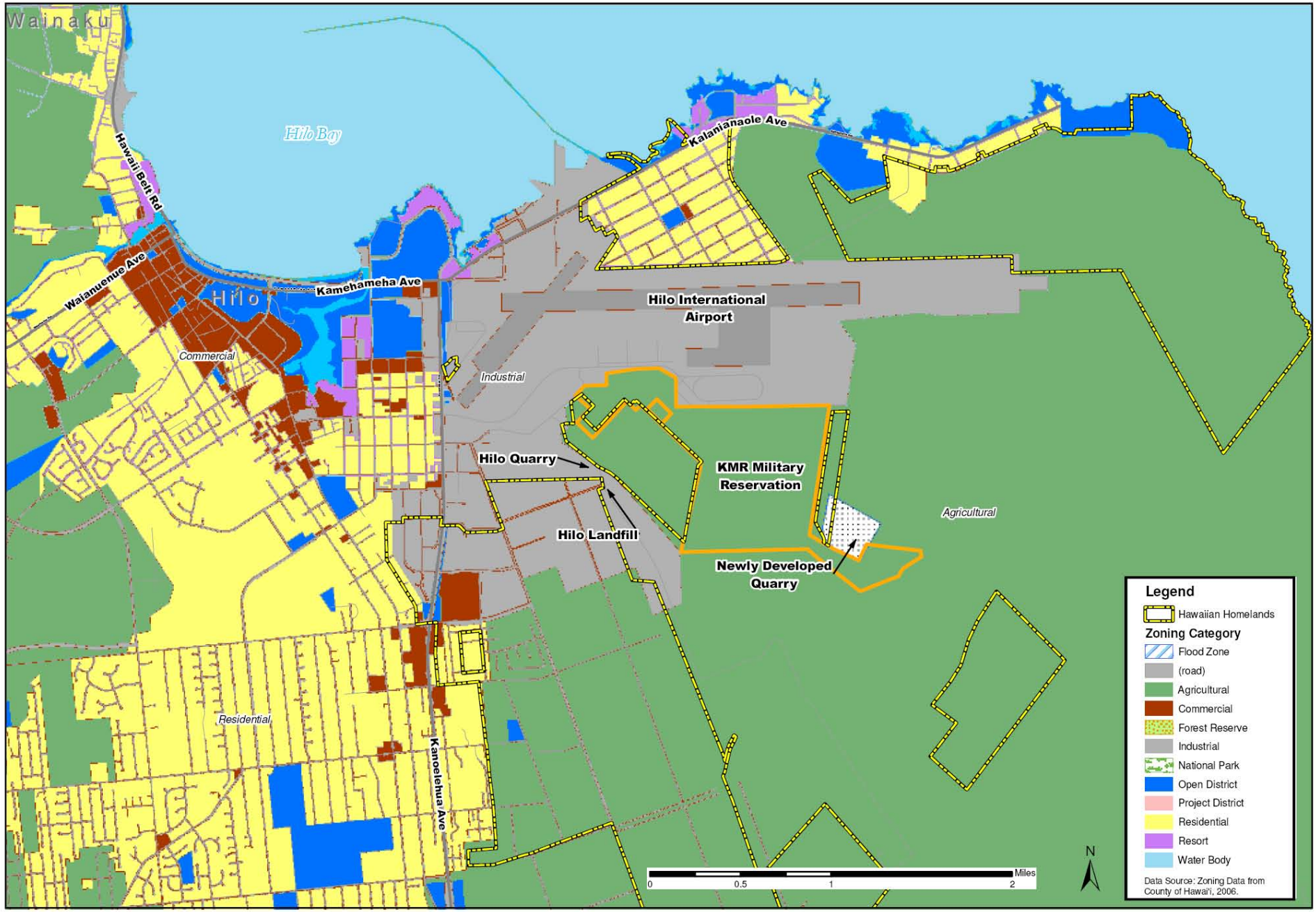
KMR is located approximately two miles east of the City of Hilo. KMR comprises 506 acres owned by the HIARNG and 28.3 acres leased from the State of Hawaii Department of Transportation, Airports Division (HIARNG 1997). The parcel is designated by Tax Map Key 2-1-12:131 and portion of 3. KMR is

headquarters for the Island of Hawaii's ARNG and is host to the 299th Calvary of the HIARNG. In addition to offices and support facilities occupied by the ARNG, the reservation includes firing ranges, training areas, and barracks used by reserve and active duty units of the National Guard, Army, and Marines. A Limited Army Aviation Support Facility (LAASF) is located on 19 acres of leased land off the main installation area on the southwest portion of Hilo International Airport and serves two aviation detachments operated by the State Army Aviation Office; the other 9.3 acres of leased land are used as warehouse space (HIARNG 1997).

4.1.2 Surrounding Land Use

Land use in the State of Hawaii is regulated by the State Land Use Commission, which has developed four land use districts (i.e. classifications): urban, agricultural, conservation, and rural. Permissible land uses within each of these districts are broad. On the Island of Hawaii, the County of Hawaii controls land use within urban districts and, within certain limits, rural and agricultural districts. The Hawaii Department of Land and Natural Resources controls land use within conservation districts. Except for the LAASF (which is located within an urban district), KMR is located entirely within a district designated for agricultural uses; this designation allows for low-density development only. Immediately west of KMR is a large parcel owned by the Hawaiian Home Lands, a land grant program designed to set aside land and assist with the homesteading of native Hawaiians. This property is currently being considered for residential development. Also to the west of KMR is land owned by the Hawaii Department of Land and Natural Resources that is proposed to house the Mana Industrial Park. The park would encompass 157 acres and the development would include infrastructure (roads, water, grading and drainage, power, and telecommunications systems) and the subdivision and leasing of individual lots. The City of Hilo solid waste facility is located immediately southwest of KMR and an active basalt quarry is located to the southeast (Figure 4-1).

The Urban District is generally defined as lands in urban use with sufficient reserve to accommodate foreseeable growth. In the County of Hawaii this district is comprised of approximately 54,267 acres, or two percent of the



amec

County of Hawai'i Zoning in the Vicinity of KMR

FIGURE 4 - 1

island's total land area. Rural Districts are defined as lands primarily comprised of small farms mixed with low-density residential lots that have a minimum lot size of one-half acre under the State Land Use Law. Of the four districts, this is the smallest. The Agricultural District includes lands with a high capacity for intensive cultivation as well as those with low capacity. The minimum lot size in this district under the State Land Use Law is one acre. The Agricultural District has the second greatest land area with approximately 1,184,599 acres or slightly over 46 percent of the total land area of the island. Conservation Districts are primarily those lands in the existing forest and water reserve zones. This district has the largest land area with approximately 1,338,135 acres or 52 percent of the total land area of the island.

4.1.3 Applicable Plans and Policies

Hawaii was the first of the fifty States to have a State Land Use Law and a Statewide General Plan. Today, Hawaii remains unique among the fifty states with respect to the extent of control that the State exercises in land use regulation. The State Land Use Commission classified all lands in the state and authorized the passage of practices, procedures, and regulations within the various state land use districts.

Zoning within the County of Hawaii is governed by the Zoning Code and the County General Plan. An update to the General Plan was completed in February 2005. Land uses within the City of Hilo, which is located in the County of Hawaii, are displayed in Table 4-1.

Table 4-1. Surrounding Land Use

County District	Agricultural (acres)	Conservation (acres)	Urban (acres)	Rural (acres)
South Hilo	70,695	169,493	12,814	0
North Hilo	53,587	120,110	608	71

Source: County of Hawaii 2005.

4.1.4 Visual Resources

KMR lands are primarily comprised of open-space areas used for training by the HIARNG. These areas are vegetated with native and non-native trees, as well as grass and shrubs. The main compound area consists of military-style buildings (single-story concrete masonry), gravel roads, and lawn areas. KMR is not visible from heavily trafficked roads through the City of Hilo. Land comprising Hilo International Airport is located about 0.25 mile north of the installation, and the airport's air traffic control tower is visible from KMR. On clear days, views of the dominant visual features of the island of Hawaii, Mona Kea and Mona Loa, are available to the northwest and southwest, respectively. These volcanoes feature snowcapped peaks over 13,000 feet above mean sea level (msl) and are visible from most locations on the island. However, due to prevailing weather conditions on the eastern portion of the island, these peaks are often not visible from the Hilo area due to extensive cloud cover.

4.2 AIR QUALITY

The following Air Quality discussion will be focused on the Proposed Action in terms of (a) regional and local regulations for air pollutant standards and emissions, (b) sensitive receptors, and (c) on-site emission sources.

4.2.1 Regulatory Overview

Air quality in a given location is determined by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) have been established by the U.S. Environmental Protection Agency (USEPA) and the State of Hawaii Department of Environmental Health Clean Air Branch. NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare. Criteria pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), inhalable and fine particulate matter (PM_{10} and $PM_{2.5}$), and airborne lead (Pb). Federal and State of Hawaii ambient air quality standards are presented in Figure 4-2.

Pollutant	Averaging Time	Hawaii Standards		Federal Standards [1]		
		Concentration [2]	Method	Primary [3]	Secondary [3,4]	Method [5]
Ozone (O_3)	1 Hour	—	Ultraviolet Photometry	0.12 ppm (235 µg/m^3)[6]	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.08 ppm (157 µg/m^3)		0.08 ppm (157 µg/m^3)[6]		
Respirable Particulate Matter (PM_{10})	24 Hour	150 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	50 µg/m^3		50 µg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		65 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	No Separate State Standard		15 µg/m^3		
Carbon Monoxide (CO)	8 Hour	4.4 ppm (5 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	9.0 ppm (10 mg/m^3)		35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.04 ppm (70 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	0.03 ppm (80 µg/m^3)	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.14 ppm (365 µg/m^3)		0.14 ppm (365 µg/m^3)	—	
	3 Hour	0.5 ppm (1300 µg/m^3)		—	0.5 ppm (1300 µg/m^3)	
Lead	Calendar Quarter	1.5 µg/m^3	Atomic Absorption	1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
Hydrogen Sulfide (H_2S)	1 Hour	25 ppm (35 µg/m^3)	—	No Federal Standard		

1 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calender year with a 24-hour average concentration above 150 µg/m to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

2 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

3 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

4 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

5 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

6 New federal 8-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18,1997. Contact U.S. EPA for further clarification and current federal policies.

ppm – parts per million
µg/m^3 – micrograms per cubic meter
mg/m^3 – milligrams per cubic meter

Sources: USEPA 2005; Hawaii Department of Health 2001.

EA

National and State Air Quality Standards

Hawaii County, Hawaii

FIGURE 4-2

Areas that violate federal air quality standards are designated as non-attainment areas for the relevant pollutants; areas that comply with federal air quality standards are designated as attainment areas for the relevant pollutants; areas of questionable status generally are designated as unclassifiable areas.

A formal conformity determination is required for federally-sponsored or funded actions in non-attainment areas or in certain maintenance areas when the total direct and indirect net emissions of non-attainment pollutants (or their precursors) exceed specified thresholds. The County of Hawaii is a designated attainment area; therefore, a federal conformity determination is not required for the Proposed Action.

4.2.2 Regional Setting

4.2.2.1 Climate

The major Hawaiian Islands lie within the tropics, but have a subtropical climate due to the cooling influence of currents from the Bering Sea. Northeasterly trade winds persist throughout most of the year, although southerly Kona winds occasionally blow for several days at a time. These light and variable southeast winds bring hot, humid weather in the summer and occasional fierce storms with high waves, wind, and rain in the winter. Average wind speeds are highest during the summer and often exceed 12 miles per hour. Areas receiving the greatest amount of rainfall are on the windward, or northeastern, sides of the islands. Humidity on the islands is typically high except along the drier (i.e., leeward) coasts and at higher elevations.

KMR is located on the windward side of the island of Hawaii, and receives between 125 and 150 inches of precipitation annually. December through March is the wettest and coolest time of year, with an average temperature between 63°F and 68°F; July through August are the driest and warmest months with average temperatures between 68°F and 83°F. Temperature variations are slight due to the small variation in solar energy and virtually constant flow of ocean air across the island (HIARNG 2006b).

4.2.2.2 Local Air Quality

Hawaii County is currently designated by the USEPA as an attainment area for all criteria pollutants (USEPA 2006). The county is under jurisdiction of the State of Hawaii Department of Health Clean Air Branch. Two air quality monitoring stations are located within Hawaii County at Hawaii Volcanoes National Park. These stations both monitor SO_2. According to USEPA Air Quality Data, daily maximum SO_2 concentration exceeded primary NAAQS within Hawaii County on nine days in 2005.

4.3 NOISE

Average noise exposure over a 24-hour period is often presented as a community noise equivalent level (CNEL), measured in decibels (dB). CNEL values are calculated from average hourly noise levels, in which the values for the evening period (7 PM to 10 PM) are increased by five dB, and values for the nighttime periods (10 PM to 7 AM) are increased by 10 dB. Such weighting of evening and nighttime noise levels is intended to take into account the greater human disturbance potential of nighttime noises.

There are two primary types of noise sources in the urban environment, transportation and non-transportation. Transportation noise includes mobile sources such as vehicular traffic, aircraft, and trains. Non-transportation, or stationary, sources include construction, maintenance and other facility-based sources. The discussion regarding noise will focus on the following aspects: (a) noise guidelines, (b) sensitive receptors, (c) on-site noise emissions.

4.3.1 Regulatory Overview

4.3.1.1 Federal Guidelines

The Noise Control Act of 1972, Public Law (PL) 92-574, requires that all federal agencies comply with applicable federal, state, interstate, and local noise control regulations. Federal agencies are directed to administer their programs in a manner that promotes an environment free from noise that jeopardizes public health or welfare.

Army Regulation 200-1 (Environmental Protection and Enhancement) outlines the Army's Installation Operational Noise Management Program, which supplements the Noise Control Act. Noise-sensitive land uses, such as housing, schools, and medical facilities, are compatible with a noise environment of less than 65 dBA when the noise is from transportation sources, such as vehicles and aircraft, and from continuous sources, such as generators.

4.3.1.2 State Guidelines

The Hawaii State Department of Health developed objectives and strategies guiding the noise environment of communities in Hawaii (Hawaii State Department of Health 2004). State noise guidelines are outlined in the Hawaii Administrative Rules Chapter 11-46. These guidelines identify maximum allowable noise levels within zoning districts (Table 4-2).

Table 4-2. Maximum Permissible Noise Levels

Zoning District	Daytime (7 AM to 10 PM) (dBA)	Nighttime (10 PM to 7 AM) (dBA)
Residential, Conservation, Preservation, Public Space, Open Space	55	45
Apartments, Business, Commercial, Hotel, Resort	60	50
Agriculture, Country, Industrial	70	70

Source: Hawaii Department of Health 1996.

4.3.1.3 Local Guidelines

No county-specific noise standards have been developed. The County of Hawaii follows the noise guidelines defined by the State of Hawaii.

4.3.2 Noise Conditions at KMR

4.3.2.1 Sensitive Noise Receptors

There is no immediate residential development surrounding KMR. The majority of lands surrounding KMR are forest and rock quarries. Therefore, no sensitive noise receptors are located within the vicinity of KMR.

4.3.2.2 Noise Sources

Aircraft activity associated with civilian and military aircraft operations at Hilo International Airport is the single greatest source defining the noise environment in the vicinity of KMR. KMR primarily generates noise through small arms weapons firing. The Zone III noise contours from the small arms firing range do not extend off the KMR boundary. The Zone II noise contours extend outside of the KMR boundary when the company size increases from 150 to 300 personnel. The ranges are used infrequently at KMR (HIARNG 2005). The construction/reconstruction of administrative facilities in the proposal does not necessarily suggest that the range use will change. Currently the ranges are shut down due to safety concerns, and the construction of the AFRC does not imply that the ranges will reopen. These factors are more related to Army transformation efforts, and will need to be addressed in a separate NEPA document once a training plan is developed.

4.4 GEOLOGY AND SOILS

Analysis of geology and soils includes consideration of bedrock materials, stratigraphy, topography, soils, seismic hazards, mineral resources, unique landforms, paleontology, and geologic conditions that may affect construction, design, or influence contaminant distribution and groundwater. This section describes the geologic and seismic setting at the site, which includes regional and site specific geologic descriptions, area soils, and regional and local faulting. In addition, geologic hazards that may affect the site and/or project design are also addressed.

4.4.1 Physiography

The Island of Hawaii is the largest and youngest island in the Hawaiian group. It was built from the ocean floor by voluminous outpourings of lava from five volcanoes – Kohala, Mauna Kea, Hualalai, Mauna Loa, and Kilauea. The volcanoes are believed to have originated in the Tertiary period.

The Kohala volcano on the northern end of the island became extinct during the Middle Pleistocene era. Mauna Kea, the highest mountain (13,784 feet above msl) is built up of olivine basalt and covered with layers of volcanic ash. During the Wisconsin stage of glaciation in North America Mauna Kea was capped by a small glacier. Hualalai Mountain is built up of basalts. A large trachyte pumice cone of Puuwaawaa occurs on the northern slope. The last eruption of Hualalai in 1800 produced olivine basalt. Mauna Loa covers 50 percent of the island of Hawaii. Mauna Loa and Mauna Kea receive an annual blanket of snow that lasts for a couple of months during the winter. The Kilauea volcano originated on the southern slopes of Mauna Loa and its lavas are largely olivine basalt (Sato et al 1968).

4.4.1.1 Regional Geology

The topography of the island reflects the volcanic activity. In the northern and eastern sections where volcanic flows have not occurred recently, the terrain has been eroded by rivers and streams. The spaces between drainages are narrow. In the southern section the terrain is undissected, barren, and reveals large areas of exposed lava.

The valleys draining the rainy, windward slopes of Mauna Kea are younger and therefore smaller than those of the Kohala Mountains. The dry western slope of Mauna Kea is largely undissected by stream erosion. The gulches in the upper slopes of Mauna Kea have a distinct relationship to the glaciers, which covered the top of the mountain during the late Pleistocene time. Shallow gulches drain the southwestern slopes of Mauna Loa (Sato et al 1968).

4.4.2 Soils

The soils at KMR are comprised entirely of Papai extremely stony muck, 3 to 25 percent slopes. This soil series consists of well-drained, thin, extremely stony organic soils over fragmental Aa lava. Erosion hazard is slight and runoff is typically slow. This soil type is not considered prime farmland soil. Plasticity and shrink-swell potential of this soil type is rated low. The natural vegetation is ohia, tree fern, uluhe fern, and guava (Sato et al. 1968).

4.4.3 Geological Hazards

4.4.3.1 Faulting and Seismicity

The Island of Hawaii experiences thousands of earthquakes every year, although only a few are strong enough to cause damage. Most earthquakes are directly related to volcanic activity and are concentrated beneath the island's two most active volcanoes, Mauna Loa and Kilauea. The Island of Hawaii has experienced 14 damaging earthquakes rated 6.0 or greater since 1868. Consequently, the entire Island of Hawaii has revised the building codes to the Zone 4 category (10 percent chance of severe shaking in a 50 year interval) (County of Hawaii 2003).

4.4.3.2 Tsunami

A tsunami is a series of great waves most commonly caused by violent movement of the sea floor, usually a fault resulting in an earthquake, but also caused by near-shore or underwater landslides or volcanic eruptions. Since 1812, 25 tsunamis have adversely impacted the Island of Hawaii. The Hilo area has experienced an average of one tsunami every four years since 1837, and several tsunamis have inflicted significant damage to the area. The entire coastline of Hilo is located within historical inundation zones (even beyond the FEMA mapped 100-year flood zones) (County of Hawaii 2003). KMR is located south and outside of the historical inundation zone. An elaborate tsunami warning system is located throughout the island (County of Hawaii 1989).

4.4.3.3 Lava Flow Hazard

KMR lies on a prehistoric flow that originates from Mauna Loa, and is notable for its flatness, ranging from 40 to 80 feet above msl. The entire complex remains as flattened areas of lava. Although recent lava flows from Mauna Loa have reached the city limits of Hilo, no flows have threatened KMR since its establishment in 1977. The U.S. Geological Survey has developed nine Lava Flow Hazard Zone designations to delineate areas of probable lava flow on the island of Hawaii. Areas designated Zone 1 have the lowest risk of experiencing a lava flow, whereas areas designated Zone 9 have the highest risk of experiencing a lava flow. The installation is located within Lava Flow Hazard Zone 3 (HIARNG 1997).

4.5 WATER RESOURCES

Water resources considered in this analysis include surface water and drainage, flood hazards, groundwater, and water quality. Surface water resources comprise lakes, rivers, and streams, and are important for a variety of economic, ecological, recreational, and human health reasons. Groundwater comprises the subsurface hydrologic resources of the physical environment and is an essential resource in many areas; groundwater is commonly used for potable water consumption, agricultural irrigation, and industrial applications. Groundwater properties are often described in terms of depth to aquifer, aquifer or well capacity, water quality, and surrounding geologic composition.

4.5.1 Regulatory Overview

4.5.1.1 Federal Regulations

The Clean Water Act (CWA) identifies certain pollutants and sets required treatment levels for those pollutants. The CWA addresses both point source and non-point source discharges. Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) program, under which permits are required for all point source discharges to waters of the United States, including discharges of storm water associated with construction and industrial activities.

4.5.1.2 State Regulations

The State Water Code, Chapter 174C of the Hawaii Revised Statutes was enacted into law by the 1987 Hawaii State Legislature for the purpose of protecting Hawaii's water resources. The code requires each county in the State to develop a water use and development plan setting forth the allocation of water to land use in that county for inclusion in the Hawaii water plan.

4.5.2 Surface Water

The Island of Hawaii is geologically very young and has not developed defined surface water courses in many areas, especially in the South Hilo area. Hawaiian streams, in general, are short and steep. Most rainfall is quickly absorbed into the highly permeable soil, creating numerous ponds and marshy areas including Kionakapahu, Lokoaka, and Waiakea Ponds. During periods of heavy rainfall, water courses often overflow. The downtown Hilo area has occasional flooding problems associated with the Wailoa River and Alenaio Stream.

Despite the abundance of rainfall, the area surrounding KMR does not have well-defined drainages due to the highly permeable soil. Storm water runoff is collected by a series of man-made ditches, storm sewers, and drainage swales, and drains east towards Puhi Bay located approximately 1.5 miles north of KMR (National Guard Bureau [NGB] 1994).

4.5.3 Groundwater

Groundwater reservoirs on the island of Hawaii include interconnected water bodies that are impounded by dikes in the interior of the island or are floating on saline groundwater along the outer rims of the island. The principal groundwater aquifers are located within the numerous thin-bedded basalt flows that make up the bulk of the island. Fresh groundwater sources are located from several feet to 1,000 feet below msl. Seawater intrusion is the most frequent cause of fresh groundwater pollution on the island; this is often caused by land development (ANGRC 1995; HIARNG 1997).

KMR is located atop the Northeast Mauna Loa aquifer in Hawaii County. Used for potable water, this aquifer is on the boundary of the Hilo and the Kea'au aquifer systems. Groundwater directly beneath the installation occurs as an unconfined basal lens of freshwater sitting atop intruding seawater at a depth of 4 feet below msl (HIARNG 2006b). Due to the installation's proximity to the ocean, groundwater tends to be brackish (HIARNG 1997).

4.5.4 Floodplains

KMR is not located within a flood hazard or tsunami evacuation zone (GTE Hawaiian Tel 1997; HIARNG 1997).

4.5.5 Wetlands

About one mile north of KMR the shoreline of Hilo is scattered with small wetlands. According to the National Wetland Inventory database and written correspondence from the U.S. Fish and Wildlife Service (USFWS), no federally delineated wetlands are located in the vicinity of the main cantonment area at KMR (HIARNG 2006b).

4.6 BIOLOGICAL RESOURCES

The biological resources discussed in this section include: vegetation, sensitive habitats, wildlife, and special status species. A records search for the area of the U.S. Geological Survey 7.5 Minute Quadrangle (involving the subject property) included the USFWS Federal Endangered and Threatened Species List.

4.6.1 Regulatory Overview

Assessment of biological resources under NEPA involves consideration of the degree to which a proposed action may adversely affect an endangered or threatened species or the species' critical habitat. The principal federal law addressing biological resources is the Endangered Species Act (ESA) of 1973 as amended. These regulations forbid any person to "take" an endangered or threatened species. "Take" is defined by Section 3 of the Act as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage

in such conduct." The USFWS administers the ESA by listing and delisting species as appropriate, designating critical habitat for listed species, and conducting federal consultation under Section 7 of the ESA in order to permit incidental take of listed species for particular projects.

Section 7 of the ESA directs all federal agencies to use their existing authorities to conserve threatened and endangered species and, in consultation with the USFWS, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. Section 7 applies to management of federal lands as well as other federal actions that may affect listed species, such as federal approval of private activities through the issuance of federal permits, licenses, or other action. Under Section 7, a biological assessment of the proposed action is conducted to identify any threatened or endangered species that is likely to be adversely affected by the proposed action. The USFWS has the responsibility to review the assessment and prepare a formal Biological Opinion regarding the project. After completion of the formal Section 7 consultation, USFWS has the authority to make a determination regarding an incidental take permit for listed species after all measures are taken by the federal agency to conserve threatened and endangered species and protect designated critical habitat. HIARNG performed a biological assessment of the area impacted from the Proposed Action to determine if any threatened or endangered species would be adversely impacted. HIARNG identified two (2) listed species during the biological survey: the Hawaiian hoary bat (*Lasiurus cinereus cinereus*) and the endangered Hawaiian hawk (*Buteo solitarius*). USFWS concurred with HIARNG's determination that the proposed project would not have any adverse impacts to the listed species (Appendix B).

In addition, the Migratory Bird Treaty Act of 1918, as amended, establishes a federal prohibition to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention… for the protection of migratory birds… or any part, nest, or egg of any such bird." This Act affirms and implements the United States' commitments to four international

conventions for the protection of a shared migratory bird resource. The USFWS has enforcement provisions over this statute as well.

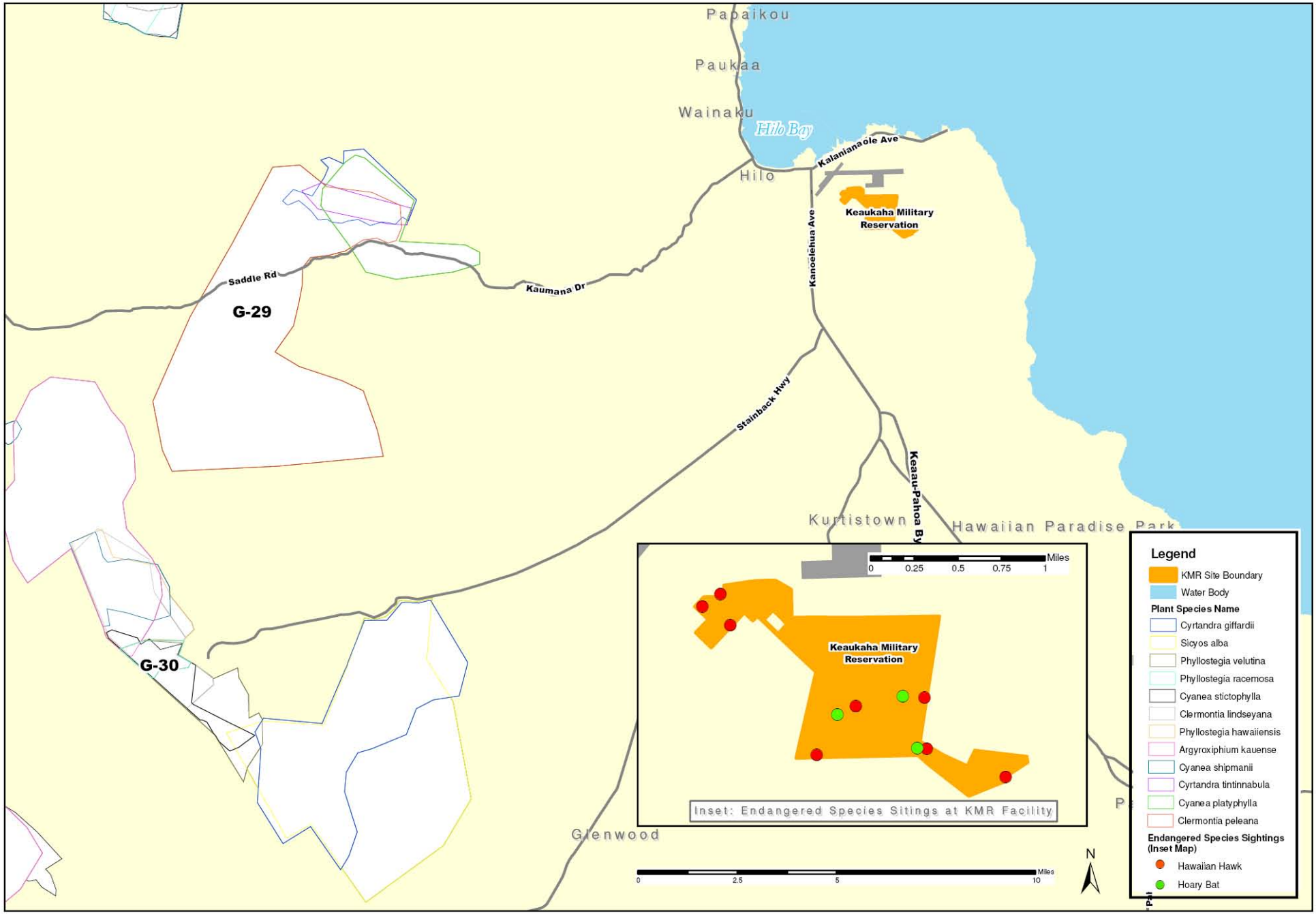
4.6.2 Vegetation

Vegetation at KMR is thick due to aerial reseeding of bingabing (*Macaranga mappa*) by the Navy following a fire in the 1940's, and extensive bulldozing. Consequently, a dense jungle of non-native vegetation has developed at the complex. The dominant species present include pandanus (*Pandanus odoratissimus*), clerodendron (*Clerodendron fragranus*), uluhe (*Dicranopteris llinearis*), ti (*Cordyline terminalis*), 'ie' ie (*Frecinetia arborea*), guava (*Psidium* spp.), hau (*Hibiscus tiliaceus*), ohia lehua (*Metrosideros collina* ssp. *polymorpha*), Glory Bush (*Tibouchina semidecandra*), Jet berry (*Ardisia solanacea*), octopus tree (*Brassaia actinophylla*), Indian banyan (*Ficus benghalensis*), Chinese banyan (*Ficus retusa*), false kamani (*Terminalia catappa*), palm grass (*Setaria palmifolia*), ironwood trees (*Casuarina equisetifolia*), mango (*mangifera*), liliko'i (*Passiflora edulis*), lantana (*Lantana camera*), and avocado (*Persea americana*) (HIARNG 2002). The western developed portion of KMR consists of managed landscape with grass, introduced ornamental shrubs and trees. Most of the area is maintained with mowed lawns of carpet grass (*Anoxopus fissifolius*), yellow foxtail (*Setaria gracilis*), molasses grass (*Melinis minutiflora*), and guinea grass (*Panicum maximum*) (HIARNG 2006b).

4.6.3 Sensitive Habitats

The habitat at KMR is considered to be a highly disturbed lowland Ohi'a forest. This is a type of wet lowland forest that is becoming rare in Hawaii due to expanding development and agricultural speculation (HIARNG 2006b). Restoration of the forest environment is currently underway at KMR through active forest management and partnerships with the University of Hawaii, Hilo.

Critical habitat for threatened and endangered plant species has been designated in 30 locations on the Island of Hawaii totaling approximately 437,000 acres or 17 percent of the island. No critical habitat areas have been designated at KMR. The nearest designated critical habitat to KMR is unit G29 (Federal Register July 2, 2003) (Figure 4-3).



amec

Designated Critical Habitat and Endangered Species in the Vicinity of KMR

FIGURE 4 - 3

4.6.4 Wildlife

Wildlife species observed on KMR include both native and non-native species. These include pig (*Sus scrofula*), the Pacific Golden Plover (*Pluvialis fulva*), the Polynesian rat (*Rattus exulans*), mongoose (*Herpestus auopunctatus*), domestic cats (*Felis catus*), the indigenous Hawaiian Hawk (*Buteo solitarius*), and several species of introduced bird including the Mynah (*Acridothers tristis*), House Finch (*Cardopacu mexiicanus frontalis*), Cardinal (*Cardinalus cardinalus*), and Japanese White Eye (*Zosterops japonica*) (HIARNG 2002).

4.6.5 Threatened/Endangered Species

Sensitive species include those listed or proposed for listing by the USFWS as endangered or threatened, candidate species for listing, or species of concern. Sensitive species are provided varying levels of legal protection under the federal ESA. The State of Hawaii does not have a state Endangered Species Act and therefore defers to federal designation listings. One federally listed species, the endangered hoary bat (*Lasiurus cinereus semotus*) (the only native land mammal in Hawaii) was identified during a survey of KMR by the USFWS. In addition, the Hawaiian Hawk (*Buteo solitarius*) has been observed in flying and landing in numerous areas around the main cantonment area at KMR although no nests have been observed at any locations on KMR (HIARNG 2006b). Siting locations of the hoary bat and Hawaiian Hawk are depicted in Figure 4-3. Additionally, the endangered dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*) may occur in the vicinity of KMR, although the species has not been observed on the installation. Correspondence with the USFWS regarding the presence of threatened and endangered species at KMR is provided in Appendix B.

Endangered species potentially occurring within a 5-mile radius of KMR are listed in Table 4-3.

Table 4-3. Sensitive Species Potentially Occurring in the Vicinity of the Project Area

Hawaiian/Common Name	Scientific Name	Status	Notes
Mammals			
Hoary Bat	*Lasiurus cinereus semotus*	Endangered	Last sighted in area in 1992.
Birds			
Hawaiian Coot	*Fulica alai*	Endangered	Last sighted in area in 1989.
Hawaiian Duck	*Anas wyvillana*	Endangered	Last sighted in area in 1990.
Hawaiian Hawk	*Buteo solitarius*	Endangered	Observed throughout KMR.
Dark-Rumped Petrel	*Pterodroma phaeopygia sandwichensis*	Endangered	Potentially occurs in vicinity of 291 CBCS installation.
O'u (Honeycreeper)	*Psittirostra psittacea*	Endangered	Extremely rare; last sighted in area in 1878.
Reptiles			
Green Sea Turtle	*Chelonia mydas*	Endangered	None.
Hawksbill Turtle	*Eretmochelys imbricata*	Endangered	None.
Invertebrates			
Orange Black Megalagrion Damselfly	N/A	Proposed	Candidate endangered species; found in pools near Hilo International Airport.
Plants			
N/A	*Asplenium fragile* var. *insulare*	Endangered	Last sighted in area in 1910.
Hilo Ischaemum Fern	*Ischaemum byrone*	Endangered	Last sighted in area in 1992.
N/A	*Stenogyne angustifolia*	Endangered	Last sighted in area in 1800s.
Pendant Kihi Fern	*Adenophorus periens*	Endangered	Candidate for endangered species list; last sighted in area in 1889.

Source: HIARNG 1997; Hawaii Biological Survey 1999; USFWS 1999.
Notes: N/A – not applicable (no common name).

4.7 CULTURAL RESOURCES

4.7.1 Regulatory Overview

NEPA requires consideration of "important historic, cultural, and natural aspects of our natural heritage." Consideration of cultural resources under NEPA

includes the necessity to independently comply with the applicable procedures and requirements of other federal and state laws, regulations, executive orders, presidential memoranda, and ARNG guidance.

The principal federal law addressing cultural resources is the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC Section 470), and its implementing regulations (36 CFR 800). Cultural Resources are historic properties as defined by the NHPA, cultural items as defined by the Native American Graves Protection and Repatriation Act (NAGPRA), archaeological resources as defined in Executive Order 13007 to which access is afforded under the Archaeological Resources Protection Act (ARPA), and collections and associated records as defined in 36 CFR 79. The regulations, commonly referred to as the Section 106 process, describe the procedures for identifying and evaluating historic properties; assessing the effects of federal actions on historic properties; and consulting to avoid, reduce, or minimize adverse effects. As part of the Section 106 process, agencies are required to consult with the State Historic Preservation Division (SHPD). The term "historic properties" refers to cultural resources that meet specific criteria for eligibility for listing on the National Register of Historic Places (NRHP); historic properties need not be formally listed on the NRHP. Section 106 does not require the preservation of historic properties, but ensures that the decisions of federal agencies concerning the treatment of these places result from meaningful considerations of cultural and historic values and of the options available to protect the properties. The Proposed Action is an undertaking as defined by 36 CFR 800.3 and is subject to Section 106.

The Department of Defense (DoD) Annotated American Indian and Alaska Native Policy (October 27, 1999) "DoDI 4710.02 DoD Interactions with Federally Recognized tribes" governs DoD interactions with federally recognized tribes. The policy outlines DoD trust obligations, communication procedures with tribes on a government-to-government basis, consultation protocols, and actions to recognize and respect the significance that tribes ascribe to certain natural resources and properties of traditional cultural or religious importance. The policy requires consultation with federally recognized tribes for proposed activities that could significantly affect tribal resources or interests.

In addition to Federal and State regulatory laws and policies, the Hawaii Army National Guard has developed a draft Integrated Cultural Resources Management Plan (ICRMP). An ICRMP is required by Department of Defense Instruction (DODI) 4715.3, *Environmental Conservation Program*, and AR 200-4, *Cultural Resources Management.* The HIARNG's draft ICRMP establishes explicit responsibilities, standard operating procedures, and long-range goals for managing cultural resources on HIARNG lands in compliance with all applicable laws and regulations, while ensuring the safety and efficiency of Federal and state missions. HIARNG contacted the Office of Hawaiian Affairs (OHA), Department of Hawaiian Home Lands, Association of Hawaiian Civic Clubs and Hui Malama I Na Kupuna 'O Hawai'i Nei to determine if the proposed activities would significantly affect cultural resources or interests of Native Hawaiians.

4.7.2 Investigations of the Project Site

To determine whether the proposed project site contains previously recorded cultural resources, a records search was conducted at the HIARNG Cultural Resources Manager's (CRM) office within the Engineering: Environmental Section in Honolulu on August 16 2006. The search included files at the CRM's office that contained known and recorded archaeological and historic sites, inventory and excavation reports, and the HIARNG draft ICRMP.

Results of the records search indicate that five known archaeological sites and 18 structures have been recorded near or within the proposed project area. Four cultural resources studies have been conducted within KMR (Table 4-4).

Archeological reconnaissance (Phase 1) and inventory surveys (Phase 2) were conducted at KMR in 1997 and 2000. The 1997 Phase 1 survey identified a portion of the Puna Trail (State Site# 50-10-35-18869) that extends thorough the length of the property. The reconnaissance survey also identified 10 historic military buildings and two possible prehistoric sites as potentially significant properties, based on the National Register of Historic Places Criteria. The Phase 1 investigations of historic properties also revealed that between one-third and one-half of KMR has been extensively graded during military occupation of the property. The grading is believed to have effectively removed all surface traces

of historic properties that might have existed prior to military occupation at KMR.

A Phase II survey in 2000 included 100% coverage of a 600-foot wide corridor (approximately 55 acres) following the alignment of the Puna Trail through KMR. During this survey the two sites that were located during the Phase I survey were further investigated. Additionally, two new sites were recorded. One site recorded during the Phase I survey proved to be a modern bulldozer push pile and was deaccessioned. The remaining three sites, as well as the

Table 4-4. Cultural Resources Studies

Year	Report	Conducted by	Results	Archaeological Site Number
1997	Archaeological Reconnaissance Survey of Keaukaha Military Reservation, South Hilo District, Hawai'i Island	Devereux, et al	Two sites recorded. One site was later determined to be a bulldozer push pile. One considered eligible for inclusion to the NRHP.	50-10-35-18869
2000	Archaeological Inventory Survey of Selected Portions of the Hawai'i Army National Guard 503.6-acre Keaukaha Military Reservation	Hammatt and Bush	Three sites recorded. One previously recorded site was determined to be a modern bulldozer push pile and disincluded. The three other sites are considered eligible for inclusion to the NRHP	50-10-35-18869 50-10-35-21657 50-10-35-21658 50-10-35-21659
2002	Archaeological Inventory Survey at Keaukaha Military Reservation	Escott and Tolleson	One site recorded. Site considered eligible for inclusion to the NRHP	50-10-35-23273
2006	*A Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i*	Scherer	18 buildings recorded. None determined eligible for inclusion to the NRHP	

section of the Puna trail within KMR, were recorded and their significance was evaluated based the criteria of the State and National Registers of Historic Places.

Five archaeological sites have been recorded at KMR. These sites include: 1) State Site 50-10-35-18869, a section of the Puna Trail; 2) State site 50-10-35-21657, a C-shaped enclosure located in the Southeast part of KMR near the alignment of

the old Puna Trail which was possibly constructed as a military artillery position; 3) State Site 50-10-35-21658, a group of five *ahu,* or trail markers to the Puna Trail, possibly marking a fresh water source or temporary shelter; 4) State Site 50-10-35-21659, a modified natural blister on a *pahoehoe* flow believed to be a traditional Hawaiian agricultural planting feature; and 5) State Site 50-10-35-23273, a remnant portion of the Puna Trail and three agricultural features.

Site significance evaluations and recommendations are as follows: 1) the Puna Trail, State Site 50-10-35-18869, as it appears today is better preserved outside of the KMR boundaries. The alignment of the trail within KMR should not be modified if possible, but the lack of integrity due to modern changes to the trail within KMR reduces its significance and no preservation stipulations are recommended; 2) State Site 50-10-35-21657, the modern artillery position is significant under Criterion D for its information content. The site was thoroughly documented during the Phase II survey and no further work is warranted; 3 and 4) both State Sites 50-10-35-21658 and 21659 are significant under Criterion D and are recommended for preservation and should be avoided; 5) State Site 50-10-35-23273 is significant under Criterion D but the associated agricultural features are not considered eligible for inclusion to the NRHP.

It is believed that the KMR project area was not intensively occupied during the prehistoric period or the 19th century. Beginning in 1914, the National Guard of Hawai'i Rifle Range was used by the Army and the Navy and in 1947 the Hawai'i National Guard returned. Thus the majority of land utilization and most of KMR's structures have been military in nature.

According to the 2006 *Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i,* a total of 18 structures were documented at the KMR. These structures date between 1942 and 1957. All 18 structures were assessed according to the four National Register of Historic Places criteria for historic significance while one structure less than 50 years of age was also assessed. The structures were evaluated for historic significance individually and as a historic district.

The 18 structures documented were assessed as not eligible for listing on the National Register of Historic Places either individually or as a historic district. None of the structures met the National Register of Historic Places criteria for significance and eligibility.

The HIARNG submitted the results of the Historic Building Survey to the SHPD on October 30, 2006 (Appendix B). At the request of SHPD, additional information was submitted as an Addendum to the Historic Building Survey on January 4, 2007. SHPD determined that one of the 18 structures evaluated (Building 003) was eligible for listing on the National Register of Historic Places. It was further recommended that Building 003 be relocated to another portion of the site and undergo Historic American Buildings Survey (HABS) recordation prior to relocation. Alternatively the structure could be allowed to remain in place and modify the plan to accommodate this.

Additionally, SHPD determined, due to the large number of buildings to be demolished, that the proposed project would have an adverse effect. To mitigate this effect, SHPD recommended documentation of all the buildings. This documentation can be found in the *Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i,* performed in 2006. HIARNG will also submit a Historic Resources Inventory Form for all structures to be demolished.

The HIARNG has initiated consultation in accordance with Section 106 of NHPA with Native Hawaiian organizations, groups, families, and individuals that may ascribe traditional religious and cultural importance to historic properties at KMR, in addition to the Office of Hawaiian Affairs (OHA). Through these consultations the HIARNG will seek comments regarding the proposed action to ensure that it will not have the potential to significantly affect Native Hawaiian, cultural or religious sites or Native Hawaiian lands. Native Hawaiian organizations were contacted by the HIARNG to initiate consultations by both telephone and mail regarding the project (Appendix B). According to the Hilo office of OHA, a community meeting was held and there were no comments regarding the impact of this project on Native Hawaiian, cultural or religious sites or Native Hawaiian lands. As such, OHA's May 7, 2007 (Appendix B) comment letter concurred with the findings of the EA that there would not be a

significant adverse affect on cultural resources. Other Native Hawaiian organizations that were contacted did not respond to our request.

4.8 SOCIOECONOMICS

This section describes the socioeconomic setting for the city of Hilo, where the proposed project site is located. Socioeconomic conditions addressed include population, employment, income, and housing.

4.8.1 Regional Socioeconomic Data

4.8.1.1 Population

At the time of the 2000 census, the population of Hilo was 40,759 (U.S. Census Bureau 2000). There is no current estimation of population for the city. The County of Hawaii population at the time of the 2000 census was 148,677. The population of the county has increased by 12.5 percent in the past five years to an estimated level of 167,293. Population is expected to reach 229,700 by 2030 (Department of Business, Economic Development and Tourism 2004).

4.8.1.2 Employment

Employment sectors providing the greatest number of jobs in Hawaii County are accommodation and food services, retail trade, and health care and social assistance. Combined, these sectors provide jobs for 31 percent of the county's workforce totaling 808,520 people in 2004 (U.S. Bureau of Economic Analysis [BEA] 2004). The per capita personal income in the county in 2004 was $32,625. Approximately 4,949 people were unemployed in the County in 2001 – an unemployment rate of 6.8 percent (U.S. Census Bureau 2000).

4.8.1.3 Housing Supply

Table 4-5 presents the housing supply in Hawaii County for 1990 and 2000. The number of housing units has increased dramatically from 1990 to 2000, by approximately 1,442 units per year. Vacancy rates also increased dramatically in the 10-year period, from 18.3 percent in 1990 to approximately 23.6 percent in

2000. Based on 2000 data, Hawaii County has approximately 62,674 housing units, about 14,421 more than in 1990.

Table 4-5. County of Hawaii Housing Characteristics

	1990	2000	1990-2000 percent change
Vacant Units	8,837	14,790	40.3%
Total Units	48,253	62,674	23.0%
Vacancy Rates	18.3%	23.6%	22.5%
Persons per Housing Unit	2.93	2.79	-0.05%

Source: U.S. Census Data 1990 and 2000.

4.8.1.4 Schools

The State of Hawaii is served by one school district run by the Hawaii Department of Education. The City of Hilo is served by 16 schools with a total enrollment of 8,576 students. The nearest schools to KMR include Kapiolani Elementary School (2.0 miles west), Waiakea Elementary School (2.7 miles southwest), and Waiakea High School (2.4 miles southwest).

4.8.2 Socioeconomics at KMR

In 2004, KMR employed 9 full-time State employees, and 199 part-time traditional guardsmen (HIARNG 2004).

4.9 ENVIRONMENTAL JUSTICE

4.9.1 Minority and Low-Income Populations

In 1994, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was issued to focus attention of federal agencies on human health and environmental condition in minority populations and in low-income communities. In addition, its purpose is to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed.

The ethnic composition of the population with the City of Hilo is represented in Table 4-6. Based on 2000 Census information 38.3 percent of the population is

Asian, 13.1 percent are Native Hawaiian or Pacific Islander, 17.1 percent is white, 0.4 percent is African American, 0.3 percent is Native American, and 30.8 percent is classified as "other" or "reporting two races."

Table 4-6. Ethnic Composition of the City of Hilo

	2000	2000 Percent of Total
White	6,970	17.1%
African American	163	0.4%
Asian	15,611	38.3%
Native Hawaiian/Pacific Islander	5,339	13.1%
Native American	122	0.3%
Others	12,554	30.8%
Total	40,759	100.0%

Source: U.S. Census Bureau 2000.

According to 2000 Census data, 17.1 percent of the population were below the poverty level in Hilo and 10.7 percent were below the poverty level in the State of Hawaii.

4.9.2 Protection of Children from Environmental Health or Safety Risks

Since children are more susceptible to environmental health risks and safety risks, Executive Order 13045, Protection of Children from Environmental Health and Safety Risks, was introduced in 1997 to prioritize the identification and assessment of environmental health risks and safety risks that may affect children. In addition, its purpose is to ensure that federal agencies' policies, programs, activities, and standards address environmental health risks and safety risks to children. No family housing, schools, or child-related services exist on KMR. Currently, children have access to KMR through the Puna Trail, a state-maintained public access way that crosses through the main cantonment area providing access from the City of Puna to the City of Hilo.

4.10 INFRASTRUCTURE

This section identifies the services and public infrastructure supporting the City of Hilo and the proposed facilities at KMR. In addition, this section provides a description of the existing setting regarding safety (e.g. ATFP standards, ordinance, clear zones) at KMR.

4.10.1 Public Services and Utilities

4.10.1.1 Police and Fire Protection

The County of Hawaii provides police and fire protection and maintains local facilities, such as roadways. The nearest police department to the property is approximately 4 miles away and is located at 349 Kapiolani Street. The nearest fire station is located at 25 Aupuni Street and is approximately 3 miles away.

4.10.1.2 Electricity

The Hawaii Electric Light Company, Inc. provides electric service within the City of Hilo and the County of Hawaii via overhead power lines. Electrical lines run parallel to the Old Puna Trail and Circle Avenue. The existing power lines and transformers have not been updated and potentially contain polychlorinated biphenyls (PCBs).

4.10.1.3 Natural Gas

The Public Utilities Commission maintains gas mains and service lines on the Island of Hawaii. These lines serve 1,600 customers within the City of Hilo. In addition, many customers in Hilo are provided gas service by tank or cylinder. KMR receives their natural gas from The Gas Company via tanks.

4.10.1.4 Potable Water

Drinking water is obtained from the Hilo Water System from a combination of two wells and the Olaa Flume source.

4.10.1.5 Sanitary Wastewater

Approximately 77 percent of the county is served by cesspools including the northern district of the City of Hilo. Municipal sewerage services are offered in the southern district in the City of Hilo. The system consists of 5 million gallons per day secondary sewage treatment with ocean outfalls. In February 2006, KMR upgraded all facilities from a system of cesspools to septic tanks (HIARNG 2006c).

4.10.1.6 Solid Waste

Solid waste is generated is stored on-site in dumpsters. The accumulated waste is collected by a private firm under contract with the HIARNG and transported to the County of Hawaii's landfill (HIARNG 1997).

4.10.2 Safety

4.10.2.1 Explosives

Unexploded ordinance from a defunct grenade training range is present in a parcel of land adjacent to the main compound (directly behind the Hawaii ANG facilities). No unexploded ordinance clearance, surface or subsurface investigations have been conducted on the site (HIARNG 2006a).

Ammunition bunkers are located on KMR near the training ground sites in Buildings 911, and 912. No ammunition bunkers are located within the main compound area (HIARNG 1997).

4.10.2.2 Firing Ranges

Two firing ranges are present at KMR and are operated and maintained by the HIARNG. The machine gun firing range, located in the southeastern portion of KMR is no longer in use. The small arms range south of the Hawaii ANG complex is currently used by numerous military and local groups (e.g. Sheriff's department, local gun clubs). The safety distance zones for the firing range are expansive across the forest area of KMR. As mentioned previously, the

construction/reconstruction of administrative facilities in the proposal does not necessarily imply that the range use will change. The ranges are currently shut down due to safety concerns, and the construction of the AFRC does not suggest that the ranges will reopen. These factors are more related to Army transformation efforts, and will need to be addressed in a separate NEPA document once a training plan is developed.

4.10.2.3 Installation Security

KMR has numerous gates and access points, although no gates are currently manned by security guards. Most gates are chain or swing gates that are opened and closed manually and may be left open at times. A partial perimeter fences exists in the northern portion of the installation (HIARNG 2006a). This fence does not meet current ATFP height or security requirements. Pedestrians are currently able to access the KMR facility via the Puna Trail.

4.11 TRANSPORTATION AND CIRCULATION

4.11.1 Transportation Network

The Hawaii Belt Highway (Highway 19) is the primary traffic artery serving the area around Hilo. Portions of the old Mamalahoa Highway also serve scattered areas outside of Hilo. Augmenting the Hawaii Belt Highway is Saddle Road. The Saddle Road within the city follows major thoroughfares. Hilo's internal circulation system provides arterial and collector streets to handle traffic moving from one part of the city to another. However, the majority of traffic flow is directed through the downtown area because of a lack of arterial connections. The majority of roads in Hilo do not meet current road safety standards (County of Hawaii 2005).

4.11.2 Operating Conditions

No metropolitan transportation plan exists for the Hilo area and no traffic counts have been conducted by the Hawaii Department of Transportation, Highway Division.

4.11.3 On-Base Transportation and Circulation

KMR is accessed from the City of Hilo via State Route 11. Kekuanaoa Road connects KMR and Hilo International Airport to State Route 11. The Old Puna Trail intersects with Kekuanaoa Road just outside the KMR property boundary. The existing entrance to KMR is an open access point on the Old Puna Trail at the KMR property line.

Existing circulation at KMR is disrupted by five internal gates that restrict access to various portions of KMR. The primary gate is located on Circle Ave, west of the Old Puna Trail and is manned part-time. This gate provides access control to the existing HIARNG facilities to the west but no control for the existing CSMS facilities or the Hawaii ANG facilities. A keyed gate on the Old Puna Trail restricts southern access to the Hawaii ANG facilities and firing ranges. Pipe gates restrict access from Rubbish Dump Road and the airport (HIARNG 2006a).

4.12 HAZARDOUS AND TOXIC MATERIALS AND WASTES

Hazardous materials are defined as substances with strong physical properties of ignitability, corrosivity, reactivity, or toxicity which may cause an increase in mortality, a serious irreversible illness, incapacitating reversible illness, or pose a substantial threat to human health or the environment. Hazardous wastes are defined as any solid, liquid, contained gaseous, semi-solid waste, or any combination of wastes that pose a substantial present or potential hazard to human health or the environment.

The subject property has been historically used as a training and maintenance site for the HIARNG. Although no Installation Restoration Program (IRP) sites have been recorded at KMR a preliminary assessment of the facility conducted in 1997 identified a number of potential hazardous materials-related contamination sites. Those identified in the main cantonment area are discussed below.

The former State Maintenance Area was investigated and oils and pesticides were found to be constituents of concern. Remediation efforts were conducted in 2003 and 2004. Remediation goals were achieved and no further action is planned for the area (HIARNG 2006b).

In the mid-1950's the HIARNG constructed a grease rack near Building 626. The grease rack was equipped with a drain in the center that leads directly to the ground. Early waste disposal practices included draining automotive fluids directly into the drain. The preliminary assessment concluded that it is possible that contamination has occurred but the nature and extent is not known (HIARNG 1997). No further investigations have been conducted since 1997.

In addition, Building 552 was used as an indoor firing range for several years. Some of the original walls are now part of a new structure which has been built in its place. No clean-up or remediation of used ammunition or by-products has been conducted. It is possible that heavy metal dust (lead, mercury, etc.) is still present (See photographs below) (HIARNG 1997).

Indoor firing range at KMR

Close-up view of firing range

4.12.1 Waste Management

Hazardous materials storage at the HIARNG facilities at KMR are located in CSMS #2 and Buildings 622 and 626 (HIARNG 2006b). Hazardous materials storage at the Hawaii ANG facilities at KMR is located in Buildings 702 and 752. Both the HIARNG and ANG generate and store hazardous materials including flammable/combustible liquids, paints, and battery fluid. Both KMR HIARNG and ANG are considered conditionally exempt small quantity generators, producing less than 100 kilograms of hazardous waste per month. Activities that

generate hazardous wastes include vehicle and communication equipment maintenance and power production. Wastes typically generated during these activities include oils, fuels, solvents, and battery acids.

Hazardous waste is temporarily stored at one of two types of hazardous waste storage areas: satellite accumulation points are located at or near the point of generation where hazardous waste is initially accumulated; waste is eventually moved to a 180-day accumulation site, and subsequently transported and disposed of offsite by a private contractor, with the exception of used oils and solvents which are recycled.

The ARNG manages on 180-day accumulation site located in CSMS #2. CSMS #2 has one recorded violation from the State of Hawaii Department of Health in 1991 for incorrectly manifesting hazardous was. The violation was corrected and a letter acknowledging compliance was issue in 1992 (HIARNG 1997).

The ANG manages one satellite accumulation point, located at Building 702, and one 180-day accumulation site located at Building 753 (Hazardous Waste Collection Point).

4.12.2 Storage Tanks

One 1,000-gallon UST containing diesel fuel is located southeast of Building 626A at KMR. Historically, a number of USTs were present at the installation. One 6,000-gallon diesel UST was listed by the State of Hawaii Department of Health Leaking Underground Storage Tank (LUST) database in 1990. The UST was removed in 1991. In 1992, soils surrounding the former tank were excavated and soil samples were taken. Based on the results of the soil sampling no further action was recommended for the site (HIARNG 1997).

The ANG maintains two 1,000 gallon ASTs at KMR located southwest of Building 702 that contain diesel and motor gasoline. Commercial tanker trucks refuel the ASTs two to three times per year (NGB 1994). There are no USTs located within the ANG installation area are KMR. One 600-gallon fuel pod and two trucks each with a total fuel storage capacity of 2,400 gallons are parked in the southeast corner of the installation, and are used to refuel vehicles during

training exercises off-site. The trucks and pod are not currently located within a secondary containment structure (291 CBCS 1999).

SECTION 5
ENVIRONMENTAL CONSEQUENCES

This section describes the environmental consequences, including direct, indirect, and cumulative impacts, of the Proposed Action and Alternatives, as well as recommended mitigation measures. A direct environmental impact is one that is immediately caused by implementation of the selected alternative and that occurs at or near the time and place of the action. Indirect impacts are caused by implementation of the selected alternative but may occur some time later or at a physically disconnected geographic area. Indirect impacts may, for example, include induced changes in the pattern of land use or population density or growth rate and their related effects on natural or social systems. Cumulative impacts occur in combination with other actions or projects that are occurring at the same time or are projected to occur within the region of the Proposed Action.

To provide a clear classification of impacts, this EA defines five types of impacts, including:

- **Significant Impact.** A significant impact includes effects that exceed established or defined thresholds. For example, noise levels that exceed local noise level standards would be considered a significant adverse impact.
- **Potentially Significant Impact.** A potentially significant impact includes effects that may be significant but there is insufficient information to verify the magnitude of the effect. For example, to determine vehicular noise impacts for a new development from a nearby roadway requires information on traffic volume, topography, noise-receptor structure (if applicable), location and orientation, construction material, window types and treatment, and height and mass of any structure or other impediment between the receptor and the vehicles on the roadway. Lack of information relating to these details precludes a definitive conclusion as to whether interior noise levels meet or exceed local or state noise standards.
- **Less Than Significant Impact.** A less than significant impact includes effects that are perceptible, but do not exceed established or defined thresholds. For example, alterations in the development intensity of a site

would be noticeable but would not necessarily represent a significant change in land use compatibility, especially if the Proposed Action is consistent with local development standards.

- **Less Than Significant Impact with Mitigation.** A less than significant impact with mitigation indicates that the effects of a significant or potentially significant impact may be reduced below established thresholds through the implementation of specific mitigation measures. *A discussion of mitigation measures is provided in Section 5.12, Mitigation Measures and Best Management Practices.*
- **No Impact.** A Proposed Action with no impact will have no perceptible effect on the resources in question.

5.1 LAND USE AND VISUAL RESOURCES

For this analysis, a project alternative would have an adverse impact on land use if it were to:

- Conflict with the County of Hawaii general plan designation, zoning or environmental plans; other applicable land use regulations; or other policies adopted by agencies with jurisdiction over the project;
- Result in a negative visual impact that would substantially degrade or obstruct a scenic vista or scenic highway, or generate light, glare and visual intrusion that would substantially affect other properties or open space.

5.1.1 Proposed Action

Implementation of the Proposed Action would be consistent with current zoning designated by the County of Hawaii General Plan and Zoning Code. The transformation of KMR into the KJMC would be consistent with the land's current zoning designation as agriculture and current land use would be unchanged. In addition, all lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and off-site views of Mauna Loa. Therefore, no adverse impacts with regard to surrounding land uses would occur as a result of the Proposed Action. Further, on-site land use would be designed to conform to all ATFP standards. Since KMR is currently in non-

conformance with ATFP standards, implementation of the Proposed Action would be beneficial, although not a significant impact to on-site land uses.

In addition, the design for the new facilities include structures of permanent masonry type construction, with concrete floors, and standing seam metal roofs, mimicking the existing structures in appearance. Accordingly, impacts to visual resources would be less than significant.

5.1.2 Alternative 1

Implementation of Alternative 1 would construct only the BRAC-funded portions of the Proposed Action. Similar to the Proposed Action, all on-site land uses would be designed to conform to ATFP standards. Land acquisition just outside the current boundary of KMR would be required in order to upgrade the current main entrance to ATFP standards. Since the land that would be acquired is zoned agriculture (the same as KMR), no adverse impacts would occur upon implementation of this alternative. An EBS and NEPA documentation may be required with respect to land acquisition should this alternative be approved.

Also similar to the Proposed Action, the design for the new facilities would mimic the existing structures in appearance and the lighting that would be installed would conform to Hawaii County lighting ordinance and would not impede off-site views of Mauna Loa. Therefore, impacts to visual resources would be less than significant.

5.1.3 Alternative 2

Upon implementation of Alternative 2, all proposed facilities would be constructed with minimal shared space. The development of all facilities described in Alternative 2 would be consistent with County of Hawaii zoning designations. Therefore, under implementation of Alternative 2, no adverse impacts to surrounding land uses would occur. Also similar to the Proposed Action, all on-site land uses would be designed to conform to ATFP standards. However, development of facilities with minimal shared space would be inconsistent with recommendations with regard to land use described in the KMR Master Plan and goals of the Planning Charrette. Therefore,

implementation of this alternative would result in adverse, although less than significant impacts, to on-base land use.

Similar to the Proposed Action, the design for the new facilities would mimic the existing structures in appearance and the lighting that would be installed would conform to Hawaii County lighting ordinance and would not impede off-site views of Mauna Loa. Therefore, impacts to visual resources would be less than significant.

5.1.4 No-Action Alternative

Under the No Action Alternative, no new facilities would be constructed and infrastructure would not be upgraded to ATFP standards. Since the current situation with regard to ATFP and on-base land use is considered inadequate, implementation of the No Action Alternative would be considered adverse with regard to land use.

Since no changes to KMR would occur under this alternative, no impacts would occur with regard to visual resources.

5.2 AIR QUALITY

For this analysis, adverse air quality effects would be defined as violating or contributing to the violation of any federal, state, or local air quality standard; exposing sensitive receptors to airborne pollutants; altering air movement, moisture, temperature, or climate; or creating objectionable odors.

5.2.1 Proposed Action

Under the Proposed Action, the primary sources of air emissions would be from construction equipment and vehicles associated with facility operations.

5.2.1.1 Construction Emissions

Construction activities would result in less than significant impacts on air quality. Emissions associated with constructing the new facilities include

fugitive dust from site disturbance and vehicle exhaust from construction equipment. However, construction emissions would be temporary and would not occur beyond completion of construction activities.

Under implementation of the Proposed Action, dust (i.e., particulate matter less than 10 micrometers in diameter [PM_{10}], a criteria pollutant) would be generated from construction activities including vegetation removal, grading, and demolition. Dust emissions can vary substantially daily depending on levels of activity, specific operations, and prevailing meteorological conditions. Using conservatively high estimates (based on moderate activity levels, moderate silt content in affected soils, and a semi-arid climate), the standard dust emission factor for construction activity is 1.2 tons of dust generated per acre per month of activity. Based on this dust-generation factor and the maximum estimated acreage that could be disturbed at any one time, a projected total of approximately 12.7 tons of dust would be generated; this estimate is conservatively high and is based on the unlikely scenario that all proposed construction and demolition projects would occur within a one-month time period.

Increased PM_{10} emissions resulting from proposed construction activities would be reduced through standard dust minimization practices, such as:

- Minimizing the area disturbed by clearing, earthmoving, or excavating;
- Sufficiently watering all excavated or graded areas to prevent excessive dust generations;
- Limiting construction vehicle speeds on unpaved surfaces at the construction site;
- Watering or chemically treating unpaved active portions of the construction site to minimize windblown dust and dust generated by vehicle traffic;
- Sweeping paved portions of the construction site to control windblown dust and dust generated by vehicle traffic; and
- Re-vegetating and landscaping as soon as possible after disturbing the soil.

After the initial site preparation and grading activities are completed, dust emissions would be significantly less, and once operational, long-term emissions from developed facilities would be negligible.

5.2.1.2 Combustion Emissions

Combustion emissions associated with construction-related vehicles and equipment would be minimal because most vehicles would be driven to and kept at affected sites for the duration of construction activities. Further, as is the case with PM_{10} emissions associated with site preparation activities, emissions generated by construction equipment would be temporary.

5.2.1.3 Operational Emissions

Emissions from the proposed facilities which would be constructed include combustion emissions from personnel-operated vehicles (POVs) and military vehicles traveling between KMR and locations off-base. The personnel assigned to the new facilities would include those units already assigned to KMR and units that would be transferred from two other Readiness Centers located in Hawaii County. A total of 58 part-time traditional guardsmen would be transferred to KMR from Readiness Centers in Honoka'a and Kea'au. These guardsmen would travel to KMR once a month on drill weekends. Honoka'a is located approximately 30 miles north of KMR and Kea'au is located approximately 6 miles west of KMR. Therefore, vehicle emissions resulting from trips through the City of Hilo would not change significantly as a result of the increase in personnel at KMR. Similarly, personnel assigned to the proposed USACE field office (1-2 people) would travel to KMR one day a week and would fly into Hilo Airport prior to arriving at KMR. Therefore, no increase in vehicle emissions would occur as a result of personnel assigned to the USACE field office. Thus, impacts to air quality would be less than significant upon implementation of the Proposed Action.

5.2.2 Alternative 1

Under Alternative 1, only the BRAC-funded portions of the Proposed Action would be implemented. Therefore, emissions associated with the construction of

new facilities would be 3.6 tons based on the assumption that all projects would be constructed in a one month time period, and thus, less than estimated under the Proposed Action. Operational emissions would be the same as described under the Proposed Action – less than significant.

5.2.3 Alternative 2

Under Alternative 2, all facilities described under the Proposed Action would be constructed with minimal shared facilities. Therefore, a greater area of land would be disturbed than under the Proposed Action. Dust would be minimized using the same best management practices described under the Proposed Action. Therefore, air quality impacts during construction would be reduced to less than significant. Also similar to the Proposed Action, operational emissions would include combustion emissions from POVs. Since the number of personnel which would drive to KMR under implementation of Alternative 2 would be the same as described under the Proposed Action impacts would be the same – less than significant.

5.2.4 No Action Alternative

The No Action Alternative would not result in an increase in air emissions. No construction emissions would be created and no increase in vehicle activity would occur. Therefore, no direct or indirect impacts on air quality would occur.

5.3 NOISE

Significance threshold for noise for this project are as illustrated in Table 5-1. Since KMR is located in an area zoned as agriculture, the daytime and nighttime noise threshold is 70 dBA.

5.3.1 Proposed Action

5.3.1.1 Construction Noise

Typical construction noise levels are shown on Table 5-2.

Table 5-1. Noise Significance Thresholds

Zoning District	Daytime (7 AM to 10 PM) (dBA)	Nighttime (10 PM to 7 AM) (dBA)
Residential, Conservation, Preservation, Public Space, Open Space	55	45
Apartments, Business, Commercial, Hotel, Resort	60	50
Agriculture, Country, Industrial	70	70

Table 5-2. Typical Commercial Construction Noise Levels

Phase	Noise Level (L_{eq})[1]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Exterior Finishing	89
Pile Driving	90-105

1. Estimates correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase and 200 feet from the other equipment associated with that phase.
Source: USEPA 1971.

Since the typical construction noise levels listed above exceed the State of Hawaii noise guidelines, the HIARNG would be required to obtain a noise permit under Section 11-46-7 of the Hawaii Administrative Rules. Further, all construction equipment would be fitted with factory installed muffling devices and maintained in good working order. Therefore, implementation of best management practices (BMPs) and all mitigation measures required by the noise permit would mitigate construction noise impacts to less than significant levels.

5.3.1.2 Operational Noise

The facilities proposed for development would be constructed in a noise environment dominated by air traffic activity from the adjacent Hilo Airport. Proposed facilities would be sited in areas that have noise-exposure less than 75 day-night average sound level; U.S. Department of Housing and Urban

Development (HUD) considers such facilities compatible in this environment. Accordingly, operational noise produced as a result of the Proposed Action would not be significant.

5.3.2 Alternative 1

Under Alternative 1, only the BRAC-funded portions of the Proposed Action would be implemented. With regard to noise, impacts would be the same as described under the Proposed Action – less than significant.

5.3.3 Alternative 2

Under Alternative 2, all facilities described under the Proposed Action would be constructed with minimal shared facilities. With regard to noise, impacts would be the same as described under the Proposed Action – less than significant.

5.3.4 No Action Alternative

No direct or indirect noise effects would result from the No Action Alternative because no change to existing noise levels would occur.

5.4 GEOLOGICAL RESOURCES

Significant impacts on geology and soil could result if the Proposed Action increases the likelihood of or results in exposure to substantial earthquake damage, slope failure, foundation instability, land subsidence, severe erosion or sedimentation, or other severe geologic hazards. Significant impacts could also occur if the Proposed Action results in the loss of soil used for agriculture or habitat, the loss of aesthetic value of a unique landform or the loss of mineral resources.

5.4.1 Proposed Action

5.4.1.1 Geology

The proposed project area lies on a prehistoric lava flow originating from Mauna Loa. Potential geologic impacts associated with the proposed construction activities would be limited to ground-disturbing activities (i.e., during site preparation and construction). Minor impacts would result from proposed construction activities; however, construction activities would occur on previously disturbed land that is capable of supporting such development. Proposed construction activities would be localized, and would not have significant impacts on sensitive or regional geologic or physiographic features.

5.4.1.2 Soils

Soils at KMR are classified as low erosion hazard. However, all construction activities would occur on soils that have been previously disturbed, including the lawn area sited for the AFRC. Implementation of BMPs would limit any impacts to naturally occurring soils that might result from construction activities. Watering and soil stockpiling, in addition to other BMPs, would minimize erosive losses resulting from construction activities. In addition, the HIARNG would prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan in which erosion control, spill prevention, and post-construction BMPs would be specified. Therefore, project implementation would not result in significant impacts to soils or soil productivity.

5.4.1.3 Potential Geologic Hazards

On-site soils are rated as having low plasticity and shrink-swell potential. However, there is a potential for liquefaction due to the density of the soil and the depth of the groundwater table. The proposed buildings would be constructed in accordance with the Hawaii County Building Code, which contains specifications to minimize adverse effects on structures due to potential geologic hazards (specifically Chapter 10 which relates to erosion and sediment control). With implementation of practices outlined in the Hawaii County

Building Code, impacts with regard to geological hazards would be reduced to less than significant levels.

5.4.2 Alternative 1

Under Alternative 1 only the BRAC-funded portions of the Proposed Action would be implemented. Similar to the Proposed Action, all facilities would be sited on previously disturbed areas. BMPs would be utilized to minimize erosion and all proposed buildings would be constructed in accordance with the Hawaii County Building Code. Therefore, impacts with regard to geological resources would be similar to those described under the Proposed Action - less than significant.

5.4.3 Alternative 2

Under Alternative 2, all facilities described under the Proposed Action would be constructed with minimal shared facilities. Similar to the Proposed Action, all facilities would be sited on previously disturbed areas. BMPs would be utilized to minimize erosion and all proposed buildings would be constructed in accordance with the Hawaii County Building Code. Therefore, impacts with regard to geological resources would be similar to those described under the Proposed Action - less than significant.

5.4.4 No Action Alternative

Under the No Action Alternative, no construction or demolition activities would occur. Therefore, with regard to geological resources, no impacts would occur.

5.5 WATER RESOURCES

For this analysis, adverse impacts to water resources would occur if:

(a) the Proposed Action would expose people or property to water-related hazards, including flooding or altered drainage patterns;
(b) the Proposed Action would alter surface water quality or quantity; or
(c) the Proposed Action would alter groundwater quality or quantity.

5.5.1 Proposed Action

5.5.1.1 Surface Water

No surface water is present in the vicinity of the Proposed Action at KMR. However, storm water runoff generated during construction and operation of the new facilities would contain the typical pollutants found in urban runoff. The HIARNG would be required to comply with Standard NPDES permit conditions as specified by the Hawaii State Department of Health Clean Water Branch. Further, BMPs would be implemented during construction to minimize erosion, sedimentation and runoff.

New hazardous material and waste storage areas are planned for the proposed project. The storage areas would provide containment in the event of an accidental spill or leak to prevent runoff into nearby surface waters. Accordingly, with the implementation of BMPs, impacts to surface water resulting from the Proposed Action would be less than significant.

5.5.1.2 Groundwater

The establishment of approximately 389,550 sf of impermeable surface areas as a result of new building construction and paved areas would reduce regional groundwater recharge capabilities, resulting in permanent impacts to hydrology. However, the majority of new building construction would occur within the footprint of current facilities slated for demolition as part of the Proposed Action. Therefore, the amount of new impervious surfaces at KMR would be minimal. Further, additional runoff would be captured by the existing system of storm water drains and ditches present at the installation. In addition, none of the proposed facilities comprises a significant water user or wastewater generator. Therefore, public water supplies would not be diminished as a result of the Proposed Action.

Depth to groundwater is approximately 4 feet below ground surface at KMR; thus, the potential exists for groundwater to be encountered during construction excavation activities. In addition, as described in the 1997 Preliminary Assessment, the former grease rack located near Building 626 may have

potentially leached into the groundwater beneath KMR. Therefore, a site-specific evaluation of the current and potential groundwater conditions at the project site should be performed and results incorporated into the project design and any potential groundwater contamination which may have occurred as a result of the former grease rack should be investigated under the supervision of the State of Hawaii Department of Health Clean Water Branch prior to the commencement of construction activities. With the inclusion of this mitigation measure, the impacts to groundwater resources under the Proposed Action would be mitigated to less than significant levels.

5.5.1.3 Floodplains

KMR is not located within any designated floodplains or tsunami evacuation zones. Therefore, the Proposed Action is not expected to impact or be impacted by any floodplains.

5.5.1.4 Wetlands

No wetlands exist on KMR; therefore, no wetlands would be impacted by the Proposed Action.

5.5.2 Alternative 1

Under Alternative 1 only BRAC-funded portions of the Proposed Action would be implemented. Therefore, only 131,600 square feet of additional impermeable area would be established and impacts with regard to storm water runoff would be less than as described under the Proposed Action. All other impacts would be as described under the Proposed Action – mitigable to less than significant impacts.

5.5.3 Alternative 2

Upon implementation of Alternative 2, all portions of the Proposed Action would be implemented with minimal shared facilities. As a result, a greater amount of impermeable surface area would be established. Therefore, impacts with regard to storm water runoff would be greater than described under the

Proposed Action; however, additional storm water would be captured by existing drainage channels which have available capacity. Therefore, impacts would be less than significant. All other impacts would be as described under the Proposed Action – mitigable to less than significant impacts.

5.5.4 No Action Alternative

The No-Action Alternative would result in no significant impacts to water resources. Groundwater recharge would not be reduced and runoff would not increase under the No Action Alternative. No people or property would be exposed to water-related hazards, such as flooding. Storm water would continue to percolate through the soil surface in currently undeveloped areas on KMR.

5.6 BIOLOGICAL RESOURCES

This section describes the potential impacts on the biological resources presented in Section 4.6. Impacts are considered significant if they meet one or more of the following criteria:

- Result in the direct mortality of species considered threatened, endangered, proposed, or candidate, according to the federal Endangered Species Act, or those considered federal species of concern, or of those protected under the Migratory Bird Treaty Act;
- Contribute to further endangerment of listed species; or
- Substantially affect normal ecological activities, such as breeding and foraging behavior.

Other factors for determining impacts include: (a) the degree to which the site would be altered, (b) the possibility that sensitive or significant resources exist in the vicinity of the project site or rely on the habitat found there during any part of their lifecycle, (c) the duration of ecological effects, and (d) the degree to which the resources would be affected by the Proposed Action.

Violation of any of the following federal regulations would also be considered a Significant Impact:

- Federal Endangered Species Act

- Federal Clean Water Act
- Migratory Bird Treaty Act

5.6.1 Proposed Action

5.6.1.1 Vegetation

The Proposed Action would remove up to three acres of landscaped lawn area at KMR. The remaining construction activities would occur on previously developed areas. Due to the lack of sensitive plant species in the main compound area at KMR, proposed construction would not have significant impacts on vegetation or the habitat it may provide.

5.6.1.2 Wildlife

A number of wildlife species are known to be present on KMR, however, few wildlife species are present in the main compound area where the Proposed Action would be implemented. Implementation of the Proposed Action could adversely impact wildlife in the vicinity of the compound area through temporary disturbance (e.g. increased noise and traffic) during construction activities. However, any wildlife disturbed by construction activities could temporarily relocate to similar habitat nearby in other areas of KMR. Therefore, impacts to wildlife from implementation of the Proposed Action would not be significant.

5.6.1.3 Threatened and Endangered Species

The Hawaiian Hawk and hoary bat have both been observed in the main compound area at KMR where the Proposed Action would occur. Construction activities could temporarily disturb these species due to increased noise and human presence. However, no nests have been observed in this area; therefore, hawks observed are considered to be transients and not residents of the main compound area. Consultation with the USFWS confirmed that there is little to no potential for implementation of the Proposed Action to significantly impact the Hawaiian Hawk or hoary bat. A record of consultation with the USFWS is

included in Appendix B. Therefore, impacts to threatened and endangered species would be less than significant.

5.6.2 Alternative 1

Under Alternative 1 only BRAC-funded portions of the Proposed Action would be implemented. Similar to the Proposed Action, three acres of landscaped lawn area would be disturbed. All other impacts would be as described for the Proposed Action – less than significant.

5.6.3 Alternative 2

Under Alternative 2, all portions of the Proposed Action would be constructed with minimal shared facilities. Similar to the Proposed Action, all facilities would be constructed on previously developed areas with the exception of the AFRC which would be constructed on maintained lawn area. Therefore, impacts with regard to biological resources would be the same as described under the Proposed Action – less than significant.

5.6.4 No Action Alternative

Under the No Action Alternative, site conditions would remain the same, and there would be no impacts to biological resources. No changes to existing habitats would occur.

5.7 CULTURAL RESOURCES

For this analysis, an adverse impact on cultural resources would occur if implementing a project alternative were to result in an adverse change in the integrity of a significant historical resource, in disruption of a prehistoric, historic, or archaeological site, or in a conflict with unique ethnic cultural values or religious or sacred uses within the potential impact area.

5.7.1 Proposed Action

Cultural resources have been recorded within the proposed project area. None of known archaeological sites will be impacted by the proposed undertaking. New construction activities are to take place in locations that were previously developed.

Eighteen structures located within the project area have been evaluated and initially determined not eligible for inclusion to the NRHP by the 2006 *Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i.* These facilities at KMR are considered "aging and deteriorating" and do not meet current building codes or criteria, do not meet ATFP standards, and are not capable of supporting the facility mission. In order to provide space for the proposed new facilities, a number of old and outdated buildings at KMR would be demolished. A total of approximately 75,000-sf of building space would be demolished to accommodate the proposed new facilities at KMR. The facilities proposed for demolition are described further in Table 5-3. Because portions of the construction are to be funded in out years, the demolition will be phased to accommodate the construction schedule.

Other structures located within the project area are modern, post Cold War era structures and were not required to be evaluated for the proposed undertaking. No sacred sites have been identified on the property.

In order to comply with ATFP standards, the Proposed Action would fence the entire perimeter of the approximately 60-acre compound. To meet this requirement, an additional 11,000 linear feet (lf) of fencing would be installed around the perimeter of KMR in addition to the fencing that is currently present at the facility. All fencing (both new and existing) would be upgraded to comply with Field Manual (FM) 3-19.30, *Physical Security*. Fencing of the perimeter would restrict access to the portion of the Puna Trail on the main compound area and pedestrian and cyclists who currently access the Puna Trail would be redirected to Rubbish Dump Road. Although access to the trail will be constrained, it will not be eliminated entirely. Pedestrian and bicycle access across the pipe gate off of the Rubbish Dump Road will remain unchanged.

Table 5-3. Structures Documented at KMR.

Bldg #	Building Name	Date	Style	NRHP Eligibility
003	Family Housing	1950	Cottage	Not eligible
004	Family Housing	1950	Cottage	Not eligible
501	CSMS Maintenance Shop	1942	Military/Industrial	Not eligible
502	CSMS Maintenance Shop	1956	Military/Industrial	Not eligible
505	AAFES	1942	Military/Industrial	Not eligible
509	2/299 Infantry Supply	1942	Military/Industrial	Not eligible
564	Dining Facility	1953	Military/Industrial	Not eligible
621	ARNG Armory	1955	Military/Industrial	Not eligible
622	Storage Building	1956	Military/Industrial	Not eligible
622A	Storage Building	1956	Military/Industrial	Not eligible
623	Septic Toilet/ Shower	1942	Military/Industrial	Not eligible
624	Storage Building	1942	Quonset	Not eligible
625	State Carpenter Shop	1949	Military/Industrial	Not eligible
626	Facility Office/Shop	1942	Military/Industrial	Not eligible
626A	Facility Office/Shop	1942	Military/Industrial	Not eligible
628	CSMS Maintenance Shop	1954	Military/Industrial	Not eligible
629	CSMS Maintenance Shop	1954	Modified Quonset	Not eligible
630	CSMS Maintenance Shop	1957	Modified Quonset	Not eligible

2006 *Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i,*

Because the Proposed Action is considered an Undertaking as defined by Section 106 of the NHPA, the HIARNG has consulted with the State Historic Preservation Division (SHPD). The SHPD has determined that one (Building 003) of the eighteen buildings is eligible for NRHP listing (Appendix B). As such, it was recommended this building be relocated to another portion of KMR. An alternative would be to leave the structure in place and design around it. A Historic American Building Survey (HABS) will be performed regardless of whether the building is re-located or left in its existing location. In addition, SHPD determined that the large number of structures proposed for demolition would have an adverse effect to the project area. To mitigate this effect, SHPD recommended performing a documentation of all the buildings. This was performed in 2006 and can be found in the *Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i,*

There are no federally recognized Native American Tribes who may have interest in the project area but the HIARNG has initiated consultation in accordance with Section 106 of NHPA with Native Hawaiian organizations, groups, families, and individuals that may ascribe traditional religious and cultural importance to historic properties KMR, in addition to the Office of Hawaiian Affairs. Through these consultations the HIARNG will seek comments regarding the proposed action to ensure that it will not have the potential to significantly affect Native Hawaiian, cultural or religious sites or Native Hawaiian lands. According to the Hilo office of OHA, a community meeting was held and there were no comments regarding the impact of this project on Native Hawaiian, cultural or religious sites or Native Hawaiian lands. As such, OHA's May 7, 2007 (Appendix B) comment letter concurred with the findings of the EA that there would not be a significant adverse affect on cultural resources.

Because of previous construction activities the proposed project area is considered of low sensitivity for cultural resources although; previously unknown cultural resources could exist within the project area. The HIARNG operates under the requirements of the adopted ICRMP which contain Standard Operating Procedures (SOPs) addressing the management of cultural resources. The following two SOPs will be applied to the project and implemented during project construction:

- SOP # 5 Inadvertent discovery of cultural materials
- SOP # 6 Human remains and associated burial items

To address these SOPs, the HIARNG would implement the following measures:

- Construction staff shall be briefed on procedures for handling the unexpected discovery of archeological resources and human remains prior to undertaking project activities
- Discovery of the following items will trigger the requirement for SOP #5: Native Hawaiian or historical artifacts; archaeological features; and paleontological remains. The discovery of known or likely human remains (along with associated funerary objects and burial items) and the presence of unmarked graves are to be handled separately through the procedures outlined in SOP #6.

Upon discovery of archaeological resources on State or Federal lands owned, leased or occupied HIARNG facilities, all activity, training, and construction in the immediate vicinity will cease, and a buffer zone clearly marked to prevent continued activity from impacting the discovery area. The CRM or on-site personnel under the direction of the Engineering Office is required to notify the Base Commander and/or Base Security.

- In accordance with SOP #6, Human remains and funerary objects will not be disturbed or excavated unless threatened through erosional, construction activities or other unavoidable disturbances. Written as well as telephone notification to the base commander and the Federal landowner are required if the remains are on Federal Property. NAGPRA does not apply on State property however, under Hawai'i law, (Hawai'i Revised Statutes); the HIARNG must notify the SHPD and the Island Burial Council to confirm emergency discovery of Native Hawaiian remains.

5.7.2 Alternative 1

Under Alternative 1, only the BRAC-funded portions of the Proposed Action would be implemented. With regard to cultural resources, all impacts would be as described under the Proposed Action – less than significant. In addition, SOPs followed under the Proposed Action would also be implemented under Alternative 1.

5.7.3 Alternative 2

Under Alternative 2, all aspects of the Proposed Action would be implemented with minimal shared facilities. With regard to cultural resources, all impacts would be as described under the Proposed Action – less than significant. In addition, SOPs followed under the Proposed Action would also be implemented under Alternative 2.

5.7.4 No Action Alternative

No new activities would occur within the project area under the No Action Alternative. Furthermore, no cultural resources have been identified, and intact deposits are unlikely to exist within the project area; therefore, no impacts/effects to cultural resources would result from this alternative.

5.8 SOCIOECONOMICS

Adverse socioeconomic impacts would result if a project alternative were to result in an increase in population growth or in the demand for housing, schools, or community facilities, and parks. Adverse impacts would also result from the displacement of a large number of people, especially from affordable housing caused by a decrease in local employment or a decrease in the accessibility of community facilities and parks.

5.8.1 Proposed Action

The Proposed Action would generate a minor and temporary increase in employment during the construction period. Construction of the proposed facilities would begin May 2008 and continue intermittently over a period of years based on funding.

Units from two currently operating Readiness Centers would move their operations from these facilities to the new AFRC. However, there would be no increase in permanent employment and no associated increase in the demand for housing, schools, and recreation facilities within the City of Hilo since both Readiness Centers are within commuting distance of KMR. Spending and business volume in the local economy may temporarily increase during construction activities; however any increase in spending would be temporary and less than significant. The Proposed Action would not displace any people or housing. Therefore, the Proposed Action would result in less than significant socioeconomic impacts.

5.8.2 Alternative 1

Under Alternative 1, only the BRAC-funded portions of the Proposed Action would be implemented. With regard to socioeconomic conditions, all impacts would be as described under the Proposed Action – less than significant.

5.8.3 Alternative 2

Under Alternative 2, all aspects of the Proposed Action would be implemented with minimal shared facilities. With regard to socioeconomic conditions, all impacts would be as described under the Proposed Action – less than significant.

5.8.4 No Action Alternative

Under the No Action Alternative, there would be no impacts on the sociological environment or local economy of the City of Hilo.

5.9 ENVIRONMENTAL JUSTICE

Implementing a project alternative would generate adverse impacts if it were to result in disproportionate socioeconomic opportunities, increase adverse health and environmental condition of minorities or low-income populations, or endanger the health and safety of children.

5.9.1 Proposed Action

5.9.1.1 Minority and Low-Income Populations

In general, residents in the City of Hilo are considered low-income in comparison to the State of Hawaii and the nation. However, the nearest residential area to KMR is approximately two miles to the west. Further, KMR is located in an agriculturally-zoned area in the County of Hawaii. Therefore, constructing new facilities would not disproportionately affect low-income or minority groups with regard to economics or health effects.

The Department of Hawaiian Home Lands (an organization dedicated to the construction of homes for Native Hawaiian Groups) owns the land to the south of KMR. However, no residential areas are currently constructed on this land. Operational activities associated with the Proposed Action would be sited within the boundaries of the main compound area at KMR; therefore, the Proposed Action would not impede future residential development of this land. If residential properties are constructed on the Hawaiian Home Lands in the future, operational activities of the KJMC would not adversely affect Native Hawaiian residents with regard to economics or health effects.

5.9.1.2 Protection of Children

No schools, family housing, or child-related services exist on KMR or in the near vicinity of the facility. However, children have access to the facility through the public Puna Trail which traverses the main compound area at KMR. Implementation of the Proposed Action would close off public access to the Puna Trail through this portion of KMR and redirect pedestrians and recreational users to Rubbish Dump Road, south of the facility. Therefore, children would not have access to construction areas on the facility and would be protected from potential adverse health risks associated with active construction sites and an active military installation. Thus, potential environmental justice impacts resulting from the Proposed Action would be beneficial but less than significant.

5.9.2 Alternative 1

Under Alternative 1 only BRAC-funded portions of the Proposed Action would be implemented. With regard to environmental justice, all impacts would be as described under the Proposed Action – less than significant.

5.9.3 Alternative 2

Under Alternative 2 all aspects of the Proposed Action would be implemented with minimal shared facilities. With regard to environmental justice, all impacts would be as described under the Proposed Action – less than significant.

5.9.4 No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented. Children would continue to have access to the main compound area at KMR through the Puna Trail. Since the current conditions are considered adverse with regard to ATFP standards and protection of children, implementation of the No Action Alternative would result in adverse impacts with regard to environmental justice.

5.10 INFRASTRUCTURE

A project alternative would impact public services and utilities if implementation of the alternative required new or altered government services, such as placement of an additional fire or police station, or installation or alteration of utility systems. A project alternative would result in impacts to safety if implementation would result in incompatible land use with regard to safety criteria such as quantity-distance arcs, ATFP-standards, or safety distance zones.

5.10.1 Proposed Action

5.10.1.1 Public Utilities

The Proposed Action would involve no additional police or fire protection. Electricity, potable water, natural gas, and telecommunication utilities currently serving the City of Hilo would continue to serve KMR. The septic tank system installed in spring 2006 at KMR has available capacity to handle the increase in waste stream which would potentially result from the increase of 58 guardsmen on training weekends. Further, additional septic tanks would be installed as new facilities are constructed. Therefore, implementation of the Proposed Action would have less than significant impacts on public utilities and services.

5.10.1.2 Safety

With regard to safety, no new structures would be constructed within the unexploded ordinance area behind the ANG facilities. Further, no structures are sited within safety-distance zones of the active small arms range at KMR.

Implementation of the Proposed Action would bring KMR into compliance with ATFP-standards with regard to base security, setbacks, and base access. Under the Proposed Action, a new guard gate would be constructed and the Main Entry Control Gate would meet DoD Entry Control Point Standards (i.e., auto gate, barricades, etc.). In addition, security lighting would be installed within the compound area to provide easier viewing of the facility for night security guards.

The cantonment area of KMR is currently identified as a City/County Tsunami Evacuation Area (HIARNG 2006a). Design of the new site will be coordinated with County Civil Defense so that the site can continue to function as a safe haven for evacuees, and so that any necessary adjustments can be made to evacuation plans.

Therefore, implementation of the Proposed Action would result in beneficial impacts with regard to safety at KMR.

5.10.2 Alternative 1

Under implementation of Alternative 1, only the BRAC-funded portions of the Proposed Action would be constructed. With regard to utilities, impacts would be the same as described under the Proposed Action – beneficial and less than significant. However with regard to safety, under this alternative the main entrance would remain in its current location and additional land would need to be acquired in order to meet ATFP-standards. The HIARNG is currently negotiating a lease for this land area. As stated in Section 2, the HIARNG is currently in negotiations to acquire the additional parcel required. Once negotiations are finalized impacts would be less than significant.

5.10.3 Alternative 2

Under Alternative 2, all aspects of the Proposed Action would be implemented with minimal shared facilities. With regard to utilities and safety, impacts would be as described under the Proposed Action – beneficial and less than significant.

5.10.4 No Action Alternative

Under the No Action Alternative, no changes in the use of public services would occur, so no impacts with regard to utilities are expected. However, since the current situation at KMR is considered adverse with regard to ATFP-standards, implementation of the No Action Alternative would result in continued adverse impacts with regard to safety.

5.11 TRANSPORTATION AND CIRCULATION

Adverse traffic and circulation impacts would occur if implementation of a project alternative increased vehicle trips or traffic congestion on adjacent roadways. Impacts would also be considered significant if the additional traffic created safety hazards from design features or incompatible uses, resulted in inadequate access or parking capacity, created hazards to bicyclists or pedestrians, or conflicted with adopted transportation planning policies.

5.11.1 Proposed Action

No new jobs would be created as a result of the Proposed Action. Units from two operating Readiness Centers would be diverted to the new AFRC at KMR. Upon completion of the project, there would be an additional 58 guardsmen at KMR one weekend a month. These guardsmen would be traveling to KMR during non-peak hours and would have less than significant effects on traffic volumes in the City of Hilo. Further, no metropolitan transportation plan exists for the City of Hilo; therefore implementation of the Proposed Action would not conflict with any existing transportation plans or guidelines. In addition, implementation of the Proposed Action would construct additional parking spaces to accommodate existing and additional personnel (Table 5-4). Therefore, implementation of the Proposed Action would result in beneficial impacts with regard to on-base circulation and parking.

5.11.2 Alternative 1

Under implementation of Alternative 1, only the BRAC-funded portions of the Proposed Action would be constructed. With regard to transportation, impacts

would be the same as described under the Proposed Action – beneficial and less than significant.

5.11.3 Alternative 2

Under Alternative 2, all aspects of the Proposed Action would be implemented with minimal shared facilities. With regard to transportation, impacts would be as described under the Proposed Action – beneficial and less than significant.

Table 5-4. Personnel Manning Estimates at KMR.

	Current		Proposed	
Agency	**Full Time**	**Part Time**	**Full Time**	**Part Time**
HIARNG	13	155	18	225
USAR	0	0	32	100
ANG	24	130	24	130
AAFES	2	0	2	0
US Marines	2	0	2	0
USACE	0	0	1	0
State Maintenance	12	0	12	0
Environmental	3	0	3	0
Veterans Services	0	0	3	0
TOTAL	56	285	97	455

5.11.4 No Action Alternative

Under the No Action Alternative, no changes in the use of roads would occur, so no impacts with regard to transportation are expected.

5.12 HAZARDOUS MATERIALS AND WASTE

Adverse hazardous and toxic materials and waste effects would occur if an action were to increase the risk of accidental explosion, fire hazards, or release of hazardous substances; if it were to interfere with an emergency response or evacuation plan; or it were to expose people or the environment to a potential health hazard.

5.12.1 Proposed Action

5.12.1.1 Construction Activities

Adverse hazardous and toxic materials and wastes impacts could be potentially significant. Maximum excavation depths during construction have a strong potential to encounter shallow groundwater at the site, which is anticipated at four feet below ground surface in areas. To reduce potential exposure of groundwater to contamination, the HIARNG would require the contractor to observe the exposed soil for visual evidence and/or petroleum odors during excavation activities. If potential contamination is observed during construction, the contractor would comply with all local, state, and federal requirements.

The presence of heavy construction equipment would increase the potential for minor releases of petroleum products, such as oil and fuel. To ensure safe handling and management of any products containing hazardous materials, construction personnel would conduct their activities in accordance with federal and state regulations, as well as standard HIARNG BMPs. Compliance with measures outlined in the required SWPPP would also help prevent any adverse impacts.

During construction, the quantity of hazardous wastes generated from the proposed construction and demolition is anticipated to be negligible. If asbestos or lead-based paint is encountered during demolition activities, all material will be properly contained and disposed of to decrease exposure to construction workers. Further, any hazardous material used on the site would be considered a potential source of release to the environment. All hazardous materials associated with demolition, construction, and site maintenance and operations (e.g., oils, fuels, paints, and solvents) would be stored in accordance with local hazardous and flammable materials storage regulations. Contractors would dispose of hazardous wastes in accordance with federal and state laws and regulations.

5.12.1.2 Waste Disposal Methods and Sites

As indicated in Section 4.6, KMR was historically used as a training and maintenance site for the HIARNG. Two areas of concern were noted in a previous assessment of the site in 1997: a former grease rack with no containment area for oil, and a former small arms range. Upon implementation of the Proposed Action, both of these sites would be removed and new facilities constructed. Disturbance of either area has the potential to release contaminants which are contained within the areas into both the air and groundwater. Therefore, an investigation should be conducted under the guidance of the State of Hawaii Department of Health to determine the extent of any potential contamination at each site and any necessary remediation activities should be completed prior to the commencement of demolition or construction activities on these sites. Should previously undetected hazardous materials be encountered at either of these sites or any other construction sites, local environmental regulatory and emergency response agencies would be notified immediately (if necessary). Further, all fill and debris associated with hazardous materials and wastes would be characterized and disposed of according to federal, state, and local regulations.

5.12.1.3 Operational Activities

Storm water runoff from new parking areas may transport residual petroleum products to the existing drainage channels. Implementation of the aforementioned SWPPP would ensure that this runoff does not affect surface water, groundwater, or soils. Similarly, the SWPPP would identify potential pollutants and provide procedures for minimizing the environmental damage from releases.

Operating the new facilities would not interfere with existing emergency response plans, would not create a potential health hazard, and would not increase fire hazards in the area. Further, operation of the new facility would include the addition and use of an oil-water separator in vehicle maintenance areas. Therefore, the potential for groundwater contamination from operational activities would decrease as a result of implementation of the Proposed Action. Therefore, with the implementation of BMPs and the proposed mitigation

measures, construction and operation of the Proposed Action would have less than significant impacts on hazardous and toxic materials.

5.12.2 Alternative 1

Under Alternative 1 only the BRAC-funded portions of the Proposed Action would be implemented. With regard to hazardous materials and wastes, impacts would be the same as described under the Proposed Action – mitigable to less than significant impacts.

5.12.3 Alternative 2

Under Alternative 2, all aspects of the Proposed Action would be implemented with minimal shared facilities. With regard to hazardous materials and wastes, impacts would be the same as described under the Proposed Action – mitigable to less than significant impacts.

5.12.4 No Action Alternative

Implementation of the No Action Alternative would result in no changes with regard to the handling and disposal of hazardous and toxic materials and wastes at KMR. Since the current situation is considered adverse with regard to hazardous and toxic materials and wastes, implementation of the No Action Alternative would result in continued adverse impacts.

5.13 MITIGATION MEASURES AND BEST MANAGEMENT PRACTICES

Implementation of the proposed action will not have significant environmental impacts on the environment. However, the HIARNG will implement the following mitigation measures and best management practices to reduce the minor effects that may result from this project.

Air Quality

Implement the following dust control BMPs during demolition, earthmoving or excavation:

- Minimize the area disturbed by clearing, earthmoving, or excavating;
- Sufficiently watering all excavated or graded areas to prevent excessive dust generation;
- Limit construction vehicle speeds on unpaved surfaces at the construction site;
- Water or chemically treat unpaved active portions of the construction site to minimize windblown dust and dust generated by vehicle traffic;
- Sweep paved portions of the construction site to control windblown dust and dust generated by vehicle traffic;
- Re-vegetate and landscape as soon as possible after disturbing the soil.

Noise

Implement the following noise BMPs:

- Obtain a noise permit under Section 11-46-7 of the Hawaii Administrative Rules.
- Outfit all construction equipment with factory installed muffling devices and ensure that all construction equipment is maintained in good working order.

Implement the following mitigation measure:

- Implement all mitigation measures required by the noise permit.

Geology and Soils

Implement the following BMPs:

- Water and stockpile excavated soil to prevent erosive losses from construction activities.
- Construct buildings in accordance with the Hawaii County Building Code.
- Prepare and implement a SWPPP.
- Prepare and implement an Erosion and Sediment Control Plan.

Water Resources

Implement the following BMPs:

- Prepare and implement a SWPPP as part of the NPDES permit process specified by the Hawaii State Department of Health, Clean Water Branch. This will include measures to reduce sedimentation and runoff.
- Storage areas containing hazardous materials would be contained to prevent runoff in the event of a spill or leak.

Implement the following mitigation measure:

- Conduct a site-specific evaluation of current and potential groundwater conditions and investigate any previous groundwater contamination under the supervision of the State of Hawaii Department of Health Clean Water Branch prior to commencement of construction activities.

Cultural Resources

Implement the following mitigation measures:

- In addition to the *Historic Building Survey for the Keaukaha Military Reservation, Hilo, Hawai'i,* performed in 2006, HIARNG will submit a Historic Resources Inventory Form for all structures to be demolished. A Historic American Building Survey (HABS) will be done for building 003 which was determined eligible for listing on the NRHP by the Hawai'i SHPD. HABS documentation will be done in coordination with the National Park Service.
- Construction staff shall be briefed on procedures for handling the unexpected discovery of archeological resources and human remains prior to undertaking project activities.
- Discovery of the following items will trigger the requirement for the ICRMP SOP #5: Native Hawaiian or historical artifacts; archaeological features; and paleontological remains. The discovery of known or likely human remains (along with associated funerary objects and burial items) and the presence of unmarked graves are to be handled separately through the procedures outlined in the ICRMP SOP #6.

  Upon discovery of archaeological resources on State or Federal lands owned, leased or occupied HIARNG facilities, all activity, training, and construction in the immediate vicinity will cease, and a buffer zone clearly marked to prevent continued activity from impacting the

discovery area. The CRM or on-site personnel under the direction of the Engineering Office is required to notify the Base Commander and/or Base Security.

- In accordance with the ICRMP SOP #6, Human remains and funerary objects will not be disturbed or excavated unless threatened through erosional, construction activities or other unavoidable disturbances. Written as well as telephone notification to the base commander and the Federal landowner are required if the remains are on Federal Property. NAGPRA does not apply on State property however, under Hawai'i law, (Hawai'i Revised Statutes); the HIARNG must notify the SHPD and the Island Burial Council to confirm emergency discovery of Native Hawaiian remains.

Implement the following BMP:

- Follow Standard Operating Procedures 5 and 6 as outlined in the HIARNG ICRMP.

Hazardous Materials and Wastes

Implement the following BMPs:

- Observe all exposed soil for visual evidence of contamination during construction. Notify local environmental regulatory and emergency agencies immediately should any suspected or previously undetected hazardous materials or wastes be encountered during construction.
- All fill and debris associated with hazardous materials or wastes (including asbestos and/or lead-based paint) shall be characterized and disposed of according to federal, state, and local regulations.
- Prepare and implement a SWPPP.

Implement the following mitigation measure:

- Conduct an investigation of the former grease rack and former small arms range prior to demolition or construction activities. Investigation should be conducted under the guidance of the State of Hawaii Department of Health. Any necessary remediation activities shall be completed prior to construction or demolition at these sites.

5.14 CUMULATIVE IMPACTS

This section describes regional projects and discusses the cumulative impacts of those projects in combination with the effects of the Proposed Action. Cumulative projects include regional past, present, and reasonably foreseeable actions. These actions were identified by consulting with the HIARNG and Hilo Airport. Projects which exist in the vicinity of the project site and have the potential to occur concurrent with the Proposed Action are listed below and presented on Figure 5-1:

- Closure of Readiness Center at Honoka'a;
- Closure of Readiness Center at Kea'au;
- Mana Industrial Park – development of 157 acres adjacent to the north and east sides of KMR;
- Construction of new cargo terminal and demolition of current cargo terminal at Hilo International Airport; and
- Future residential development.

Overall, the Proposed Action has the potential to result in significant cumulative impacts with regard to **air quality**, **water resources**, and **geological resources**. However, with the implantation of mitigation measures and BMPs outlined in section 5.13, these potential impacts would be reduced to less than significant.

Each of the individual resource areas are discussed below in relationship to other area projects.

- **Land Use and Visual Resources.** The Proposed Action would transform the KMR into the KJMC. This is consistent with its current designated land use – Agriculture. Further, implementation of the Proposed Action in combination with the closure of two Readiness Centers in Honoka'a and Kea'au would consolidate ARNG units into a single facility and provide up-to-date, better equipped facilities for training. Therefore, implementation of the Proposed Action would result in less than significant, but beneficial, cumulative land use impacts.
- **Air Quality.** The Proposed Action would not result in a significant change in the local air quality either during construction or operation of the KJMC. However, concurrent development of the Mana Industrial

Park, construction at Hilo International Airport and residential structures could result in potentially higher air emissions mainly from construction and increased vehicle traffic. Emissions would be controlled by the project proponents through the planning process, following County of Hawaii guidelines and implementing BMPs during construction. Therefore, cumulative impacts would be reduced to less that significant.

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Projects Considered in the Cumulative Impacts Analysis

FIGURE 5 - 1

- **Noise.** Noise levels are not anticipated to be increased significantly from construction or over the long-term from on-going operations at the KJMC. Concurrent development of the Mana Industrial Park, Hilo International Airport and residential structures could result in potentially significant noise during construction activities. However, noise levels would be reduced through the planning process, following State of Hawaii and County of Hawaii noise guidelines, and implementation of noise reduction BMPs.
- **Geology and Soils.** The geology and soils affected by the Proposed Action are limited to the project site. Soils on the project site and on the site of the proposed Mana Industrial Park have a slight erosion hazard and could result in potentially significant erosion during construction activities. However, individual project proponents would be responsible for minimizing the amount and effects of soil erosion through the implementation of BMPs and all earth work would be conducted in accordance with Chapter 10 of the Hawaii County Code, relating to erosion and sedimentation control. Therefore, cumulative impacts would be reduced to less that significant
- **Water Resources.** The Proposed Action would slightly increase the amount of impermeable surfaces and runoff from the installation. Concurrent construction and operation of the Mana Industrial Park could result in a potentially significant increase of runoff from developed areas and exceed capacity of existing drainage canals. Construction would also increase erosion and sediment flow into nearby surface water and could introduce contaminants into surface and groundwater. Regulatory requirements (i.e., implementation of SWPPP and coordination with State of Hawaii Department of Health) and implementation of BMPs would minimize the potential for adverse effects. Therefore, cumulative impacts would be reduced to less that significant.
- **Biological Resources.** The main compound area of KMR is already considerably disturbed. While the Hawaiian Hawk and hoary bat have been spotted in the main compound area, no nests have been observed and consultation with the USFWS confirms that impacts to these species from construction and operation of the KJMC would be less than significant. Concurrent construction of the Mana Industrial Park and residential development would temporarily displace these species and

other wildlife which may be present in the area, however, wildlife could temporarily relocate to similar habitat present in other areas of KMR. Therefore, cumulative impacts to biological resources are expected to be less than significant.

- **Cultural Resources.** No archeological sites are expected to be impacted by the Proposed Action. One site eligible for listing in the National Register of Historic Places may be impacted by the Proposed Action. This site may be relocated to another portion of KMR or the final design of the Proposed Action will be modified to allow this structure remain in place. Areas to be developed would have to undergo site specific cultural studies to determine their impact to the area. Therefore, cumulative impacts to cultural resources from future projects in unstudied areas are unknown.
- **Socioeconomics.** The Proposed Action would not provide permanent jobs or increase the demand for housing, schools or recreational areas. The closing of Readiness Centers in Honoka'a and Kea'au would transfer 58 part-time traditional guardsmen to KJMC; however, transferred guardsmen would be traveling an additional 6-30 miles one weekend a month to train at KJMC and therefore are not expected to move residences to accommodate the transfer. Further, the closed Readiness Center in Honoka'a has been transferred to Honoka'a High School for use as a gymnasium and the Readiness Center is Kea'au is used by the community of Kea'au as a recreational facility and gathering place. Therefore, the Proposed Action is not expected to impact the socioeconomic setting of the City of Hilo and cumulative impacts to socioeconomic resources in Honoka'a and Kea'au are considered beneficial and less than significant.
- **Environmental Justice.** The Proposed Action is not expected to disproportionately impact low-income, minority groups, or children; subsequently, cumulative impacts are not expected**.**
- **Infrastructure and Safety.** Implementation of the Proposed Action is not expected to increase the demand for public utilities (electricity, potable water, natural gas, and telecommunications) at KJMC with the addition of 58 part-time traditional guardsmen. In addition, septic tanks at KMR have available capacity to accommodate the KJMC. Cumulative impacts to public utilities are therefore expected to be less than significant. With regard to safety, implementation of the Proposed Action is expected to result in beneficial, less than significant impacts. Construction and

operation of the Mana Industrial Park directly adjacent to the main compound area of the KJMC as well as potential residential development could result in impacts to safety at KJMC; however, with implementation of the Proposed Action (including ATFP measures and construction of a new security guard house and entrance) cumulative impacts are expected to be less than significant.

- **Transportation and Circulation.** With regard to traffic and transportation, concurrent construction of KJMC, facilities at Hilo International Airport, the Mana Industrial Park and potential residential development could temporarily cause potentially significant impacts to traffic flow of Kanoelehue Avenue and Leilani Street. However, implementation of BMPs such as construction traffic traveling at non-peak traffic hours and keeping construction vehicles on-site for the duration of construction would reduce impacts to less than significant levels. Once operational, cumulative impacts are not expected since traffic flow into KJMC would remain at current levels during peak traffic hours and additional guardsmen would travel on roads during drill weekends (non-peak hours) only.
- **Hazardous Materials and Wastes.** The majority of cumulative hazardous, toxic materials, and waste impacts would be geographically-specific, depending on the individual projects' components. Transportation of hazardous materials is not anticipated as part of the Proposed Action, and therefore, will not contribute to the region's development projects. Cumulatively, hazardous waste could be generated during construction activities; however, any increase would be temporary and would be disposed of according to local, state, and federal regulations. Therefore, cumulative impacts involving hazardous and toxic materials and wastes would be less than significant.

SECTION 6
COMPARISON OF ALTERNATIVES AND CONCLUSIONS

6.1 COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

Through the implementation of regulatory requirements and the use of appropriate BMPs and mitigation measures potential adverse impacts of the Proposed Action would result in no long-term, negative, direct, or indirect significant impacts on land use and visual resources, air quality, noise, geology and soils, water resources, biological resources, infrastructure, transportation and circulation, cultural resources, socioeconomics, environmental justice, or hazardous and toxic materials/waste.

The selection of Alternative 1 would result in no long-term, negative direct or indirect significant impacts on land use and visual resources, air quality, noise, geology and soils, water resources, biological resources, transportation and circulation, cultural resources, socioeconomics, environmental justice, or hazardous and toxic materials/waste. However, significant and adverse impacts would result with regard to safety since the main entrance would remain in its current location and additional land would have to be acquired in order to meet ATFP standard. The HIARNG is currently in negotiation to expand their current lease to include the additional land. Once the lease negotiation is completed impacts would be less than significant.

The selection of Alternative 2 would result in incompatibilities with on-base land use plans recommending the maximum use of shared space; however, impacts would be less than significant. The selection of Alternative 2 would also result in no long-term, negative direct or indirect significant impacts to visual resources, air quality, noise, geology and soils, water resources, biological resources, transportation and circulation, cultural resources, socioeconomics, environmental justice, or hazardous and toxic materials/waste.

The selection of the No Action Alternative would result in no physical changes at KMR, thus no impacts would occur for each of the discussed resource topics. However, the current situation is considered adverse with regard to on-base land

use, environmental justice, and safety; therefore, selection of the No Action Alternative would result in continued adverse conditions at KMR.

Table 6-1. Summary of Environmental Impacts

	Proposed Action	Alternative 1	Alternative 2	No Action Alternative
Land Use and Visual Resources	⊕	⊖	⊖	●
Air Quality	⊖	⊖	⊖	○
Noise	⊖	⊖	⊖	○
Geology and Soils	⊖	⊖	⊖	○
Water Resources	⊖	⊖	⊖	○
Biological Resources	⊖	⊖	⊖	○
Cultural Resources	⊖	⊖	⊖	○
Socioeconomics	⊖	⊖	⊖	○
Environmental Justice	⊕	⊕	⊕	●
Infrastructure	⊕	⊖	⊕	●
Transportation and Circulation	⊕	⊕	⊕	○
Hazardous and Toxic Materials and Waste	⊖	⊖	⊖	●

LEGEND:
● = Significant adverse effect
⊖ = Less than significant adverse effect
⊕ = Beneficial effect
○ = No effect

6.2 CONCLUSIONS

Based on the analysis in this EA, the Proposed Action does not have the potential to degrade the quality of the environment, to substantially reduce the habitat of a fish or wildlife species, to cause a fish or wildlife population to drop below self-sustaining levels, to threaten to eliminate a plant or animal community, to reduce the number or restrict the range of a rare or endangered plant or animal, or to eliminate important examples of the major periods of Hawaii history or prehistory. In addition, implementation of the Proposed Action Alternative would not have environmental effects that would have substantial adverse effects on humans, either directly or indirectly. Therefore, the Proposed Action would have no significant adverse direct, indirect, or cumulative impacts on the

quality of the natural or human environment and is considered the Preferred Alternative.

6.3 DETERMINATION OF FONSI

In accordance with Hawaii Revised Statute, Title 11, Department of Health, Chapter 200, Section 12, potential impacts of the proposed project have been reviewed. The following is a summary of the criteria discussed in the statute.

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The proposed project is not anticipated to impact any known or significant natural or cultural resource. There is little potential for encountering such resources as the Site is currently developed, and the proposed project calls for new construction activities that will take place in locations that were previously developed. Additionally, in order to comply with ATFP standards, the Proposed Action would fence the entire perimeter of the approximately 60-acre compound. Fencing of the perimeter will restrict access to a portion of the Puna Trail (currently paved and previously developed) on the main compound area. Pedestrian and cyclists who currently access the Puna Trail would be redirected to Quarry Road. Pedestrian and bicycle access across the pipe gate off of the Quarry Road will remain unchanged.

(2) Curtails the range of beneficial uses of the environment;

Implementation of the Proposed Action would be consistent with current zoning designated by the County of Hawaii General Plan and Zoning Code. The transformation of KMR into the KJMC would be consistent with the land's current zoning designation as agriculture and current land use would be unchanged. The proposed plan also involved consolidation of several armory facilities. This ensures a better range and use of land resources. All lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and off-site views of Mauna Loa. No adverse impacts with

regard to surrounding land uses would occur as a result of the Proposed Action.

(3) *Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The proposed project is not reasonably anticipated to conflict with the state's long-term environmental policies or goals and guidelines as expressed HRS Chapter 344, any court decisions, or executive orders.

(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

The proposed project is not anticipated to substantially affect economic welfare, social welfare, or cultural practices of the community or State.

(5) Substantially affects public health;

The proposed project is not reasonably anticipated to substantially affect public health.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

The proposed project is not anticipated to involve any substantial secondary impacts. Units from two currently operating Readiness Centers would move their operations from these facilities to the new AFRC. However, there would be no increase in permanent employment and no associated increase in the demand for housing, schools, and recreation facilities within the City of Hilo since both Readiness Centers are within commuting distance of KMR.

The Proposed Action would involve no additional police or fire protection. Population changes or effects on public facilities would be very minimal.

(7) Involves a substantial degradation of environmental quality;

The proposed project is not anticipated to substantially degrade overall environmental quality. Minimal disruption to the Site environment is anticipated as the proposed project calls for some demolition and construction. Compliance with all local, state, federal rules and regulations should mitigate and minimize any temporary impacts to the area.

(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The proposed project is not anticipated to have a considerable effect upon the environment or involve a commitment for larger actions. Minimal disruption to the Site environment is anticipated as the proposed project calls for some demolition and construction.

(9) Substantially affects a rare, threatened, or endangered species, or its habitat;

The Hawaiian Hawk and hoary bat have both been observed in the main compound area at KMR where the Proposed Action would occur. Construction activities may temporarily impact these species due to increased noise and human presence. However, no nests have been observed in this area; therefore, hawks observed are considered to be transients and not residents of the main compound area. Consultation with the USFWS confirmed that there is little to no potential for implementation of the Proposed Action to significantly impact the Hawaiian Hawk or hoary bat. Impacts to threatened and endangered species would be temporary and not reasonably expected to impact either species or its habitat.

(10) Detrimentally affects air or water quality or ambient noise levels;

The proposed project is not anticipated to detrimentally impact any air or water quality or ambient noise levels. During the proposed project, these parameters are anticipated to increase and will be monitored. Any exceedances in local, state, or federal rules or regulations will be mitigated to minimize their effects to the area.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

The proposed project is not anticipated to impact any natural or cultural resource. There is little potential for encountering such resources as the Site is currently developed, and the proposed project calls for renovation of the existing structure. The Site does not fall within any designated floodplains or tsunami evacuation zones. No wetlands exist on KMR; therefore, no wetlands would be impacted by the Proposed Action.

(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; or,

The proposed project is not anticipated to impact any scenic vistas or viewplanes. Coastal view planes will not be impacted by the Site. As mentioned previously, all lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and not significantly impact off-site views of Mauna Loa.

(13) Requires substantial energy consumption.

The proposed project is not anticipated to require substantial energy consumption. Electricity, potable water, natural gas, and telecommunication utilities currently serving the City of Hilo would continue to serve KMR. The septic tank system installed in spring 2006 at KMR has available capacity to handle the increase in waste stream which would potentially result from the increase of 58 guardsmen on training weekends. Further, additional septic tanks would be installed as new facilities are constructed, or increased septic tank capacity as needed.

SECTION 7
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The following agencies and individuals were sent a copy of the Description of Proposed Action and Alternatives (DOPAA) and invited to attend a public meeting to provide an opportunity to discuss the proposed project, project alternatives, and to offer a forum for comments and questions (see Appendix D).

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APPENDIX A

BRAC Recommendations

THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

May 13, 2005

Honorable Anthony J. Principi
Chairman
Defense Base Closure and Realignment Commission
2521 S. Clark Street, Suite 600
Arlington, Virginia 22202

Dear Mr. Chairman:

The decade since the last BRAC has been a period of dramatic change. The U.S. national security strategy addresses the new challenges posed by international terrorism, the proliferation of weapons of mass destruction, ungoverned areas, rogue states, and non-state actors. BRAC 2005 provides the Department a unique opportunity to adjust U.S. base structure to meet these developments, and to be positioned to meet the challenges envisioned during the next two decades.

As required by Public Law 101-510, as amended, I am providing to the Commission the Department of Defense Base Closure and Realignment Report containing the Department's recommendations to realign or close military installations within the United States and its territories. These recommendations strengthen national security by reshaping the domestic installations at which U.S. military forces perform their assigned missions. Volume I describes the Department's overall BRAC selection process; provides an unclassified version of the force structure plan; and details the Department's closure and realignment recommendations and their justifications. Eleven other volumes (II-XII) will be provided under separate cover. Volume II is the classified force structure plan, which is available on a restricted basis. Should you have any questions about the proper handling of classified material, the Department stands ready to assist. Volumes III-XII further describe the analytical processes and recommendations of each of the Department's 10 proponent organizations -- the three Military Departments and seven Joint Cross-Service Groups (JCSGs).

The Department's recommendations will align U.S. base structure with the force structure that is expected to be needed over the next 20 years. These proposals will implement the Department's global force reposturing; facilitate the ongoing transformation of U.S. forces to meet the challenges of the 21st Century; and restructure important support functions to capitalize on advances in technology and business practices. The Department's BRAC recommendations address almost every Defense mission area and affect most of the Department's major U.S. installations. Overall, these recommendations support force transformation; address new threats, strategies, and force

protection concerns; consolidate business-oriented support functions; promote joint- and multi-service basing; and provide significant savings.

As required by law, the BRAC process entailed comprehensive and comparable analyses of all installations in the United States and its territories, using military value as the primary consideration. In reviewing its base structure, the Department considered the capabilities needed to support potential mobilization and surge requirements, as well as the unique installation needs of Reserve Component forces. The Department placed emphasis on retaining the infrastructure and capabilities necessary to respond to contingencies. The Military Departments and Joint Cross-Service Groups incorporated surge assessments throughout their analyses.

The Department organized its analysis into two categories: seven Joint Cross-Service Groups scrutinized the bases and functions that constitute the Department's common support infrastructure, while the Military Departments analyzed installations devoted exclusively to those Department's requirements, as well as supporting operational forces. The joint groups were composed of senior representatives of the Military Departments, the Joint Staff, and OSD, and were empowered to issue candidate recommendations that were considered jointly by the executive groups with responsibility for overseeing the entire process. In performing these analyses, all proponents were challenged to look beyond Service boundaries, and particularly to consider joint basing options, including the joint use of critical assets and the creation of centers of excellence. This work was difficult, and the accomplishments of each of the 10 proponents were significant.

The individual groups conducting the BRAC 2005 analyses reviewed each installation from its functional perspective. Their candidate recommendations were then integrated, or "knitted" together, based on functional or strategic relationships. The resulting recommendations consequently should be viewed as interdependent. This interdependence will need to be considered as the Commission conducts its review.

The Joint Staff actively participated in the development of the BRAC recommendations. The Chairman of the Joint Chiefs consulted with the combatant commanders to ensure that the recommendations would not degrade operational capabilities. The Military Departments retained critical real estate and facilities that would be difficult to reconstitute through reinvestment or reliance on the private sector. They ensured that the U.S. base structure could support the forces that remain deployed overseas. The Secretaries of the Military Departments, the members of the Joint Chiefs of Staff, and the Chairman and Vice Chairman of the Joint Chiefs of Staff all support the Department's recommendations.

The Department is confident that these recommendations will improve the posture of U.S. forces for years to come. Increasing combat effectiveness and transforming U.S.

forces are critical if our country is to be able to meet tomorrow's national defense challenges. Because the dynamism of the current environment will continue to require the Department to optimize its resources, we recommend that a BRAC review be conducted every five to ten years.

A number of the recommended actions will present challenges to local communities as they face a drawdown of military missions or, in some instances, significant increases in military presence. The Department stands ready to assist communities affected by BRAC 2005.

The Department is providing identical letters, with enclosures, to the Chairmen of the House and Senate Armed Services Committees and the House and Senate Appropriations Committees and all Members of Congress. The list of recommended closures and realignments is also being published in the *Federal Register*. Copies of the unclassified portion of the report will be available on the website www.defenselink.mil/BRAC.

I thank each member of the Commission for agreeing to perform this challenging task for the American people. Your review is an essential confirmation of the reasonableness of the military judgment behind each BRAC recommendation, as well as the fairness of the overall BRAC analytical process. The Military Departments and the Joint Cross-Service Groups stand ready to assist the Commission during its review, providing information and sharing the rationale for the recommendations that have been made. You have a critical role in securing and strengthening tomorrow's armed forces.

Sincerely,

Enclosure:
As stated

Department of the Army

Summary of Selection Process

Introduction

The Secretary of Defense stated that, while BRAC 2005 must pursue the reduction of excess capacity, it "can make an even more profound contribution to transforming the Department by rationalizing our infrastructure with defense strategy. BRAC 2005 should be the means by which we reconfigure our current infrastructure into one in which operational capacity maximizes *both* warfighting capability and efficiency."

The Secretary of the Army's memorandum entitled "Transformation Through Base Realignment and Closure" stated that the Army's full participation in BRAC 2005 would enable the Service to realign its infrastructure in a way that maximizes both efficiency and warfighting capability. The Secretary of the Army further emphasized the importance of adhering to BRAC law. He indicated that the Army would treat all of its installations fairly in the process and stressed that no binding decisions would be made prior to the Secretary of Defense's submission of final recommendations to the Defense Base Closure and Realignment Commission.

Multiple levels of the Department of the Army participated in the BRAC 2005 process. The Executive Office, Headquarters (EOH), the Army's most senior deliberative group, is made up of the Secretary of the Army, the Chief of Staff of the Army, the Under Secretary of the Army, and the Vice Chief of Staff of the Army. The EOH issued planning guidance, reviewed analytical assessments, and approved candidate recommendations for submission to the Secretary of Defense.

The Army's BRAC Senior Review Group (SRG), co-chaired by the Vice Chief of Staff of the Army and Under Secretary of the Army, included both uniformed and civilian members of the Army's senior leadership, and served as a deliberative and coordinating body for the EOH. The BRAC SRG evaluated potential Army recommendations for EOH consideration, supervised the efforts of the Army Joint Cross-Service Group (JCSG) representatives, and provided overall planning guidance and direction to the Department's BRAC analytical group, The Army Basing Study (TABS) Group.

The TABS Group, directed by the Deputy Assistant Secretary of the Army for Infrastructure Analysis, executed the Army analyses and coordinated the Army's BRAC 2005 effort. The group's mission was to conduct a comprehensive assessment of Army installations in compliance with established BRAC law and criteria; to evaluate alternatives; and to develop, document, and publish candidate recommendations for submission to OSD. The TABS Group ensured that the

Army's approach was consistent with the DoD force structure plan, the DoD installation inventory, BRAC selection criteria, and the requirements of Public Law 101-510, as amended.

Strategy

The Army is transforming from a force designed for deterring a well-defined and understood adversary to a post-Cold War era expeditionary force designed for continuous operations over a broad spectrum of threats ranging from traditional to potentially catastrophic. Instead of focusing on a single, well-defined threat or region, the Army is developing a range of complementary and interdependent capabilities that can dominate a range of adversaries and situations. Transformation enables the Army to utilize advantages and mitigate vulnerabilities to sustain its strategic position in the world.

The Army's Modular Force Initiative is reshaping the fighting force—transforming into modular brigade units to become a larger, more powerful, more flexible deployable force. The Army is relocating the fighting force—rebasing its overseas units in the continental United States. It is rebalancing the fighting force—transforming the Reserve and Active force mix. The Army is creating a more Joint force—actively participating in Department of Defense efforts for greater joint operations and increased focus on homeland defense missions. The Army is becoming a far better force—a campaign quality, Joint and Expeditionary Army with the capabilities to provide relevant and ready combat power to the Combatant Commanders from a portfolio of installations that trains, sustains, enhances the readiness and well-being of the Joint Team, and provides a platform for rapid deployment.

The Secretary of the Army's strategy for BRAC 2005 is to utilize BRAC to establish a streamlined portfolio of installations with optimized military value and a significantly reduced cost of ownership that:

- Facilitates transformation, Joint operations, and Joint business functions;
- Accommodates rebasing of overseas units within the Integrated Global Presence and Basing Strategy (IGPBS); and
- Divests of an accumulation of installations that are no longer relevant and are less effective in supporting the Joint and Expeditionary Army.

BRAC 2005 is a critical component of Army transformation. The BRAC process enables the Army to reshape the infrastructure supporting the current and future forces, making them even more relevant and combat ready for the Combatant Commander. Through participation in BRAC 2005, the Army realigns its infrastructure to optimize its warfighting capability and efficiency.

Selection Process

The Defense Base Closure and Realignment Act of 1990, as amended (part A of Title XXIX, Public Law 101-510; 10 U.S.C. 2687 note) sets the legal baseline for BRAC, although several

significant changes were made for BRAC 2005. The guidelines for the BRAC Selection Criteria were, for the first time, explicitly written into the law. The Army used the BRAC Selection Criteria during its analyses and ensured that military value (Criteria 1-4) was the primary consideration in making its BRAC 2005 recommendations.

To frame its process and begin to develop potential BRAC actions, the Army employed the selection criteria, along with the Force Structure Plan and Installation Inventory submitted to Congress. The law specifies that all BRAC recommendations must be based on the criteria, plan, and inventory; thus, these three requirements formed the analytical foundation for the BRAC 2005 analysis.

The military value (MV) criteria provided the Army a comprehensive, proven technique to compare and select installations to accomplish Army transformation. With BRAC, the Army Modular Force Initiative, return of forces from overseas, and transformation of the Reserve Components will occur within the timeframe necessary to satisfy operational needs. The military value criteria specifically directed attention to staging areas in support of homeland defense, maintenance of a diversity of climate and terrain in support of training, and surge capacity.

The Army began its BRAC 2005 selection process by determining its installation study list, which included and considered all installations on its property list, except those excluded by BRAC law. Using these guidelines, the Army developed a study list of 97 installations (including 10 leased sites).

Full transformation of the Army necessitated transformation of Reserve Component (RC) facilities, as well. There are more than 4,000 Army Reserve and Guard facilities. Due to the sheer number of facilities and the difficulty of comparing RC capabilities to Active Component (AC) capabilities, the Army invited the Adjutants General from each state and the Army Reserve Regional Readiness Command commanders to conduct analyses of RC facilities against military value criteria and Reserve operational requirements. The military value criteria were used to identify existing or new installations in the same demographic area that provide enhanced homeland defense, training, and mobilization capabilities. The Army sought to create multi-component facilities (Guard and Reserve) and multi-service, Joint facilities to further enhance mission accomplishment.

The Army collected and maintained data from the study-list installations, which became key inputs in selection process analyses. The BRAC process required that all information used to develop and make recommendations be certified as accurate and complete to the best of the certifier's knowledge and belief. In this data collection effort, the TABS Group received continuous support from installation administrators, Major Command trusted agents, and Installation Management Agency trusted agents.

While data collection provided the Army with an inventory of assets at its installations, capacity analysis determined the excesses and shortages that existed within this inventory. Using the Force Structure Plan, the Army assessed the requirements and determined excesses and shortages across various metrics. In addition, by studying surge, the Army assessed possible future requirements and determined how its capacity inventory accommodated uncertainty.

The Army then determined the military value of each installation, the primary consideration for BRAC 2005 recommendations. The Army assessed installations using a common set of 40 attributes that were linked to the military value criteria. The Army defined military value through attributes designed to capture current and future capability and not simply current use. This capabilities-based approach permitted the Army to assess relative installation capabilities to contribute to Army mission accomplishment now and in the future. The military value of each installation is the summed collective scores across weighted attributes, and the Army ranked its installations from 1 to 97.

These intermediate results were the starting point for scenario development. The Army developed strategy-based scenarios that sought to facilitate transformation, rebasing of overseas units, Joint operations, and Joint business functions. Potential stationing actions sought to move units and activities from installations with lower MV to installations with higher MV to take advantage of excess capacity and divest of less-relevant or less-effective installations. Once a scenario had been developed, the Army considered the remaining four selection criteria to determine their impacts on the scenario. For criteria 5-8, the Army evaluated scenarios by using the DoD-sanctioned models that, respectively, calculated cost and savings information, assessed economic impact, evaluated the ability of a local community to support Army requirements, and provided environmental analysis.

The Army developed and analyzed numerous scenarios and selected candidate recommendations for submission to the Infrastructure Executive Council. From this list the Secretary of Defense determined the final Army BRAC 2005 recommendations for submission to the Secretary of Defense.

Conclusion

The Army's BRAC 2005 strategy and process supported the development of recommendations that enhance military value, advance the Modular Force Initiative, accommodate the rebasing of overseas units, reduce cost of ownership, contribute to Joint operations and Joint business function opportunities, and enable the transformation of the Reserve Components and the rebalancing of Active and Reserve forces. These recommendations maintain necessary surge capabilities, enhance homeland defense missions, and continue the transformation to a more relevant and ready Joint and Expeditionary Army.

The recommendations approved by the Secretary of Defense follow:

communications requirements. Consideration of these avoided costs would reduce costs and increase the net savings to the Department of Defense in the 6-year BRAC implementation period, and in the 20-year period used to calculate NPV.

Payback: The total estimated one-time cost to the Department of Defense to implement this recommendation is $21.4M. The net of all costs and savings to the Department of Defense during the implementation period is a cost of $3.5M. Annual recurring savings to the Department after implementation are $5.0M with a payback expected in 5 years. The net present value of the costs and savings to the Department over 20 years is a savings of $44.8M.

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 103 jobs (65 direct and 38 indirect jobs) over the 2006 – 2011 period in the Columbus, GA-AL metropolitan statistical area, which is less than 0.1 percent of economic area employment. The aggregate economic impact of all recommended actions on this economic region of influence was considered and is at Appendix B of Volume I.

Community Infrastructure Assessment: A review of the community attributes revealed no significant issues regarding the ability of the infrastructure of the communities to support missions, forces, and personnel. There are no known community infrastructure impediments to implementation of all recommendations affecting the installations in this recommendation.

Environmental Impact: This recommendation may impact air quality and water quality at Fort Benning. Due to the increase in personnel and new construction, an Air Conformity Analysis will be required. Significant mitigation measures to limit releases may be required to reduce impacts to water quality and achieve US EPA water quality standards. This recommendation has no impact on cultural, archeological, or tribal resources; dredging; land use constraints or sensitive resource areas; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; waste management; or wetlands. This recommendation will require spending approximately $0.008M for waste management and/or environmental compliance activities. These costs were included in the payback calculation. This recommendation does not otherwise impact the costs of environmental restoration, waste management, and environmental compliance activities. Installation has no jurisdictional wetlands. The aggregate environmental impact of all recommended BRAC actions affecting the installations in this recommendation has been reviewed. There are no known environmental impediments to implementation of this recommendation.

RC Transformation in Hawaii

Recommendation: Close the United States Army Reserve Center, Hilo (SFC Minoru Kunieda), HI and relocate units to a new Armed Forces Reserve Center on Keaukaha Military Reservation if the Army can acquire suitable land for the construction of the new facilities. The New AFRC shall have the capability to accommodate Hawaii National Guard units from the following Hawaii ARNG Armories: Keaau and Honokaa if the state decides to relocate those units.

Justification: This recommendation transforms Reserve Component facilities in the State of Hawaii. The implementation of this recommendation will enhance military value, improve homeland defense capability, greatly improve training and deployment capability, create significant efficiencies and cost savings, and is consistent with the Army's force structure plans and Army transformational objectives.

This recommendation is the result of a state-wide analysis of Reserve Component installations and facilities conducted by a team of functional experts from Headquarters, Department of the Army, the Office of the State Adjutant General, and the Army
Reserve Regional Readiness Command.

This recommendation closes one Army Reserve Center in Hilo, HI and constructs a multi component, multi functional Armed Forces Reserve Center (AFRC) on Keaukaha Military Reservation, Hawaii. The Department understands that the State of Hawaii will close two Hawaii Army National Guard Armories: Keaau and Honokaa, HI. The Armed Forces Reserve Center will have the capability to accommodate these units if the State decides to relocate the units from the closed facilities into the new AFRC.

This recommendation considered feasible locations within the demographic and geographic areas of the closing facilities and affected units. The sites selected were determined as the best locations because they optimize the Reserve Components ability to recruit and retain Reserve Component soldiers and to train and mobilize units impacted by this recommendation.

This recommendation provides the opportunity for other Local, State, or Federal organizations to partner with the Reserve Components to enhance Homeland Security and Homeland Defense at a reduced cost to those agencies.

Although not captured in the COBRA analysis, this recommendation avoids an estimated $17.4M in mission facility renovation costs and procurement avoidances associated with meeting AT/FP construction standards and altering existing facilities to meet unit training and communications requirements. Consideration of these avoided costs would reduce costs and increase the net savings to the Department of Defense in the 6-year BRAC implementation period, and in the 20-year period used to calculate NPV.

Payback: The total estimated one-time cost to the Department of Defense to implement this recommendation is $56.6M. The net of all costs and savings to the Department of Defense during the implementation period is a cost of $26.4M. Annual recurring savings to the Department to the Department after implementation are $9.1M with a payback expected in 7 years. The net present value of the costs and savings to the Department over 20 years is a savings of $62.4M.

Economic Impact on Communities: Assuming no economic recovery, this recommendation could result in a maximum potential reduction of 181 jobs (118 direct and 63 indirect jobs) over the 2006 – 2011 period in the Hilo County metropolitan area, which is 0.2 percent of economic area employment. The aggregate economic impact of all recommended actions on this economic region of influence was considered and is at Appendix B of Volume I.

Community Infrastructure Assessment: A review of the community attributes revealed no significant issues regarding the ability of the infrastructure of the communities to support missions, forces, and personnel. There are no known community infrastructure impediments to implementation of all recommendations affecting the installations in this recommendation.

Environmental Impact: Keuakaha Military Reservation has potential contamination from underground storage tanks, and hazardous waste and pesticide storage areas. The installation reported potential for lead-based paint contaminated soil. There is the potential for encountering storm water permitting issues. These conditions may impose restrictions or delays that impact proposed construction. This recommendation has no impact on air quality, cultural, archeological, or tribal resources; dredging; marine mammals, resources, or sanctuaries; noise; threatened and endangered species or critical habitat; or wetlands. This recommendation will require spending approximately $0.1M for waste management and/or environmental compliance activities. These costs were included in the payback calculation. This recommendation does not otherwise impact the costs of environmental restoration, waste management, and environmental compliance activities. The aggregate environmental impact of all recommended BRAC actions affecting the installations in this recommendation has been reviewed. There are no known environmental impediments to implementation of this recommendation.

RC Transformation in Illinois

Recommendation: Close the United States Army Reserve Center in Marion, IL, and relocate units to a new Armed Forces Reserve Center in Carbondale, IL, if the Army is able to acquire suitable land for the construction of the facilities. The new AFRC shall have the capability to accommodate Illinois National Guard Units from the following Army National Guard Readiness Centers: Cairo, IL and Carbondale, IL, if the State of Illinois decides to relocate those units.

Close the United States Army Reserve Center in Centralia, IL and the United States Army Reserve Center in Fairfield, IL, and relocate units to a new Armed Forces Reserve Center in Mt. Vernon, IL. The new AFRC shall have the capability to accommodate Illinois National Guard Units from the following Army National Guard Readiness Centers: Mt. Vernon (17B75), IL, Mt. Vernon (17B73), IL, and Salem (17C65), IL, if the State of Illinois decides to relocate those units.

Close the Armed Forces Reserve Center in Waukegan, IL and re-locate units into a new Armed Forces Reserve Center in Lake County, IL, if the Army is able to acquire suitable land for the construction of the facilities. The new AFRC shall have the capability to accommodate Illinois National Guard Units from the Army National Guard Readiness Center in Waukegan, IL, if the State of Illinois decides to relocate those units.

Justification: This recommendation transforms Reserve Component facilities in the State of Illinois. The implementation of this recommendation will enhance military value, improve homeland defense capability, greatly improve training and deployment capability, create

APPENDIX B

AGENCY COORDINATION

APPENDIX B
INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING (IICEP) DISTRIBUTION LIST

Ms. Genevieve Salmonson, Director
Hawaii Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, HI 96813
808-586-4185

U.S. Army Corps of Engineers
Regulatory Branch
Building 230
Fort Shafter, HI 96858-5440
808-438-9258

U.S. Fish and Wildlife Service
Pacific Islands Office
300 Ala Moana Boulevard
Room 3-122, Box 50088
Honolulu, HI 96850
808-792-9400

Mr. Peter T. Young, SHPD
Department of Land and Natural Resources
601 Kamokila Boulevard
Suite 555
Kapolei, HI 96707
808-548-6550

Mr. Gordon Helt, Hawaii District Land Office
State of Hawaii, Department of Land and Natural Resources
75 Aupuni Street, Room 204
Hilo, HI 96720

Mr. Kelvin H. Sunada
Hawaii State Department of Health
Environmental Planning Office
919 Ala Moana Boulevard, Room 312
Honolulu, HI 96814
808-586-4337

County of Hawaii, Planning Department
Aupuni Center
101 Pauahi Street, Suite 3
Hilo, HI 96720
808-961-8288

Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813

Fire Chief Darryl Oliveira
Fire Department
Room 103
25 Aupuni Street
Hilo, HI 96720

Mr. Milton Pavao
Department of Water Supply
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
1-2-2006-I-022

NOV 23 2005

Colonel Stanley R. Keolanui, Jr.
Hawaii Army National Guard
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Dear Colonel Keolanui:

Thank you for your October 18, 2005, letter to our office requesting our concurrence under section 7 of the Endangered Species Act (Act) that the proposed construction project at the Keaukaha Military Reservation (KMR) in Hilo, Hawaii is not likely to adversely affect endangered or threatened species. In evaluating your request, we reviewed the information and maps provided in your request for consultation. We received your request on October 20, 2005.

KMR, located immediately south of the Hilo airport consists of 503 acres, has been used for training since 1914, and currently consists of an administrative/cantonment area of approximately 55-60 acres in the northwest corner with the reminder of the facility in firing ranges, forest, or brush land. The Hawaii Army National Guard (HIARNG) proposes to consolidate facilities for HIARNG, Army Reserves, Air National Guard, and homeland Security, converting KMR to an Armed Forces Reserve Center as part of the 2005 Base Realignment and closure process. To accomplish this, most of the outdated buildings in the administrative/cantonment area would be demolished and new facilities constructed. The proposed work is planned to occur in phases between August and December 2008.

Surveys indicate that two listed species occur at KMR, the endangered Hawaiian hoary bat (*Lasiurus cinereus cinereus*) and the endangered Hawaiian hawk (*Buteo solitarius*). The bats were located approximately ½ mile from the proposed project site. The Hawaiian hawk was recorded throughout the facility and the proposed action will take place adjacent to where hawks have been observed to perch. It is expected that construction activities will temporarily displace hawks from perching trees in the area, but the area will remain suitable for hawks to return after construction is completed. No nest trees of hawks were found during surveys of the area. Since bat roosting appears limited to forested areas, the destruction of buildings should not affect them.

HIARNG therefore does not anticipate the proposed project will have adverse affects to listed species. Based on our review of the proposed project as outlined above, the Service concurs with

your determination that the proposed action is not likely to adversely affect federally listed species.

We appreciate your efforts to conserve endangered species. If you have any questions, please contact Dr. Annie Marshall, Fish and Wildlife Biologist, or Marilet Zablan, Vertebrate Conservation Program Coordinator (phone: 808/792-9400; fax: 808/792-9580).

Sincerely,

Patrick Leonard
Field Supervisor

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
COLONEL (RET.)
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

October 18, 2005

Mr. Patrick Leonard
Field Supervisor
U.S. Fish and Wildlife Service
300 Ala Moana Blvd., Suite 3122
PO Box 50088
Honolulu, HI 96850

Subject: Endangered Species Act, Section 7 Interagency Consultation

Dear Mr. Leonard:

As required by the Endangered Species Act, Section 7, the Hawaii Army National Guard (HIARNG) is requesting interagency consultation regarding the potential impacts of a construction project on Hawaiian hawk and Hawaiian hoary bat at the Keaukaha Military Reservation (KMR) in Hilo.

Description of Area: KMR is located immediately south of the Hilo airport, and consists of a total of 503 acres (see maps in Attachment 1). The reservation has been used for training since 1914, and currently consists of an administrative/cantonment area of approximately 55-60 acres in the northwest corner, with the remainder of the facility in firing ranges, forest, or brushland. The area is entirely flat. The forested areas are relatively intact low elevation wet forest, with the overstory dominated by ohi'a lehua (*Metrosideros polymorpha*). Invasive tree species present in the forest include *Melochia umbellate, Macaranga mappa,* and *Psidium guajava.* For a complete list of native species, refer to "Endangered and Rare Species Surveys and Management Recommendations for Hawaii Army National Guard Lands on the Island of Hawaii" prepared by your office in July 1997. The administrative/cantonment area where the proposed action would take place is entirely landscaped, and contains 30-40 buildings.

Proposed Action: As part of the 2005 Base Realignment and Closure (BRAC) process, the HIARNG proposes to consolidate facilities for the HIARNG, Army Reserves, Air National Guard, and Homeland Security, converting KMR to an Armed Forces Reserve Center (AFRC). To accomplish this, most of the outdated buildings in the administrative/cantonment area would

be demolished, and new facilities constructed. This is planned to occur in phases between August 2006 and December 2008 (see plans in Attachment 1).

Endangered Species: A USFWS 1997 Endangered and Rare Species Survey conducted for the HIARNG identified two species at KMR, the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) and the indigenous sedge *Scleria testacea,* which is rare, but not listed. These detections were in the range area of KMR, approximately ½ mile from the proposed project site. The report also shows locations of Hawaiian hawks, or 'Io (*Buteo solitarius*) and Hawaiian hoary bat off of the reservation, at the Hilo Airport (see Attachment 2). Since then, have been 'Io recorded throughout the facility. Attachment 3 contains the results of an audio playback survey for 'Io, as well as locations of sightings by HIARNG staff at KMR. The audio survey only spotted 'Io at the three most southerly stations; HIARNG staff has recorded I'o perched on the perimeter of the Administrative area and in the forested range areas. Also located on the map are areas where 'Io are frequently observed soaring. Field staff at KMR estimate that 9 individuals account for 37 total sightings.

Additional sightings by HIARNG staff of flying Hawaiian hoary bat have placed them about 1 mile from the construction area.

HIARNG Conclusions: The proposed action will take place adjacent to where 'Io have been observed to perch. The construction activities will temporarily displace hawks that may perch in this area, but will leave the area suitable for their return following the construction phase. The Endangered Species Management Plan for Hawaii Army National Guard Facilities in the State of Hawaii, prepared by your office in January 2001, recommends a buffer of $\geq$ 100m around any hawk nests that may be found. None have been detected to date, and likely suitable nest sites (in forested areas) are greater than ½ mile from the construction site. Since roosting of bats appears to be limited to forested areas (2001 Endangered Species Management Plan), the destruction of buildings should not affect them. Construction on the previously disturbed, landscaped area will have no impact on *Scleria testacea.* It is the contention of the HIARNG that the proposed action will not have an adverse affect on any rare or endangered species.

We request that your office review this information, and by way of reply concur with or correct our conclusions. If you need any additional information, please contact Mr. Karl Buermeyer, NEPA Administrator in our Environmental Office, at 733-4359. We appreciate your time and assistance in this matter.

Sincerely,

Stanley R. Keolanui, Jr.
Colonel, FA, Hawaii Army National Guard
Acting Chief of Staff

Encl (3)

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

OCT 23 2006

Environmental Office

Honorable Peter T. Young, Chairperson
State Historic Preservation Officer
Department of Land & Natural Resources
State Historic Preservation Division
601 Kamokila Boulevard, Suite 555
Kapolei, Hawaii 96707

Dear Mr. Young,

Subject: National Historic Preservation Act (NHPA), Section 106 Consultation: Proposed Demolition of Buildings at Keaukaha Military Reservation (KMR)

Enclosed are one hard copy and one CD-ROM of the Historic Building Survey, KMR, Hilo, Hawai'i. Section 106 of the NHPA of 1966 requires Federal agencies to take into account the effects of their undertakings on historic properties and to consult with our State's Historic Preservation Department to determine if there are any adverse effects in proceeding with implementing the plan. The Hawaii Army National Guard (HIARNG) seeks concurrence from your office with the findings in this report that none of the individual buildings slated for replacement are eligible for the National Register of Historic Places, nor is the conglomerate of buildings eligible as a district.

We request that your organization review the enclosed document and concur or comment in writing to the HIARNG by November 30, 2006.

If there are any questions, please contact First Lieutenant Charles Neumann, Environmental Protection Specialist, at (808)-672-1279; or Mr. Karl Buermeyer, NEPA Manager, at 808-672-1265.

Sincerely,

ROBERT G. F. LEE
Major General
Hawaii National Guard
Adjutant General

Enclosures

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 29, 2006

Robert G. F. Lee, Major General
Hawaii National Guard
Department of Defense
Office of the Adjunct General
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

LOG NO: 2006.3739
DOC NO: 0611BF10
Architecture

Dear Mr. Lee:

SUBJECT: Section 106 (NHPA) Review
RE: Proposed Demolition of Buildings at Keaukaha Military Reservation
Keaukaha Ahupuaa, South Hilo District, Hawai'I Island
TMK: (3) 2-1-12:003 & 2-1-13:010

This is in response to your letter dated October 23, 2006, which we received on October 30, 2006.

The State Historic Preservation Division is unable to make a finding at this time due to insufficient information.

We are asking for more complete photo documentation of the buildings that are to be demolished. We are asking to see photographs depicting the various elevations and not just one representative photograph. Should you have any questions regarding this request please call Bryan Flower at our Oahu office at (808) 692-8029.

Sincerely,

Peter T. Young, Chairperson
State Historic Preservation Officer

BF:jen

c: National Park Service
Frank Hays, Director, Pacific West Region-Honolulu, West Regional Office, U.S. Dept. of the Interior, National Park Service, 300 Ala Moana, Blvd., Rm. 6-226, Hon., HI 96850

National Trust for Historic Preservation
Elizabeth S. Merritt, Deputy General Counsel, Law Dept., National Trust for Historic Preservation, 1785 Massachusetts Avenue, NW Washington, DC 20036
Michael Buhler, Program Officer/Regional Attorney, National Trust for Historic Preservation, The Hearst Building, 5 Third Street, Suite 707, San Francisco, CA 94103
Historic Hawaii Foundation
Kiersten Faulkner, Executive Director, Historic Hawaii Foundation, PO Box 1658, Honolulu, HI 96806
Advisory Council on Historic Preservation
Don L. Klima, Director (Eastern and Western offices), Eastern Office (EO), 1100 Pennsylvania Avenue, NW, Suite 803, Washington, DC 20004
Kelly Yasaitis Fanizzo, Historic Preservation Specialist, Office of Federal Agency Programs, 1100 Pennsylvania Avenue, NW, Suite 809, Washington, DC 20004

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

January 4, 2007

Environmental Office

Mr. Peter Young, Director
Department of Land & Natural Resources
State Historic Preservation Division
601 Kamokila Boulevard, Suite 555
Kapolei, Hawaii

Dear Mr. Young:

Subject: Section 106 (NHPA) Review, RE: Proposed Demolition of Buildings at Keaukaha Military Reservation, Keaukaha Ahupua`a, South Hilo District, Hawai`i Island
TMK: (3) 2-1-12:003 & 2-1-13:010

In regards to your letter of November 29, 2006, (copy attached), we are enclosing an addendum to the Survey of Buildings over 50 years old at KMR. This addendum contains additional perspectives of interior photos as requested in your letter, so that you may continue your Section 106 review of our proposal to demolish these buildings.

We request that your organization continue to review the building survey, and concur or comment on it in writing to Hawaii Army National Guard (HIARNG) by February 16, 2007.

If there are any questions, please contact 1LT Charles Nuemann, Environmental Protection Specialist, at 808-672-1279, or Mr. Karl Buermeyer, NEPA Manager at 808-672-1265.

Sincerely,

Marjean Stubbert
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Enclosures

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 26, 2007

Robert G. F. Lee, Major General
Hawaii National Guard
Department of Defense
Office of the Adjunct General
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

LOG NO: 2007.0305
DOC NO: 0702BF05
Architecture

Dear Mr. Lee:

SUBJECT: Section 106 (NHPA) Review
RE: Proposed Demolition of Buildings at Keaukaha Military Reservation
Hilo, Hawai'i
TMK: (3) 2-1-12:003 & 2-1-13: 010

This is in response to your letter dated January 4, 2007, which we received on January 12, 2007.

The proposed project entails the demolition of 18 buildings at the Keaukaha Military Reservation. The reservation will be redeveloped by Hawaii Army National Guard (HIARNG).

The State Historic Preservation Division (SHPD) has received the additional photographs we requested on November 29, 2007 (Log No.: 2006.3739, Doc No.:0611BF10). After reviewing the photographs we find Building 003 to be eligible for listing on the National Register of Historic Places (NRHP). Building 003 is a 1950 nurse's cottage that has retained a high degree of integrity and is an excellent example of the Hawaii plantation style house. The other 17 buildings are found ineligible for listing on the NRHP.

There are no known archaeological sites or features within the proposed project area. If any sites, features, remains or artifacts are discovered during the project all work must cease immediately and the appropriate authorities must be contacted.

Due to the extensive number of buildings to be demolished SHPD finds the proposed project to have an adverse effect. To reach a finding of no adverse effect, the SHPD recommends mitigation which may include documentation of all the buildings. The documentation will

LOG NO: 2007.0305
DOC NO: 0702BF05

include high resolution digital photographs of exterior and interior views of the buildings, a photo key and a history of Keaukaha Military Reservation development. Since Building 003 is considered eligible for listing on the NRHP, we recommend relocating the building to another portion of the camp and conducting HABS recordation on the building prior to relocation. The HIARNG will need to coordinate with the National Park Service to determine the extent of the HABS documentation. The SHPD looks forward to working with the HIARNG in reaching an acceptable conclusion for this project. Should you have any questions regarding this request please call Bryan Flower at our Oahu office at (808) 692-8028.

Sincerely,

Peter T. Young, Chairperson
State Historic Preservation Officer

BF:jen

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD06/2816

December 28, 2006

Russell Okoji
AMEC Earth & Environmental, Inc.
3375 Koapaka Street
Suite F-251
Honolulu, HI 96819

RE: Announcement of Public Meeting in Support of Environmental Assessment (EA) for Keaukaha Military Reservation (KMR), Island of Hawai'i.

Dear Russell Okoji,

The Office of Hawaiian Affairs (OHA) is in receipt of your November 15, 2006 request for comments and invitation to attend a public meeting on the potential impacts and plans for closing the Hawai'i Army National Guard facilities Honoka'a and Kea'au, and the properties' potential future uses. OHA apologizes for the delayed response and hopes that the meeting was successful.

We commend you for holding a public meeting on this project to provide interested agencies, groups, and individuals opportunities to comment before a preferred alternative is chosen and thoroughly analyzed via the National Environmental Policy Act's processes. If you have not done so already, we recommend contacting Ruby McDonald, OHA's Kona Community Resources Coordinator (address below) for her input and suggestions.

OHA requests assurances from the applicant that if this project, in its many possible forms, goes forward, should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment at this exploratory stage, and we look forward to providing more substantive review of the forthcoming Environmental Assessment. If you have further questions, please contact Heidi Guth by phone at (808) 594-1962 or by e-mail at heidig@oha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

C: Ruby McDonald
Community Resources Coordinator
OHA – Kona Office
75-5706 Hanama Place
Suite 107
Kailua-Kona, HI 96740

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

May 4, 2007

HRD07/2816B

Russell Okoji, Ph.D.
Senior Toxicologist
AMEC Earth & Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu, Hawai'i 96819

RE: Draft Report for the Environmental Assessment at Keaukaha Military Reservation Hilo District, Hawai'i Island

The Office of Hawaiian Affairs (OHA) is in receipt of your March 2007 request for comments on a draft Environmental Assessment (EA) at Keaukaha Military Reservation (KMR).

OHA is obligated to protect the cultural and natural resources of Hawai'i for its beneficiaries, the people of this land. With this responsibility in mind, OHA has reviewed the draft EA for KMR and we offer the following comments.

As summarized in the draft EA, the Proposed Action was selected as the Preferred Alternative because it meets the needs of the Hawai'i Army National Guard and U.S. Army Reserve. OHA hopes that the Preferred Alternative was also selected following consideration of the comments received from interested agencies, groups, and individuals at a public meeting held on December 6, 2006.

Our review of the draft EA indicates none of the recorded cultural resources within the proposed project area will be impacted, as new construction activities are to take place in locations that were previously developed.

The Proposed Action calls for the installation of an additional 11,000 linear feet of fencing around the perimeter of KMR in order to meet Anti-Terrorism Force Protection standards. This

fencing would restrict access to a portion of the Puna Trail (State Site 50-10-35-18869). While access to the Puna Trail will be constrained, it will not be eliminated entirely. OHA commends you for allowing continued access to the Puna Trail. Traditional access is a constitutionally protected traditional and customary practice of our beneficiaries.

Should cultural or traditional deposits or human remains and associated burial items be identified during construction activity, please ensure that all work ceases, the appropriate agencies are contacted pursuant to applicable law, and the Standard Operating Procedures detailed within the draft Integrated Cultural Resources management Plan are implemented.

Thank you for the opportunity to review the draft EA. Should you have any questions, please contact Keola Lindsey, Lead Advocate-Culture, at (808) 594-1904.

'O wau iho nō,

Clyde W. Nāmu'o
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 20, 2007

AMEC Earth & Environmental, Inc.
3375 Koapaka Street Suite F-251
Honolulu, Hawaii 96819

Attention: Mr. Russell Okoji, Ph.D.

Gentlemen:

Subject: Draft Report for the Environmental Assessment at Keaukaha Military Reservation, Hilo, Hawaii

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Land Division – Hawaii District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 28, 2007

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LAND DIVISION
2007 APR 19 A 10: 11

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LAND DIVISION
2007 MAR 30 A 10: 50

DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

RECEIVED
LAND DIVISION
HILO, HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
__Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
__Div. of Water Resource Management
__Office of Conservation & Coastal Lands
__x__ Land Division – Hawaii District
E Pesth Chair

FROM: Russell Y. Tsuji
SUBJECT: Draft Environmental Assessment at Keaukaha Military Reservation
LOCATION: Hilo, Hawaii
APPLICANT: AMEC on behalf of State Department of Defense

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 20, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(X) Comments are attached.

Signed:
Date: 4/18/07

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HAWAII DISTRICT LAND OFFICE

75 Aupuni Street, Room 204
Hilo, Hawaii 96720
TEL: (808) 974-6203
FAX: (808) 974-6222

April 18, 2007

TO: Russell T. Tsuji, Administrator
DLNR-Land Division

FROM: Gordon Heit, Land Agent
Hawaii District Land Office

SUSPENSE DATE: April 20, 2007

SUBJECT: Request for Comments, Draft Environmental Assessment for the Keaukaha Military Reservation, Waiakea, South Hilo, Hawaii, TMK: 3rd/2-1-12:03.

HDLO staff has reviewed the Department of Defense, Hawaii Army National Guard request for a draft EA and has comments pertaining to the above-mentioned property.

The draft EA identifies Leilani Street as a possible entrance (figure 3-1) to the Keaukaha Military Reservation (KMR). Should the KMR choose this alternative design, the Department of Land and Natural Resources, Land Division has these comments;

1. Will the roadway access to and from KMR be via Leilani Street or only via the Airport Road (Kekuanaoa Avenue)?

2. If it is intended that the roadway access to and from the KMR include Leilani Street, a traffic impact analysis report (TIAR) should be provided.

3. DLNR is seeking to development the proposed 150-acre Mana Industrial Park, which contemplates the construction of a Leilani Street extension that will provide access to the industrial park, as well as to various lands beyond the industrial park (e.g., County drag strip, sort station, etc.). It has always been the intent that the Leilani Street extension and possibly other required roadway improvements will be jointly constructed and/or funded by the State, county and other private entities that will utilize the roadway improvement(s).

Thank you for the opportunity to provide comments on the DEA.

Harry Kim
Mayor

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-3043
(808) 961-8288 • FAX (808) 961-8742

April 20, 2007

Mr. Russell Okoji, Ph.D.
Senior Toxicologist
AMEC Earth & Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu HI 96819

Dear Mr. Okoji:

Draft Environmental Assessment
Subject: Keaukaha Military Reservation
Tax Map Key: 2-1-12:131 & Por. of 3

In response to the above referenced document submitted for our review, we have the following to offer:

1. **Tax Map Key Number:**

   The tax map key numbers for the project area are noted above.

2. **Land Use:**

   a. County Zoning: Agricultural (A-5a)
   b. State Land Use Designation: Agricultural
   c. General Plan Land Use Pattern Allocation Guide Map: Industrial and Important Agricultural Lands.
   d. Special Management Area (SMA): Not in the SMA.

3. **Permits Required:**

   a. The Hawaii County Code, Chapter 25, Zoning, Section 25-4-11(c) states that *"Public uses, structures and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for*

such use." According to Section 25-1-5(b), *"Public use, public building and pubic structure means a use conducted by or a structure or building owned or managed by the federal government, the State of Hawaii or the County to fulfill a governmental function, activity or service for public benefit and in accordance with public policy.*

b. Consolidation of the two parcels will be required if any proposed structures do not meet the minimum twenty (20) feet side yard setbacks.

4. **Puna Trail:**

Since pedestrian and cyclists would not be able to access the Puna Trail on the main compound area, the *"Proposed Design of Facilities", Figure 2-1*, should include the location of the realignment to "Quarry Road".

There is no road officially recognized as "Quarry Road". There is a Rubbish Dump Road/Amunition Road as well as an Ordinance Lane that leads to several quarries. Residential and commercial waste haulers as well as waste transfer trucks and haulers utilize this road. Bicycle and pedestrian use will require walkways/bikeways to allow for a safe connection to the Puna Trail.

5. **Demolition:**

Construction and debris recycling should be included in this project.

We appreciate the opportunity to review the draft Environmental Assessment.

If you have questions, please feel free to contact Esther Imamura of our Department at 961-8288, extension 257.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

ETI

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LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Chris Yuen
Planning Director
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Yuen,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment 1:
"Consolidation of the two parcels will be required if any proposed structures do not meet the minimum twenty (20) feet side yard setbacks."

We will forward this comment on to the planners.

Comment 2:
"Since pedestrian and cyclists would not be able to access the Puna Trail on the main compound area, the "Proposed Design of Facilities", Figure 2-1, should include the location of the realignment to Quarry Road.

There is no road officially recognized as "Quarry Road". There is a Rubbish Dump Road/Amunition Road as well as an Ordinance Lane that leads to several quarries. Residential and commercial waste haulers as well as waste transfer trucks and haulers utilize this road. Bicycle and pedestrian use will require walkways/bikeways to allow for a safe connection to the Puna Trail."

Figure 2-1 will be modified to reflect the location of the realignment to Quarry Road.

"Quarry Road" references to Rubbish Dump Road. The name will be changed within the EA to reflect this. Also, state funds will be

allocated for the improvement related to bike or walking paths on the access to Quarry Road.

Comment 3:
"Construction and debris recycling should be included in this project."

We will endeavor to use our best conservation and environmental practices toincorporate construction and debris recycling in this project. This comment will be forwarded to the design and construction team.

Thank you for the rest of your comments. We have made note of them. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EPO-07-072

April 20, 2007

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu, Hawaii 96819

Dear Dr. Okoji:

SUBJECT: Draft Environmental Assessment for Keaukaha Military Reservation, Hilo, Hawaii

Thank you for allowing us to review and comment on the subject documents. The documents were routed to the various branches of the Department of Health Environmental Health Administration. We have the following Clean Air Branch and General comments.

Clean Air Branch

Control of Fugitive Dust

Fugitive dust emissions occur during all phases of construction and operations. Activities close to existing residences, businesses, public areas or thoroughfares can cause dust problems. For cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance problems. We recommend that the contractors operate under a dust control management plan. The plan does not require the Department of Health approval, however it will help with identifying and minimizing the dust problems from the proposed project.

Examples of measures that can be included in the dust control plan are:

a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
b) Providing an adequate water resource at the site prior to start-up of construction activities;
c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;

d) Minimizing dust from shoulders and access roads;
e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
f) Controlling dust from debris being hauled away from the project site.

All activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. If you have any questions, please contact the Clean Air Branch at 586-4200

General

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

If there are any questions about these comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CAB
NRIAQB
EH-Hawaii

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Kelvin H. Sunada
State of Hawaii
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Sunada,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

The proposed project is not anticipated to detrimentally impact any air quality levels. During the proposed project, fugitive dust is anticipated to increase minimally but will be closely monitored. Hawaii Administrative Rules, § 11-60.1-33 on Fugitive Dust will be fully complied with during the proposed project. The project engineers, managers and workers shall do their best to comply with the governing environmental regulations. If there are any exceedences in any local, state or federal rules or regulations such excesses shall be mitigated to minimize any possible adverse impact. In addition, your comments regarding dust control plans will be forwarded on to designers involved with planning of the facilities.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

April 23, 2007

Regulatory Branch

File No. **POH-2007-129**

Russell Okoji
AMEC Earth & Environmental
Airport Industrial Area
3375 Koapaka Street, Suite F251
Honolulu, HI 96819

Dear Dr. Okoji:

This is in response to your letter dated March 21, 2006 for comments for various projects proposed in the draft Environmental Assessment (EA) for the Keaukaha Military Reservation (KMR), Hilo, Hawaii. We have reviewed the information you provided under the Corps' authority to issue Department of the Army (DA) permits pursuant to Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403) and Section 404 of the Clean Water Act (CWA) (33 USC 1344).

Based on the information provided you provided on behalf of the Hawaii Army National Guard, we have determined the subject property site does not contain waters of the U.S. subject to our jurisdiction, and that the described project and its related activities are understood to not involve the placement of dredged and/or fill material into waters of the U.S., including adjacent wetlands; therefore, **a DA permit is not required.**

Should you have any questions regarding this jurisdictional determination, please contact Ms. Joy Anamizu by phone at 808-438-7023, or *joy.n.anamizu@usace.army.mil* and refer to the file number above regarding this project.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. George Young, P.E.
Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Young,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Thank you for your review pursuant to Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403) and Section 404 of the Clean Water Act (CWA)(33 USC 1344). We acknowledge your findings that the subject property site does not contain waters of the United States subject to your jurisdiction and that a Department of the Army (DA) permit is not required.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

April 26, 2007

Mr. Russell Okoji, Ph. D
AMEC Earth and Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu, HI 96819

DRAFT ENVIRONMENTAL ASSESSMENT
CONSTRUCTION AND DEMOLITION PROJECTS AT THE KEAUKAHA MILITARY RESERVATION
TAX MAP KEY 2-1-012:003 AND 2-1-013:010

This is in response to your Draft Environmental Assessment for the subject project.

The Department maintains several 12-inch and 8-inch waterlines within Tax Map Key 2-1-012:003 and there are several meters assigned to that parcel.

The Department has no objection to the proposed project, subject to the following conditions:

1. Submit estimated maximum daily water usage calculations provided by a professional engineer licensed in the State of Hawai'i for each proposed facility. The calculations should include the estimated peak-flow in gallons per minute and the total estimated maximum daily water usage in gallons per day, including all irrigation/landscaping water use.

2. Based on the calculations provided in Item 1, the Department will determine the water commitment deposit and facilities charge (subject to change) to be paid, if necessary. If the existing meters cannot accommodate the estimated demand, a larger or additional meter(s) will need to be installed.

3. A reduced pressure type backflow prevention assembly must be installed within five (5) feet of the existing meters on private property. If a larger or additional meter is required (per Item 2 above), a reduced pressure type backflow prevention assembly must also be installed within five (5) of the meter. The installation of the backflow prevention assembly(s) must be inspected and approved by the Department prior to commencement of water service.

4. The applicant must submit construction plans to the Department for review and approval, showing the location of the existing water system facilities within Tax Map Key 2-1-012:003, and any new connections to the Department's facilities, if necessary.

5. Subject to other agencies' requirements to construct improvements within the road right-of-way fronting the property affected by the proposed project, the applicant shall be responsible for the relocation and adjustment of the Department's affected water system facilities, should they be necessary.

Should there be any questions, you may contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

FM:dfg

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Milton D. Pavao, P.E.
Department of Water Supply
County of Hawai'i
345 Kekuanao'a Street, Suite 20
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Pavao,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Your comments regarding water usage calculations and construction plans will be forwarded on to the designers involved with planning of the facilities.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

April 20, 2007

Major General Robert Lee, Adjutant General
Department of Defense
3949 Diamond Head Road
Honolulu, Hawai'i 96816

Dear Major General Lee:

Subject: Draft EA for the Keaukaha Military Reservation Construction and Demolition Projects

Thank you for the opportunity to review the subject document. We have the following comment.

1. Please provide your findings and reasons for supporting the finding of no significant impact based on the criteria listed in section 11-200-12 of Hawaii Administrative Rules.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

for Genevieve Salmonson
Director

c: AMEC
3375 Koapaka Street, Suite F-251
Honolulu, Hawaii 96819

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Ms. Genevieve Salmonson
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Ms. Salmonson,

The Hawaii Army National Guard (HIARNG) is providing this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment:
"Please provide your findings and reasons for supporting the finding of no significant impact based on the criteria listed in section 11-200-12 of Hawaii Administrative Rules."

In accordance with Hawaii Revised Statute, Title 11, Department of Health, Chapter 200, Section 12, potential impacts of the proposed project have been reviewed. The following is a summary of the criteria discussed in the statute and will be included in the Final EA.

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The proposed project is not anticipated to impact known or significant natural or cultural resource. There is little potential for encountering such resources as the Site is currently developed, and the proposed project calls for new construction activities that will take place in locations that were previously developed. Additionally, in order to comply

with ATFP standards, the Proposed Action would fence the entire perimeter of the approximately 60-acre compound. Fencing of the perimeter will restrict access to a portion of the Puna Trail (currently paved and previously developed) on the main compound area. Pedestrian and cyclists who currently access the Puna Trail would be redirected to Quarry Road. Pedestrian and bicycle access across the pipe gate off of Quarry Road will remain unchanged.

(2) Curtails the range of beneficial uses of the environment;

Implementation of the Proposed Action would be consistent with current zoning designated by the County of Hawaii General Plan and Zoning Code. The transformation of KMR into the KJMC would be consistent with the land's current zoning designation as agriculture and current land use would be unchanged. The proposed plan also involved consolidation of several armory facilities. This ensures a better range and use of land resources. All lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and off-site views of Mauna Loa. No adverse impacts with regard to surrounding land uses would occur as a result of the Proposed Action.

(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed project is not reasonably anticipated to conflict with the state's long-term environmental policies or goals and guidelines as expressed HRS Chapter 344, any court decisions, or executive orders.

(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

The proposed project is not anticipated to substantially affect economic welfare, social welfare, or cultural practices of the community or State.

(5) Substantially affects public health;

The proposed project is not reasonably anticipated to substantially affect public health.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

The proposed project is not anticipated to involve any substantial secondary impacts. Units from two currently operating Readiness Centers would move their operations from these facilities to the new AFRC. However, there would be no increase in permanent employment and no associated increase in the demand for housing, schools, and recreation facilities within the City of Hilo since both Readiness Centers are within commuting distance of KMR.

The Proposed Action would involve no additional police or fire protection. Population changes or effects on public facilities would be very minimal.

(7) Involves a substantial degradation of environmental quality;

The proposed project is not anticipated to substantially degrade overall environmental quality. Minimal disruption to the Site environment is anticipated as the proposed project calls for some demolition and construction. Compliance with all local, state, federal rules, and regulations should mitigate and minimize any temporary impacts to the area.

(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The proposed project is not anticipated to have a considerable effect upon the environment or involve a commitment for larger actions. Minimal disruption to the Site environment is anticipated as the proposed project calls for some demolition and construction.

(9) *Substantially affects a rare, threatened, or endangered species, or its habitat;*

The Hawaiian Hawk and hoary bat have both been observed in the main compound area at KMR where the Proposed Action would occur. Construction activities may temporarily impact these species due to increased noise and human presence. However, no nests have been observed in this area; therefore, hawks observed are considered to be transients and not residents of the main compound area. Consultation with the USFWS confirmed that there is little to no potential for implementation of the Proposed Action to significantly impact the Hawaiian Hawk or hoary bat. Impacts to threatened and endangered species would be temporary and not reasonably expected to impact either species or its habitat.

(10) *Detrimentally affects air or water quality or ambient noise levels;*

The proposed project is not anticipated to detrimentally impact any air or water quality or ambient noise levels. During the proposed project, these parameters are anticipated to increase some but will be closely monitored. Any exceedances in local, state, or federal rules or regulations will be mitigated to minimize any possible adverse impact.

(11) *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;*

The proposed project is not anticipated to impact any natural or cultural resource. There is little potential for encountering such resources as the Site is currently developed, and the proposed project calls for renovation of the existing structure. The Site does not fall within any designated floodplains or tsunami evacuation zones. No wetlands exist on KMR; therefore, no wetlands would be impacted by the Proposed Action.

(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; or,

The proposed project is not anticipated to impact any scenic vistas or viewplanes. Coastal view planes will not be impacted by the Site. As mentioned previously, all lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and not significantly impact off-site views of Mauna Loa.

(13) Requires substantial energy consumption.

The proposed project is not anticipated to require substantial energy consumption. Electricity, potable water, natural gas, and telecommunication utilities currently serving the City of Hilo would continue to serve KMR. The septic tank system installed in spring 2006 at KMR has available capacity to handle the increase in waste stream which would potentially result from the increase of 58 guardsmen on training weekends. Further, additional septic tanks would be installed as new facilities are constructed or increased septic tank capacity is required.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

APPENDIX C

ENVIRONMENTAL NOTICE

2007 Subscription Renewal

To continue receiving ***The Environmental Notice***, complete and send this form by January 1, 2007 or you will be dropped from the mailing list.

You have three ways to get your response to us before the deadline 1) fax a copy of this form to (808) 586-4186, 2) email a note with your current mailing address as seen on your label and any corrections to oeqc@doh.hawaii.gov or 3) mail the form to:

Office of Environmental Quality Control, 235 S. Beretania Street, Room 702, Honolulu, Hawai`i 96813

☐ Please keep me on ***The Environmental Notice*** subscribers list.
☐ Please remove my name from the mailing list.
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Comment(s): _____

_____

Open House Meeting – Reconstruction of Keaukaha Military Reservation

The Hawai'i Army National Guard (HIARNG) is proposing to transform Keaukaha Military Reservation (KMR), adjacent to Hilo International Airport, to function as the Keaukaha Joint Military Center (KJMC) for soldiers, airmen, veterans, and retirees living on the island of Hawai'i. Most current buildings would be demolished and the site rebuilt to include facilities for an Armed Forces Reserve Center (AFRC) with maintenance and storage facilities, Combined Support Maintenance Shop (CSMS), US Marine Corps maintenance and storage area, Hawai'i Air National Guard (HIANG) building, Army & Air Force Exchange Services (AAFES) building, Environmental Office, State Maintenance Area, US Army Corps of Engineers office, Hawai'i State Office of Veterans Services area, Combat Tracker School, and Training Site. The area of concern for this proposal is approximately 50-60 acres of previously developed land, and security would be upgraded, potentially restricting access to the Puna Trail from the Airport Access Road. Any environmental impacts anticipated from the construction and operation of the proposed KJMC will be evaluated in an Environmental Assessment (EA). It is anticipated that a Finding of No Significant Impact (FONSI) will be issued.

On Thursday, December 7, 2006, from 3:00 PM to 7:00 PM, there will be an open forum to provide an opportunity for interested agencies, groups, and members of the public to view and discuss the proposal and alternatives, and to ask questions and comment. The forum will be held at the Armory at KMR. For directions or other information, please call or e-mail Karl Buermeyer, HIARNG Environmental Office, 808-672-1265, karl.buermeyer@us.army.mil; or Russell Okoji at AMEC Earth and Environmental, 808-545-2462, ext 110, russell.okoji@amec.com.

APPENDIX D

MAILING LIST
Invitation to December 7, 2006 Public Meeting
&
Description of Proposed Actions and Alternatives
(DOPAA)

Administrator	Office of Hawaiian Affairs	711 Kapiolani Boulevard	Suite 1250	Honolulu, Hawaii 96813
	Office of Hawaiian Affairs	162-A Baker Avenue		Hilo, Hawaii 96720
Councilmember Bob Jacobson	Hawaii County Council	25 Aupuni Street		Hilo, Hawaii 96720
Councilmember Donald Ikeda	Hawaii County Council	25 Aupuni Street		Hilo, Hawaii 96720
Councilmember Gary Safarik	Hawaii County Council	25 Aupuni Street		Hilo, Hawaii 96720
Councilmember James Arakaki	Hawaii County Council	25 Aupuni Street		Hilo, Hawaii 96720
Councilmember Stacy Higa	Hawaii County Council	25 Aupuni Street		Hilo, Hawaii 96720
Fire Chief Darryl J. Oliveira	Fire Department	25 Aupuni Street	Room 103	Hilo, Hawaii 96720
Mayor Harry Kim	Mayor's Office	25 Aupuni Street		Hilo, Hawaii 96720
Mr. Aaron Ueno	District Health Office	Post Office Box 916		Hilo, Hawaii 96721
Mr. Bill Walter	W.H. Shipman, Ltd.	Post Office Box 950		Keaau, Hawaii 96749
Mr. Bruce McClure, P.E., Director	Department of Public Works	101 Pauahi Street	Suite 702	Hilo, Hawaii 96720
Mr. Chester Cabral	USDA Rural Dev.	154 Waianuenue Avenue		Hilo, Hawaii 96720
Mr. Chris Yuen	Hawaii County Planning Department	101 Pauahi Street	Suite 3	Hilo, Hawaii 96720
Mr. Dave Smith	c/o Hawaii Tribune-Herald	355 Kinoole Street		Hilo, Hawaii 96720
Mr. David Farrel	U.S. Environmental Protection Agency, Region IX	Office of Federal Activities	75 Hawthorne Street	San Francisco, California 94109
Mr. John Nakagawa	Hawaii Business Economic Development & Tourism DEPARTMENT	235 South Beretania Street,	6th Floor	Honolulu, Hawaii 96813
Mr. Keith W. Ahue	Department of Land and Natural Resources	P.O. Box 621		Honolulu, Hawaii 96809
Mr. Milton Pavao	Department of Water Supply	345 Kekuanaoa Street	Suite 20	Hilo, Hawaii 96720
Mr. Robert Saunders	CSV Hospitality Mgmt., LLC	551 Akala Road		Hilo, Hawaii 96720
Mr. Rod Thompson	Star Bulletin	688 Kinoole Street, Room 208		Hilo, Hawaii 96720
Mr. Stewart Hussey	Keaau Economic Development Adv. Assoc.	308 Kam Avenue	Penthouse #3	Hilo, Hawaii 96720
Mr. Troy Kindred	Civil Defense	920 Ululani Street		Hilo, Hawaii 96720
Ms. Linda Chinn	Department of Hawaiian Homelands	Land Management Division	P.O. Box 1879	Honolulu, Hawaii 96806
Ms. Patricia S. Port	U.S. Department of the Interior	Office of Environmental Policy and Compliance	600 Harrison Street, Suite 515	San Francisco, California 94107-1376
Natural Resources Conservation Service	State Conservationist	P.O. Box 50004		Honolulu, Hawaii 96850
Police Chief Lawrence K. Mahuna	Police Department	349 Kapiolani Street		Hilo, Hawaii 96720
Representative Clift Tsuji	2nd Representative District	415 South Beretania	State Capitol, Room 326	Honolulu, Hawaii 96813
Representative Dwight Takamine	1st Representative District	415 South Beretania	State Capitol, Room 306	Honolulu, Hawaii 96813
Representative Helene Hale	4th Representative District	415 South Beretania	State Capitol, Room 331	Honolulu, Hawaii 96813
Representative Jerry Chang	3rd Representative District	415 South Beretania	State Capitol, Room 435	Honolulu, Hawaii 96813
Senator Lorraine Inouye	1st Senatorial District	415 South Beretania	State Capitol, Room 201	Honolulu, Hawaii 96813
Senator Russell Kokubun	2nd Senatorial District	415 South Beretania	State Capitol, Room 213	Honolulu, Hawaii 96813
To Whom It May Concern	Department of Defense	3949 Diamond Head Road		Honolulu HI 96816-4495
To Whom It May Concern	Department of Transportation	869 Punchbowl Street		Honolulu, Hawaii 96813
To Whom It May Concern	Office of Environmental Quality Control	235 South Beretania Street	Suite 702	Honolulu, Hawaii 96813
U.S. Fish & Wildlife Service	Pacific Islands Administrator	300 Ala Moana Blvd., Rm. 3108		Honolulu, Hawaii 96813
To Whom It May Concern	Hawaii Cycling Club			
Robert F Rosehil, Land Manager	Kamehameha Schools, Land Assets Division - Island of Hawaii	78-6831 Alii Drive	Suite 232	Kailua-Kona, Hawaii 96740

November 15, 2006

AMEC Earth & Environmental, Inc.
3375 Koapaka St.
Suite F-251
Honolulu, Hawaii 96819
Tel +1 (808) 391-9906
russell.okoji@amec.com

To Whom It May Concern,

AMEC Earth & Environmental, Inc. (AMEC) was contracted by the Hawai'i Army National Guard (HIARNG) to perform an Environmental Assessment (EA) at Keaukaha Military Reservation (KMR). The EA is being prepared to identify the cumulative environmental impacts from closing of HIARNG facilities at Honoka'a (Amory and Motor Vehicle Storage Building) and Kea'au (Amory) and demolition of 18 outdated buildings at KMR. HIARNG is also proposing to transform KMR to function as the Keaukaha Joint Military Center (KJMC) for soldiers, airmen, veterans, and retirees living on the island of Hawai'i. The KJMC would include facilities for an Armed Forces Reserve Center (AFRC) with maintenance and storage facilities, Combined Support Maintenance Shop (CSMS), US Marine Corps maintenance and storage area, Hawai'i Air National Guard (HIANG) building, Army & Air Force Exchange Services (AAFES) building, Environmental Office, State Maintenance Area, US Army Corps of Engineers office, Hawai'i State Office of Veterans Services area, Combat Tracker School, and Training Site. The area of concern for this proposal is approximately 50-60 acres of previously developed land. Any environmental impacts anticipated to result from the construction and operation of the proposed KJMC will be evaluated in the EA. It is anticipated that a Finding of No Significant Impact (FONSI) will be determined for demolition and reconstruction work.

On Thursday, December 7, 2006, AMEC and HIARNG plan to hold an open forum to provide an opportunity for interested agencies, groups, and members of the public to view and discuss the proposal and alternatives, and to ask

questions and comment. Enclosed is a copy of the Description of Proposed Action and Alternatives (DOPAA) for the proposed project. The meeting will be open on December 7, 2006, from 3:00pm to 7:00pm at the Armory gymnasium at Keaukaha Military Reservation; a map is enclosed. Please let us know if you are interested in attending by contacting the number below.

If there are any comments or questions about this project, please call (808) 391-9906 or (808) 545-2462.

Sincerely,

Russell Okoji, Ph.D.
AMEC Earth & Environmental, Inc.

Enclosures:

Description of Proposed Action and Alternatives
Map of meeting location

FINAL
DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

CONSTRUCTION AND DEMOLITION PROJECTS AT THE KEAUKAHA MILITARY RESERVATION HILO, HAWAI'I

Submitted to:

State of Hawai'i
Department of Defense
Office of the Adjutant General
3949 Diamond Head Road
Honolulu, Hawai'i 96816-4495

ATTN: Mr. Karl Buermeyer, HIARNG Project Manager

Submitted by:

AMEC Earth & Environmental
Airport Industrial Center
3375 Koapaka Street, Suite F-251
Honolulu, Hawai'i 96819

October 2006

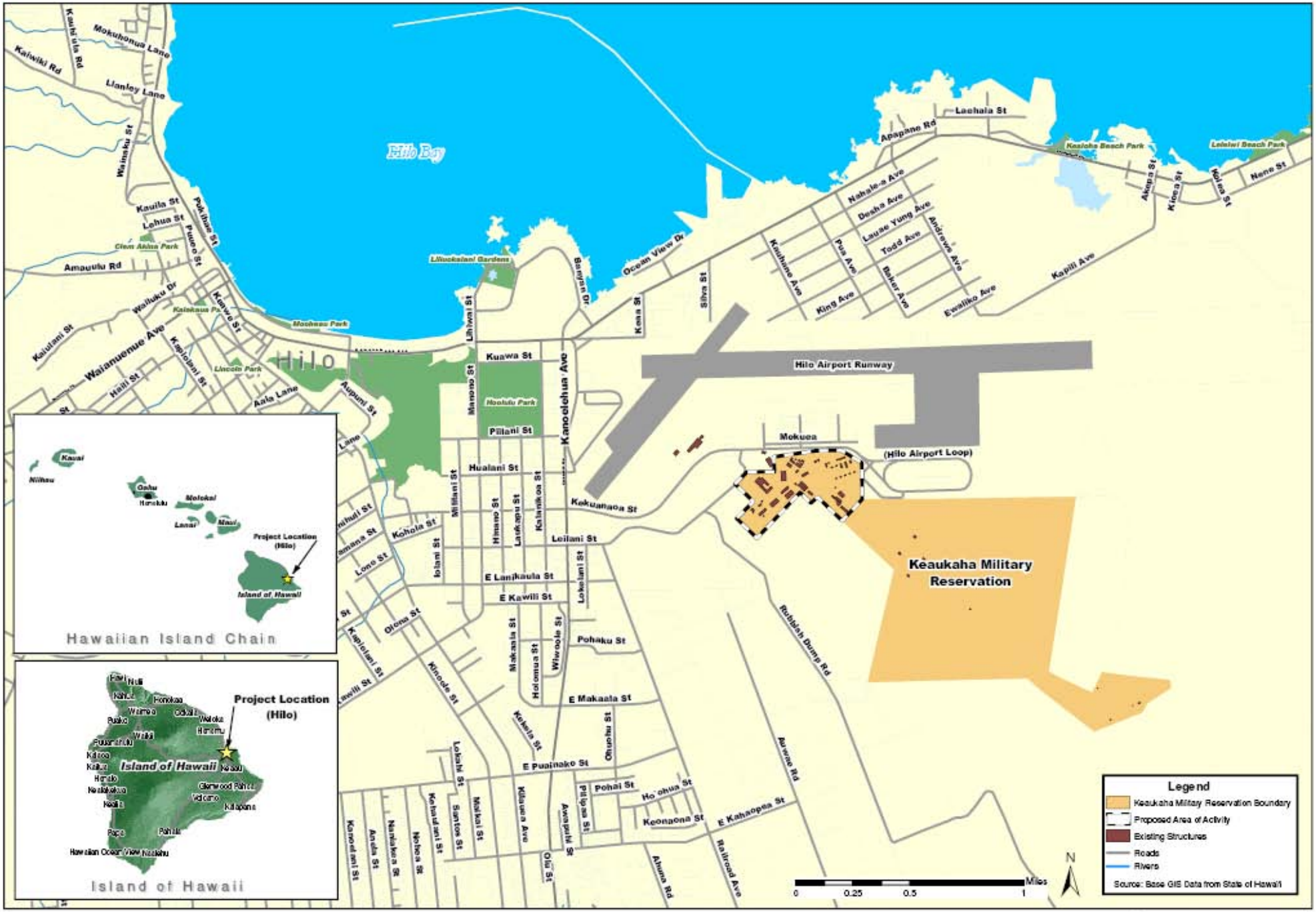
SECTION 1
PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The Hawaii Army National Guard (HIARNG) is preparing an Environmental Assessment (EA) to address the environmental impacts associated with transforming a 60-acre portion of the 506-acre Keaukaha Military Reservation (KMR) to function as the Keaukaha Joint Military Center (KJMC). This EA will address environmental impacts associated with the consolidating of units from closed Readiness Center facilities in Honoka'a, Kea'au, and the older KMR Readiness Center; the construction of an Armed Forces Reserve Center (AFRC), a Combined Support and Maintenance Shop (CSMS), and facilities for the Hawaii Air National Guard (ANG), U.S. Marines, U.S. Army Corps of Engineers (USACE), and the Hawaii Department of Defense Office; and the demolition of 18 buildings at the KMR located in the City of Hilo, Hawaii County, Hawaii (Figures 1-1 and 1-2).

The relocation of units from Honoka'a and Kea'au to KMR, the construction of an AFRC and a portion of the building demolition projects have been mandated by the Readiness Center Transformation recommendations made in the 2005 *Defense Base Realignment and Closure (BRAC) Final Report*. BRAC is the process by which the nation reshapes its installation capacity to become more efficient and effective in supporting its forces. The Department of Defense (DoD) previously conducted BRAC rounds in 1988, 1991, 1993, and 1995. Congress authorized a fifth BRAC round for 2005 in the National Defense Authorization Act of 2002. The BRAC Commission recommendations became official on November 9, 2005 and the DoD has until September 15, 2007 to complete implementation of all recommendations. The other projects analyzed in this EA were identified in the KMR Master Plan (July 2004) and would be implemented after the BRAC-related actions, subject to availability of funds.

The HIARNG is preparing this EA pursuant to: the National Environmental Policy Act (NEPA) of 1969, 42 U.S. Code (USC) Section 4321 et seq.; the Council on Environmental Quality (CEQ) regulations for implementing NEPA, 40 Code of Federal Regulations (CFR) Parts 1500-1508; *Environmental Analysis of Army*



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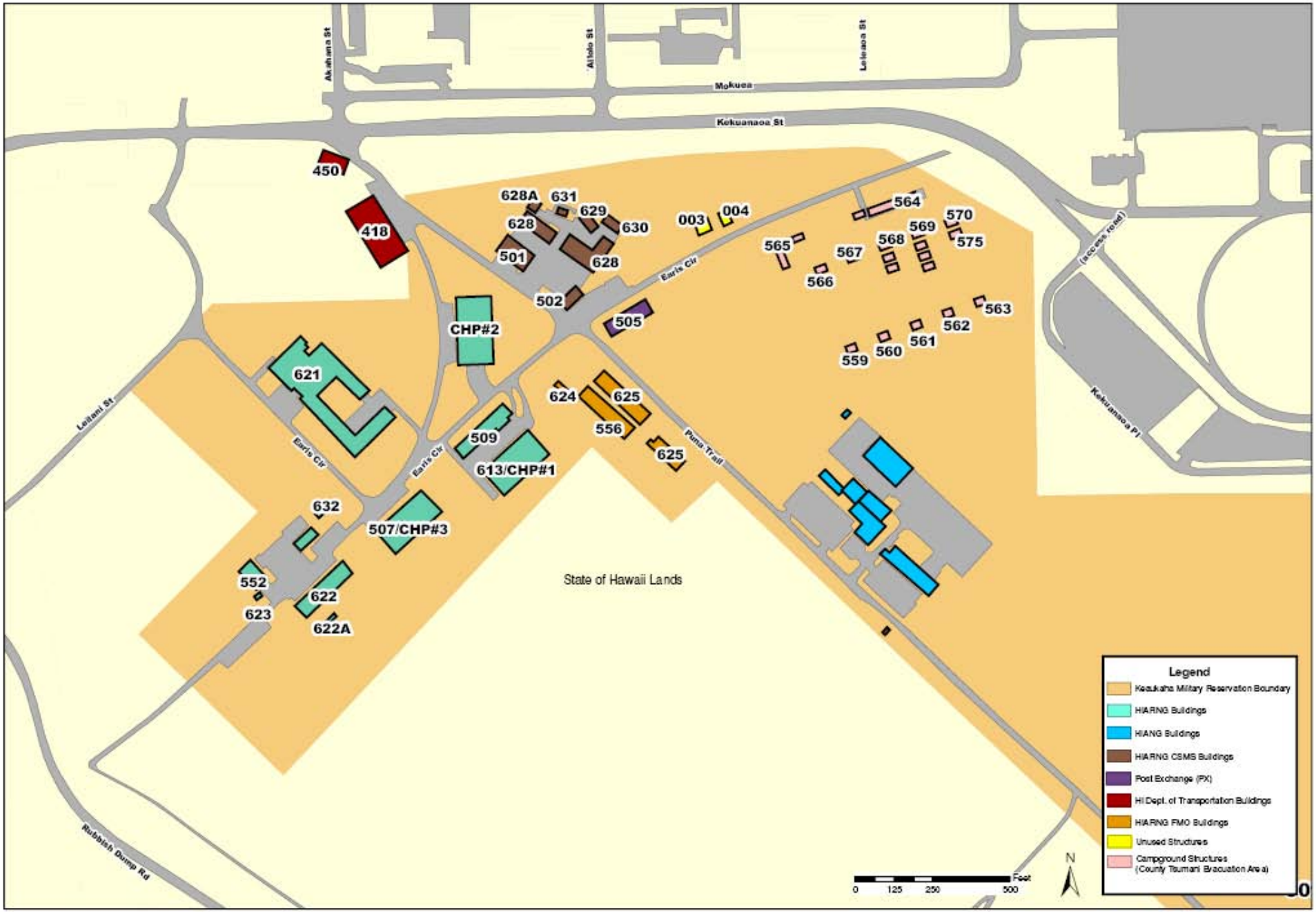
Regional Location Map

Keaukaha Military Reservation

FIGURE 1 - 1



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Current Facility Layout
Keaukaha Military Reservation

FIGURE 1 - 2

Actions (32 CFR 651); the National Guard Bureau (NGB) *NEPA Handbook* (June 2006); and *Hawaii Revised Statutes Chapter 343.*

The NEPA Lead Federal Agency is the NGB. As the Lead Federal Agency on projects for which the HIARNG is the proponent, the NGB is ultimately responsible for the environmental analysis and documentation; however, the local responsibility for NEPA document preparation falls upon the HIARNG. As the executive agent of the DoD for all matters pertaining to the Army National Guard, the NGB is responsible for reviewing the Army National Guard NEPA documents. The NGB reviews the draft and final EAs before they are made available for public review and signs the Finding of No Significant Impact (FNSI) at the conclusion of the NEPA process if no significant adverse effects are identified, or adverse effects are mitigated to less than significant. If effects cannot be mitigated to less than significant, HIARNG will publish a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS).

1.2 PURPOSE AND NEED

The **purpose** of the BRAC-related portion of the Proposed Action is to transform Reserve Component facilities in the State of Hawaii by creating an Armed Forces Reserve Center, in order to enhance military value, improve homeland defense capability, and improve training and deployment capability. Further, the Proposed Action would comply with Department of Defense *BRAC Final Report* recommendations mandating the construction of an AFRC at KMR. The AFRC would provide the proper administrative, classrooms, library, learning center, assembly hall, arms vaults, dining facility, and storage areas for the HIARNG and the U.S. Army Reserves (USAR). The Proposed Action would also provide proper facilities to maintain equipment and issue for mission training and ensure that equipment is prepared for mobilization.

The **purpose** of the non-BRAC related portions of the Proposed Action is to create an interservice partnership among DoD entities on the Island of Hawaii while supporting the individual military entities' respective missions and streamlining interoperability. The Proposed Action would provide updated facilities of adequate size to support vehicular and equipment maintenance

requirements, as well as administrative functions of the U.S. Marines, HIARNG, USAR, Hawaii Department of Defense Facilities Office, and USACE.

The **need** for the Proposed Action is to provide the HIARNG, USAR, U.S. Marines, Hawaii Department of Defense Office, and USACE with proper, up-to-date facilities, reduce redundancy, improve efficiencies and economies, and create partnerships to help reduce the impact to national funding constraints over the long-term; these up-to-date facilities are not currently available. The AFRC is also needed to establish concurrent services to streamline the missions of the reserve mobilization process, the federal and state homeland security functions, and distant learning and simulation capabilities, as these types of facilities are not currently available.

The current facilities used by the units currently located at, and those which would be transferred to KMR, are aging and deteriorated, do not meet Anti-Terrorism Force Protection (ATFP) standards, do not meet the size authorized to support the facility mission, and are not capable of supporting the facility mission, current or future.

1.3 SCOPE AND ORGANIZATION OF THE DOCUMENT

This EA considers the Proposed Action, Alternative 1, Alternative 2, and the No-Action Alternative. The Proposed Action is described in Section 2.2, and alternatives to the Proposed Action are discussed in Section 3.2.

The EA identifies, evaluates, and documents the environmental impacts of the Proposed Action and alternatives to the Proposed Action. Existing resource conditions at KMR are described in Section 4, *Affected Environment*. Along with information presented for the No-Action Alternative, these conditions constitute the baseline for analyzing potential effects of the Proposed Action. Section 4 presents baseline information on resources potentially impacted by actions proposed at KMR. Resource discussions include:

- Land Use and Visual Resources
- Air Quality
- Noise

- Geology and Soils
- Water Resources
- Biological Resources
- Cultural Resources
- Socioeconomics
- Environmental Justice
- Infrastructure and Safety
- Hazardous and Toxic Materials and Waste

The environmental impacts of the Proposed Action and Alternatives are described in Section 5.0, *Environmental Consequences*. This analysis includes *direct* impacts (those directly caused by a specific action and occurring at the same time and place); *indirect* impacts (those caused by an action but occurring later or physically disconnected, but within a reasonably foreseeable time or geographic area); and any *cumulative* effects of the Proposed Action when considered in the context of other past, present, and reasonably foreseeable future actions, regardless of whether they are federal or nonfederal. Actions/measures that could lessen identified impacts are identified where appropriate.

Section 6.0 compares and contrasts the environmental impacts of the Proposed Action and Alternatives and presents the conclusions of the analysis.

1.4 PUBLIC INVOLVEMENT

The HIARNG provides opportunities for the public to participate in the NEPA process to promote open communication and improve the decision-making process. All persons and organizations having potential interest in the Proposed Action and Alternatives – including minority, low-income, and Native American groups (including Native Hawaiians) – are encouraged to participate in the environmental analysis process. Formal opportunities to comment include a public scoping meeting to discuss the proposed action and alternatives, a 30-day period for public review of the draft EA and a second 30-day public review period for the final EA and draft FNSI.

Following internal review of this EA, the draft EA is circulated for a **30-day** public review period. A public notice is published in local newspapers to ensure

that interested persons and organizations are notified. In addition, copies of the draft EA are provided to local libraries and are mailed to individuals, organizations, Native American tribes (or Native Hawaiian groups / organizations), and government agencies if requested. Following a review of comments received during the public review period, the HIARNG determines whether the Proposed Action would have significant adverse impacts, and if significant impacts are identified, a NOI to prepare an EIS may be published in the *Federal Register*. If it is determined that significant adverse impacts would not result from the Proposed Action, the NGB and HIARNG issue and publish a draft FNSI. A public notice for the final EA and draft FNSI is published in local newspapers, and copies of the documents are provided to local libraries and interested parties. This second public notice initiates a second public review period, during which HIARNG considers any comments on the final EA and draft FNSI submitted by agencies, organizations, and members of the public. Once any public comments are considered, and if the HIARNG makes a final determination that the project will have no significant adverse impacts on the environment, the NGB will sign the FNSI and the action will be implemented.

SECTION 2
DESCRIPTION OF THE PROPOSED ACTION

This EA evaluates the Proposed Action and three alternatives, including the No-Action Alternative. The No-Action Alternative, as required by the Council on Environmental Quality (CEQ), serves as a benchmark against which project alternatives can be evaluated and is introduced in Section 3.3. This section describes the components, timing, and phasing of the Proposed Actions at Keaukaha Military Reservation (KMR).

2.1 INTRODUCTION

The HIARNG is a dual-mission organization under the control of the federal government (U.S. Department of Defense) and the State of Hawaii (Governor). Its federal mission is *to serve as an integral component of the Total Army by providing fully-manned, operationally ready, and well-equipped units that can respond to any national contingency such as war, peacekeeping missions, or nation building operations.* The HIARNG's "state mission" is to *provide a highly effective, professional, and organized force able to respond to natural or human-caused disasters, human-made crises, or the unique needs of the state and its communities*.

The Proposed Action would transform the existing KMR to function as the Keaukaha Joint Military Center (KJMC). This transformation would involve construction of an Armed Forces Reserve Center (AFRC) and infrastructure for the HIARNG and U.S. Army Reserves (USAR), on a 60-acre portion of the 506-acre State-owned parcel at KMR in Hilo, Hawaii. The new facility would accommodate units that would be transferred from ARNG Readiness Centers at Honoka'a and Kea'au as well as those already stationed at KMR. In addition, the Proposed Action would involve demolition of 18 buildings and construction of facilities for other federal entities including the U.S. Marines, U.S. Army Corps of Engineers (USACE), and Hawaii Air National Guard (ANG). Funds for construction other than the BRAC-funded AFRC must be provided by the proponent. For example, the BRAC committee excluded the construction of the Combined Support and Maintenance Shop (CSMS); therefore, the HIARNG will have to fund that project through MILCON separately from BRAC.

2.2 PROPOSED ACTION

The Proposed Action includes construction and demolition projects and associated infrastructure improvements designed to meet Anti-Terrorism Force Protection (ATFP) standards. The proposed configuration of new facilities and improvements at KMR is provided in Figure 2-1. The proposed configuration of the facilities maximizes site space by collocating similar maintenance program functions into one joint-use CSMS. The administration, classroom, billeting, and dining functions are situated to the north side of Puna Trail and all maintenance shops, work bays, unheated storage, and motor vehicle parking areas occupy the area south of the Puna Trail.

Construction projects include:

- An AFRC including an assembly hall and classroom facilities (BRAC funded, fiscal year [FY] 2008)
- A new wash area and fuel area (BRAC funded, FY 2008)
- A new Guard House and relocation of primary entrance (TBD)
- A new maintenance shop (U.S. Marine Corps, unknown)
- A new CSMS (MILCON, after 2013)
- Additions to ANG facilities (MILCON, unknown)
- A Hawaii Department of Defense facility with covered equipment storage area (State, FY 2008 request)
- A USACE field office (unknown)
- New training site facilities including barracks and dining facilities (future MILCON)
- Associated perimeter fencing, parking, and lighting (MILCON, after 2013)

Proposed demolition projects include:

- Building 3 – Family Housing (FY 2008)
- Building 4 – Family Housing (FY 2008)
- Building 501 – CSMS (Maintenance Shop) (FY 2014)
- Building 502 – CSMS (Other) (FY 2014)
- Building 505 – AAFES (FY 2014)
- Building 509 – 2/299 Infantry Supply (FY 2010)
- Building 564 – Dining Facility (FY 2014)

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Proposed Design of Facilities
Keaukaha Military Reservation

FIGURE 2 - 1

- Building 621 – ARNG Readiness Center
- Building 622 – Storage Building
- Building 623 – Separated Toilet/Shower
- Building 624 – Storage Building
- Building 625 – State Carpenter Shop
- Building 626 – Facility Office/Shop (FY 2010)
- Building 628 – CSMS (FY 2014)
- Building 629 – CSMS (FY 2014)
- Building 620 – CSMS (FY 2014)

The Proposed Action would be implemented only after applicable regulatory agencies have been consulted and required permits have been obtained; consultation and permitting through these agencies may result in changes to the mitigation measures proposed in this document. Implementing the Proposed Action would, at a minimum, involve coordination with the following agencies:

- U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act; and
- Hawaii State Historic Preservation Office pursuant to Section 106 of the National Historic Preservation Act.

The proposed activity (construction and demolition) would commence as early as January 2008 and continue through January 2015. Best Management Practices (BMPs) would be used to reduce potential impacts during construction and demolition. Such practices would include:

- Developing a worker awareness program to educate workers about best management practices and safety standards prior to the commencement of activity;
- Dust minimization practices such as regularly watering exposed soils, soil stockpiling, and soil stabilization;
- Use of equipment exhaust mufflers;
- Restricting the parking of construction-related vehicles on-site for the duration of construction;
- Covering exposed areas if not being worked within two days in the wet season and seven days in the dry season;
- Use of Stormwater Pollution Prevention BMPs;
- Seasonal and temporal restrictions on construction activities;

- Compliance with State of Hawaii noise regulations and standards and
- Compliance with County of Hawaii lighting ordinances/standards.

2.3 CONSTRUCTION PROJECTS

2.3.1 Armed Forces Reserve Center

The Proposed Action would provide a specially designed AFRC to serve the peacetime mission of the Hawaii National Guard and the USAR. The proposed AFRC would consist of approximately 128,000 square feet (sf) of permanent masonry type construction and include administrative space, classrooms, library, learning center, assembly hall, arms vault, dining facility, maintenance training areas, USAR Organizational Maintenance Shop (OMS), and storage areas. Co-tenancy of the new facility would include four ARNG units with an authorized strength of 225 personnel (HHT(-) RSTA Battalion, CO D Forward Support Company RSTA BSB(-), Company C 1-207th Aviation, and Detachment 2 Company B 3rd Battalion 140th Aviation) and four USAR units with an authorized strength of 132 personnel (portions of the 100/442 Infantry Battalion, and A Company 411th Engineer Battalion). A total of 58 part-time traditional guardsmen personnel would be transferred from the closed Readiness Centers in Honoka'a and Kea'au and occupy the new facility on training weekends. The State of Hawaii will fund within the AFRC a cost share for approximately 1,000-sf of space for the Hawaii Office of Veterans Services for administrative offices, waiting area, and storage room. Placement of the Office of Veterans Services at KMR would provide a more accessible location for outreach services to the military community. Also, the State of Hawaii will fund the State facility maintenance space.

2.3.2 Wash Area/Fuel Area

The Proposed Action would provide a 3,600-sf fueling area and a 2,250-sf wash platform access area for military vehicles in a central location at KMR to allow for shared use by the HIARNG and USAR. Oil-water separators would be installed in both areas to meet environmental regulations regarding pre-treatment of discharge water. The fuel area would contain one 10,000-gallon JP-8 fuel tank and would also provide covered parking for fuel trucks.

2.3.3 Guard House/New Primary Entrance

The primary entrance onto KMR would be shifted east from the existing entrance along the airport access road to create a more formal entrance to the Armed Forces Reserve Center. The Main Entry Control Gate would meet Department of Defense (DoD) Entry Control Point requirements (i.e. auto gate, barricade, etc.). A new 100-sf guard house could be constructed to control entry into the facility.

2.3.4 Maintenance Shop

The Proposed Action would provide the U.S. Marines a 20,000-sf Equipment and Maintenance Storage Facility at KMR, consisting of a 5,000-sf Maintenance Building/Shop, a 15,000-sf Storage Building, and 150-sf office and administration area. The proposed facility would reduce shipping and labor costs currently associated with the transferring of vehicles between bases on the island of Hawaii.

2.3.5 CSMS

The proposed CSMS would provide sustained maintenance to ARNG units in the vicinity of KMR and is authorized by National Guard Pamphlet (NG PAM) 415-12, *Army National Guard Military Construction Program Execution*, dated 23 July 2003. Construction of the CSMS would replace outdated facilities currently occupied at KMR and support the maintenance requirements of the HHT RSTA Battalion, a FSC RSTA BSB(-), C CO1207th Aviation and the Detachment 2 Company B 3rd Battalion 140th Aviation units of the HIARNG. The facility is required to maintain equipment and issue/turn-in for mission training, as well as to ensure that equipment is prepared for mobilization. The proposed approximately 60,000-sf facility would consist of approximately 56,000-sf of office and maintenance facilities; a 500-sf flammable materials facility; a 300-sf controlled waste facility; and a 3,250-sf unheated metal storage building.

2.3.6 Hawaii Department of Defense Facility

The Hawaii Department of Defense Maintenance Area supports the HIARNG with custodial services, grounds keeping, and light-duty construction and

maintenance for ranges. The Proposed Action includes construction of an approximately 8,600-sf facility to provide administration, maintenance shops, and covered parking for the State Maintenance Area. The proposed facility would also include 300-sf of space for the HIARNG Environmental Administrative offices.

2.3.7 USACE Field Office

The USACE, Honolulu Engineer District currently operates a field office for managing construction at the U.S. Army's Pohakuloa Training Area. The office is not occupied full time; USACE staff flies to the Island of Hawaii and operates out of this field office on a generally weekly basis. The Proposed Action would provide approximately 500-sf of office space and one parking space for the USACE field office at KMR. The exact location of the USACE field office has not yet been determined.

2.3.8 Training Site Facility

A training site facility is proposed to provide billeting for a battalion-sized element during training at Pohakuloa Training Area, and to house off-island soldiers during mobilization periods. Facilities authorized for the training site would be used for mobilization platform purposes. Billeting space requirements for a 292-person Battalion total approximately 136,000-sf. This total would include 80 beds in an open bay arrangement, 170 beds in one-by-one suites, 40 private rooms, two VIP/command staff suites, a lounge, and laundry facilities. Proposed dining area space within the facility totals approximately 5,600-sf for a one-story, 200-person dining hall.

2.3.9 Addition to ANG Facilities

A total of approximately 61,000-sf of offices/administrative areas, maintenance buildings/shops, storage buildings, and warehouses are authorized for the ANG; existing ANG facilities at KMR total approximately 30,000-sf. A total of approximately 31,000-sf new construction would be required to facilitate the ANG's full requirements. The Proposed Action would provide a 1-story, 31,000-sf building adjacent to the existing ANG facilities.

2.3.10 Associated Perimeter Fencing, Parking and Lighting

In 2003, the DoD issued its UFC system, including *DoD Minimum Antiterrorism Standards for Buildings,* developed to minimize the possibility of mass casualties in buildings or portions of buildings owned, leased, privatized, or otherwise occupied, managed, or controlled by or for the DoD (DoD 2003). The standards provide appropriate, implementable, and enforceable measures to establish a level of protection against terrorist attacks. Though established in 2003, these standards were applied to existing facilities starting with the Fiscal Year 2004 (FY 04) program and are mandated when any facility is proposed to undergo: major investments, conversion of use, building additions, or glazing replacement.

Old Puna Trail at KMR

In order to comply with ATFP standards, the Proposed Action would fence the entire perimeter of the approximately 60-acre compound. To meet this requirement, an additional 11,000 linear feet (lf) of fencing would be installed around the perimeter of KMR in addition to the fencing that is currently present at the facility. All fencing (both new and existing) would be upgraded to comply with Field Manual (FM) 3-19.30, *Physical Security*. Fencing of the perimeter would close off access to the portion of the Puna Trail on the main compound area and pedestrian and cyclists who currently access the Puna Trail would be redirected to Quarry Road.

Security lighting would also be installed within the compound area as part of the Proposed Action. Lighting would comply with Hawaii County ordinances restricting light levels and lights would be covered and directed downward to reduce glare and light levels in areas off KMR.

In addition, a total of approximately 112,000-sf of paved parking area would be provided to accommodate personnel at the new facilities. All additional parking areas would comply with applicable ATFP setback standards. A total of approximately 60,000-sf would provide additional parking spaces for the HIARNG. The USAR would utilize approximately 51,000-sf of the parking area and approximately 1,350-sf would be provided for the State Maintenance Office and HIARNG Environmental Office.

2.4 DEMOLITION ACTIVITIES

The current facilities at KMR are aging and deteriorating, do not meet current building codes or criteria, do not meet ATFP standards, and are not capable of supporting the facility mission. In order to provide space for the proposed new facilities, a number of old and outdated buildings at KMR would be demolished. A total of approximately 75,000-sf of building space would be demolished to accommodate the proposed new facilities at KMR. The facilities proposed for demolition are described further in Table 2-1. Because portions of the construction are to be funded in out years, the demolition will be phased to accommodate the construction schedule.

Table 2-1. Proposed Demolition Activities at KMR

Building Number	Building Name	Year Constructed	Size (square feet)
003	Family Housing	1950	1,222
004	Family Housing	1950	1,488
501	CSMS (Maintenance Shop)	1942	3,200
502	CSMS (Other)	1956	656
505	AAFES Facility	1942	4,000
509	2/299 Infantry Supply	1942	6,968
564	Dining Facility	1953	2,320
621	ARNG Facility	1955	25,123
622	Storage Building	1956	5,573
622A	Storage Buildings	1956	500
623	Separated Toilet/Shower	1942	100
624	Storage Building	1942	1,120
625	State Carpenter Shop	1949	8,000
626	Facility Office/Shop	1942	3,174
626A	Facility Office/Shop	1942	500
628	CSMS Maintenance Shop	1954	7,600
629	CSMS Maintenance Shop	1954	1,568
630	CSMS Maintenance Shop	1957	1,568
TOTAL			**74,680**

Source: HIARNG 2006a.

SECTION 3
ALTERNATIVES CONSIDERED

3.1 ALTERNATIVES DEVELOPMENT

In accordance with Army Real Property planning policy and regulations, the Hawaii Army National Guard (HIARNG) and the State Reserve Forces Facilities Board evaluated existing Active-duty, Guard and Reserve installations located on the island of Hawaii for possible joint use and expansion, including the following facilities:

- ARNG Readiness Center in Honoka'a (45 miles from the proposed location);
- ARNG Readiness Center in Kea'au (15 miles from the proposed location);
- ARNG Readiness Center in Kealakekua (120 miles from the proposed location)
- U.S. Army Reserves (USAR) Reserve Center in Kunieda (10 miles from the proposed location); and
- ARNG Army Aviation Facility in Hilo (1 mile from the proposed location).

Ultimately, the State Reserve Forces Facilities Board determined that construction of the proposed facilities at Keaukaha Military Reservation (KMR) is the most appropriate project development site. Land acquisition would be required in order to expand the other Readiness Centers considered by the Facilities Board in order to accommodate the mandated joint use facility. Further, KMR was selected as the preferred location for a joint use facility in the 2005 *Defense Final Base Realignment and Closure (BRAC) Report* recommendation to transform Readiness Centers in Hawaii.

In addition, the HIARNG hosted a Planning Charrette in October 2005 to discuss the Proposed Action at KMR. During this Planning Charrette a range of potential designs and configurations were developed for the facilities at KMR. The primary driver in developing the design configurations was meeting the needs of the ARNG and USAR in the construction of the Armed Forces Reserve Center (AFRC). Other screening criteria applied to the potential configuration alternatives included maximizing the amount of shared use space and collocating similar functions, and meeting the needs of non-BRAC funded portions of the program. Those configuration alternatives which meet the

primary purpose and need of the Proposed Action are described in Sections 3.2 and 3.3 below and are carried forward for analysis throughout this EA.

3.2 ALTERNATIVES TO THE PROPOSED ACTION

3.2.1 Alternative 1 – BRAC Funded Projects Only

This alternative organizes the BRAC funded program elements into a compact layout that locates the primary and supporting facilities in close proximity to each other (Figure 3-1). This would allow the existing facilities at KMR to continue in operation. Only the buildings located near the proposed facilities would be demolished, reducing the total amount of ground disturbance. Under implementation of this alternative the primary entrance would remain in its current location. Since the existing primary entrance to KMR does not meet Anti-Terrorism Force Protection (ATFP) standards, land acquisition would be required under implementation of this alternative in order to provide ATFP-compliant security and parking at KMR. Negotiations are currently underway with the Hawaii Department of Land and Natural Resources (DLNR) to acquire the necessary parcels. Fencing would be required around the entire site to meet ATFP standards, even if portions of the site are not reconstructed. Additional fencing would be constructed around the motor vehicle parking areas for both the HIARNG and the USAR. Under this alternative no facilities would be provided for the U.S. Army Corps of Engineers (USACE), and Hawaii Air National Guard (ANG), U.S. Marines, or State Maintenance Office.

3.2.2 Alternative 2 – Minimal Shared Facilities

Implementation of this alternative would include both the BRAC and non-BRAC funding program elements. All of the existing buildings at KMR would be demolished or relocated and newly constructed facilities would be individually located with minimal shared facilities (Figure 3-2). Under this alternative the main entrance onto KMR would be shifted east from its existing location to provide a more formal direct entrance towards the AFRC and meet ATFP standards. Implementation of this alternative would meet the primary purpose

Legend
- BRAC Funded
- Non-BRAC Funded (not used)
- Existing Buildings

Source: HIARNG 2006

amec

Alternative 1

Keaukaha Military Reservation

FIGURE 3 - 1

Legend
- BRAC Funded
- Non-BRAC Funded
- Existing Buildings

Source: HIARNG 2006

amec

Alternative 2

Keaukaha Military Reservation

FIGURE 3 - 2

and need of the Proposed Action (development of the AFRC) but would not meet the secondary screening criteria of maximizing the amount of shared space at the installation.

3.3 NO-ACTION ALTERNATIVE

An environmental analysis of a No-Action Alternative is required by the Council on Environmental Quality (CEQ) regulations to serve as a benchmark against which the Proposed Action can be evaluated. Under this alternative, the proposed projects at KMR would not be implemented and the present facilities' lack of adequate space would reduce readiness and the ability to achieve mobilization standards. Further, the buildings' maintenance programs would continually increase due to the age of the buildings. The HIARNG has determined that implementation of this alternative would not meet the required purpose and need for this project. However, because CEQ regulations stipulate that the No-Action Alternative be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented, this alternative will be carried forward for analysis in the Environmental Assessment (EA).

APPENDIX E

RESPONSE TO COMMENTS
December 7, 2006 Public Meeting

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
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15 January 2007

Ms. Cory Harden
P.O. Box 10265
Hilo, Hawaii 96721

SUBJECT: Keaukaha Military Reservation (KMR)
Construction and Demolition Projects

Dear Ms. Harden,

The Hawaii Army National Guard (HIARNG) would like to provide you with this letter to respond to specific comments you submitted at our December 7, 2006 informational meeting. Please accept this letter as a formal response to your comments.

Comment 1:
"Is the notice in the classified ads, only one day before the forum, adequate notice under environmental law? Note this is a large project $55 million, in a community with intense interest in military projects, as shown by the hundreds who attended hearings for the Stryker expansion."

Environmental laws have a public participation requirement in the environmental planning process. This requirement will be fulfilled during the 30-day public review and commenting period once the draft Environmental Assessment has been completed. A second 30-day public review and commenting period will be held once all comments have been incorporated and the final Environmental Assessment has been completed. There is no law requiring a public meeting, or dictating the amount of time that would be considered "adequate notice." The placement of the meeting announcement in the classified section was an unfortunate error on the part of the newspaper, not an effort to restrict participation. A notice was also run in the State of Hawaii Office of Environmental Quality Control monthly Environmental Notice.

Comment 2:
"Community people have no opportunity to speak to the group at the forum, though a public speaking session could have easily been added. Is this adequate representation of the community's concerns?"

HIARNG members and their representatives were available to discuss any comments or concerns of the public. It was felt that more people

would have the opportunity to learn about the project by expanding the available time over four (4) hours to accommodate varying schedules, and creating the ability to address specific concerns on a one-to-one basis. Also, as mentioned above the public will have two (2) 30-day Commenting periods to submit their questions and comments in writing to the HIARNG.

Comment 3:
"There have been several recent military-related projects - the Stryker expansion, the Saddle Road realignment, C-17s landing in Kona, and possible plans for the Super-ferry to carry Srykers. Should the environmental impacts of all these project be considered together to avoid segmentation? (looking at impacts separately, but not looking at cumulative, combined impacts)."

The fact that these are military projects does not necessarily make them directly related from a cumulative impact standpoint and that these projects are being carried out by separate services. The National Guard and Reserve troops that will be serviced by the realigned administrative site described in this proposal do not use Stryker vehicles, and supplies and equipment brought to KJMC will come through the Hilo Airport, not Kona.

Comment 4:
"On what date did planning for this project begin?"

Readiness Center Transformation recommendations made in the *November 2005 Defense* Base *Realignment and Closure (BRAC) Final Report* mandated the relocation of units from Honoka'a and Kea'au to KMR, the construction of an AFRC and a portion of the building demolition projects. Other proposed projects were identified in the Master Plan for KMR that was completed in 2004.

Comment 5:
"Will the facility be used by Stryker troops?"

KJMC is intended for the use by troops from the Readiness Center facilities in Kea'au, Honoka'a, Kuneida, and other older KMR Readiness Center. There are no plans for regular army troops to use the facility.

Comment 6:
"Will troops live at the new facility? If so how many, and how will this impact the community?

No troops will live on the base, although if billeting facilities are funded, there may be troops staying there on an infrequent basis, specifically during sanctioned training events.

Comment 7:
"Will noise increase? If so, describe the sources of noise, amount of increase, times noise will be heard, other relevant noise qualities, effects on civilians, and mitigation measures."

Construction:
Under the proposed action construction noise would exceed State of Hawaii noise guidelines. HIARNG would obtain the necessary noise permit in the event this should occur on a temporary basis. All construction equipment would be fitted with factory installed muffling devices and the best management practices would be implemented to mitigate construction noise. Construction activities would occur during normal working hours.

Operation:
The facilities proposed for development would be constructed in a noise environment dominated by air traffic activity from the adjacent Hilo Airport. Proposed facilities would be sited in areas that have noise-exposure less than 75 day-night average sound level; U.S. Department of Housing and Urban Development (HUD) considers such facilities compatible in this environment. Accordingly, operational noise produced as a result of the Proposed Action would not be significant.

There is no immediate residential development surrounding KMR. The majority of lands surrounding KMR are forest and rock quarries. Therefore, not sensitive noise receptors are located within the vicinity of KMR. Also, the noise environment for that area is dominated by air traffic activity from the adjacent Hilo Airport. Effects from construction or operation activities would not be significant.

Comment 8:
"Will native Hawaiian be disproportionately affected noise and other impacts?"

No. At this time, the Hawaiian Homelands areas immediately adjacent to KMR are not developed for residential use. Operational activities associated with the proposed project would be sited within the boundaries of the main compound area at KMR; THEREFORE, THE Proposed Action would not impede future residential development of this land. If residential properties are constructed on the Hawaiian Homelands in the future, operational activities of the KJMC would not adversely affect Native Hawaiian residents with regard to economics or health effects.

Comment 9:
"Will unexploded ordnance be cleaned up for the project?"

Any UXO discovered during the proposed project will be appropriately addressed by the UXO team in accordance with current environmental standards for clean-up and removal

Comment 10:
"For existing contamination from underground storage tanks, hazardous waste, pesticides, lead, and other toxins - describe substances, location, level of risk to soldiers and civilians, and cleanup plans."

Two areas of concern were noted in a previous assessment of the site in 1997: a former grease rack with no containment area for oil, and a former small arms range. Under the proposed plan, both of these sites would be removed and new facilities constructed if future funding becomes available. (The current BRAC funding does not cover the projects that would occur on these sites, however; they may likely occur in the future. Any required cleanup actions would be figured into those future construction costs). An Assessment would be conducted under the guidance of the State of Hawaii Department of Health to determine the extent of any contamination at each site and any remediation actions required to being completed prior to the commencement of demolition or construction activities on these sites. All fill and debris associated with this site would be characterized and disposed of according to Federal, State and local regulations.

Comment 11:
"Why is cleanup on this site, which will mainly benefit military personnel, taking priority over cleanup of other former military sites on the island, which mainly benefit civilians.?"

Funding for this project is earmarked only for planning and construction. Cleanup on this site will only be conducted as required to facilitate any demolition and construction activities described in this proposal. Cleanup of Formerly Used Defense Sites (FUDS) or areas that are being returned to civilian use is a separate environmental action process and funding source.

Comment 12:
"Identify hazardous substances that will be used during construction and operation of the facility and how they will be handled."

There is a potential for very minor releases of petroleum products, such as oil and fuel. To ensure safe handling and management of these products, construction personnel would conduct their activities in accordance with Federal and State regulations, as well as Standard HIARNG best management practices. Compliance with measures out-lined in the required Storm Water Pollution Prevention Plan would also help prevent any adverse impact.

During construction, the quantity of hazardous wastes generated from the proposed construction and demolition is anticipated to be negligible. All materials associated with demolition, construction, and site maintenance and operations (e.g., oils, fuels, paints, and solvents) would be stored in accordance with local materials storage regulations. Contractors would dispose of any hazardous waste in accordance with Federal and State laws and regulations.

Comment 13:
"Will depleted uranium or other radioactive material be used during construction or operation?"

There are different methods to determine soil compaction, the use of a nuclear gauge is one method. It is not determined at this time what method will be utilized by the contractor. In any regard, health and safety is any important issue and any equipment utilized will be used according to manufacturer and applicable Federal/State guidelines and all safety precautions will be followed. It is not anticipated these items will also be used during the operation of KJMC. The soil compaction used shall comply with all Federal, State and local environmental laws and will not present a risk to human health or the environment.

Comment 14:
"What type of training will be done?"

Activities on this site relate to performing administrative, storage and maintenance activities critical to preparing units for Federal mobilization missions and Hawai'i disaster relief operation. No live weapons fire or tactical maneuvers will be conducted on the construction site covered in this proposal. The only training related to this proposal would be in classrooms. Field training outside the administrative area will be planned and analyzed in a separate environmental document(s).

Comment 15:
"Describe any storm water permitting issues. Will there be a problem with flooding or toxins in the runoff?"

Storm water runoff generated during construction and operation of the new facilities would contain the typical pollutants found in urban runoff. Storm water runoff from new parking areas may transport some residual petroleum products to the existing drainage channels. The HIARNG would be required to comply with Standard NPDES permit conditions as specified by the Hawaii State Department of Health Clean Water Branch. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared and implanted that would ensure any of this runoff does not affect surface water, groundwater, or soils. Similarly, the SWPPP would identify all potential pollutants and provide strict procedures for minimizing the environmental damage from, any releases.

Comment 16:
"What are the plans for Kea'au and Honoka'a armories?" Will any hazardous materials remain there?"

The closed Readiness Center in Honoka'a has been transferred to Honoka'a High School for use as a gymnasium and the Readiness Center in Kea'au is used by the Hawai`i Department of Defense About Face Program. Honoka'a underwent an Environmental Baseline Survey (EBS)

prior to transfer, no environmental concerns were found. An EBS will be conducted at the Kea'au as soon as practical for transfer to the State of Hawai`i Department of Defense.

Comment 17:
"How will access to the Puna Trail be affected?"

Fencing of the perimeter would close off access to the portion of the Puna Trail on the main compound area and pedestrian and cyclists who currently access the Puna Trail would be redirected to the Quarry Road. Scoping efforts for this proposal have found little use of this section of trail currently, probably due to lack of continuity because sections of the trail off of KMR are unusable due to the overgrowth of vegetation.

Comment 18:
"How will traffic be affected? Will there be convoys?"

Best management practices would be implemented which would include construction traffic traveling at non-peak traffic hours and keeping construction vehicles on-site for the duration of construction would reduce impacts to less that significant levels. Additional guardsmen on site would be traveling to KMR during non-peak hours and would have less than significant effects on traffic volumes in the City of Hilo. In addition, no Metropolitan transportation plan exists for the City of Hilo; therefore implementation of the Proposed Action would not conflict with any existing transportation plans or guidelines. In addition, implementation of the Proposed Action would construct additional parking spaces to accommodate existing and additional personnel.

Comment 19:
"Why is $4.4 million in State money going into this Federal Project?"

The State of Hawaii will fund with the proposed Armed Forces Reserve Center a cost share for approximately 1,000-square feet of space for the Hawaii Office of Veterans Services for administrative offices, waiting area, and storage room. Also not funded by BRAC are State DoD Maintenance offices and HIARNG Environmental offices, although these functions logically fit into the AFRC.

The $4.4 million shown in the State Budget at this time is the Governor's authorization to spend Federal design funds. Additional Federal funds for construction and the state required matching funds will come in FY 2008.

Thank you for your comments. If there are additional question, please contact Russell Okoji at AMEC Earth and Environmental at (808) 391-9906 or via email at *russell.okoji@amec.com*; or Karl Buermeyer at HIARNG, (808)672-1265 or via email at *karl.buermeyer@us.army.mil*.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
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DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
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HONOLULU, HAWAII 96816-4495

15 January 2007

Mr. Steven Hurt
17-124 Palaai Street
Kea'au, Hawaii 96749

SUBJECT: Keaukaha Military Reservation (KMR)
Construction and Demolition Projects

Dear Mr. Hurt,

The Hawaii Army National Guard (HIARNG), would like to provide you with this letter to respond to specific comments received at the public meeting held on December 7, 2006. Please accept this letter as a formal response to your comments.

Comment 1:
"The primary entrance of all alternatives presented diagonally intersects Kekuanaoa Street. From a traffic safety and vehicular flow perspective, this is not a good situation. Ideally, the primary entrance should intersect Kekuanaoa Street at a right angle, and preferably directly aligned with either Akahana or Ailolo Streets. This orientation would more easily accommodate traffic signalization when future increases in traffic on Keakuanaoa Street dictate. When the present airport terminal was built, an airport subdivision was created for government and private businesses, who functions would relate to airport useage. Thus, the airport fire station, control tower, maintenance facility and U.S. Post Office are located in the subdivision. Recently, United Parcel Service established a facility also. Our understanding is that there will be further build-out within the subdivision. Federal Express, U.S, Customs Service, U.S. Department of Agriculture and State Department of Agriculture will be moving into the subdivision in the near future.

In addition, the State Airports Division is committed to expanding the terminal parking area, due to rising volume of vehicular demands caused by increased air traffic."

Thank-you for bringing up the safety issue associated with the entrance to the facility. It will be considered in the design assessment phase of the project. Cumulative effects of this project along with the proposed Mana Industrial Park are analyzed in Section 5.14 of the EA, Cumulative Effects, and will also be addressed in the

Environmental Impact Statement being prepared for the Mana Industrial Park.

Comment 2:
"The presence of an unexploded ordnance (UXO) area is undesirable at the very least. Here safety again is a primary issue. He existing billeting area is very close, if not within the out-lined UXO area. Our understanding is that the existing billeting area is to used to temporarily house the general public in the event there is an emergency evacuation of the near shore areas located across the airport. This scenario would not change in the "no action" alternative. The UXO area would also present a hazard to construction personnel during demolition and construction of facilities in the two alternative action scenarios. It would also be incompatible with the eventual state use of the KJMC, which is essentially for administrative training, transit personnel, and commercial and maintenance functions. The area should be surveyed before demolition, and if there is UXO present, the UXO should be eliminated."

The actual area of UXO shown in the conceptual drawing in the Description of Proposed Action and Alternatives has since been plotted in the Geographic Information Systems (GIS), and is significantly much less extensive than implied in the drawings. If construction is funded adjacent to this area in the future, further assessment will be conducted as necessary to make the area safe.

Thank-you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth and Environmental at (808) 391-9906 or via email Russell.okoji@amec.com; or Karl Buermeyer at HIARNG (808) 672-1265 or via email karl.buermeyer@us.army.mil.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
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15 January 2007

Mr. Jim Albertini
Box AB
Kurtistown, Hawaii 96760

SUBJECT: Keaukaha Military Reservation (KMR)
Construction and Demolition Projects

Dear Mr. Albertini,

The Hawaii Army National Guard (HIARNG) would like to provide you with this letter to respond to specific comments received at the public meeting held on December 7, 2006. Please accept this letter as a formal response to your comments.

Comment:
"Notice was inadequate and likely illegal. Don't privatize (militarize) the Puna Trail. "Demilitarize Hawaii."

The placement of the meeting announcement in the classified section was an unfortunate error on the part of the newspaper, not an effort to restrict the public's participation. An announcement was also run in the Environmental Notice. Environmental laws have a public participation requirement in the environmental planning process. This requirement will be fulfilled during the 30-day public review and commenting period once the draft Environmental Assessment has been completed. A second 30-day public review and commenting period will be held once all comments have been incorporated and the final Environmental Assessment has been completed. Extra effort will be expended to ensure that newspaper announcements are better placed upcoming review periods.

Access to the Puna Trail would be altered by restricting through travel in the developed section, although most of its length would still be accessible from the Quarry Road.

Thank you for your comments. If there are additional question, please contact Russell Okoji at AMEC Earth and Environmental at (808) 391-9906 or via email at *russell.okoji@amec.com*; or Karl Buermeyer at HIARNG, (808)672-1265 or via email at *karl.buermeyer@us.army.mil*.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
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15 January 2007

Ms. Linda Larish
P.O. Box 1337
Kea'au, Hawaii

SUBJECT: Keaukaha Military Reservation (KMR)
Construction and Demolition Projects

Dear Ms. Larish,

The Hawaii Army National Guard (HIARNG), would like to provide you with this letter to respond to specific comments received at the public meeting held on December 7, 2006. Please accept this letter as a formal response to your comment.

Comment:
"I am concerned about increased air traffic over Bayfront. Also, large traffic problem at the intersection to Airport Road. You cannot exit and enter at the point?"

Air traffic may increase sporadically during the construction phase as materials are brought in. Operational air traffic is anticipated to remain the same. Best management practices would implemented which would include construction traffic traveling at non-peak traffic hours and keeping construction vehicles on-site for the duration of construction would reduce impacts to less than significant levels. Additional guardsmen on sit would be traveling to KMR during non-peak hours and would have less than significant effects on traffic volumes in the City of Hilo. In addition, no metropolitan transportation plan exists for the City of Hilo; therefore, implementation of the Proposed Action would not conflict with any existing transportation plans or guidelines.

Thank-you for your comments. If there are additional questions, please contact Russell Okoji, at AMEC Earth and Environmental at (808) 391-9906 or via email russell.okoji@amec.com; or Karl Buermeyer at HIARNG (808) 672-1265 or via email at karl.buermeyer@us.army.mil.

Sincerely,

MARJEAN STUBBERT
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15 January 2007

Mr. Lee Bowden
1911 Kalanianaole Street
Hilo, Hawaii 96760

SUBJECT: Keaukaha Military Reservation (KMR)
Construction and Demolition Projects

Dear Mr. Bowden,

The Hawaii Army National Guard (HIARNG) would like to provide you with this letter to respond to specific comments received at the public meeting held on December 7, 2006. Please accept this letter as a formal response to your comments.

Comment:
"Considering the unique lava substrate that is the 'soil' of this area, it is important that the Environmental Impact Statement (EIS) be thorough and the military remains a 'good neighbor'."

The Army endeavors to be a good neighbor and is responsible, as a federal agency, to comply with all environmental regulations. The Environmental Assessment (EA) will cover all required aspects of environmental resources that may be affected, including the soils and lava substrate.

Thank-you for your comments. If there are additional questions, please contact Russell Okoji, at AMEC Earth and Environmental at (808) 391-9906 or via email at russel.okoji@amec.com; or Karl Buermeyer at HIARNG (808) 672-1265 or via email at karl.buermeyer@us.army.mil.

Sincerely,

MARJEAN STUBBERT
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OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

15 January 2007

Mr. Peter Sur
P.O. Box 767
Hilo, Hawaii 96721

SUBJECT: Keaukaha Military Reservation (KMR)
Construction and Demolition Projects

Dear Mr. Sur,

The Hawaii Army National Guard (HIARNG) would like to provide you with this letter to respond to specific comments received at the public meeting held on December 7, 2006. Please accept this letter as a formal response to your comments.

Comment:
"What effect will the removal of the campground structures have on the county and state tsunami readiness plans?"

The cantonment area of KMR is currently identified as a City/County Tsunami Evacuation Area. Design of the new site will be coordinated with County Civil Defense so that the site can continue to function as a safe haven for evacuees, and so that any necessary adjustment can be made to evacuation plans.

Thank-you for your comment. If there are additional questions, please contact Russell Okoji, at AMEC Earth and Environmental at (808) 391-9906 or via email at russell.okoji@amec.com; or Karl Buermeyer at HIARNG, (808)672-1265 or via email at karl.buermeyer@us.army.mil.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

APPENDIX F

RESPONSE TO COMMENTS
Public Review Period
March 23 – April 23, 2007

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Gordon Helt
Hawaii District Land Office
Department of Land and Natural Resources
75 Aupuni Street, Room 204
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Helt,

The Hawaii Army National Guard (HIARNG) is providing you this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment 1:
"Will the roadway access to and from KMR be via Leilani Street or only via the Airport Road (Kekuanaoa Avenue)?"

The Proposed Action design is to have the primary entrance and exit for KMR on Airport Access Road.

Comment 2:
"If it is intended that the roadway access to and from the KMR include Leilani Street, a traffic impact analysis report (TIAR) should be provided."

If an alternative design is selected that would place the entrance and exit for KMR on Leilani Street, a traffic impact analysis will be conducted and the TIAR will be provided.

Comment 3:
"DLNR is seeking to development the proposed 150-acre Mana Industrial Park, which contemplates the construction of a Leilani Street extension that will provide access to the industrial park, as well as to various lands beyond the industrial park (e.g., County drag strip, sort station, etc.). It has always been the intent that the Leilani Street extension and possibly other required roadway improvements will be jointly constructed and/or funded by the State, county and other private entities that will utilize the roadway improvement(s)."

If the alternative design is selected that utilizes Leilani Street, the HIARNG will investigate the feasibility of joint funding and construction. Thank you for this information.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Harry Kim
Mayor

Darryl J. Oliveira
Fire Chief

Glen P.I. Honda
Deputy Fire Chief

County of Hawai'i
HAWAI`I FIRE DEPARTMENT
25 Aupuni Street • Suite 103 • Hilo, Hawai'i 96720
(808) 981-8394• Fax (808) 981-2037

April 5, 2007

Mr. Russell Okoji, Ph.D
AMEC Earth & Environmental, Inc.
3375 Koapaka Street
Suite F-251
Honolulu, Hawaii 96819

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
PROJECT: KEAUKAHA MILITARY RESERVATION
HILO, HAWAII

In regards to the above-mentioned draft environmental assessment, the following shall be in accordance:

Fire apparatus access roads shall be in accordance with UFC Section 10.207:

"**Fire Apparatus Access Roads**

"**Sec. 10.207.** (a) **General.** Fire apparatus access roads shall be provided and maintained in accordance with the provisions of this section.

"(b) **Where Required.** Fire apparatus access roads shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access as measured by an unobstructed route around the exterior of the building.

"**EXCEPTIONS:** 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of this section may be modified.

"2. When access roadways cannot be installed due to topography, waterways, nonnegotiable grades or other similar conditions, the chief may require additional fire protection as specified in Section 10.301 (b).

> "3. When there are not more than two Group R, Division 3 or Group M Occupancies, the requirements of this section may be modified, provided, in the opinion of the chief, fire-fighting or rescue operations would not be impaired.

"More than one fire apparatus road may be required when it is determined by the chief that access by a single road may be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

"For high-piled combustible storage, see Section 81.109.

"(c) **Width.** The unobstructed width of a fire apparatus access road shall meet the requirements of the appropriate county jurisdiction.

"(d) **Vertical Clearance.** Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

> "**EXCEPTION:** Upon approval vertical clearance may be reduced, provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance.

"(e) **Permissible Modifications.** Vertical clearances or widths required by this section may be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

"(f) **Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities." (20 tons)

"(g) **Turning Radius.** The turning radius of a fire apparatus access road shall be as approved by the chief." (45 feet)

"(h) **Turnarounds.** All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus.

"(i) **Bridges.** When a bridge is required to be used as access under this section, it shall be constructed and maintained in accordance with the applicable sections of the Building Code and using designed live loading sufficient to carry the imposed loads of fire apparatus.

"(j) **Grade.** The gradient for a fire apparatus access road shall not exceed the maximum approved by the chief." (15%)

"(k) **Obstruction.** The required width of any fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under this section shall be maintained at all times.

"(l) **Signs.** When required by the fire chief, approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both."

Water supply shall be in accordance with UFC Section 10.301(c):

"(c) **Water Supply.** An approved water supply capable of supplying required fire flow for fire protection shall be provided to all premises upon which buildings or portions of buildings are hereafter constructed, in accordance with the respective county water requirements. There shall be provided, when required by the chief, on-site fire hydrants and mains capable of supplying the required fire flow.

"Water supply may consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

"The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be protected as set forth by the respective county water requirements. All hydrants shall be accessible to the fire department apparatus by roadways meeting the requirements of Section 10.207.

DARRYL OLIVEIRA
Fire Chief

PBE:lpc

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Fire Chief Darryl Oliveira
County of Hawaii
Hawaii Fire Department
25 Aupuni Street, Suite 103
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Fire Chief Oliveira,

The Hawaii Army National Guard (HIARNG) is providing this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Your comments regarding fire apparatus access roads and water supply will be forwarded on to designers involved with planning of the facilities.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Ms. Genevieve Salmonson
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Ms. Salmonson,

The Hawaii Army National Guard (HIARNG) is providing this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment:
"Please provide your findings and reasons for supporting the finding of no significant impact based on the criteria listed in section 11-200-12 of Hawaii Administrative Rules."

In accordance with Hawaii Revised Statute, Title 11, Department of Health, Chapter 200, Section 12, potential impacts of the proposed project have been reviewed. The following is a summary of the criteria discussed in the statute and will be included in the Final EA.

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The proposed project is not anticipated to impact known or significant natural or cultural resource. There is little potential for encountering such resources as the Site is currently developed, and the proposed project calls for new construction activities that will take place in locations that were previously developed. Additionally, in order to comply

with ATFP standards, the Proposed Action would fence the entire perimeter of the approximately 60-acre compound. Fencing of the perimeter will restrict access to a portion of the Puna Trail (currently paved and previously developed) on the main compound area. Pedestrian and cyclists who currently access the Puna Trail would be redirected to Quarry Road. Pedestrian and bicycle access across the pipe gate off of Quarry Road will remain unchanged.

(2) Curtails the range of beneficial uses of the environment;

Implementation of the Proposed Action would be consistent with current zoning designated by the County of Hawaii General Plan and Zoning Code. The transformation of KMR into the KJMC would be consistent with the land's current zoning designation as agriculture and current land use would be unchanged. The proposed plan also involved consolidation of several armory facilities. This ensures a better range and use of land resources. All lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and off-site views of Mauna Loa. No adverse impacts with regard to surrounding land uses would occur as a result of the Proposed Action.

(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed project is not reasonably anticipated to conflict with the state's long-term environmental policies or goals and guidelines as expressed HRS Chapter 344, any court decisions, or executive orders.

(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

The proposed project is not anticipated to substantially affect economic welfare, social welfare, or cultural practices of the community or State.

(5) Substantially affects public health;

The proposed project is not reasonably anticipated to substantially affect public health.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

The proposed project is not anticipated to involve any substantial secondary impacts. Units from two currently operating Readiness Centers would move their operations from these facilities to the new AFRC. However, there would be no increase in permanent employment and no associated increase in the demand for housing, schools, and recreation facilities within the City of Hilo since both Readiness Centers are within commuting distance of KMR.

The Proposed Action would involve no additional police or fire protection. Population changes or effects on public facilities would be very minimal.

(7) Involves a substantial degradation of environmental quality;

The proposed project is not anticipated to substantially degrade overall environmental quality. Minimal disruption to the Site environment is anticipated as the proposed project calls for some demolition and construction. Compliance with all local, state, federal rules, and regulations should mitigate and minimize any temporary impacts to the area.

(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The proposed project is not anticipated to have a considerable effect upon the environment or involve a commitment for larger actions. Minimal disruption to the Site environment is anticipated as the proposed project calls for some demolition and construction.

(9) *Substantially affects a rare, threatened, or endangered species, or its habitat;*

The Hawaiian Hawk and hoary bat have both been observed in the main compound area at KMR where the Proposed Action would occur. Construction activities may temporarily impact these species due to increased noise and human presence. However, no nests have been observed in this area; therefore, hawks observed are considered to be transients and not residents of the main compound area. Consultation with the USFWS confirmed that there is little to no potential for implementation of the Proposed Action to significantly impact the Hawaiian Hawk or hoary bat. Impacts to threatened and endangered species would be temporary and not reasonably expected to impact either species or its habitat.

(10) *Detrimentally affects air or water quality or ambient noise levels;*

The proposed project is not anticipated to detrimentally impact any air or water quality or ambient noise levels. During the proposed project, these parameters are anticipated to increase some but will be closely monitored. Any exceedances in local, state, or federal rules or regulations will be mitigated to minimize any possible adverse impact.

(11) *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;*

The proposed project is not anticipated to impact any natural or cultural resource. There is little potential for encountering such resources as the Site is currently developed, and the proposed project calls for renovation of the existing structure. The Site does not fall within any designated floodplains or tsunami evacuation zones. No wetlands exist on KMR; therefore, no wetlands would be impacted by the Proposed Action.

(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; or,

The proposed project is not anticipated to impact any scenic vistas or viewplanes. Coastal view planes will not be impacted by the Site. As mentioned previously, all lighting would be designed to conform to Hawaii County lighting ordinances to reduce glare and not significantly impact off-site views of Mauna Loa.

(13) Requires substantial energy consumption.

The proposed project is not anticipated to require substantial energy consumption. Electricity, potable water, natural gas, and telecommunication utilities currently serving the City of Hilo would continue to serve KMR. The septic tank system installed in spring 2006 at KMR has available capacity to handle the increase in waste stream which would potentially result from the increase of 58 guardsmen on training weekends. Further, additional septic tanks would be installed as new facilities are constructed or increased septic tank capacity is required.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Harry Kim
Mayor

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-3043
(808) 961-8288 • FAX (808) 961-8742

April 20, 2007

Mr. Russell Okoji, Ph.D.
Senior Toxicologist
AMEC Earth & Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu HI 96819

Dear Mr. Okoji:

Draft Environmental Assessment
Subject: Keaukaha Military Reservation
Tax Map Key: 2-1-12:131 & Por. of 3

In response to the above referenced document submitted for our review, we have the following to offer:

1. **Tax Map Key Number:**

   The tax map key numbers for the project area are noted above.

2. **Land Use:**

   a. County Zoning: Agricultural (A-5a)
   b. State Land Use Designation: Agricultural
   c. General Plan Land Use Pattern Allocation Guide Map: Industrial and Important Agricultural Lands.
   d. Special Management Area (SMA): Not in the SMA.

3. **Permits Required:**

   a. The Hawaii County Code, Chapter 25, Zoning, Section 25-4-11(c) states that *"Public uses, structures and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for*

such use." According to Section 25-1-5(b), *"Public use, public building and pubic structure means a use conducted by or a structure or building owned or managed by the federal government, the State of Hawaii or the County to fulfill a governmental function, activity or service for public benefit and in accordance with public policy.*

b. Consolidation of the two parcels will be required if any proposed structures do not meet the minimum twenty (20) feet side yard setbacks.

4. **Puna Trail:**

Since pedestrian and cyclists would not be able to access the Puna Trail on the main compound area, the *"Proposed Design of Facilities", Figure 2-1*, should include the location of the realignment to "Quarry Road".

There is no road officially recognized as "Quarry Road". There is a Rubbish Dump Road/Amunition Road as well as an Ordinance Lane that leads to several quarries. Residential and commercial waste haulers as well as waste transfer trucks and haulers utilize this road. Bicycle and pedestrian use will require walkways/bikeways to allow for a safe connection to the Puna Trail.

5. **Demolition:**

Construction and debris recycling should be included in this project.

We appreciate the opportunity to review the draft Environmental Assessment.

If you have questions, please feel free to contact Esther Imamura of our Department at 961-8288, extension 257.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

ETI

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LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Chris Yuen
Planning Director
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Yuen,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment 1:
"Consolidation of the two parcels will be required if any proposed structures do not meet the minimum twenty (20) feet side yard setbacks."

We will forward this comment on to the planners.

Comment 2:
"Since pedestrian and cyclists would not be able to access the Puna Trail on the main compound area, the "Proposed Design of Facilities", Figure 2-1, should include the location of the realignment to Quarry Road.

There is no road officially recognized as "Quarry Road". There is a Rubbish Dump Road/Amunition Road as well as an Ordinance Lane that leads to several quarries. Residential and commercial waste haulers as well as waste transfer trucks and haulers utilize this road. Bicycle and pedestrian use will require walkways/bikeways to allow for a safe connection to the Puna Trail."

Figure 2-1 will be modified to reflect the location of the realignment to Quarry Road.

"Quarry Road" references to Rubbish Dump Road. The name will be changed within the EA to reflect this. Also, state funds will be

allocated for the improvement related to bike or walking paths on the access to Quarry Road.

Comment 3:
"Construction and debris recycling should be included in this project."

We will endeavor to use our best conservation and environmental practices toincorporate construction and debris recycling in this project. This comment will be forwarded to the design and construction team.

Thank you for the rest of your comments. We have made note of them. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Cory (Martha) Harden

From: "Jim Albertini" <ja@interpac.net>
To: "Cory (Martha) Harden" <mh@interpac.net>; "Chris Yuen" <cyuen@co.hawaii.hi.us>
Cc: "Faye Hanohano" <rephanohano@capitol.hawaii.gov>; "Dwight Takamine" <reptakamine@capitol.hawaii.gov>; "Bob Herkes" <repherkes@capitol.hawaii.gov>; "Clifton Tsuji" <reptsuji@capitol.hawaii.gov>; "Cindy Evans" <repevans@capitol.hawaii.gov>; "Jerry Chang" <repchang@capitol.hawaii.gov>; "Russell S. Kokubun" <senkokubun@capitol.hawaii.gov>; "Lorraine Inouye" <seninouye@capitol.hawaii.gov>; "Josh Green" <joshuaboothgreen@yahoo.com>; "j Yoshimoto" <jyoshimoto@co.hawaii.hi.us>; "Brenda Ford" <bford@co.hawaii.hi.us>; "Emily Naeole" <enaeole@co.hawaii.hi.us>; "Dominic Yagong" <dyagong@co.hawaii.hi.us>; "Harry Kim" <cohmayor@co.hawaii.hi.us>; "Bob Jacobson" <jjaco@co.hawaii.hi.us>; "Angel Pilago" <kapilago@co.hawaii.hi.us>; "Donald Ikeda" <dikeda@co.hawaii.hi.us>; "Pete Hoffmann" <phoffmann@co.hawaii.hi.us>; "Stacy K. Higa" <shiga@co.hawaii.hi.us>; "Andy Levin" <alevin@co.hawaii.hi.us>; "Janet Snyder" <jsnyder@co.hawaii.hi.us>; "Barbara Bell" <bbell@co.hawaii.hi.us>; "Nelson Ho" <nho@co.hawaii.hi.us>; "Chris Yuen" <cyuen@co.hawaii.hi.us>; "Charmaine Shigemura" <cshigemura@co.hawaii.hi.us>; "Mazie Hirono" <Mazie.Hirono@mail.house.gov>; "Daniel Akaka" <senator@akaka.senate.gov>; "Daniel Inouye" <senator@inouye.senate.gov>; "Neil Abercrombie" <neil.abercrombie@mail.house.gov>
Sent: Wednesday, April 18, 2007 11:26 AM
Subject: Comments for Keaukaha Military Reervation Draft Environmental Assessment

Comments for Keaukaha Military Reservation, Hilo, Hawaii Draft Environmental Assessment.

I believe a full Environmental Impact Statement is warranted based on the size, dollar spending and impacts of this project. AMEC, the preparer of the Keaukaha EA, is the same company that did the plan to cover up high levels of arsenic at a site on Shipman land in Keaau where a hotel is due to be built.

Issues of concern:
1. Housing for 300 troops is no small matter. Why is this being built? How was the number decided upon?
Does this site have the potential to be utilized for a Homeland Security detention facility?
Are there contingency plans to utilize the facility for such purposes?
2. There should be a full clean up of all unexploded ordnance not only at this site but all the present and former military sites on the island. I am aware of at least 57 former military sites on Hawaii island in need of clean up yet there is always funds for military expansion, but never enough funds for clean up. CLEAN UP NOT BUILD UP is what's needed. Possible impacts to the Hilo aquafir need to be addressed.
3. Cumulative military impacts need to be addressed in a full EIS. Recently there has been a 24,000 acre military expansion at Pohakuloa, C-17s landing at Kona, Saddle Rd military impact, helicopters being added to Stryker Brigade after the fact. Now Keaukaha military expansion.
4. Illegal Taking of the Puna trail --public right of way under the 1892 Highways Act of the Kingdom. This trail needs to be preserved in full. It is an important, though currently underutilized, resource for residents and visitors alike.
5. Economic justice issues: Keaukaha military reservation is next to Hawaiian Home lands. So is the airport, dump, fuel storage, sewage plant, chemical plants, etc. Why do the Hawaiians always get the burden?
Address the illegal U.S. occupation of Hawaii continuing since the U.S. Marines assisted U.S. business interests in the illegal overthrow of the lawful government of the nation of Hawaii in 1893. No treaty of annexation of Hawaii was ever ratified by a 2/3 vote of the U..S. Senate, therefore Hawaii never formally became a territory of the U.S., nor a state. Therefore the U.S., and the State of Hawaii, have no legal jurisdiction in Hawaii to have any military installations.

We need a process to de-militarize Hawaii and restore the independent nation of Hawaii whose sovereignty was never extinguished by more than 100 years of U.S. occupation. Enough already.

April 18, 2007

Jim Albertini
Malu `Aina Center For Non-violent Education & Action
P.O. Box AB
`Ola`a (Kurtistown), Hawaii 96760
Phone 808-966-7622
email ja@interpac.net
www.malu-aina.org

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Jim Albertini
P.O. Box AB
Kurtistown, Hawaii 96760

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Albertini,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment 1:
"Housing for 300 troops is no small matter. Why is this being built? How was the number decided upon? Does this site have the potential to be utilized for a Homeland Security detention facility? Are there contingency plans to utilize the facility for such purposes?"

The number of full-time staff will be increased from 56 to 97 and are mainly administrative personnel. The part-time personnel will be increasing from 285 to 455 and consists mainly of reservists. No troops will live on the base, although if billeting facilities are funded, there may be troops staying there on an infrequent short-term basis, specifically during sanctioned military training events.

There are no plans for the site to have the potential to be utilized for a Homeland Security detention facility. As such, no contingency plans currently exist to utilize the facility for that purpose.

Comment 2:
"There should be a full cleanup of all unexploded ordnance not only at this site but all the present and former military sites on the island. I am aware of at least 57 former military sites on Hawaii island in need of clean up yet there is always funds for military expansion, but never enough funds for clean up. CLEAN UP NOT BUILD UP is what's needed. Possible impacts to the Hilo aquifer need to be addressed."

UXO:
Funding for this project is earmarked for planning and construction. Clean-up on this site will be conducted as required to facilitate demolition and construction activities described in the EA. Any UXO discovered during the proposed project will be appropriately addressed

by the UXO team in accordance with current federal and state environmental standards for clean-up and removal.

Clean-up of Formerly Used Defense Sites (FUDS) or areas that are being returned to civilian use is a separate environmental action process and funding source overseen by the Army Corp of Engineers as the federal executive agent.

Hilo Aquifer:
KMR is located atop the Northeast Mauna Loa aquifer in Hawaii County. It is below the UIC line and is not a potential drinking water source. The aquifer is on the boundary of the Hilo and Kea'au aquifer systems. Depth to groundwater is approximately 4 feet below ground surface at KMR; thus, the potential exists for groundwater to be encountered during construction excavation activities. As such, a site-specific evaluation of the current and potential groundwater conditions at the project site is recommended and results incorporated into the project design. Additionally, to reduce potential exposure of groundwater to contamination, the HIARNG would require the contractor to observe the exposed soil for visual evidence and/or petroleum odors during excavation activities. If potential contamination is observed during construction, the contractor would comply with all local, state, and federal requirements for the Clean Water and Safe Water Drinking Acts.

Comment 3:
"Cumulative military impacts need to be addressed in a full EIS. Recently there has been a 24,000 acre military expansion at Pohakuloa, C-17s landing at Kona, Saddle Rd military impact, helicopters being added to Stryker Brigade after the fact. Now Keaukaha military expansion."

The fact that these are military projects do not make them directly related from a cumulative impact standpoint to this project. The National Guard and Reserve troops that will be serviced by the realigned administrative site described in the EA do not use Stryker vehicles, and supplies and equipment brought to KJMC will come through Hilo Airport, not Kona.

Comment 4:
"Illegal taking of the Puna Trail - public right of way under the 1892 Highways Act of the Kingdom. This trail needs to be preserved in full. It is an important, though currently underutilized, resource for residents and visitors alike."

The 1892 Highways Act of the Kingdom, which is addressed in Hawaii Revised Statutes 264, indicates that the land is under the jurisdiction of the state. As an established state trail it will remain under state jurisdiction and continue until lawfully disposed of pursuant to Hawaii Revised Statute Chapter 171.

Comment 5:
"Economic justice issues: Keaukaha military reservation is next to Hawaiian Home lands. So is the airport, dump fuel storage, sewage plant, chemical plants, etc. Why do the Hawaiians always get the burden?"

It is not the intent or purpose of this project to adversely impact the Hawaiian Home Lands or unfairly distribute any potential impacts to one location or one population over another. KMR is a currently existing facility adjacent to Hawaiian Home lands.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Cory (Martha) Harden

From: "Lynn Nakkim" <nt22@msn.com>
To: <mh@interpac.net>
Cc: <mmbaughman@charter.net>; <alicia@aliciabaylaurel.com>; <PortraitApple@yahoo.com>; <editor@hawaiiislandjournal.com>; <jacobs@hgea.net>; <dbgomes@hawaii.rr.com>; <JWalkerESQ@aol.com>; <hawaiikoa@yahoo.com>; <joshuaboothgreen@yahoo.com>; <HWiig@dbedt.hawaii.gov>; <ja@interpac.net>; <essentialhealth@webtv.net>; "Sherri Miller" <shermiller@gmail.com>
Sent: Friday, April 13, 2007 7:37 PM
Subject: Brown Tree Snake watch for 28 years, or fancier military barracks at Hilo Airport? Easy call.

Oddly , this issue comes up just as we learn that the government is think ing of cutting off the 2.4 million annual budget for watching out for the brown tree snake at the departure point ffrom Guam. If that snake gets here, Hawaii will lose its endangered birds, and its regular birds, and there will be no sounds of birds in our jungles. Isnt it more important to keep Hawaii's iarreplaceable birdlife than to beef up the military facilities at Hilo Airport? Looks like the same amount of money could keep watch for the brown treee snake for another 28 years. That gets my vote. Lynn Nakkim, HILO

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Ms. Lynn Nakkim
nt22@msn.com
Hilo, Hawaii

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Ms. Nakkim,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects. Your concern regarding the brown tree snake is understandable as it is a real threat to our fragile ecosystem. However, this reptile and its known habitat is not known to be reasonably applicable to the KMR Construction and Demolition Projects at this point in time.

Thank you for your comment. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Cory (Martha) Harden

From: "Lee Bowden" <leebowden@hawaii.rr.com>
To: "Cory (Martha) Harden" <mh@interpac.net>
Sent: Tuesday, April 17, 2007 3:19 PM
Subject: Re: please comment by April 18 on Hilo National Guard renovation

Comments from Lee Bowden;

I attended the "public" meeting near the Hilo airport and I felt there was little genuine effort on the part of the military to truly include the community's concerns in their evaluation of the proposed project. Much of what I experienced that evening felt like the military considered it all as a "done deal".

Only because we had brought along a public address unit was there an opportunity for people to speak. While the military offered to videotape individual interviews, or transcribe them with stenographers,this did not allow community members to hear each other's concerns and to have some response from the military.

There are a multitude of serious questions that I have about the overall impact of a $56.6 million, seven year project on: the land, air, water and community residents.

If I were to dwell on just one issue it would be the military's current priorities using taxpayer's money. There are numerous sites across the Hawaiian islands that still need cleaning up of unexploded ordinance and heavy metal pollution; particularly lead and depleted uranium.

It would certainly be in everyone's interest to do a better job of cleaning up damage from the past before making a case for expanding operations and creating more future sites to be contaminated.

I urge the military to seriously assess community concerns and to better afford future opportunities for issues to be discussed and re-evaluated.

Lee Bowden
1911 Kalanianaole Ave.
Hilo, HI
96720
(808)-935-4926

> ----- Original Message -----
> **From:** Cory (Martha) Harden
> **To:** Undisclosed-Recipient:;
> **Sent:** Thursday, April 12, 2007 10:15 PM
> **Subject:** please comment by April 18 on Hilo National Guard renovation
>
> Dear Folks,
>
> Comments are needed by April 18 on plans for a $56.6 million, seven-year project to renovate the National Guard area by Hilo airport, to improve and/or provide Hilo facilities for the National Guard, Marines, Army Corps of Engineers, and Hawai'i Department of Defense.
>
> Please e-mail comments to me, then I'll print and mail them. See talking points below.
>
> Mahalo, Cory Harden
>
> **GENERAL TALKING POINTS**
>
> Why is public speaking suddenly forbidden at meetings on military projects?

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Lee Bowden
1911 Kalanianaole Avenue
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Bowden,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment:
"There are numerous sites across the Hawaiian islands that still need still need cleaning up of unexploded ordnance and heavy metal pollution; particularly lead and depleted uranium.

It would certainly be in everyone's interest to do a better job of cleaning up damage from the past before making a case for expanding operations and creating more future sites to be contaminated."

Funding for this project is earmarked for planning and construction. Clean-up on this site will be conducted as required to facilitate any demolition and construction activities described in the EA. Any UXO discovered during the proposed project will be appropriately addressed by the UXO team in accordance with current environmental standards for clean-up and removal.

Clean-up of Formerly Used Defense Sites (FUDS) or areas that are being returned to civilian use is a separate environmental action process and funding source.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

Cory (Martha) Harden

From: <galenis@hawaiiantel.net>
To: <mh@interpac.net>
Sent: Friday, April 13, 2007 10:18 AM
Subject: Hilo Airport Project

Hi Cory. Well, I gave it a shot. This is new to me. Never wrote to the military before.

Thanks, Cory, And Take Care,
galen

==========

4/13/07

To Whom It May Concern,

I'm sure you will receive many comments/concerns regarding your plans to renovate the National Guard area by Hilo airport. Some of these might include:

>Environmental Impact

>Hawaiian Cultural Issues

>Stryker Accommodation

>Military Toxins

>Impact On Community (Aircraft Noise, Increased Traffic, Job Loss)

And I do agree with all of these but my main point to you today is that the people are feeling like we don't count, that we haven't a voice in all this, that nothing we say matters. Is this the best way to serve the land of the free and the home of the brave? Public meetings are held with so little notice that there is very little time for public preparedness. On top of that, public speaking at the meetings is prohibited and all questions must go through (what many of us interpret as) a screening process. Can you not do the right thing and bring us in on the discussion and then go even further and take to heart that we believe in a world that is free and safe and that it is possible to achieve that world without military increase.

Sincerely,
Galen Kelly,
Hawaii Island Resident

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Galen Kelly
galenis@hawaiiantel.net

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Galen,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment:
"...My main point to you today is that the people are feeling like we don't count, that we haven't a voice in all this, that nothing we say matters. Is this the best way to serve the land of the free and the home of the brave? Public meetings are held with so little notice that there is very little time for public preparedness. On top of that, public speaking at the meetings is prohibited and all questions must go through (what may of us interpret as) a screening process. Can you not do the right thing and bring us in on the discussion and then go even further and take to heart that we believe in a world that is free and safe and that it is possible to achieve that world without military increase."

Environmental laws have a public participation requirement in the environmental planning process. This requirement is being met by having a 30-day public review and commenting period on the draft Environmental Assessment. A second 30-day public review and commenting period will be held once all comments have been incorporated and the final Environmental Assessment has been completed. There is no law requiring a public meeting, or dictating the amount of time that would be considered "adequate notice". The placement of the meeting announcement in the classified section was an inadvertent or clerical error on the part of the newspaper, not an effort by the HIARNG to restrict participation. A notice was also run in the State of Hawaii Office of Environmental Quality Control monthly Environmental Notice.

HIARNG members and their representatives were available to discuss any comments or concerns the public may have. It was felt that more people would have the opportunity to learn about the project by expanding the available time over four (4) hours to accommodate varying schedules, and creating the ability to address specific concerns on a one-to-one basis. As mentioned above the public will have two (2) 30-day commenting periods to submit their questions and comments in writing to the HIARNG. The commenting periods allow the public to have HIARNG to address specific comments of the individuals and ensure that each is personally attended to.

Thank you for your comment. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

P.O. Box 10265
Hilo, Hawai'i 96721
April 19, 2007

Russell Okoji, Senior Toxicologist
AMEC Earth and Environmental
3375 Koapaka Street, suite F-251
Honolulu, Hawai'i 96819

Dear Mr. Okoji,

Thank you for the opportunity to comment on the Draft Environmental Assessment for the Keaukaha Military Reservation dated March 21, 2007. I have many concerns.

It appears the anticipated Finding of No Significant Impact may not be appropriate for a $56.6 million, seven-year project which includes almost 9 acres under roof or pavement, and housing for 300 troops. Hilo's aquifer lies directly beneath and workers may hit groundwater just four feet down. Public speaking was excluded at this and other recent military meetings, unexploded ordnance will be left deteriorating on the ground, and PCBs may be left in power lines and transformers. Cultural resources and future residents nearby may be affected, air and ground traffic may increase, and a public trail may be lost.

On a larger scale, funding is scarce for cleanup of unexploded ordnance and other hazards on scores of former military sites throughout the Hawaiian Islands. But funding seems readily available for new projects, which create more hazards. Finally, the legality of U.S. political and military presence in Hawai'i should be addressed.

Thank you for considering my comments.

Sincerely,
Cory Harden

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Ms. Cory Harden
P.O. Box 10265
Hilo, Hawaii 96721

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Ms. Harden,

The Hawaii Army National Guard (HIARNG) is providing you with this letter to response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment:
"It appears the anticipated Finding of No Significant Impact may not be appropriate for a $56.6 million, seven-year project which includes almost 9 acres under roof or pavement, and housing for 300 troops. Hilo's aquifer lies directly beneath and workers may hit groundwater just four feet down. Public speaking was excluded at this and other recent military meetings, unexploded ordnance will be left deteriorating on the ground, and PCBs may be left in power lines and transformers. Cultural resources and future residents nearby may be affected, air and ground traffic may increase, and a public trail may be lost.

On a larger scale, funding is scarce for cleanup of unexploded ordnance and other hazards on scores of military sites throughout the Hawaiian Islands. But funding seems readily available for new projects, which create more hazards. Finally, the legality of U.S. political and military presence in Hawaii should be addressed."

Our responses are as follows:

- The number of full-time staff will be increased from 56 to 97 and are mainly administrative personnel. The part-time personnel will be increasing from 285 to 455 and consists mainly of reservists. No troops will live on the base, although if billeting facilities are funded, there may be troops staying there on an infrequent basis, specifically during sanctioned training events. Additionally, a majority of construction

activities will be performed in the foot-print of a previously demolished structure. The seven year time frame listed encompasses time required for planning, demolition and construction. Work will be performed in a phased manner based on available funds. Very little undeveloped land will be affected by the construction activities.

- KMR is located atop the Northeast Mauna Loa aquifer in Hawaii County. The site is situated below the UIC line and is therefore not a potential drinking water source. The aquifer is on the boundary of the Hilo and Kea'au aquifer systems. Depth to groundwater is approximately 4 feet below ground surface at KMR; thus, the potential exists for groundwater to be encountered during construction excavation activities. As such, a site-specific evaluation of the current and potential groundwater conditions at the project site is recommended and results incorporated into the project design. Additionally, to reduce potential exposure of groundwater to contamination, the HIARNG would require the contractor to observe the exposed soil for visual evidence and/or petroleum odors during excavation activities. If potential contamination is observed during construction, the contractor would comply with all local, state, and federal requirements.
- HIARNG members and their representatives were available at December's public meeting held at KMR to discuss any comments or concerns of the public. It was felt that more people would have the opportunity to learn about the project by expanding the available time over four (4) hours to accommodate varying schedules, and creating the ability to address specific concerns on a one-to-one basis. Also, as mentioned above the public will have two (2) 30-day commenting periods to submit their questions and comments in writing to the HIARNG. The commenting periods allows the public to have HIARNG to address specific comments of the individuals and ensures that each is personally attended to.
- Funding for this project is earmarked for planning and construction only. Clean-up on this site will only be conducted as required to facilitate any demolition and construction activities described in the EA. Any UXO discovered during the proposed project will be appropriately addressed by the UXO team in accordance with current environmental standards for clean-up and removal. Clean-up of Formerly Used Defense Sites (FUDS) or areas that are being returned to civilian use is a separate environmental action process and funding source.
- PCB in power lines and transformers are not a significant problem as long as they are contained and not leaking into the environment.
- Cultural resources have been recorded within the proposed project area. None of known archaeological sites will be impacted by the proposed undertaking. New construction activities are to take place in locations that were previously developed.
- Traffic, both air and ground, will have minimal impacts. The USAR and the HIARNG will normally be drilling on different

weekends to facilitate parking and deconflict use of the facility. In addition, effort will be made for travel during non-peak hours so as to not add to existing conditions.

- Access to the Puna Trail will not be lost. It is under the jurisdiction of the state as an established trail and it will continue to be used as such until lawfully disposed of pursuant to Hawaii Revised Statute Chapter171.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

BOB JACOBSON
Councilmember

Chair, Environmental Management Committee
Vice-Chair, Finance Committee

333 Kīlauea Avenue, Second Floor
Ben Franklin Building, Hilo, Hawai‘i 96720

Mailing Address: 25 Aupuni Street, Suite 200
Phone: (808) 961-8263
Fax: (808) 961-8912
E-Mail: jjaco@co.hawaii.hi.us

HAWAI‘I COUNTY COUNCIL

County of Hawai‘i

April 26, 2007

AMEC Earth and Environmental
Airport Industrial Center
3375 Koapaka Street, Suite F-251
Honolulu, Hawai‘i 96819

Re: Comments on the Final Description of Proposed Action and Alternatives; Short-Term Construction And Demolition Projects at the Keaukaha Military Reservation

Aloha:

Upon reviewing the document named above, I observed, on page 2-8, that a portion of the Old Puna Trail is to be closed. While I understand that the trail passes through the main compound of the project area, I must stress the fact that if this trail is included on the 1892 Highways Map, it cannot be closed simply because the military wishes it to be. An act of government legislation is the only means of blocking access to the trail. If this trail is in fact on the map, it would be illegal to close it.

In regards to the equipment maintenance and wash area, I am deeply concerned over contaminants that will afflict the environment and the health of those living in and around the project area. Such contaminants include residue from non-conventional and chemical weapons, depleted uranium (DU), lead, medical waste, and human waste. I strongly urge you take every precaution to ensure that these pollutants are properly disposed of, or otherwise contained, especially given the project’s close proximity to the ocean.

Please consider these comments.

Mahalo,

Bob Jacobson
Member, District 6
Hawai‘i County Council

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Councilmember Bob Jacobson
Hawai'i County Council
County of Hawai'i
25 Aupuni Street, Suite 200
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Councilmember Jacobson,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Comment 1:
"Upon reviewing the document named above, I observed, on page 2-8, that a portion of the Old Puna Trail is to be closed. While I understand that the trail passes through the main compound of the project area, I must stress the fact that if this trail is included on the 1892 Highways Map, it cannot be closed simply because the military wishes it to be. An act of government legislation is the only means of blocking access to the trail. If this trail is in fact on the map, it would be illegal to close it."

Access to the Puna Trail will not be lost. The 1892 Highways Act of the Kingdom, which is addressed in Hawaii Revised Statutes 264, provides that the land falls under the jurisdiction of the state. As an established state trail it will remain under state jurisdiction and continue under such jurisdiction until lawfully disposed of pursuant to Hawaii Revised Statute Chapter 171.

Comment 2:
"In regards to the equipment maintenance and wash area, I am deeply concerned over contaminants that will afflict the environment and the health of those living in and around the project area. Such contaminants include residue from non-conventional and chemical weapons, depleted uranium (DU), lead, medical waste, and human waste. I strongly urge you take every precaution to ensure that

these pollutants are properly disposed of, or otherwise contained, especially given the project's close proximity to the ocean."

Chemicals from non-conventional and chemical weapons, depleted uranium (DU), medical waste, and human waste will not be in the equipment maintenance and wash area. Precautions will be taken for any chemicals used in these areas to ensure they are properly identified, marked, contained, treated and/or disposed.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

April 26, 2007

Mr. Russell Okoji, Ph. D
AMEC Earth and Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu, HI 96819

DRAFT ENVIRONMENTAL ASSESSMENT
CONSTRUCTION AND DEMOLITION PROJECTS AT THE KEAUKAHA MILITARY RESERVATION
TAX MAP KEY 2-1-012:003 AND 2-1-013:010

This is in response to your Draft Environmental Assessment for the subject project.

The Department maintains several 12-inch and 8-inch waterlines within Tax Map Key 2-1-012:003 and there are several meters assigned to that parcel.

The Department has no objection to the proposed project, subject to the following conditions:

1. Submit estimated maximum daily water usage calculations provided by a professional engineer licensed in the State of Hawai'i for each proposed facility. The calculations should include the estimated peak-flow in gallons per minute and the total estimated maximum daily water usage in gallons per day, including all irrigation/landscaping water use.

2. Based on the calculations provided in Item 1, the Department will determine the water commitment deposit and facilities charge (subject to change) to be paid, if necessary. If the existing meters cannot accommodate the estimated demand, a larger or additional meter(s) will need to be installed.

3. A reduced pressure type backflow prevention assembly must be installed within five (5) feet of the existing meters on private property. If a larger or additional meter is required (per Item 2 above), a reduced pressure type backflow prevention assembly must also be installed within five (5) of the meter. The installation of the backflow prevention assembly(s) must be inspected and approved by the Department prior to commencement of water service.

4. The applicant must submit construction plans to the Department for review and approval, showing the location of the existing water system facilities within Tax Map Key 2-1-012:003, and any new connections to the Department's facilities, if necessary.

5. Subject to other agencies' requirements to construct improvements within the road right-of-way fronting the property affected by the proposed project, the applicant shall be responsible for the relocation and adjustment of the Department's affected water system facilities, should they be necessary.

Should there be any questions, you may contact Mr. Finn McCall of our Water Resources and Planning Branch at 961-8070, extension 255.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

FM:dfg

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Milton D. Pavao, P.E.
Department of Water Supply
County of Hawai'i
345 Kekuanao'a Street, Suite 20
Hilo, Hawaii 96720

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Pavao,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Your comments regarding water usage calculations and construction plans will be forwarded on to the designers involved with planning of the facilities.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EPO-07-072

April 20, 2007

Dr. Russell Okoji
AMEC Earth & Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu, Hawaii 96819

Dear Dr. Okoji:

SUBJECT: Draft Environmental Assessment for Keaukaha Military Reservation, Hilo, Hawaii

Thank you for allowing us to review and comment on the subject documents. The documents were routed to the various branches of the Department of Health Environmental Health Administration. We have the following Clean Air Branch and General comments.

Clean Air Branch

Control of Fugitive Dust

Fugitive dust emissions occur during all phases of construction and operations. Activities close to existing residences, businesses, public areas or thoroughfares can cause dust problems. For cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance problems. We recommend that the contractors operate under a dust control management plan. The plan does not require the Department of Health approval, however it will help with identifying and minimizing the dust problems from the proposed project.

Examples of measures that can be included in the dust control plan are:

a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
b) Providing an adequate water resource at the site prior to start-up of construction activities;
c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;

d) Minimizing dust from shoulders and access roads;
e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
f) Controlling dust from debris being hauled away from the project site.

All activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. If you have any questions, please contact the Clean Air Branch at 586-4200

General

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

If there are any questions about these comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CAB
NRIAQB
EH-Hawaii

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. Kelvin H. Sunada
State of Hawaii
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Sunada,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

The proposed project is not anticipated to detrimentally impact any air quality levels. During the proposed project, fugitive dust is anticipated to increase minimally but will be closely monitored. Hawaii Administrative Rules, § 11-60.1-33 on Fugitive Dust will be fully complied with during the proposed project. The project engineers, managers and workers shall do their best to comply with the governing environmental regulations. If there are any exceedences in any local, state or federal rules or regulations such excesses shall be mitigated to minimize any possible adverse impact. In addition, your comments regarding dust control plans will be forwarded on to designers involved with planning of the facilities.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

April 23, 2007

Regulatory Branch

File No. **POH-2007-129**

Russell Okoji
AMEC Earth & Environmental
Airport Industrial Area
3375 Koapaka Street, Suite F251
Honolulu, HI 96819

Dear Dr. Okoji:

This is in response to your letter dated March 21, 2006 for comments for various projects proposed in the draft Environmental Assessment (EA) for the Keaukaha Military Reservation (KMR), Hilo, Hawaii. We have reviewed the information you provided under the Corps' authority to issue Department of the Army (DA) permits pursuant to Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403) and Section 404 of the Clean Water Act (CWA) (33 USC 1344).

Based on the information provided you provided on behalf of the Hawaii Army National Guard, we have determined the subject property site does not contain waters of the U.S. subject to our jurisdiction, and that the described project and its related activities are understood to not involve the placement of dredged and/or fill material into waters of the U.S., including adjacent wetlands; therefore, **a DA permit is not required.**

Should you have any questions regarding this jurisdictional determination, please contact Ms. Joy Anamizu by phone at 808-438-7023, or *joy.n.anamizu@usace.army.mil* and refer to the file number above regarding this project.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

LINDA LINGLE
GOVERNOR

ROBERT G. F. LEE
MAJOR GENERAL
ADJUTANT GENERAL

GARY M. ISHIKAWA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

Mr. George Young, P.E.
Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Subject: Keaukaha Military Reservation (KMR) Construction and Demolition Projects

Dear Mr. Young,

The Hawaii Army National Guard (HIARNG) is providing you with this letter in response to specific comments you submitted to the Draft Environmental Assessment for the Keaukaha Military Reservation, Construction and Demolition Projects.

Thank you for your review pursuant to Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403) and Section 404 of the Clean Water Act (CWA)(33 USC 1344). We acknowledge your findings that the subject property site does not contain waters of the United States subject to your jurisdiction and that a Department of the Army (DA) permit is not required.

Thank you for your comments. If there are additional questions, please contact Russell Okoji at AMEC Earth & Environmental at (808) 391-9906 or via email at russell.okoji@amec.com.

Sincerely,

MARJEAN STUBBERT
Lieutenant Colonel
Hawaii Army National Guard
Facility Management Officer

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STATE OF HAWAI'I
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May 4, 2007

HRD07/2816B

Russell Okoji, Ph.D.
Senior Toxicologist
AMEC Earth & Environmental, Inc.
3375 Koapaka Street, Suite F-251
Honolulu, Hawai'i 96819

RE: Draft Report for the Environmental Assessment at Keaukaha Military Reservation Hilo District, Hawai'i Island

The Office of Hawaiian Affairs (OHA) is in receipt of your March 2007 request for comments on a draft Environmental Assessment (EA) at Keaukaha Military Reservation (KMR).

OHA is obligated to protect the cultural and natural resources of Hawai'i for its beneficiaries, the people of this land. With this responsibility in mind, OHA has reviewed the draft EA for KMR and we offer the following comments.

As summarized in the draft EA, the Proposed Action was selected as the Preferred Alternative because it meets the needs of the Hawai'i Army National Guard and U.S. Army Reserve. OHA hopes that the Preferred Alternative was also selected following consideration of the comments received from interested agencies, groups, and individuals at a public meeting held on December 6, 2006.

Our review of the draft EA indicates none of the recorded cultural resources within the proposed project area will be impacted, as new construction activities are to take place in locations that were previously developed.

The Proposed Action calls for the installation of an additional 11,000 linear feet of fencing around the perimeter of KMR in order to meet Anti-Terrorism Force Protection standards. This

fencing would restrict access to a portion of the Puna Trail (State Site 50-10-35-18869). While access to the Puna Trail will be constrained, it will not be eliminated entirely. OHA commends you for allowing continued access to the Puna Trail. Traditional access is a constitutionally protected traditional and customary practice of our beneficiaries.

Should cultural or traditional deposits or human remains and associated burial items be identified during construction activity, please ensure that all work ceases, the appropriate agencies are contacted pursuant to applicable law, and the Standard Operating Procedures detailed within the draft Integrated Cultural Resources management Plan are implemented.

Thank you for the opportunity to review the draft EA. Should you have any questions, please contact Keola Lindsey, Lead Advocate-Culture, at (808) 594-1904.

'O wau iho nō,

Clyde W. Nāmu'o
Administrator