

**ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED
ASYMMETRIC WARFARE COMPLEX**

**U. S. Army, Fort A. P. Hill
Bowling Green, Virginia**



January 31, 2007

**Environmental Assessment
U.S. Army Garrison Fort A.P. Hill**

Asymmetric Warfare Group Complex

February 2007

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Finding of No Significant Impact
Asymmetric Warfare Complex
U.S. Army Garrison, Fort A.P. Hill, Virginia
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The U. S. Army Garrison, Fort A. P. Hill in Caroline County, Virginia, proposes to construct and operate an Asymmetric Warfare Complex (AWC).

The planned AWC would be located on 450 acres of Training Area 22B east of Longstreet Camp in the northwestern portion of Fort A. P. Hill. The complex would consist of an administrative and classroom cantonment area and various training sites. The administrative cantonment area would include administrative buildings containing offices and classrooms, field quarters, a vehicle maintenance shop for standard and preventive maintenance, a fabrication shop for repair and minor modification of existing pieces of equipment, a storage building containing an arms storage vault, and associated parking areas, and outbuildings. The training area would include separate sites for three training scenarios, including an urban area, a rural area, and a primitive area.

The U. S. Army Garrison at Fort A. P. Hill reviewed five (5) possible alternatives and determined that AWC construction in the aforementioned location was the 'most preferred' based on established criteria: sufficient training space to ensure operations meet the standards established by the U. S. Army, a location close to Washington D. C. and Fort Meade, Maryland, and a location which could be restricted from surrounding activities.

Other alternatives considered included using existing facilities and/or upgrading and renovating facilities at Fort A. P. Hill, using facilities at Fort Meade and Aberdeen Proving Ground, building at Training Area 30 on Fort A. P. Hill, as well as taking no action to provide an AWC on Fort A. P. Hill. A survey of space on Fort A. P. Hill indicated that there is no adequate space which could be upgraded and meet necessary training standards without extensive cost and effort. Facilities on Fort Meade and Aberdeen Proving Ground are already committed to other uses. Training Area 30 was investigated at length, but noise from training required this alternative to be eliminated.

The No Action Alternative would eliminate timber harvesting, clearing and grading, potential air emissions, and potential noise complaints. This alternative, however, would not meet Fort A. P. Hill's objective to expand the installation's training capacity to prepare military personnel for deployment in combat or national emergencies, and it would not support the Installation Master Plan goal to maximize training capability. Therefore, the No Action Alternative was not considered reasonable and viable.

To avoid potential impacts, Fort A.P. Hill would implement mitigation measures as necessary. Air filtering devices would be installed on the paint booth and in the welding shop. Some noise impacts would occur during training operations; however, operational noise contours for the AWC would remain within the boundaries of Fort A. P. Hill. Wetlands impacts would be avoided by constructing bridge crossings over wetlands and

stream beds. A Joint Permit Application (JPA) for wetlands crossings has been submitted to and reviewed by the Virginia Marine Resource Commission (VMRC) and the Department of Environmental Quality (DEQ). Both agencies responded that no impacts or encroachments to wetlands would occur due to this project, and a permit would not be necessary. Stormwater management practices required by the Virginia Stormwater Management Program (VSMP) would be implemented and Fort A. P. Hill would apply for the VSMP general permit for storm water discharges prior to construction. Forestry Best Management Practices (BMPs) would be implemented to maintain water quality. Noise complaints would be investigated and mitigated in accordance with Fort A. P. Hill policy. If necessary, Fort A. P. Hill would expand the perimeter noise monitoring system to add a noise monitor in the area of concern. Cultural resources eligible for the National Register of Historic Places would be avoided during construction and operation of the ranges.

The EA concludes that, with the implementation of appropriate mitigation measures as mentioned above, the proposed action would have no significant impacts on the quality of the physical and human environment at Fort A. P. Hill. In accordance with the requirements of the National Environmental Policy Act (NEPA), Fort A. P. Hill therefore issues a Finding of No Significant Impact (FONSI) for this project, and an Environmental Impact Statement (EIS) will not be prepared.



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5 MAR 07
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EXECUTIVE SUMMARY

INTRODUCTION

This Environmental Assessment (EA) is prepared in accordance with the National Environmental Policy Act (NEPA), its implementing regulations published by the Council on Environmental Quality (40 CFR 1500-1508), and 32 CFR Part 651 which implements NEPA for the Army and will be re-published as AR 200-2. Under NEPA, federal agencies are required to consider the environmental consequences of proposed actions. The Army can consider environmental consequences of proposed actions through the use of a Record of Environmental Consideration (REC), an EA or an Environmental Impact Statement (EIS) pursuant to 32 CFR Part 651.

This EA provides NEPA analysis and documentation for the proposed action, which is to construct and perform mission essential training at an Asymmetric Warfare Complex (AWC) at Fort A. P. Hill.

PURPOSE AND NEED

Despite U.S. conventional military superiority and successes against asymmetric attacks, there are still gaps in U. S. conventional force capabilities. The extent of these capability gaps varies based on the type of unit, training, and combat experience; however, there is a need to defeat all adversaries' abilities through innovation and rapid adaptation to the environment. The purpose of constructing and operating an AWC is to provide a specialized testing and training complex designed to conduct full-spectrum training, planning, and execution of countermeasures to asymmetric warfare to all forces within the U.S. military. The need for the AWC is to provide the Asymmetric Warfare Group (AWG) a location from which key training tasks can be accomplished. The AWG currently has no training facilities that can provide the effectiveness in training or force preparedness necessary to meet an existing need in multiple simultaneous areas of operation. The current and expected future threat requires that the U. S. military continue to change and modify its approach to ensure that assigned missions can be accomplished. Changing and modifying training approaches within the U.S. military to instill a culture of innovation and adaptability is key to this effort.

PROPOSED ACTION

Approximately 450 acres of land northwest of Highway 301 and near the geographic center of Fort A. P. Hill are proposed for the AWC. The proposed site consists of a major portion of Fort A.P. Hill Training Area 22B, located approximately 3 miles northwest of Highway 301 and North Range Road. The complex would consist of an area of land south of Lee Drive, north of Shackelford Road, east and south of Longstreet Camp and west of Wilcox Drive and Taylor's Corner. The cantonment area would consist of administrative buildings containing offices and classrooms, field quarters, a vehicle maintenance shop, including a paint booth, for standard and preventive maintenance, a fabrication shop, including a welding area, for repair and minor modification of existing pieces of equipment, a storage building containing an arms storage vault, a vehicle wash pad and fueling area, and associated parking areas and outbuildings. The training area would include separate sites for three training scenarios. One would contain buildings and infrastructure to simulate an urban area. The second would simulate rural

landscapes with gravel or dirt roads and buildings to simulate a village. The third would be a primitive site maintaining much of the existing vegetation. The proposed action also includes the use of portable modular training structures which could be placed anywhere within the AWC for temporary training operations. These structures are basically metal storage containers which have been outfitted with the necessary training equipment. A one-mile evasive driving training course is also proposed as the perimeter road to the urban training site. The entire 450 acre site would be fenced with access control gates installed. The concept of the AWC is to provide “train the trainer” assistance to all military services. While the average daily anticipated number of military personnel expected on site is 100 persons, the AWC could accommodate up to 150 individuals participating in multiple simultaneous training activities and operations. The AWG also anticipates using Fort A.P. Hill’s existing demolition sites and firing ranges until AWG specific-use ranges can be constructed. An indoor firing range is proposed for land within the cantonment area. These AWG ranges are covered in a separate AWG Range EA; however, the cumulative environmental impacts of the AWG Ranges and the Preferred Alternative are considered in this EA, in Section 5.13, Secondary and Cumulative Effects.

ALTERNATIVES CONSIDERED

The No Action Alternative and the Preferred Alternative are the only alternatives to the proposed action described in detail within this EA. Although other alternatives were considered, the Preferred Alternative, which is the proposed action, is the only one that meets the screening criteria established by the AWG Headquarters Office. The No Action Alternative serves as a benchmark against which the Preferred Alternative can be evaluated. For this analysis, the No Action Alternative is defined as continuing the current use of the property as an existing undeveloped training area.

ALTERNATIVES CONSIDERED AND REJECTED

The other alternatives which were considered were the establishment of the AWC on Fort Meade and on Aberdeen Proving Ground. The training areas on Fort Meade, Maryland, are not large enough for the proposed AWC. The training areas on Fort Meade are also under the direction of the Department of Interior and range restrictions do not allow the flexibility needed for training which meets established military standards. Training areas on Aberdeen Proving Ground, Edgewood, Maryland, are restricted, controlled, and committed to other uses. These alternatives do not meet the screening criteria established by the AWG and have been eliminated from further consideration within this EA.

ENVIRONMENTAL CONSEQUENCES

The EA evaluates potential environmental consequences of implementing the proposed action and the No Action Alternative. Implementation of the proposed action, the installation’s Preferred Alternative, would mean that training mission operations and facilities construction on the AWC would begin. Overall, implementation of the proposed action would have no significant impact on the resources evaluated, including: land use, noise, soils, water resources including wetlands, biological resources including vegetation and threatened and endangered species, cultural resources, socioeconomics and environmental justice/protection of children, infrastructure and hazardous materials/wastes. Insignificant impacts may be incurred temporarily on air quality during facilities construction. Air filtering devices would be installed

on the paint booth and in the welding shop. Some noise impacts would occur during training operations; however, operational noise contours for the AWC would remain within the boundaries of Fort A. P. Hill. Wetlands impacts would be avoided by constructing bridge crossings over wetlands and stream beds.

Implementation of the No Action Alternative would mean existing conditions (as presented in Section 4.0) would continue as the *status quo*. Under the No Action Alternative, no new land use practices would be implemented and the site would continue to be used as a training area and for the National Scout Jamboree.

CONCLUSIONS

Implementation of the proposed action would not result in significant impacts to the physical environment of Fort A. P. Hill. Based upon the findings and conclusions within this EA, issuance of a Finding of No Significant Impact (FONSI) would be appropriate and an Environmental Impact Statement (EIS) would not be prepared.

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SECTION 1.0

1.0 PURPOSE AND NEED FOR ACTION

1.1 Introduction and Scope of the Document

Fort A. P. Hill is proposing construction and use of an Asymmetric Warfare Complex (AWC) for mission essential training. This Environmental Assessment (EA) identifies, details, and evaluates the environmental impacts of construction and future training operations of the approximately 450 acre AWC and of the No Action Alternative.

This EA is prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, its implementing regulations published by the Council on Environmental Quality (40 CFR 1500-1508), and 32 CFR Part 651 which implements NEPA for the Army and will be republished as AR 200-2. Pursuant to NEPA, federal agencies are required to consider the environmental consequences of their proposed actions. NEPA typically applies when the federal agency is the proponent of the action or where federal funds are involved in the action.

1.2 Purpose and Need for the Proposed Action

1.2.1 Background

Fort A. P. Hill is situated primarily within the boundaries of Caroline County in Virginia, along the I-95 corridor and astride US Route 301. The post is 20 miles southeast of Fredericksburg and is situated roughly midway between Richmond, Virginia, and the Washington, D.C. metropolitan area (**Figure 1**). The installation rests on the upper Atlantic Coastal Plain and in the watersheds of the Rappahannock and Mattaponi Rivers. Fort A. P. Hill's terrain consists of rolling hills with some low areas and wetlands throughout post. Most of the installation is forested with wooded areas containing both hardwood and deciduous trees. U.S. Route 301 divides the post into northern and southern sections, allowing maneuver and range operations to occur simultaneously. The northwest portion of the post is dedicated to maneuver operations and the southeast portion contains a 27,000-acre modern range facility and impact area. To the south and west, the installation is bordered by forest, farmland and the town of Bowling Green. Forests, farmland and the town of Port Royal lie to the east and north. The proposed location of the AWC is in the central portion of post just north-west of U. S. Route 301, within the borders of Training Area 22B (**Figure 2**).

The mission of Fort A. P. Hill is to maintain an all-purpose, year-round, training facility that serves Active, Reserve, and National Guard troops of the Army, Marine Corp, Navy, and Air Force, as well as personnel from other government agencies.



Figure 1. Location of Fort A. P. Hill, Caroline County, Virginia

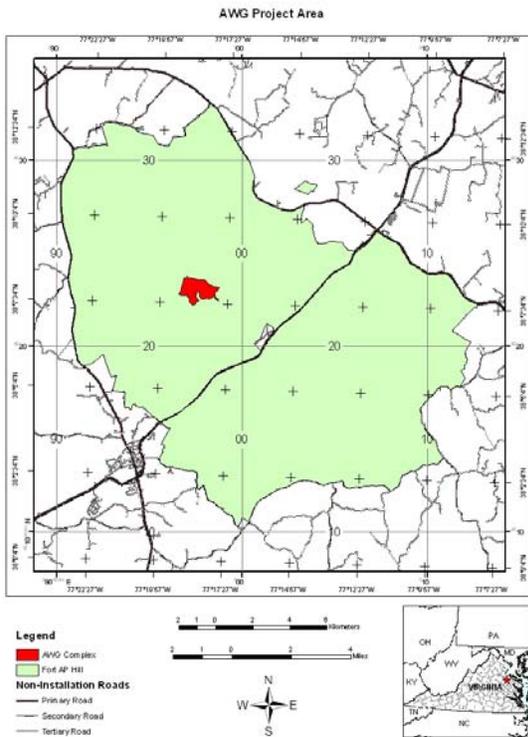


Figure 2. Proposed AWC Project Area
Fort A. P. Hill, Virginia

The AWG had its genesis in 2003 with the creation of the Improvised Explosives Device (IED) Task Force. The mission of this task force was to mitigate threats endangering U.S. and coalition forces in Iraq and Afghanistan. In 2004, the Joint Integrated Process Team (IPT) was formed to coordinate Department of Defense counter-IED efforts. In January 2005, the Army began organizing the AWG which advanced the mission beyond the Joint IPT and created a permanent capability to address asymmetric threats. The AWG was organized under a special table of distribution and allowances to provide the unit with the flexibility to change and adapt to the evolving mission requirements. The AWG is targeted to become a lead organization in providing the conventional military force with a global perspective and expertise in full spectrum training, planning, and execution of countermeasures to asymmetric warfare. Asymmetric warfare is defined as attacking an enemy's weaknesses with unexpected or innovative means while avoiding or nullifying an enemy's strengths. The AWG is being organized for continuous operations, the capability for rapid deployment, and the ability to operate in multiple simultaneous areas of responsibility. The AWG will focus on current and evolving asymmetric threats to U. S. forces in order to devise counter-measures to these threats, such as anti-terrorist tactics, techniques and procedures (TTP), training activities and technology. The success of the AWG in accomplishing this mission will be crucial to ultimate victory in the global war on terrorism and is anticipated to be a critical component of future Army and joint military forces operations.

The AWG consists of a Headquarters and a Headquarters Detachment and three squadrons. These are the Field Team Squadron, the Advisory and Assessment Squadron, and the Concepts Integration Squadron. The Field Team Squadron and the Concepts and Integration Squadron would use the AWC. The AWG currently trains on Fort A. P. Hill. The installation supports the AWG through the use of pre-existing training areas, firing, demolition and maneuver ranges, barracks, bivouac areas, the existing combat village, and the helicopter landing zone.

1.2.2 Purpose

The AWG conducts operations in support of Army and Joint Force Commanders to mitigate and defeat specified asymmetric threats. In military terms, an asymmetric threat is one not readily fitting the concepts of conventional warfare which have typically pitted defined military organizations against one another in combat directed by clear political authority. Asymmetric threats can include improvised explosive devices (IED), dirty bombs, infrastructure attacks, suicide bombers, biological weapons, and other tactics and techniques which occur in an ever changing and adapting environment.

The purpose of constructing and operating an AWC is to provide a specialized testing and training complex designed to conduct and provide full-spectrum training, planning, and execution of countermeasures to asymmetric warfare to all forces within the U.S. military. The AWC would provide the AWG a location from which key tasks can be accomplished. These tasks include providing support to:

- Assist in operational analysis and exploitation of asymmetric threats;
- Assist in identification, development and integration of counter-measure technologies;
- Conduct or assist in advisory training for in-theater or pre-deployment forces;
- Observe, collect, develop, validate and disseminate emerging TTP type training; and
- Deploy, integrate, coordinate, and execute command and control procedures of trained and ready military forces.

1.2.3 Need

Despite U.S. conventional military superiority and past successes against asymmetric attacks, there are still gaps in U. S. conventional force capabilities. The extent of these capability gaps varies based on the type of unit, training, and combat experience; however, there is a need to defeat all adversaries' abilities to innovate and rapidly adapt to the environment. The AWG currently has no training facilities that can provide the effectiveness in training or force preparedness necessary to meet the existing need in multiple simultaneous areas of operation. The current and expected future threat requires that the U. S. military continue to change and modify its approach to ensure that assigned missions can be accomplished. Changing military organizations to instill a culture of innovation and adaptability is key to this effort. The AWC at Fort A. P. Hill is needed to:

- Improve U. S. military knowledge of indigenous cultures and provide skilled linguists to deployed units as necessary;
- Broaden training and application in information operations;
- Improve investigative skills to analyze, understand, and exploit enemy vulnerabilities;

- Teach intelligence processes which are better tailored to targeting a constantly changing, decentralized adversary;
- Develop and improve procedures to rapidly disseminate lessons learned and quickly adjust training as necessary; and
- Streamline acquisitions and fielding procedures.

1.3 Scope of the Document

This EA is limited to assessing the effects of construction and training operations within the AWC on the following environmental resources: land use, air quality, noise, soils, water resources including wetlands, biological resources including vegetation and threatened and endangered species, cultural resources, socioeconomics, environmental justice, infrastructure, and hazardous/regulated materials/wastes. Potential cumulative and secondary impacts associated with this project are also analyzed. Proposed mitigation measures to minimize environmental impact are provided, as necessary.

1.4 Interagency Coordination and Review and Public Comment Period

The preparation of this EA was coordinated with appropriate federal, state, and local agencies. Copies of agency correspondence are provided in Appendix B. In addition, agency and public input will be obtained during a public comment period. The initial public comment period will be held following completion of the draft EA. Comments submitted by agencies, organizations, and members of the public on the proposed action or EA will be considered. If the EA concludes that there are no significant impacts, a Finding of No Significant Impact (FONSI) will be issued.

SECTION 2.0

2.0 PROPOSED ACTION

Approximately 450 acres of land north-west of U. S. Highway 301 in the center portion of Fort A. P. Hill are proposed for the AWC. The proposed site consists of a major portion of Fort A.P. Hill Training Area 22B, located approximately 3 miles northwest of Highway 301 and North Range Road. The site is bounded on the north by Lee Drive, on the south by Shackelford Road, on the west by Longstreet Camp and on the east by Wilcox Road and Taylor's Corner. The entire 450 acre site would be fenced and access would be limited.

The concept of the AWC is to provide "train the trainer" assistance to all military services. While the anticipated average daily number of military personnel expected on site is 100 persons, the AWC could accommodate up to 150 individuals simultaneously participating in multiple training activities and operations.

The administrative cantonment area would consist of numerous buildings for administrative, billeting, guard/security, classroom, and motor pool facilities. The buildings would include:

- Two student field quarters buildings (approximately 17,000 square feet (SF) total each), consisting of a two person room design with common latrine facilities. These would be designed for a total of 60 persons. Field quarters would also contain common break/dining areas, kitchen areas, and a laundry facility
- One cadre field quarters building (approximately 5,000 SF total), designed with two-person rooms each sharing one bath, and a common break/kitchen/dining space. This building would be designed for a total of 20 persons.
- One classroom building (approximately 6,000 SF total), containing office, storage, and classroom space.
- One cadre integrated administrative building (approximately 8,000 SF total) containing office and classroom space.
- A Visitor Center, consisting of a guard/security area, a first aid station, and an administrative office (approximately 2,165 SF total).
- A weapons storage facility with an integrated arms storage vault, storage area, and workbench area (approximately 3,000 SF total).
- A vehicle maintenance shop with an administrative office (approximately 7,000 SF total). Gravel parking for approximately 40 vehicles will be co-located with the maintenance shop.
- A fabrication shop (approximately 6,000 SF total), consisting of a fabrication area and equipment to retrofit equipment for installation on military vehicles and equipment, a welding shop, and a small paint booth.

Asphalt paved parking lots adjacent to the administrative offices, classroom building, and field quarters would be constructed.

The entire administrative complex would be fenced and entry would be restricted with manned access control gates.

Activities within the student and cadre field quarters would include food preparation and dining as well as sleeping and typical house-keeping. The first aid station at the Visitor's Center would be staffed by a physician's assistant who could provide initial first aid for injuries and basic sick call.

Activities at the motor pool would consist of standard preventive maintenance and minor repair of commercial vehicles (passenger cars and trucks) and of small tactical vehicles (High Mobility Multi-purpose Wheeled Vehicles (HMMWV) and 5 ton trucks). Large scale maintenance and repair would not be performed at the AWC.

The wash rack would be used for dirt removal from tactical and non-tactical vehicles. The wash pad would drain through an oil/water separator prior to discharge into the Fort A. P. Hill sewer system.

The vehicle fueling area would contain a double-walled above ground diesel and gasoline tank for fueling both tactical and non-tactical vehicles and equipment.

The fabrication shop would be for retrofitting equipment on HMMWVs and for minor modifications and repair to existing equipment. This shop would not be used to generate new equipment items. The paint booth would consist of a self-contained, filtered unit large enough to paint individual equipment parts. No vehicle painting would be done at the AWC.

Utilities for the administrative area would be extended from existing power lines, potable water supply lines, and sanitary sewer lines currently located on Lee Drive. Heating would be supplied by fuel oil or propane stored in aboveground storage tanks.

An indoor firing range for small arms training/qualification is proposed for construction adjacent to the administrative area. Until this indoor firing range is completed, the AWG would bring in a portable, self-contained, indoor firing range. This temporary metal unit will be mounted on a mobile trailer and placed within the cantonment area. The proposed indoor firing range will be addressed in a separate EA.

The remaining acres of the AWC would be used as a field training site consisting of forested, undeveloped land and containing three individual training sites. A gravel perimeter road would circle the entire compound and would connect the three training sites. This road would be used as a driver's training course as well as connect the training sites. The roads interconnecting the training sites would contain steep grades, switch backs, uneven sections, rip rap sections, high cuts, and steep drop offs to simulate varying road conditions.

The training sites would vary in size and simulate different settings.

- Training Site 1 (approximately 20 acres) would simulate an urban setting. Asphalt roads would be constructed, the site would be cleared of most of the existing vegetation and the land would be left in a prepared state for placement of training structures. Proposed permanent training structures would include single and multi-story buildings simulating offices/bank, a hospital/school, a hotel/restaurant, and two churches. An emergency services (fire and rescue) building, power plant, and transportation node containing a subway and bus station, and a railway platform. Typical urban infrastructure and support structures would be constructed. A central traffic circle would include an overpass and an underpass feature. The site would contain a tunnel network, roadways, a water tower structure, a cell tower structure, and a sports field which would also be used as a helicopter landing zone (HLZ). This HLZ would only be used for take-off and landing; no long-term parking of helicopters would occur on the site. The existing HLZ on Fort A. P. Hill would also be used as necessary. Areas between fixed structures would contain gravel pads upon which portable training structures could be placed. The portable training structures would consist of modular structures which can be set in various arrangements allowing varying training scenarios. These portable training structures are metal storage containers, similar to the type used in the shipping industry, which have been outfitted with equipment to perform training.
- Training Site 2 (approximately 15 acres) would simulate a village setting. The roads within the site would be gravel, and the site would be less developed than Training Site 1. Some existing vegetation would be removed and sites for the placement of permanent and modular training structures would be developed. Proposed permanent training structures would include single and multi-storied buildings representing a church or other religious building, houses, a market, and a government building. Typical village infrastructure including light poles, mailboxes, and narrow roadways would be constructed.
- Training Site 3 (approximately 15 acres) would simulate a primitive setting. Roads would consist of rip-rap, dirt paths, or some gravel roadways. A minimal amount of existing vegetation at this site would be removed and sites for the placement of permanent and portable training structures would be developed. Proposed permanent training structures would include a mud hut, several tin sheds, a stone privy, a short tunnel network, and two check points.

An undeveloped “floating site” is proposed for training anywhere within the wooded portion of the AWC. This float site would consist of mobile training aids, metal storage containers, and simulation props, such as building fronts. These mobile training aids could be moved throughout the AWC and re-positioned using forklifts to simulate different scenarios as necessary. Existing vegetation would remain and no new roadways would be developed.

Training within the AWC would include classroom training at the administrative complex and urban and non-urban terrain warfare training within the individual training sites described above. Other types of training proposed include land navigation, mounted and dismounted movement operations, individual and group patrolling activities, use of training munitions (simunitions). Equipment proposed for use within the AWC would include, but not be limited to, sedans,

HMMWVs, trucks up to 5 tons in weight, tracked and wheeled light and medium weight armored vehicles, helicopters, and small unmanned aerial vehicles (UAV).

Other training features within the AWC may consist of simulated water crossing locations, a sand crossing, a mud crossing, a bridge crossing, and a tunnel. Each of these training features would be self contained and would not be connected to any existing water body. These training features would be used to train soldiers in bridge construction and obstacle crossing procedures.

The only utilities that would be provided to these training sites would be power and, if necessary, communications lines, either underground or overhead. No sanitary sewer or potable water is proposed for the individual training sites.

An evasive driving training track consisting of a one-mile long, 30-foot-wide, asphalt perimeter road around the urban training site is proposed for the AWC. This track would be used for drivers' training for any type of tactical or non-tactical vehicle which may be used in urban terrain. Both light and medium weight wheeled and tracked vehicles would be used on the drivers' training track and within the AWC. Other existing training areas and training ranges on Fort A. P. Hill would also be used as necessary.

Simulated ammunition (simunitions) including grenade and artillery simunitions would be used within the AWC. Explosives up to one-quarter pound of C4 and blanks up to 50 caliber would also be used. No outdoor firing ranges or demolition ranges are proposed for construction on the AWC. Separate AWG specific ranges are proposed for construction on Fort A. P. Hill and range construction is covered in a separate NEPA document. Until these ranges are constructed, existing outdoor firing ranges and demolition ranges on Fort A. P. Hill would be used for AWG training.

SECTION 3.0

3.0 ALTERNATIVES CONSIDERED

3.1 Alternatives Development

For proposed actions that require preparation of an EA, Council of Environmental Quality regulations (§1508.9[b]), NEPA (§102[2][E]), and Army regulations (32 CFR Part 651) and policy require that appropriate alternatives for the proposed action be described and evaluated. A reasonable range of alternatives that meet the underlying purpose and need for the proposed action should be analyzed for their environmental impacts to support a fully informed decision by the decision-maker. An EA must include an evaluation of the No Action Alternative as a reference for the comparison of potential environmental impacts associated with the proposed action. Additionally, the EA should identify any alternatives eliminated from detailed analysis and indicate the reasons for their elimination.

Two alternatives and the No Action Alternative were considered by the AWG as part of the NEPA process. Each alternative was considered for meeting the purpose and need, as well as cost and impact to the human and natural environment. Alternatives which did not meet the screening criteria established by the AWG were not considered throughout the EA.

3.2 Screening Criteria

Screening criteria established by the AWG for the proposed AWC includes:

- Sufficient training space to ensure operations meet the standards established by the Army IED Task Force and the Joint IED Defeat Task Force;
- A location within easy driving distance of the AWG Headquarters which will remain at Fort Meade, Maryland;
- A location in proximity to Washington, D. C. and Military District Washington (MDW) as the AWG is considered a national strategic asset performing necessary training for all military services;
- Placement in an area where training could occur without jeopardizing the safety of nearby and surrounding areas and activities;
- A contiguous training area which could be restricted from surrounding activities for safety and security purposes.

3.3 Alternative 1, Construct Facilities at Fort A. P. Hill, Virginia

The proposed action presented in Section 2.0 is a description of the AWG's Preferred Alternative. The site which is designated as Training Area 22B on Fort A. P. Hill meets the

screening criteria listed in Section 3.2 above. Fort A. P. Hill is geographically close to Washington, D. C. and Fort Meade, Maryland. There is sufficient space available for proposed training activities and the site can be secured for safety and security purposes. Similar activities and operations, including vehicle and equipment usage, planned for the AWC are being performed elsewhere within the borders of Fort A. P. Hill. Fort A. P. Hill is also currently supporting the AWG training activities and operations on other parts of the installation.

3.4 Alternative 2, Facilities at Fort Meade, Maryland

The AWG considered use of the training areas at Fort Meade, Maryland, where the Headquarters Office is currently located. Use of Fort Meade would be geographically close to the Headquarters Office and to MDW. However, the training areas on Fort Meade are not large enough for the proposed AWC operations. The training areas on Fort Meade are also under the direction of the Department of Interior. Ranges cannot be secured and range use restrictions do not allow the needed flexibility for training which meets IED Task Force standards. Alternative 2 does not meet the screening criteria established by the AWG and has been eliminated from further consideration within this EA.

3.5 Alternative 3, Facilities at Aberdeen Proving Ground, Maryland

The AWG considered use of the training areas at Aberdeen Proving Ground (APG), at Edgewood, Maryland. Use of APG would be geographically close to the AWG Headquarters Office at Fort Meade and to MDW. However, the training areas on APG are not large enough for proposed AWC operations. Training areas on Aberdeen Proving Ground are also restricted, controlled and committed to other uses and to other users. Alternative 3 does not meet the screening criteria established by the AWG and has been eliminated from further consideration within this EA.

3.6 Alternative 4, Renovate/Upgrade Facilities at Fort A. P. Hill, Virginia

The AWG considered upgrading, renovating and modernizing existing facilities at Fort A. P. Hill. A survey of space on Fort A. P. Hill indicates that there is no adequate space which could be renovated and made available for an AWC. Existing facilities would not be co-located and a contiguous training area could not be fenced. Alternative 4 does not meet the screening criteria established by the AWG and has been eliminated from further consideration within this EA.

3.7 Alternative 5, Build at Training Area 30 at Fort A. P. Hill, Virginia

The AWG studied and drafted a design for use of Training Area 30 south of South Range Road and on the southwestern boundary of the installation near Bowling Green, Virginia. While the site was large enough for all proposed activities, noise contours from training exercises traveled beyond post boundaries. Weapons firing and noise generating activities are necessary for AWG training operations; therefore, this site was abandoned and eliminated from further consideration within this EA.

3.8 No Action Alternative

Under the No Action Alternative, the AWC would not be constructed at Fort A. P. Hill. The No Action Alternative would be expected to have a negative impact on national security and joint forces training objectives and mission, but would eliminate the potential environmental impacts associated with construction and utilization of the AWC. The existing Training Area 22B would continue to be used for its current purposes and the existing conditions of the affected environment on the proposed site would not change under the No Action Alternative. The AWG would continue to use pre-existing facilities and ranges on Fort A. P. Hill. These baseline environmental conditions are described in Section 4.0 of this EA and serve as a benchmark for the evaluation of potential impacts of the proposed action. CEQ regulations and 32 CFR Part 651 require consideration of the No Action Alternative.

SECTION 4.0

4.0 AFFECTED ENVIRONMENT

4.1 Location Description

Fort A. P. Hill is a Department of the Army training facility located in Caroline County, Virginia, north of the town of Bowling Green. The installation is approximately 76,000 acres in size and is bisected east and west by U. S. Route 301. The mission of Fort A. P. Hill is to maintain an all-purpose year-round training facility for the military units assigned to the installation. Active Army, National Guard and Reserve units, as well as the Marines and the Navy, use the installation for training activities. The proposed site consists of a major portion of Fort A.P. Hill Training Area 22B, located approximately 3 miles northwest of Highway 301 and North Range Road. The site, which comprises the training lands of Training Area 22B, is bounded on the north by Lee Drive, on the south by Shackelford Road, on the west by Longstreet Camp and on the east by Wilcox Road and Taylor's Corner.

4.2 Land Use

The proposed AWC site is currently partially forested and classified as unimproved. It is used regularly for land navigation and infantry training operations which do not require open or improved areas. It is also used for the National Scout Jamboree. The area has been heavily disturbed from past site use activities.

4.3 Air Quality

Fort A. P. Hill is located in the Northeastern Virginia Air Quality Control Region. The Virginia Department of Environmental Quality (VDEQ) has classified Caroline County as an attainment area for all National Ambient Air Quality Standards (NAAQS). Fort A. P. Hill currently has an air quality permit for all emissions activities which occur on post including tenant activities.

4.4 Noise

The Federal Interagency Committee on Urban Noise (FICUN) has developed land use guidelines, adopted by the Department of Defense, for areas on or near noise producing activities, such as highways, airports, and firing ranges. The Army uses these guidelines to designate Noise Zones (NZ) for land use planning. Land use guidelines are meant to ensure the compatibility with the noise environment while allowing maximum beneficial use of contiguous property. Fort A. P. Hill has an obligation to the surrounding communities to determine ways to protect both the people living and working adjacent to the installation and the public's investment in the installation and the training which occurs there.

Noise Zones (NZ) are designated as Land Use Planning Zone (LUPZ), I, II, or III based on the number of decibels (dB) produced for both long term and impulsive events. NZ descriptions for Fort A. P. Hill include:

- LUPZ consists of the areas around a noise source where the C-weighted day-night level (CDNL) is less than 57 dB for all noise. A LUPZ is usually acceptable for all types of land use activities.
- NZ I consists of the areas around a noise source where a single event noise is less than 87 dB for small arms and the C-weighted day-night level (CDNL) is less than 62 dB for large arms impulsive noise. The CDNL is the time weighted average sound level with a 10 dB penalty added to night time (2200 to 0700 hours) noise levels. NZ I is usually acceptable for all types of land use activities.
- NZ II consists of the area where a single event noise is between 87 and 104 dB for small arms and the CDNL is between 62 and 70 dB for large arms impulsive events. Land use within a NZ II area is normally limited to industrial, manufacturing, and transportation type activities.
- NZ III consists of the area around a noise source where a single event noise is greater than 104 dB for small arms and the CDNL is greater than 70 dB for large arms impulsive events. Noise sensitive land uses are not recommended for NZ III areas.

Based on Department of Defense guidance, the Department of the Army has developed an Environmental Noise Management Program which considers noise from all sources of military activities. Fort A. P. Hill has both a Noise Contour Map and an installation Environmental Noise Management Plan (ENMP). The ENMP, which applies to all tenants, including the AWG, provides information and recommendations for reducing noise impact during land and air training exercises. It also provides limits for weapons firing and noise complaint investigation procedures. Currently all NZ II and NZ III areas of Fort A. P. Hill, including the existing Training Area 22B, are within post boundaries.

4.5 Soils and Vegetation

4.5.1 Soils

Fort A. P. Hill is located in the Atlantic Coastal Plain physiographic province. The terrain includes rolling countryside to mostly level plains, interrupted by numerous shallow valleys. The elevation ranges from 10 to 255 feet above mean sea level. The soils on the AWC site range from potentially erodible to highly erodible due to location, soil texture, structure, slope, and permeability. Soil types include Bibb-Chastain complex, which is frequently flooded, Slagle-Kempsville complex on stream slopes, and Kempsville-Emporia-Remlik complex in upland areas.

4.5.2 Vegetation

Current vegetation at the proposed AWC site is composed mainly of upland forest with a mixture of deciduous trees including oaks (*Quercus* spp.), hickories (*Carya* spp.) and some beech (*Fagus grandifolia*) with evergreen Virginia pines (*Pinus virginiana*) and loblolly pines (*Pinus taeda*). Vegetation near streams include wetlands plants soft rush (*Juncus effuses*), wild calla (*Calla*

palustris), and shallow sedge (*Carex lurida*). Scrub/shrub wetlands plants include shallow sedge (*Carex lurida*), brook-side alder (*Alnus serrulata*), and arrow-leaf tearthumb (*Polygonum sagittatum*). Dominant tree species in forested wet areas include loblolly pine, red maple, black gum (*Nyssa sylvatica*), tulip tree (*Leriodendron tulipifera*), and American holly (*Ilex opaca*).

4.6 Water Resources.

4.6.1 Surface Water

The proposed AWC site is bisected by several intermittent streams and by one unnamed tributary of Mill Creek. The tributary is a perennial stream and flows west to east through the southern portion of the site. The majority of the project site is upland area.

4.6.2 Wetlands

Wetlands have been identified and delineated throughout the installation in a National Wetlands Inventory (NWI) Survey. Additionally, water quality protection standards have been established for lands adjacent to wetlands and water bodies with perennial flow. Fort A. P. Hill imposes a 100-foot buffer around all wetlands to minimize impacts from erosion or soil disturbance. A wetlands delineation, conducted in June 2006, delineated wetland areas along all of the intermittent streams and along the unnamed tributary of Mill Creek. Wetlands indicators included hydric soils, wetlands (hydrophytic) vegetation, and hydrology (the presence of water) as defined by the Army Corps of Engineers. Wetlands on the proposed AWC site (**Figure 3**) include palustrine emergent, palustrine scrub/shrub, palustrine forested, palustrine forested/palustrine emergent, palustrine forested/palustrine scrub/shrub, and seepage palustrine forested wetlands. Non-wetland areas on the proposed AWC site lack one or more indicators for wetland determination.

4.6.3 Drinking Water

Drinking water on Fort A. P. Hill is provided by a series of ground water wells located throughout the installation. These wells are typically 350 to 500 feet deep and provide approximately 100 to 250 gallons per minute. Drinking water lines currently run along Lee Drive which runs along the western and northern boundaries of the proposed AWC.

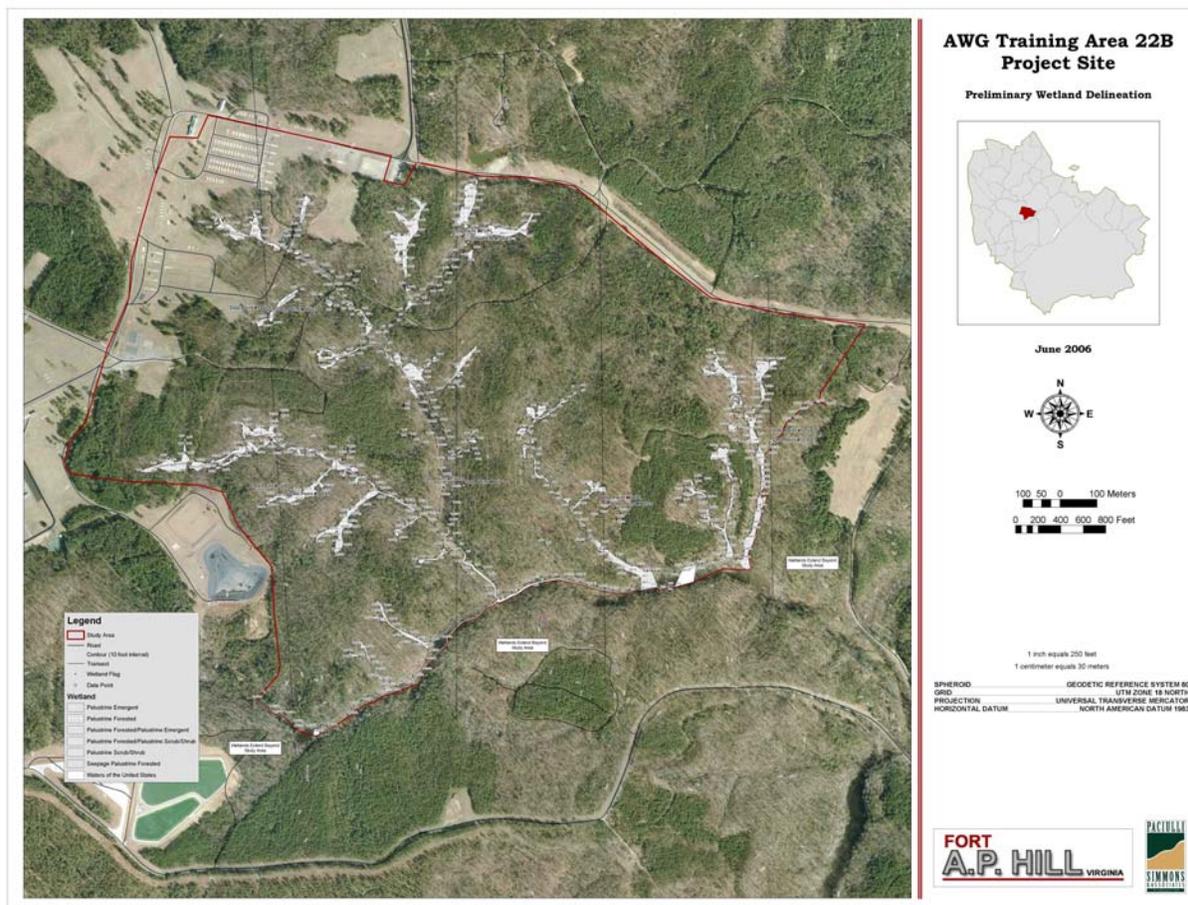


Figure 3. Wetlands on Proposed AWC Site

4.7 Biological Resources.

4.7.1 Threatened and Endangered Species

Surveys of swamp pink (*Helonias bullata*) and small whorled pogonia (*Isotria medeoloides*) were performed by the Department of Conservation and Recreation, Division of Natural Heritage during 9-11 May 2006 and on 14 June respectively on Training Area 22B including the proposed AWC site and adjacent lands south of Mill Creek. Neither of these species was identified during the field surveys.

4.7.2 Threatened and Endangered Species Potential Habitat

In May and June 2006, the Division of Natural Heritage surveyed the land on Training Area 22B proposed for use as the AWC and the adjacent land south of Mill Creek. Swamp pink, currently listed on the federal threatened species list, typically occur within the herbaceous layer within seepage swamp/wetland habitats. A limited amount of appropriate seepage habitat for swamp

pink and small whorled pogonia was present in the area north of Mill Creek on Training Area 22B. Habitat for New Jersey Rush was present along a small tributary drainage swale within the project area and in small patches along the project area's southern boundary along Mill Creek. However, no species were observed during the field survey.

4.8 Cultural Resources

4.8.1 Archaeological Sites

The Spring 2006 Phase I survey of the proposed AWC site at Training Area 22B identified three archaeological sites (44CE0466, 44CE0467, and 44CE0468) within the interior center of the proposed project area (**Figure 4**). Site 44CE0466 was identified as a twentieth-century domestic site. Artifacts recovered from the site included whiteware, cut nails, and container glass. As this type of site is ubiquitous to the Fort A.P. Hill vicinity and is unlikely to yield additional information important in history, Site 44CE0466 is recommended as not eligible for inclusion in the NRHP. Site 44CE0467 was identified as the remains of a prehistoric site of undetermined age. As the site lacks integrity and is unlikely to yield additional information important in prehistory, Site 44CE0467 is recommended as not eligible for inclusion in the NRHP. Site 44CE0468 was identified as a late nineteenth-early twentieth century domestic site. Artifacts recovered included whiteware, cut and wire nails, brick, and window and container glass. As this type of site is ubiquitous to the Fort A.P. Hill vicinity and is unlikely to yield additional information important in history, Site 44CE0468 is recommended as not eligible for inclusion in the NRHP.

4.8.2 Architectural Resources

According to a 2004 Phase I Cultural Resources Survey conducted on the proposed AWC site, no architectural resources exist within the boundaries of the proposed action. Additionally, no architectural resources were observed during the archaeological surveys conducted in 2006.

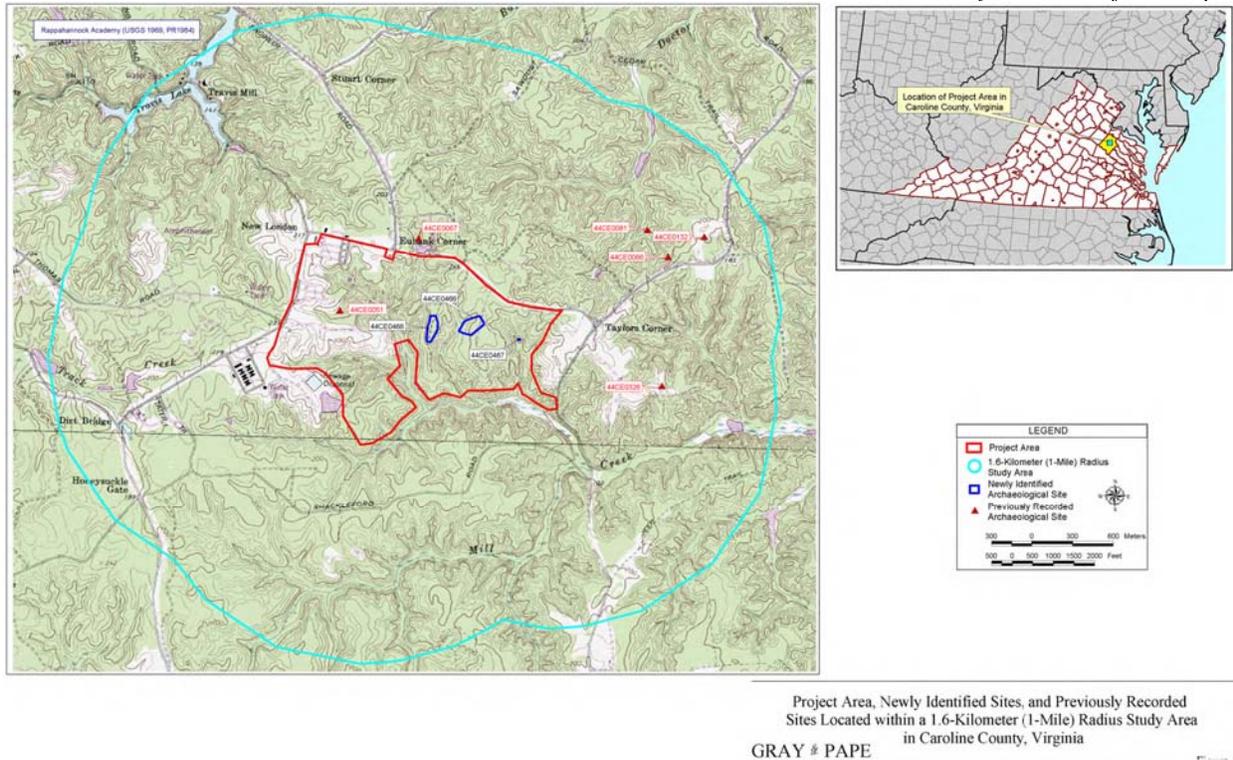


Figure 4. Cultural Resources Identified on Proposed AWC Site

4.9 Socioeconomic Resources

4.9.1 Demographics

Caroline County is located in the rapidly growing I-95 urban corridor, separating two major metropolitan statistical areas (MSA): the Baltimore-Washington MSA comprising a population in excess of 1,825,000 (Virginia portion only) and the Richmond-Petersburg MSA encompassing a population of nearly 900,000 (Census 2000). Caroline County is part of the Fredericksburg Region, which was the fastest growing area in the state between 1980 and 1990, in terms of population and job creation. The Fredericksburg Region contains a population in excess of 215,000 (Census 2000). As the southernmost locality in the Fredericksburg Region, Caroline County draws from both the Fredericksburg and Greater Richmond regional labor markets.

4.9.2 Economy

Historically, Caroline County's major private industries have been tied directly to natural resources. These include agriculture and forestry products and nearly 51,604 acres of farmland. Principal crops are soybeans, wheat, and corn. There are over 261,700 acres of commercial forestland, which predominantly include loblolly pine, short leaf pine, oak, and hickory. Significant mineral resources include sand, gravel, clay, mica, and beryl. In addition to the

expansion of some resource-based industries, Caroline County is seeing a new wave of activity from a variety of businesses and industries and growth in Caroline County has significantly changed in recent years.

The populations surrounding Fort A. P. Hill tend to have lower incomes than Virginia residents as a whole; however, this fact most likely reflects the rural nature of the county and the lag in growth compared to its more rapidly urbanizing neighbors such as Stafford and Spotsylvania Counties.

4.9.3 Protection of Children

Executive Order 13045 seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of installation policies, procedures, programs, activities, and standards. The training lands and ranges of Fort A. P. Hill are restricted to authorized personnel only and access is limited, excluding the entry of unauthorized adults and children.

4.10 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires Federal agencies to identify and address disproportionate adverse effects of their programs, policies, and activities on minority and low-income populations.

The Region of Influence (ROI) for this proposed action lies within the confines of Fort A. P. Hill. The training mission applies only to facilities that lie within the installation boundaries and has no applicability to resources that are located on lands outside Fort A. P. Hill. No low income or minority populations exist on the installation or immediately adjacent to the site.

4.11 Infrastructure and Utilities

Existing infrastructure on the proposed AWC site is composed of Lee Drive which runs southwest to northeast on the northern property boundary, Shackleford Road which runs west to east along the southern property boundary and Wilcox Road which makes up the eastern boundary. Several non-hardened tank trails run through the proposed site. To the west of Training Area 22B is Longstreet Camp, a training complex, containing field quarters, administrative buildings, paved roads, and parking areas. To the east is Training Area 21A used for infantry training. The surrounding land is mostly unimproved wooded training areas used for maneuver training exercises and weapons firing. Utilities including water, sewer, power, and communications lines run along the Lee Road and are accessible to any training areas along this roadway including the AWC.

4.12 Hazardous Materials/Wastes

4.12.1 Hazardous Materials/Wastes

Current use of Training Area 22B and the surrounding land does not include use of hazardous materials or generation of hazardous waste. Fort A. P. Hill has an on-going contract for collection and disposal of any regulated and hazardous waste generated on the installation. Hazardous and regulated materials and wastes, as defined by the Environmental Protection Agency, on Fort A. P. Hill are regulated by Army Regulation (AR 200-1) and any other applicable federal, state and local laws and regulations. Fort A. P. Hill follows Department of the Army pollution prevention and recycling methods wherever applicable.

4.12.2 Regulated Non-Hazardous Materials/Wastes

Current use of Training Area 22B and the surrounding land does not include generation of regulated non-hazardous waste, such as medical waste and used oil. Fort A. P. Hill currently has a contract for collection and disposal of regulated medical waste and used oil both of which are generated on post.

SECTION 5.0

5.0 ENVIRONMENTAL CONSEQUENCES

5.1 Land Use

5.1.1 Effects of the Preferred Alternative

Current land use on the proposed site would change from a wooded, unimproved site to one that contains some improved roadways and some infrastructure. Existing trails would be used and topography would be followed to the extent possible to minimize environmental impact. While the type of training conducted on the proposed AWC would change, the property has long been established as a training area within the confines of Fort A. P. Hill and would continue to be used for military training. No significant impact to land use is anticipated due to the proposed action.

5.1.2 Effects of the No Action Alternative

The No Action Alternative would have no impact to land use because the site would not be used for establishment of the AWC. The land would remain as wooded, unimproved property used for military training.

5.2 Air Quality

5.2.1 Effects of the Preferred Alternative

Air impacts from the proposed action would include short-term temporary emissions from construction equipment operation, the removal of trees and grubbing of stumps and possible fugitive dust from vehicle movement. During construction, all fugitive dust would be kept at a minimum using control methods recommended under the Virginia Air Quality Regulations, such as wetting roadways and construction entrances. During site operations, fugitive dust would be kept at a minimum through the use of operational controls such as limiting vehicle speed.

Training operations at the AWC would be short-term and localized. Only simunitions, rather than live ammunition, are proposed for use on the AWC. No demolition training would occur at the AWC. There are no regulatory emissions restrictions for the proposed training at the AWC.

The paint booth and welding shops would be self-contained and include air filtering devices. Because they may cause some minor emissions during operations, these facilities would be added to the Fort A. P. Hill Air Quality Permit.

No significant effects to air quality are anticipated by construction and operation of the AWC.

5.2.2 Effects of the No Action Alternative

The No Action Alternative would have no impact to air quality because the site would not be used for establishment of the AWC. Air quality would remain as it currently exists.

5.3 Noise

5.3.1 Effects of the Preferred Alternative

Noise would be generated within the AWC during construction and during AWG training operations. Construction would be short-term and localized mainly in the administrative cantonment area and within the urban training site. These two areas would experience construction of several single and multi-story buildings and roadways. Noise during training would include grenade and artillery simulators, small arms of up to .50 calibers and C4 charges up to one-quarter pound. Helicopters would regularly be used for AWG training, and firing from helicopters may occur in some training scenarios. Roadways would be constructed between the administrative area and the training sites as well as around the entire perimeter of the AWC. Convoy noise would be generated during convoy operations training.

Noise contours based on modeling provided by the U. S. Army Center for Health Promotion and Preventive Medicine were created for proposed weapons firing and training operations within the AWC. Contours were created for .50 caliber blanks (**Figure 5**), shotgun blanks (**Figure 6**), 7.62mm blanks (**Figure 7**) and 5.56mm blanks (**Figure 8**). Contours were also created for M110 flash artillery simulators (**Figure 9**). NZ II and III contours for all noise did not go beyond installation boundaries.

Fort A.P. Hill .50 Cal. Blank Noise Contours

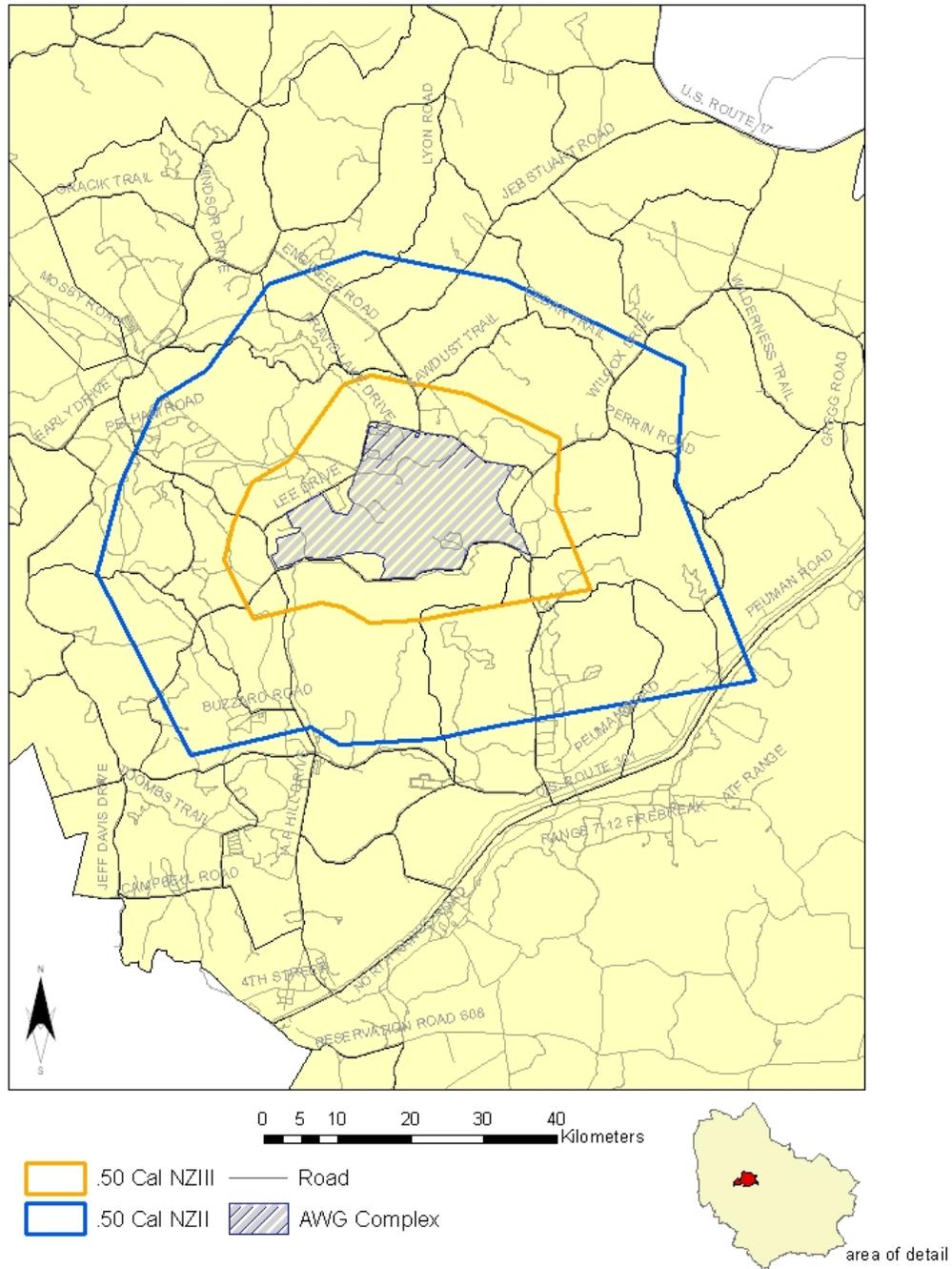


Figure 5. AWC .50 Caliber Blank Noise Contours

Fort A.P. Hill Shotgun Blank Noise Contours

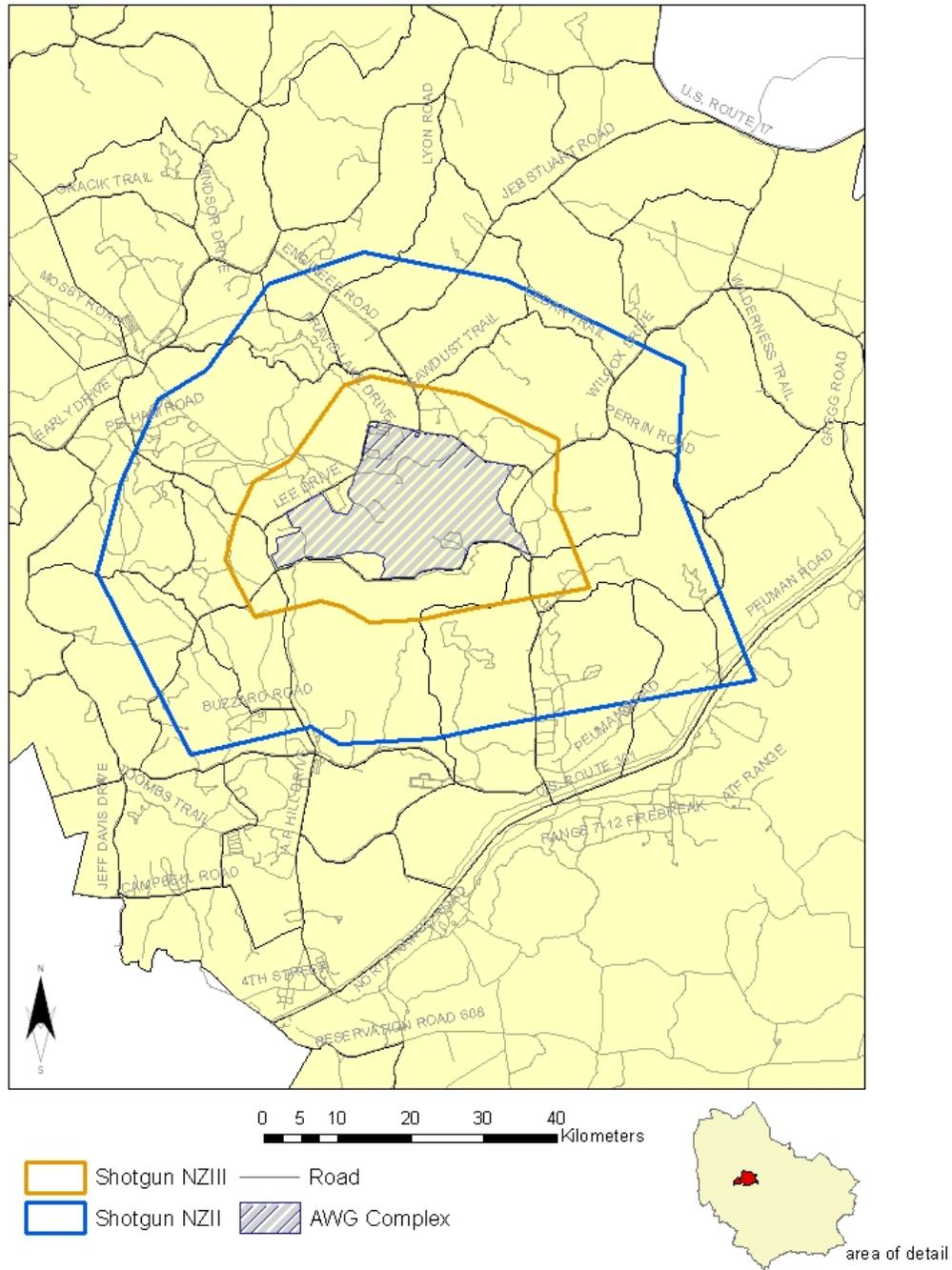


Figure 6. AWC Shotgun Blank Noise Contours

Fort A.P. Hill 7.62mm Blank Noise Contours

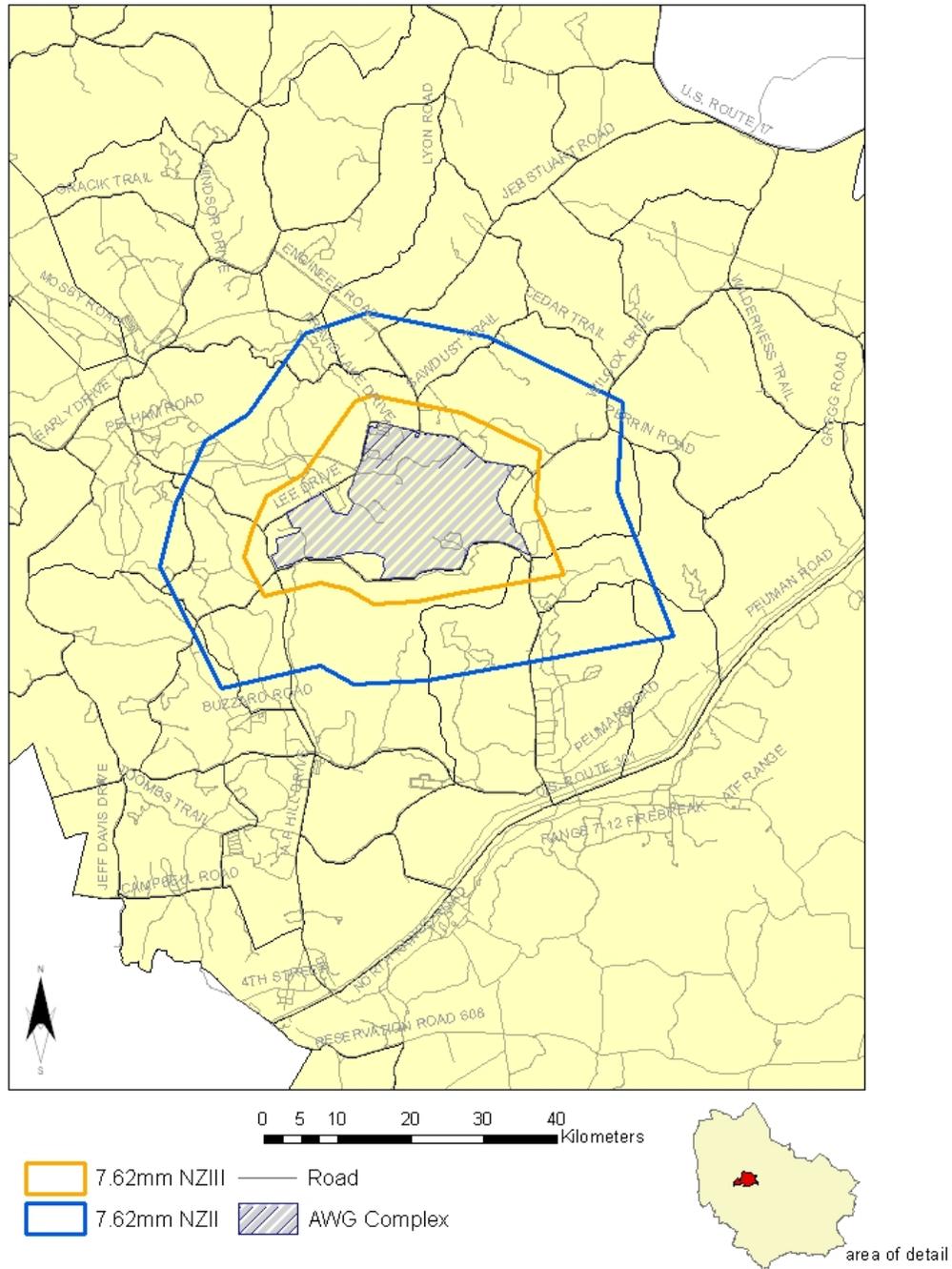


Figure 7. AWC 7.62mm Blank Noise Contours

Fort A.P. Hill 5.56mm Blank Noise Contours

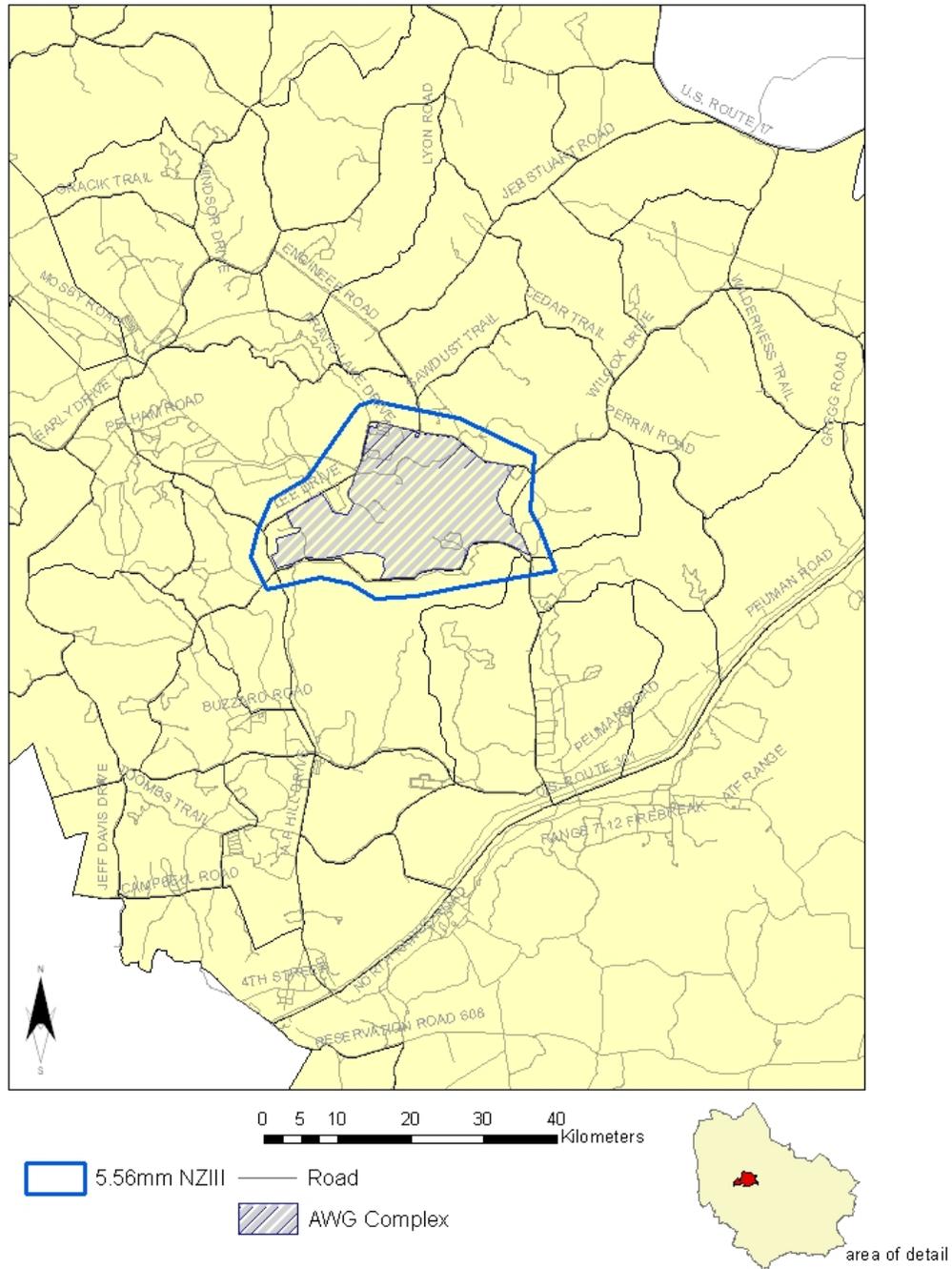


Figure 8. AWC 5.56mm Blank Noise Contours

Fort A.P. Hill M110 Flash Artillery Sim. Noise Contours

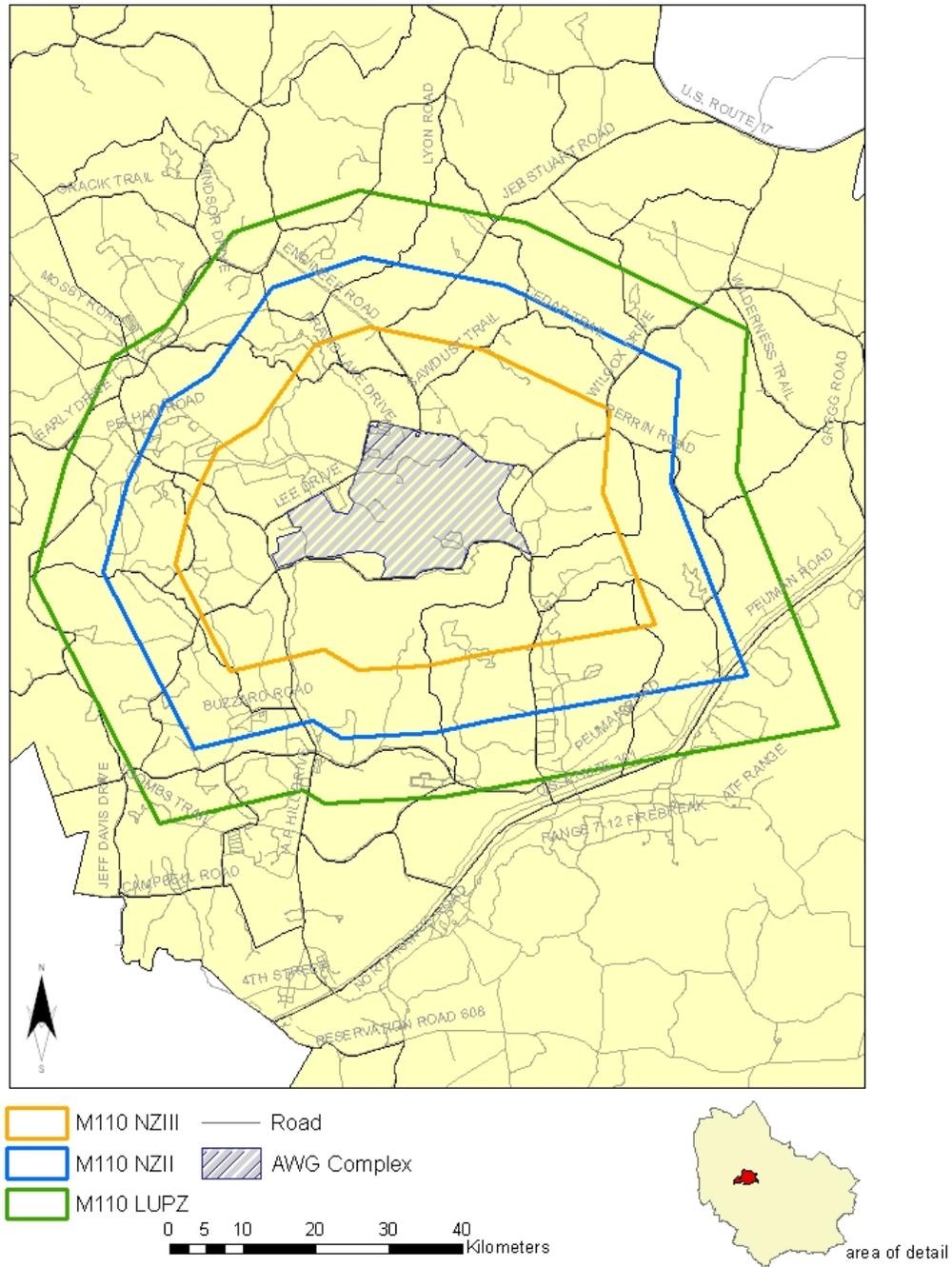


Figure 9. AWC M110 Flash Artillery Simulator Noise Contours

5.3.2 *Effects of the No Action Alternative*

The No Action Alternative would have no new impact to noise because the site would not be used for establishment of the AWC; it would continue to be used as a maneuver training area.

5.4 *Soils and Vegetation*

5.4.1 *Effects of the Preferred Alternative*

An erosion and sediment control plan, generated in accordance with the latest local, state, and federal requirements would be developed, reviewed, and implemented prior to construction. Site topography is slightly rolling with some sloping to the north, northwest, and west. Existing topography would be followed wherever possible so that excavation and grading would be minimal. Grading would be greater in the administrative cantonment area and urban training site than in the other training sites. Grading in other areas of the AWC would be minimal. Excavation and engineer training is not proposed as part of the training exercises planned for the AWC.

Vegetation would be removed during construction to provide space for necessary infrastructure and to allow for specific training scenarios. The administrative cantonment area of the AWC would be cleared of trees, grubbed, and seeded and/or sodded once the trees are removed.

Some impacts to vegetation would occur during timbering of the AWC and clearing and grubbing of the cantonment area and urban training site. However, clear cutting would be avoided wherever possible and selective cutting and tree removal would be completed in accordance with the Fort A. P. Hill Integrated Natural Resources Management Plan (INRMP). Timbering provides funds to the county through the Army Timber Management Fund. Urban vegetation would be established on site in the administrative area and in the urban training area to provide a realistic setting. Because the site is greater than five acres, Fort A. P. Hill would obtain a Virginia Stormwater Management Construction Permit for this project under the Virginia Stormwater Management Program (VSMP) as implemented by the Chesapeake Bay Local Assistance Department (CBLAD). Fort A. P. Hill would also prepare and implement a storm water pollution prevention plan in accordance with the VSMP Regulation for land disturbing activities. Impacts to vegetation would not be significant.

5.4.2 *Effects of the No Action Alternative*

The No Action Alternative would have no impact to vegetation because the site would not be used for establishment of the AWC. Vegetation would remain as it currently exists.

5.5 Water Resources

5.5.1 Effects of the Preferred Alternative

Because of very sandy soils being located on site, natural infiltration, in combination with existing undisturbed swales and channels, may be expected to significantly contribute to adequate storm water drainage. For the period of construction, Fort A. P. Hill would prepare and implement erosion and sediment control and storm water management plans in accordance with the VSMP and CBLAD. In addition, Fort A.P. Hill has obtained storm water construction permit coverage for this project under the VSMP Regulation. Fort A. P. Hill would prepare and implement a Storm Water Pollution Prevention Plan in accordance with the VSMP Regulation.

Wetlands delineations, conducted in April and June 2006, identified wetland areas within the proposed AWC site; however, the majority of the land is non-wetland. Bridges will be constructed to provide crossings over wetlands and stream beds. To ensure adequate protection of these areas a Joint Permit Application (JPA) for wetland impact was submitted to the Virginia Marine Resources Commission (VMRC). The VMRC is responsible for staffing the JPA to applicable federal and state agencies; however, this proposed permit application process has already been coordinated with the Army Corps of Engineers. The VMRC reviewed the JPA and responded that no impacts or encroachments to wetlands are anticipated for this project. Because the VMRC indicated that no wetlands impacts would occur, a Virginia Water Protection Permit (VWPP) issued by the DEQ would not be necessary. While all proposed range construction and training operations are not expected to occur within wetlands areas, any wetland impacts would be mitigated and documented according to local, state, and federal regulations.

Based on local topography and stream networks, excavation depths for buildings and storm water drainage are not expected to encroach upon groundwater levels at the proposed AWC. Training operations would not involve the need for groundwater. To protect groundwater from possible spills, the construction contractor and the AWG would maintain spill control materials on site during construction and operational use. The proposed action would not be expected to impact groundwater.

Drinking water lines currently run along Lee Drive Road which runs along the northern boundary of the proposed AWC. These lines would be extended to provide drinking water to the administrative cantonment area of the AWC. No drinking water would be provided to the individual training sites within the AWC. Drinking water in these areas would be provided by soldiers carrying personal canteens or other water containing equipment.

5.5.2 Effects of the No Action Alternative

The No Action Alternative would have no impact to water resources, including surface water, wetlands, storm water, groundwater, and drinking water because the site would not be used for establishment of the AWC. Water resources would remain as they currently exist.

5.6 Biological Resources

5.6.1 Effects of the Preferred Alternative

A threatened and endangered species survey performed in May 2006 found no swamp pink (*Helonias bullata*) or small whorled pogonia (*Isotria medeoloides*) species. Survey results indicated that appropriate seepage habitat for swamp pink was present in many of the tributary drainage areas. These seepage habitat sites would be avoided during construction and training operations. By avoiding these sites, no impact to biological resources is anticipated.

5.6.2 Effects of the No Action Alternative

The No Action Alternative would have no impact to biological resources because the site would not be used for establishment of the AWC. No biological resources would be involved with this alternative.

5.7 Cultural Resources

5.7.1 Effects of the Preferred Alternative

A Phase I Cultural Resources Survey performed in spring 2006 identified three archaeological sites (44CE0466, 44CE0467, and 44CE0468) on the proposed AWC site at Training Area 22B. All three sites are recommended as not eligible for inclusion in the NRHP. No further archaeological investigations will be completed on these resources as they would be avoided during construction. In a letter to Fort A. P. Hill dated 9 September 2006, the State Historic Preservation Office has concurred with the recommendations for site ineligibility and agrees that no further archaeological investigations are necessary.

5.7.2 Effects of the No Action Alternative

The No Action Alternative would have no impact to cultural resources because the site would not be used for establishment of the AWC. No cultural resources would be involved with this alternative.

5.8 Socioeconomic Resources

5.8.1 Effects of the Preferred Alternative

Use of the proposed AWC could bring as many as 400 soldiers to Fort A. P. Hill annually. The AWC currently uses other facilities and training areas on Fort A. P. Hill. During training at the AWC, soldiers would stay on post and spend a small amount of time and money in the local economy. However, by providing realistic training that meets military standards, Fort A. P. Hill can ensure regular use of the installation by Army, Reserve, and National Guard units and other

governmental law enforcement agencies. The economy of Caroline County benefits from the regular influx of all troops using the post. Soldiers visiting Fort A. P. Hill typically spend some money in the local economy.

Funds generated from the sale of training area timber harvesting are shared with Caroline County as a regular part of the Army Timber Management Fund. These funds help to support the local school system as well as other county programs.

The AWC site would be fenced and restricted to authorized personnel only; therefore, the proposed action would have no effect on children. There would be no significant impact to socioeconomic resources due to establishment of the AWC on Fort A. P. Hill.

5.8.2 Effects of the No Action Alternative

The No Action Alternative would have no impact to socioeconomic resources because the site would not be used for establishment of the AWC. No socioeconomic resources would be involved with this alternative.

5.9 Environmental Justice

5.9.1 Effects of the Preferred Alternative

Existing conditions at Fort A. P. Hill would continue under the proposed action. The proposed action does not create any advantage or disadvantage for any group or individual and it is not expected to create any adverse human health or environmental effects on children, minorities or low-income populations, or communities within or surrounding the installation. The AWC operations and activities would be completely within the existing boundaries of Fort A. P. Hill.

5.9.2 Effects of the No Action Alternative

The No Action Alternative would have no disproportionate or adverse impacts or environmental or social effects on minority and low-income populations. Existing conditions would continue within Training Area 22B.

5.10 Infrastructure and Utilities

5.10.1 Effects of the Preferred Alternative

Infrastructure to support the AWC would include existing on-site trails and Lee Drive. Additional paved and unpaved trails would be constructed as necessary to provide access to the administrative cantonment area and the three training sites. Some trails would be hardened with gravel to provide support for tracked and wheeled vehicles. A perimeter road would be constructed to allow troop movement from one training area to the next and for security purposes. On-site utilities would tie into existing utility lines, which run along Lee Drive.

Electrical power, water, and sewer would be supplied to the administrative area only. Power in the training sites would be provided by mobile generators. No water and sewer would be provided to the training sites. Communication lines would be supplied to the administrative cantonment area and possibly to the training areas. On-site communication lines would tie into existing communication lines, which run along Lee Drive.

Except for existing roadways, infrastructure would be constructed on the proposed site where only wooded areas currently exist. However, this new infrastructure would be consistent with buildings and roadways that exist throughout the installation. Existing topography would be followed wherever possible so that excavation and grading would be minimal. No significant impact to infrastructure is anticipated due to the proposed action.

5.10.2 Effects of the No Action Alternative

Under the No Action Alternative there would be no additional infrastructure added to the proposed AWC site and existing conditions would continue.

5.11 Hazardous Materials/Wastes

5.11.1 Effects of the Preferred Alternative

Minimal amounts of hazardous materials would be used during normal military training operations on the AWC in both the motor pool and the fabrication shop. Such materials might include motor oil, paint, degreasing agents, and welding gases. These materials and any wastes generated would be handled, stored, and disposed of in accordance with federal, state and Army regulations and requirements. Small amounts of medical waste may be generated at the First Aid Station including bandages, alcohol swabs, and vaccination syringes. Any medical waste would be collected and stored in accordance with federal, state, and Army regulations and requirements. Fort A. P. Hill would provide disposal for all AWC wastes through existing contracts. Fort A. P. Hill also has a program for recycling and pollution prevention which would apply to the AWC.

5.11.2 Effects of the No Action Alternative

The No Action Alternative would involve no hazardous materials and wastes on the AWC site. Training Area 22B would continue to be used for military training on Fort A. P. Hill.

5.12 Mitigation Measures

Air emissions would be minimal and filtered at the source. All new emissions equipment would be added to the Fort A. P. Hill Air Emissions Permit. Sources are monitored by the Fort A. P. Hill Environmental Division staff.

Noise complaints would be investigated and mitigated in accordance with the Fort A. P. Hill policy to promote an open dialogue with the local community. If necessary, Fort A. P. Hill would enhance and expand the existing perimeter noise monitoring system to include additional

noise monitors in noise sensitive areas. Monitoring would be accomplished to better assess and mitigate noise impacts including adjusting training operations, as necessary.

Impacts to surface water and wetlands would be minimized through the construction of bridge crossings over wetlands and stream beds. A JPA would be submitted to VMRC prior to site construction.

Vegetation removal would be done in accordance with the Fort A. P. Hill INRMP. Clear cutting would be avoided whenever possible and selective tree removal would be conducted to provide adequate space for AWC buildings and infrastructure. Existing topography would be followed wherever possible so that excavation and grading would be minimal.

5.13 Secondary and Cumulative Effects

A cumulative effect is defined as an effect on the environment that results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes these actions. Cumulative effects can result from individually minor but collectively significant actions taking place locally or regionally over a period of time.

The proposed AWC would be constructed on a pre-existing training area within an active Army training installation. Future proposed activities at Fort A. P. Hill include construction of an indoor firing range, an 800-meter range, and a demolition range all for use by the AWG. Other future activities include re-location of Fort Lee training activities to Fort A. P. Hill within the next 24 months. These re-location activities are being addressed in a separate EIS. At this time, there are no plans to change the current use of the property contained within Fort A. P. Hill. All proposed range construction and military training activities are within the current mission of Fort A. P. Hill. The Preferred Alternative is not anticipated to have any significant secondary or cumulative effects on Fort A. P. Hill or the surrounding area of Caroline County.

SECTION 6.0

6.0 CONCLUSIONS

Construction and use of the AWC at Fort A. P. Hill would not result in significant environmental or socioeconomic impacts. Army regulations, management plans, and environmental requirements implemented by Fort A. P. Hill would ensure activities are in compliance with all applicable federal and state laws, regulations, Executive Orders, Presidential Memoranda, and Army guidelines. Mitigation measures implemented prior to construction and use of the AWC would minimize or prevent significant impact to environmental resources. Air emissions would be permitted under VDEQ regulations and monitored as required. Noise complaints would be investigated and mitigated as necessary under the Fort A. P. Hill policy to have an open dialogue with the surrounding county and communities. Clear cutting would be avoided whenever possible and selective tree removal would be conducted where possible to provide adequate space for AWC buildings and infrastructure. Local socioeconomics would be enhanced through the Army Timber Management Fund which provides resources for county schools and other programs. Existing topography would be followed wherever possible so that excavation and grading would be minimal. Wetlands and surface water would be avoided due to bridge construction to prevent impacts to these resources.

As a result of the analyses performed by this EA, it has been determined that the known and potential impacts of the preferred alternative on the physical and socioeconomic environment would not be significant. Based on the findings and conclusions in this EA, issuance of a FONSI would be appropriate and preparation of an EIS would not be required.

SECTION 7.0

7.0 REFERENCES

- AR 200-1, Army Regulation 200-1, *Environmental Protection and Enhancement*. 21 February 1997.
- AR 200-3, Army Regulation 200-3. *Environmental Quality. Natural Resources Land, Forest and Wildlife Management*. February 1995.
- AR 200-4, Army Regulation 200-4, *Cultural Resources Management*. 1 October 1998.
- Code of Federal Regulations 32 CFR Part 651 (to be published as AR 200-2), *Environmental Analysis of Army Actions*. 29 March 2002.
- Fort A. P. Hill, DD1391 Asymmetric Warfare Training Complex, Revision Date 29 Nov 2005.
- Fort A. P. Hill Public Affairs Office. *New Warfare Group Plans Training Complex at Fort A. P. Hill*. Media Release. 20 July 2005.
- Grossman, Elaine. *Army to Create 'Asymmetric Warfare Group' to Prepare for New Threats*. Inside Washington Publishers. 8 July 2004.
- Lovelace, Jr., James J. and Joseph L. Votel. *The Asymmetric Warfare Group: Closing the Capability Gaps*. The U. S. Army Professional Writing Collection. Army Magazine, March 2004.
- McDonald, Brad and Robert Clarke. Draft Report, Phase I Archaeological Survey of the Proposed Asymmetric Warfare Group (AWG) Training Facility, Fort A. P. Hill, Caroline County, Virginia. (prepared by Gray and Pape, Inc.). 28 July 2006.
- Paciulli, Simmons and Associates, Ltd., Preliminary Wetland Delineation, AWG Training Area 22B Project Site, Fort A. P. Hill, Virginia. June 2006.
- Socioeconomics of Caroline County, Virginia. <http://www.co.caroline.va.us/demographics.html>
Website visited 18 October 2005.
- U. S. Army Center for Health Promotion and Preventive Medicine. *Environmental Noise Management Plan, Fort A. P. Hill, Bowling Green, Virginia*. December 1999.
- U. S. Army Center for Health Promotion and Preventive Medicine. Operational Noise Consultation No. 52-ON-04ER-06 for the Proposed Asymmetrical Warfare Group Training Compound, Fort A. P. Hill, VA. November 2005.
- U. S. Army Center for Health Promotion and Preventive Medicine. Addendum to Operational Noise Consultation No. 52-ON-04ER-06 for the Proposed Asymmetrical Warfare Group, November 2005. 6 July 2006.

SECTION 8.0

8.0 LIST OF PREPARERS

Fort A. P. Hill

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Ms. Kristine Brown, NEPA Cultural Coordinator
Department of the Army
DPW Environmental Division
19952 North Range Road
Fort A. P. Hill, VA 22427-3123

Asymmetric Warfare Group

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Natural Alternatives LLC

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SECTION 9.0

9.0 AGENCIES AND INDIVIDUALS CONSULTED

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Allen Brockman, Waste Division
Kotur Narasimhan, Division of Air Program Coordination

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John Bowden, Northern Virginia Regional Office

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Roger Kirchen, Division of Project Review

Virginia Marine Resources Commission

Ben McGinnis,

APPENDIX A
ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
APG	Aberdeen Proving Ground
AR	Army Regulation
AWC	Asymmetric Warfare Complex
AWG	Asymmetric Warfare Group
BMPs	Best Management Practices
CAAA	Clean Air Act Amendments
CBLAB	Chesapeake Bay Local Assistance Board
CEQ	Council of Environmental Quality
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
ED	Environmental Division
ENMP	Environmental Noise Management Plan
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
HLZ	Helicopter Landing Zone
ICRMP	Integrated Cultural Resources Management Plan
IED	Improvised Explosive Device
INRMP	Integrated Natural Resources Management Plan
JPA	Joint Permit Application
MDW	Military District Washington
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
TTP	Tactics, Techniques and Procedures
SHPO	State Historic Preservation Office
VDEQ	Virginia Department of Environmental Quality
VDH	Virginia Department of Health
VDHR	Virginia Department of Historic Resources
VMRC	Virginia Marine Resources Commission
VPDES	Virginia Pollution Discharge Elimination System
VWPP	Virginia Water Protection Permit

APPENDIX B
AGENCY CORRESPONDENCE



COMMONWEALTH of VIRGINIA

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

L. Preston Byrd, Jr.
Secretary of Natural Resources

Kathleen S. Kilpatrick
Director

Tel: (804) 367-2323
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TDD: (804) 367-2385
www.dhr.virginia.gov

September 6, 2006

Mr. Terry Banks
Headquarters, U.S. Army Garrison
Fort A.P. Hill
18436 4th Street
Fort A.P. Hill, Virginia 22427-3114

Re: *Phase I Archaeological Survey of the Proposed Asymmetrical Warfare Group (AWG) Training Facility, Fort A.P. Hill, Caroline County, Virginia*
DHR File No. 2006-1038

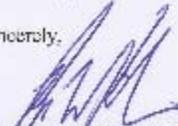
Dear Mr. Banks:

We have received for review a copy of the report referenced above prepared by Gray & Pape, Inc. for Paciulli, Simmons & Associates, LTD. We are pleased to inform you that the report meets the Secretary of the Interior's *Standards and Guidelines for the Documentation of Archaeological Sites* (48 FR 44734-44742) and our Department's *Survey Guidelines* (revised 2001).

The survey resulted in the identification of three archaeological sites and three artifact locations. The locations are, by definition, not eligible for listing on the National Register of Historic Places and no further study of these resources is warranted. Sites **44CE466** and **44CE468** are the remains of late 19th to early 20th century domestic sites. Site **44CE467** is the remains of a small, undiagnostic Native American site. None of the recorded sites possesses subsurface integrity or potential to substantially contribute to our understanding of history or prehistory. As such, the consultant recommends that these sites be found *not eligible* for listing on the National Register and we concur. No additional investigations at these sites are warranted. Furthermore, we find that a determination of *no historic properties affected* is appropriate for this activity.

Thank you for providing our office an opportunity to comment on this project. If I may provide any further assistance, please contact me at (804) 367-2323, ext. 153 or email roger.kirchen@dhr.virginia.gov.

Sincerely,


Roger W. Kirchen, Archaeologist
Office of Review and Compliance

Cc: Brad McDonald, Gray & Pape, Inc.

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-----Original Message-----

From: Nancy VanAlstine [<mailto:Nancy.VanAlstine@dcr.virginia.gov>]

Sent: Tuesday, September 19, 2006 8:56 AM

To: kristine.l.brown@us.army.mil

Cc: Bridget McGoldrick

Subject: Draft EA for Proposed Asymmetric Warfare Group Ranges

Hi Kristine: We have received a copy of the draft EA for the Proposed Asymmetric Warfare Group Ranges. Johnny Townsend, our staff botanist, is actually doing the review for botany but he asked me to look it over and I just have a few corrections/additions that I am sending to you and also bringing to the attention of our Environmental Review section.

The short paragraph on page 25, lines 8-11, relating to the proposed project (indoor range site) within TA 22B needs a correction. The survey for swamp pink was conducted 9-11 May 2006, but as the USFWS guideline for survey period for small whorled pogonia from Caroline County and north is June 1- July 20, I did not conduct the SWP survey in the project area north of Mill Creek until June 14 (the day after you and I surveyed south of Mill

Creek.) I found a limited amount of appropriate habitat in the area north of Mill Creek and no small whorled pogonia.

Also, I guess, from the date on the front cover, this was sent out before I did last week's New Jersey Rush survey. So I recommend adding a sentence along the lines of: "Habitat for New Jersey Rush (*Juncus caesariensis*) was present along a small tributary drainage within the project area and in small patches along the project area's southern boundary along Mill Creek.

The Virginia Department of Conservation and Recreation's Division of Natural Heritage conducted a survey in these areas on 13 September 2006 and no New Jersey Rush was found."

Thanks,

Nancy



DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510-1098

REPLY TO
ATTENTION OF:

November 6, 2006

Northern Virginia Regulatory Section
(Tributary to Mill Creek) 2006-7521-rdb

Mr. Benjamin H. McBride
Director of Public Works
C/o U.S. Army Garrison, Fort A. P. Hill
19952 North Range Road
Fort A.P. Hill, Virginia 22427

Dear Mr. McBride:

This is in regards for your request to perform work in waters of the United States. The project is associated with the construction of a perimeter road for the Asymmetric Warfare Group training complex within Fort A. P. Hill in Caroline County.

Based on review of your Joint Permit Application and receipt of your letter dated October 12, 2006, this proposed project will not require a Corps' permit. Provided that all construction equipment associated with the "fix span segmental" and "precast concrete arch" bridges associated with the perimeter road are confined and stabilized within upland areas and no fill will impact jurisdictional streams or wetlands, no further contact is required from this office.

Please include a copy of this letter if you submit an application to any State or local agency.

Should you have any questions, you may call Ms. Regena Bronson at 301.475.2720 in our Potomac Field Office.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael A. Schwinn".

Michael A. Schwinn
Chief, Western Virginia
Regulatory Section

Copies Furnished:
Caroline Department of Planning, Caroline
Virginia Department of Environmental Quality, Woodbridge
Raymond G. Dridge, P.E., Norfolk District, U.S. Army Corps of Engineers



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193-1453
(703) 583-3800 fax (703) 583-3801
www.deq.virginia.gov

November 15, 2006

Mr. Benjamin H. McBride
Director of Public Works
Directorate of Public Works
U.S. Army Garrison, Fort A.P. Hill
19952 North Range Road
Fort A. P. Hill, Virginia 22427-3123

RE: Joint Permit Application No. 06-2501
Asymmetric Warfare Group Training Complex, Caroline County, Virginia
Notification of No Permit Required

Dear Mr. McBride:

The Virginia Department of Environmental Quality (DEQ) has reviewed your Joint Permit Application dated October 12, 2006 and received on October 30, 2006 to permanently impact 0.003 acre of palustrine forested wetlands to construct road crossings at the Asymmetric Warfare Group Training Complex at Fort A.P. Hill in Caroline County, Virginia.

Because the water quality impacts should be minimal and temporary in nature and provided that the project as presented qualifies for a U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) No. 18 (Minor Discharges), and meets all of the §401 Certification Conditions, a Virginia Water Protection (VWP) general or individual permit will not be required for this project. This letter constitutes the §401 Certification for this project. You are advised that this does not give you the authority to violate Virginia's State Water Quality Standards.

Please note that should the size and scope of the project change, a VWP general or individual permit may be required. If you have any questions, please do not hesitate to contact Melissa A. Kuskie at 703-583-3892 or makuskie@deq.virginia.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Joan C. Crowther'.

Joan C. Crowther
Water Resources Development Supervisor

cc: Regena Bronson, U.S. Army Corps of Engineers, Potomac Field Office



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

December 18, 2006

Ms. Terry Banks
Chief, Environmental and
Natural Resource Division
U.S. Army Garrison
Fort A.P. Hill
19952 North Range Road
Fort A.P. Hill, Virginia 22427-3123

RE: Environmental Assessment and Federal Consistency Determination for the
Asymmetric Warfare Complex, Fort A.P. Hill, Caroline County, Virginia (DEQ 06-
189F).

Dear Ms. Banks:

The Commonwealth of Virginia has completed its review of the above-referenced Environmental Assessment (hereinafter "EA"), which includes a federal consistency determination. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act and responding to appropriate federal officials on behalf of the Commonwealth. DEQ is also responsible for coordinating state reviews of federal consistency determinations submitted under the Coastal Zone Management Act. The following agencies joined in this review:

Department of Environmental Quality
Department of Conservation and Recreation
Department of Game and Inland Fisheries
Marine Resources Commission
Department of Agriculture and Consumer Services,
Department of Forestry
Department of Mines, Mineral and Energy
Department of Historic Resources

The Department of Health, Caroline County, and the RADCO Planning District Commission were also invited to comment.

Ms. Terry Banks
Page 2

Project Description

The Department of the Army proposes to construct an asymmetric warfare complex (AWC) at Fort A.P. Hill in Caroline County. The proposed AWC would be constructed on approximately 450 acres of land northwest of Highway 301 near the geographic center of Fort A.P. Hill. The AWC would consist of administrative buildings containing offices and classrooms, field quarters, a vehicle maintenance shop including a paint booth, a fabrication shop with a welding area, a storage building containing an arms storage vault, a vehicle wash pad and fueling area, and associated parking areas and outbuildings. The training area would contain three sites:

- one with buildings and infrastructure to simulate an urban area;
- another with a rural landscape, gravel or dirt roads, and buildings to simulate a village; and
- a third undeveloped site that would maintain much of its existing vegetation.

A one-mile evasive driver training course is also proposed as a perimeter road to the urban training site. The 450-acre site would be fenced and include access control gates.

Environmental Impacts and Mitigation

1. Water Quality & Wetlands. The EA states (page 39) that existing topography would be followed wherever possible so the excavation and grading would be minimal. Vegetation removal would be done in accordance with the Fort A.P. Hill Integrated Natural Resources Management Plan.

According to the document (page 36), wetland delineations, conducted in April and June 2006, identified wetland areas within the proposed AWC site, however, the majority of the land is non-wetland. The EA (page 39) states that bridges will be constructed to provide crossings over wetlands and stream beds. To ensure adequate protection of these areas the document states that a Joint Permit Application (JPA) for wetland impacts will be submitted to the Virginia Marine Resources Commission.

Agency Comments

Based on the information presented in the EA, staff of the DEQ Northern Regional Office (NRO) note that impacts to surface waters and wetlands may occur. Therefore, review for a Virginia Water Protection Permit (VWPP) (9 VAC 25-210-50) is required. The Virginia Marine Resources Commission (VMRC) has received a Joint Permit Application (VMRC #06-2501) for the proposal (see section 2. **Subaqueous Lands Impacts**). Upon receipt of the JPA, DEQ-VWPP staff will review the proposed project in accordance with VWPP regulations and current VWPP program guidance.

Ms. Terry Banks
Page 3

Please note that the Commonwealth does not support the filling of wetlands, particularly when alternative sites have been identified. It is the policy of the Commonwealth of Virginia to first avoid impacts to wetlands before considering other mitigation measures such as minimization and compensation. The Virginia Water Protection Permit regulations state that "mitigation means sequentially avoiding and minimizing impacts to the extent practicable, and then compensating for remaining unavoidable impacts of a proposed action" (9 VAC 25-210-10). According to State Water Control Law § 62.1-44.15:5D, "...except in compliance with an individual or general Virginia Water Protection Permit issued in accordance with this subsection, it shall also be unlawful to conduct the following activities in a wetland: (i) new activities to cause draining that significantly alters or degrades existing wetland acreage or functions, (ii) filling or dumping, (iii) permanent flooding or impounding, or (iv) new activities that cause significant alteration or degradation of existing wetland acreage or functions. Permits shall address avoidance and minimization of wetland impacts to the maximum extent practicable. A permit shall be issued only if the Board finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish and wildlife resources."

Furthermore, Federal wetlands mitigation policy is guided by a Memorandum of Agreement between the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency that clarify a three-step approach to avoiding, minimizing, and compensating for unavoidable impacts (see Clean Water Act Section 404 (b)(1) *Guidelines Mitigation Memorandum of Agreement*, February 1990). The Corps first makes a determination that potential impacts have been avoided to the maximum extent practicable; remaining unavoidable impacts will then be mitigated to the extent appropriate and practicable by requiring steps to minimize impacts and, finally, compensate for aquatic resource values. This sequence is considered satisfied where the proposed mitigation is in accordance with specific provisions of a Corps and EPA approved comprehensive plan that ensures compliance with the compensation requirements of the 404(b)(1) Guidelines (examples of such comprehensive plans may include Special Area Management Plans, Advance Identification areas (Section 230.80), and State Coastal Zone Management Plans).

In general, DEQ recommends that the amount of stream and wetland impacts be avoided to the maximum extent practicable. For unavoidable impacts, DEQ encourages the following practices to minimize the impacts to wetlands and waterways:

- operation of machinery and construction vehicles outside of stream-beds and wetlands;
- use of synthetic mats when in-stream work is unavoidable;
- stockpiling of material excavated from the trench for replacement if directional drilling is not feasible; and
- preservation of the top 12 inches of trench material removed from wetlands for use as wetland seed and root stock in the excavated area.

Ms. Terry Banks
Page 4

2. Subaqueous Lands Impacts. According to the analysis contained in the Federal Consistency Determination (EA, Appendix D, page 53), the AWC would have no foreseeable impact on subaqueous resources.

Agency Comments

The Virginia Marine Resources Commission (VMRC) has jurisdiction over any encroachments in, on, or over any State-owned rivers, streams, or creeks in the Commonwealth, pursuant to Section 28.2-1204 of the Code of Virginia. VMRC states that the agency recently reviewed a JPA (VMRC #06-2501) for the proposal, and determined that there would be no impacts to, or encroachments over, State-owned submerged lands, in which the agency would have jurisdiction. However, if the scope of the project were to expand to include additional encroachments channelward of ordinary high water along any natural rivers and streams, a permit may be required from the agency.

For additional information, contact Ben McGinnis, VMRC, at (757) 247-8028.

3. Erosion and Sediment Control and Stormwater Management. According to the EA (page 35), the Army would prepare and implement erosion and sediment control and stormwater management plans in accordance with the latest local, state, and federal requirements. Furthermore, the document states that the Army will obtain stormwater construction permit coverage for this project under the Virginia Pollutant Discharge Elimination System (VPDES) regulation (EA, page 35).

Agency Comments

The Department of Conservation and Recreation's (DCR's), Division of Soil and Water Conservation did not respond to our request for comments on the proposal. However, based on available DCR guidance, federal agencies and their authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R), Virginia Stormwater Management Law and Regulations (VSWML&R), and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act Section 313, Federal Consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, or other structures, soil/dredge spoil areas, or related land conversion activities that disturb 10,000 square feet or more (2,500 square feet or more in a Chesapeake Bay Preservation Area) would be regulated by VESCL&R and those that disturb one acre or greater would be covered by VSWML&R. Accordingly, the Army should prepare and implement erosion and sediment control (ESC) and stormwater management (SWM) plans to ensure compliance with state law. The federal agency is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and/or other mechanisms, consistent with agency policy.

Ms. Terry Banks
Page 5

4. Coastal Lands Management/Chesapeake Bay Preservation Act. According to the EA (page 36) the Army would prepare and implement erosion and sediment control and stormwater management plans in accordance with VSWML&R and as required by the DCR Division of Chesapeake Bay Local Assistance (DCBLA).

Agency Comments

The DCR Division of Chesapeake Bay Local Assistance (DCBLA) notes that the EA (page 22) states that wetlands have been identified and delineated on this site and an unnamed tributary of Mill Creek has been identified as a waterbody with perennial flow. It also states that Ft. A. P. Hill imposes a 100-foot buffer around these features, which is consistent with the requirements for a Resource Protection Area (RPA). Such areas are subject to the general performance criteria (9 VAC 10-20-120) and the development criteria for Resource Protection Areas (9 VAC 10-20-130).

Resource Management Areas (RMAs) include land types that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the RPA. Caroline County has determined that the RMA is comprised of those lands 300 feet landward of the RPA. RMAs are subject to the general performance criteria (9 VAC 10-20-120), including:

- minimizing land disturbance;
- preserving indigenous vegetation; and
- minimizing impervious surfaces.

Additionally, stormwater management criteria consistent with water quality protection provisions (4 VAC 3-20-71 *et seq.*) of the *Virginia Stormwater Management Regulations* (4 VAC 3-20) shall be satisfied, and for land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion & Sediment Control Handbook*, Third Edition, 1992.

Provided the project adheres to the above requirements as implemented by Caroline County, the project would be consistent with the coastal lands management enforceable policy (Chesapeake Bay Preservation Act; Virginia Code sections 10-1-2100 through 10-1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Code 9 VAC 10-20-10 *et seq.*) of the Virginia Coastal Resources Management Program (VCP). For additional information, contact Alice Baird, DCR-DCBLA, at (804) 225-2307.

5. Air Pollution Control. The EA (page 20) states that Caroline County is classified as an attainment area for National Ambient Air Quality Standards (NAAQS). The Army intends to implement regulations for the control and abatement of air pollution to address fugitive dust emissions.

Ms. Terry Banks
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Agency Comments

DEQ states that during construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the Regulations for the Control and Abatement of Air Pollution. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

If project activities include the burning of cleared vegetation or construction material, this activity must meet the requirements under 9 VAC 5-40-5600 *et seq.* of the Regulations for open burning, and it may require a permit. The Regulations provide for, but do not require, the local adoption of a model ordinance concerning open burning. The Army should contact Caroline County officials to determine what local requirements, if any, exist. For more information contact John Bowden, DEQ Northern Regional Office, (703) 583-3880, and Percy Ashcraft, Caroline County, (804) 633-5380.

6. Solid and Hazardous Wastes and Hazardous Materials. According to the EA (page 39), minimal amounts of hazardous materials would be used during normal military training on the AWC in both the motor pool and the fabrication shop. The Army would provide disposal for all AWC wastes through existing contracts.

Agency Comments

DEQ found that Hazardous waste issues were briefly mentioned in the report. The report did not include a search of waste-related data bases. The Waste Division staff performed a cursory review of its data files and determined that Fort A. P. Hill (VA2210020416) is on the EPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list but is not on the National Priority (NPL). The facility is also a large quantity generator (LQG) and a former treatment, storage and disposal (TSD) site. The following solid waste facilities are located in the vicinity:

- Caroline County Landfill, permit GW 182, Sanitary LF;
- Caroline County Landfill, permit SWP 147, closed Sanitary LF;
- Caroline County Landfill, permit SWP 182, closed Sanitary LF;
- US Army-Fort A P Hill, permit SWP 332 closed Sanitary LF; and
- US Army-Fort A P Hill, permit SWP 393, closed construction and demolition debris (CDD) LF.

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The following websites may prove helpful in locating additional information using these identification numbers: http://www.epa.gov/echo/search_by_permit.html or http://www.epa.gov/enviro/html/rcris/rcris_query_java.html.

According to DEQ files, a total of five parcels from Fort A. P. Hill, totaling 1,271.34 acres, were disposed of by the Department of Defense (DoD) between 1953 and 1985. All of these parcels are located around the perimeter of the active installation. The location of the nearest formerly used defense site (FUDS) parcel to the nearest proposed project area exceeds three miles. According to the DoD, there is no known or suspected ordnance and/or hazardous waste on these FUDS parcels. However, DEQ has not investigated this issue. Given the distances between the five FUDS parcels and the proposed ranges, it is highly unlikely that any historic practices at the FUDS are likely to impact the proposed AWC.

Fort A.P. Hill is not undergoing installation restoration (IR) under the CERCLA process and DEQ currently has no IR oversight responsibilities with the agency's Federal Facilities Restoration (FFR) staff. DEQ is currently working with EPA Region III under the Hazardous Waste (RCRA/HSWA) Corrective Action Program.

Recommendation

- DEQ recommends that the Army contact the EPA Restoration Program Manager (RPM) to review the proposal and determine if it would have any effect on any corrective action work being performed.

Pollution prevention was addressed in the report. All solid wastes generated from project activities should be reduced at the source, reused, or recycled. All hazardous wastes should be minimized. For additional information, contact John Bowden, DEQ Northern Regional Office, (703) 583-3880

7. Pesticides and Herbicides. The use of herbicides or pesticides for landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used. Please contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.

8. Forestry Resources. The EA (page 35) states that clear cutting of the site would be avoided and selective cutting and tree removal would be completed in accordance with the Fort A. P. Hill Integrated Resources Management Plan and the Timber Management Plan.

Agency Guidance

The Department of Forestry does not anticipate that the proposed project would have a significant impact on the forest resources of the Commonwealth. However, we recommend that, in order to protect trees not identified for removal from the effects of

Ms. Terry Banks
Page 8

this project, the Army should mark and fence them at least to the dripline or the end of the root system, whichever extends farther from the tree stem. Marking should be done with highly visible ribbon so that equipment operators see the protected areas easily.

Parking and stacking of heavy equipment and construction materials near trees can damage root systems by compacting the soil. Soil compaction, from weight or vibration, affects root growth, water and nutrient uptake, and gas exchange. The protection measures suggested above should be used for parking and stacking as well as for moving of equipment and materials. If parking and stacking are unavoidable, the Army should use temporary crossing bridges or mats to minimize soil compaction and mechanical injury to plants.

Any stockpiling of soil should take place away from trees. Piling soil at a tree stem can kill the root system of the tree. Soil stockpiles should be covered, as well, to prevent soil erosion and fugitive dust. Questions on tree protection may be directed to the Department of Forestry, Todd Groh, at (434) 977-1375, Ext. 3344.

9. Natural Heritage Resources. The EA (page 36) references a May 2006 survey that did not find the swamp pink (*Helonias bullata*) or small whorled pogonia (*Isotria medeoloides*). However, the appropriate seepage habitat for swamp pink is present in many of the tributary drainage areas. The Army intends to avoid these areas during construction and operations.

Agency Comments

The DCR Division of Natural Heritage (DNH) searched its Biotics Data System for occurrences of natural heritage resources in the areas proposed for development. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations. Biotics documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, DCR-DNH does not anticipate that this project will adversely impact these natural heritage resources.

DCR staff conducted surveys for Swamp-pink (*Helonias bullata*, G3/S2S3/LT/LE) on May 9-11, 2006 and Small whorled pogonia (*Isotria medeoloides*, G2/S2/LT/LE) on June 14, 2006. DCR staff found no individuals present at this site and a limited amount of appropriate habitat. In addition, DCR also conducted a survey for New Jersey rush (*Juncus caesariensis*, G2/S2/SOC/LT), where potential habitat was found along the project area near Mill Creek; no individuals were found.

Under a Memorandum of Agreement (MOA) DCR represents the Virginia Department of Agriculture and Consumer Services (VDACS) in its comments regarding the potential impact of reviewed projects or activities on state-listed plant and insect species. DCR-DNH determined that this project will not affect any documented state-listed plant or insect species.

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In addition, DCR-DNH files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks additional natural heritage resources. New and updated information is continually added to Biotics. Please contact DCR at (804) 786-7951 for an update on this natural heritage information if a significant amount of time passes before it is utilized.

10. Wildlife Resources. The EA (page 23) states that Threatened and Endangered Species surveys conducted in May and June 2006 found no threatened or endangered species on the proposed site.

Agency Comments

The Department of Game and Inland Fisheries (DGIF) did not find sufficient analysis in the document to determine the potential environmental consequences of this project upon fish and wildlife resources. Also, there was no analysis of potential impacts upon threatened and endangered wildlife resources, such as bald eagles (FTST).

According to DGIF records, there is a bald eagle nest approximately 5,000 feet from this project. As this project is outside the primary and secondary management zones of this nest, DGIF does not anticipate a significant adverse impact upon the birds using this nest to occur. However, the Army should be aware of the potential to encounter a new or previously unknown nest in closer proximity to this project.

Also, DGIF records indicate numerous collections of the State Special Concern carpenter frog within 1-2 miles of this project. The carpenter frog is considered a Species of High Conservation Need according to the Virginia Wildlife Action Plan. It is associated with still water, often along the borders of quiet streams, and an abundance of aquatic vegetation. It prefers open canopy forests, moist soil, and seepage areas.

The EA (page 20) incorrectly states that the proposed location of the AWC "is south of Route 301 along the west-southwest border of the installation." It appears that the correct location is described on page 2 of the document where it states that the site is "...approximately 3 miles northwest of Highway 301..." Figures in the document also show the proposed AWC north of 301 approximately in the center of the base.

Generally, most of the figures included in the EA are too small to be clearly interpreted (e.g., Figure 3 and Figure 4). DGIF recommends increasing the size of the figures to be at least 1/2-3/4 of a page. Also, the Proposed AWC Project Area (Figure 2) is inadequate to determine the actual location of the proposed facility.

The EA (page 22, Section 4.6.2) states that Ft. A. P. Hill imposes a 100-foot buffer around all wetlands to minimize impacts from erosion or soil disturbance. However,

Ms. Terry Banks
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according to Sheet C-101, it appears that some of these buffers may be impacted. This may require modifying the proposed bridged crossings over wetlands and stream beds. DGIF supports the proposal to use bridges to cross the onsite wetlands and streams.

Recommendations

DGIF recommends:

- Additional analyses on threatened and endangered wildlife resources should be completed and provided to the agency for its review.
- Further coordination with agency staff, should new or previously unknown bald eagle nests be encountered.
- Potential habitat for State Special Concern carpenter frog within the project area be delineated and avoided to the fullest extent possible.
- The discrepancy in the location of the project site be corrected in the final EA.
- Include a figure that clearly delineates the boundaries of the AWC project area on a standard topographic map.
- Maintain 100-foot buffers around all wetlands to the fullest extent possible.

Given strict erosion and sediment control measures, and the preservation of riparian buffers, DGIF finds this project consistent with the fisheries management enforceable policy of the Virginia Coastal Resources Management Program (VCP). For more information, see the DGIF website at www.dgif.state.va.us or contact Andrew Zadnick at (804) 367-2733.

11. Historic Structures and Archaeological Resources. According to the EA (page 37) a Phase I Cultural Resources Survey was conducted in Spring 2006. Three archaeological sites were identified on the proposed AWC site at Training Area 22B. In a September 9, 2006 letter (EA, Appendix B), the State Historic Preservation Officer (SHPO) concurred that the site is ineligible for inclusion in the National Register of Historic Places (NRHP) and that no further archaeological investigations are necessary. For additional information, contact Roger Kirchen, DHR at (804) 367-2323 #153. In the event that archaeological resources are encountered during project activities, immediately contact Ms. Ethel Eaton, DHR at (804) 367-2323.

12. Pollution Prevention. DEQ advocates that principles of pollution prevention be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source. We have several pollution

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Page 11

prevention recommendations that may be helpful in constructing or operating this project:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and it recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure and building construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into the facility maintenance and operation, to include the following: inventory control (record-keeping and centralized storage for hazardous materials), product substitution (use of non-toxic cleaners), and source reduction (fixing leaks, energy-efficient HVAC and equipment). Maintenance facilities should be designed with sufficient and suitable space to allow for effective inventory control and preventative maintenance.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques. For more information, contact DEQ's Office of Pollution Prevention, Mr. Tom Griffin at (804) 698-4545.

Federal Consistency under the Coastal Zone Management Act

Pursuant to the Coastal Zone Management Act of 1972, as amended, federal activities located inside or outside of Virginia's designated coastal management area that can have reasonably foreseeable effects on coastal resources or coastal uses must, to the maximum extent practicable, be implemented in a manner consistent with the Virginia Coastal Resources Management Program (VCP). The VCP consists of a network of programs administered by several agencies. The DEQ coordinates the review of federal consistency determinations with agencies administering the Enforceable and Advisory Policies of the VCP.

The EA includes a consistency determination and accompanying analysis of the enforceable policies of the VCP (Appendix D). Based on the information provided in the EA and federal consistency determination, and the comments of reviewing agencies, we concur that the proposed activity is consistent with the Virginia Coastal Resources

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Page 12

Management Program, provided that the Army complies with all requirements of applicable permits and other authorizations that may be required.

Regulatory and Coordination Needs

1. Water Quality and Wetland Impacts. Any Impacts to wetlands and streams would require a Virginia Water Protection Permit (VWPP) issued by DEQ (9 VAC 25-210-50). Application for VWPP may be made by submitting a Joint Permit Application (JPA) (form MRC 30-300) to VMRC, which acts as the clearinghouse for JPAs and distributes the application to the appropriate agency. Upon receipt of a JPA for the proposed surface water and wetland impacts, Virginia Water Protection Permit (VWPP) staff at DEQ's Northern Virginia Regional Office will review the proposed project in accordance with VWPP regulations and guidance. Questions regarding the VWPP process may be directed to John Bowden, DEQ-NRO, at (703) 583-3880.

2. Subaqueous Lands Impacts. Project impacts to subaqueous lands would require a permit from VMRC, pursuant to Section 28.2-1204 of the Code of Virginia. Encroachments channelward of ordinary high water along creeks and streams may require permitting. As with water and wetland permitting, subaqueous lands permitting may be accomplished with the submission of a JPA (form MRC 30-300) to VMRC. For additional information, contact Ben McGinnis, VMRC, at (757) 247-8028.

3. Erosion and Sediment Control and Stormwater Management. The Army must comply with Virginia's Erosion and Sediment Control Law (Virginia Code 10.1-567) and regulations (4 VAC 50-30-30 et seq.) and Stormwater Management Law (Virginia Code 10.1-603.5) and regulations (4 VAC 3-20-210 et seq.). Activities that disturb 10,000 square feet or more of land (2,500 square feet in a Chesapeake Bay Preservation Area) would be regulated by VESCL&R and those that disturb one acre or greater would be covered by VSWML&R. The Army is encouraged to contact DCR's York/Rappahannock Watersheds Office, (804) 443-6752, for assistance with developing or implementing E&S and/or Stormwater Management Plans to ensure project conformance during and after construction.

4. Chesapeake Bay Preservation Areas. Provided the Army adheres to the general performance criteria (9 VAC 10-20-120), and the stormwater management criteria consistent with water quality protection provisions (4 VAC 3-20-71 et seq.) of the *Virginia Stormwater Management Regulations* (4 VAC 3-20), DCR-DCBLA concurs that the proposed action would be consistent with the coastal lands management enforceable policy of the VCP. For additional information and coordination, contact Alice Baird, DCR-DCBLA, at (804) 225-2307.

5. Air Quality Regulations. This project may be subject to air regulations administered by the Department of Environmental Quality. The following sections of Virginia Administrative Code are applicable:

- 9 VAC 5-50-60 et seq. governing fugitive dust emissions; and
- 9 VAC 5-40-5600 et seq., for open burning.

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It is recommended that a Form 7 (Air Permit Application) be filed with DEQ prior to the construction of the proposed paint booth. For more information contact John Bowden, DEQ Northern Regional Office, (703) 583-3880. Also, contact Allen Ramsey, Caroline County Department of Public Works for information on any local requirements pertaining to open burning.

6. Solid and Hazardous Wastes. All solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state, and local environmental regulations. Some of the applicable state laws and regulations are:

- Virginia Waste Management Act (Code of Virginia Section 10.1-1400 *et seq.*);
- Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60);
- Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); and
- Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110).

Some of the applicable Federal laws and regulations are:

- Resource Conservation and Recovery Act (RCRA) (42 U.S.C. Section 6901 *et seq.*);
- Title 40 of the Code of Federal Regulations; and
- U.S. Department of Transportation Rules for Transportation of Hazardous materials (49 CFR Part 107).

Contact DEQ's Northern Regional Office, (703) 583-3880, concerning location and availability of suitable waste management facilities in the project area or if free product, discolored soils, or other evidence of contaminated soils are encountered.

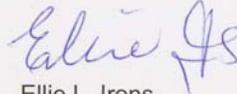
DEQ recommends that the Army contact the EPA Restoration Program Manager (RPM), Wanda Martinez, at (215) 814-3434 to review the proposal and determine if it would have any effect on any corrective action work being performed.

7. Protected Wildlife Species. The Virginia Department of Game and Inland Fisheries (DGIF) recommends that the Army conduct additional analyses on threatened and endangered wildlife resources and provided the findings to the agency for its review. Should new or previously unknown bald eagle nests be encountered, DGIF recommends further coordination with agency staff. Finally, potential habitat for State Special Concern carpenter frog should be delineated. These activities may be coordinated with DGIF biologist Jeff Cooper at (540) 899-4169.

Thank you for the opportunity to review the Environmental Assessment and consistency determination for this undertaking. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4325 or John Fisher at (804) 698-4339 for clarification of these comments.

Ms. Terry Banks
Page 14

Sincerely,



Ellie L. Irons
Program Manager
Office of Environmental Impact Review

Enclosures

cc: Paul Kohler, DEQ-ORP
John Bowden, DEQ-NRO
Tony Watkinson, VMRC
Andy Zadnick, DGIF
Robbie Rhur, DCR
Keith R. Tignor, VDACS
Ethel Eaton, DHR
Todd Groh, VDF
Susan Douglas, VDH
Matt Heller, DMME
Percy C. Ashcraft, Caroline County
Robert H. Wilson, RADCO PDC

Bowden, John

From: Bowden, John
Sent: Tuesday, November 28, 2006 9:35 AM
To: Fisher, John
Subject: EA # 06-189F

RECEIVED

NOV 29 2006

DEQ-Office of Environmental
Impact Review

NVRO comments regarding the Asymmetric Warfare Complex, Fort A.P. Hill project sponsored by DOD/U.S. Army are as follows:

Wetlands-The U.S. Department of the Army proposes to construct an Asymmetric Warfare Group complex at Fort A.P. Hill. The Environmental Assessment (EA) indicates that surface waters are present within the proposed project boundaries. Infrastructure, such as roads, is proposed to cross the surface waters; however impacts to these resources are proposed to be avoided through the use of bridges. Please submit a Joint Permit Application (JPA) for the proposed activities. Upon receipt of a JPA for the proposed project, DEQ Virginia Water Protection (VWP) Permit staff will review the proposed project in accordance with the VWP permit program regulations and current VWP permit program guidance.

Air Compliance/Permitting-The only item of any significance after review of the subject document is a proposed paint booth. The document (pg 28) states that this would be added to existing air permit. It is recommended that a Form 7 (i.e., Air Permit Application) be filed prior to construction of the unit.

John D. Bowden
Deputy Regional Director
Department of Environmental Quality
Northern Virginia Regional Office
(703) 583-3880
jdbowden@deq.virginia.gov

11/28/2006

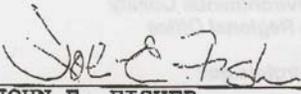
If you cannot meet the deadline, please notify JOHN FISHER at 804/698-4339 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
- B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency.
- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**

Please return your comments to:

MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
620 EAST MAIN STREET, SIXTH FLOOR
RICHMOND, VA 23219
FAX #804/698-4319



JOHN E. FISHER
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

This will acknowledge receipt of your transmittal letter with enclosures requesting Commission review of the above-referenced project.

Please be advised that the Marine Resources Commission, pursuant to Section 28.2-1204 of the Code of Virginia, has jurisdiction over any encroachments in, on, or over any State-owned rivers, streams, or creeks in the Commonwealth. We have recently reviewed a Joint Permit Application (VMRC #06-2501) for this proposed project and have determined that there will be no impacts to or encroachments over State-owned submerged lands, in which our agency would exert its jurisdiction. However, if the scope of the project were to expand to include additional encroachments channelward of ordinary high water along any natural rivers and streams, a permit may be required from our agency.

(title) Benjamin A. McGinnis, Environmental Engineer
(agency) Marine Resources Commission
(date) 11/9/06

PROJECT # 06-189F

8/98

L. Preston Bryant, Jr.
Secretary of Natural
Resources



Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF CHESAPEAKE BAY LOCAL ASSISTANCE
101 N. 14th Street, 17th Floor
Richmond, VA 23219
1-800-243-7229
FAX (804) 225-3447

RECEIVED

DEC 05 2006

DEQ-Office of Environmental
Impact Review

MEMORANDUM

TO: Robbie Rhur, Environmental Program Planner
FROM: Alli Baird, Chesapeake Bay Local Assistance
DATE:
SUBJECT: DEQ-06-189F; Asymmetric Warfare Complex, Ft. AP Hill
DCR-DCBLA Project # FSPR-ARMY-15-06

We have reviewed the Environmental Assessment for the proposed Asymmetric Weapons Complex at Ft. A. P. Hill and have the following comments:

The Environmental Assessment states, on page 22, that wetlands have been identified and delineated on this site and an unnamed tributary of Mill Creek has been identified as a waterbody with perennial flow. It also states that Ft. A. P. Hill imposes a 100-foot buffer around these features, which is consistent with the requirements for a Resource Protection Area (RPA). Such areas are subject to the general performance criteria, § 9 VAC 10-20-120 and the development criteria for Resource Protection Areas § 9 VAC 10-20-130.

RMAs include land types that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the RPA. Caroline County has determined that the Resource Management Area (RMA) is comprised of those lands 300 feet landward of the RPA. Please note that RMAs are subject to the general performance criteria found in §9 VAC 10-20-120, including minimizing land disturbance, preserving indigenous vegetation, and minimizing impervious surfaces.

Additionally, stormwater management criteria consistent with water quality protection provisions (§4 VAC 3-20-71 et seq.) of the *Virginia Stormwater Management Regulations* (§ 4 VAC 3-20) shall be satisfied, and for land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion & Sediment Control Handbook*, Third Edition, 1992.

Provided the project adheres to the above requirements as implemented by Caroline County, the project would be consistent with the Chesapeake Bay Preservation Act; Virginia Code sections 10-1-2100 through 10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Code §9 VAC 10-20-10 et seq.

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Page 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: John E. Fisher

DEQ - OEIA PROJECT NUMBER: 06 - 189F

PROJECT TYPE: STATE EA / EIR / FONSI FEDERAL EA / EIS SCC

CONSISTENCY DETERMINATION

RECEIVED

PROJECT TITLE: ASYMETRIC WARFARE COMPLEX, A. P. FORT HILL

NOV 20 2006

PROJECT SPONSOR: DOD / U. S. ARMY

DEQ-Office of Environmental
Impact Review

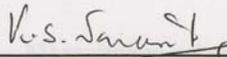
PROJECT LOCATION: OZONE NON ATTAINMENT AREA

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: CONSTRUCTION
 OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E - STAGE I
2. 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 F - STAGE II Vapor Recovery
3. 9 VAC 5-40-5490 et seq. - Asphalt Paving operations
4. 9 VAC 5-40-5600 et seq. - Open Burning
5. 9 VAC 5-50-60 et seq. Fugitive Dust Emissions
6. 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to _____
7. 9 VAC 5-50-160 et seq. - Standards of Performance for Toxic Pollutants
8. 9 VAC 5-50-400 Subpart _____, Standards of Performance for New Stationary Sources, designates standards of performance for the _____
9. 9 VAC 5-80-10 et seq. of the regulations - Permits for Stationary Sources
10. 9 VAC 5-80-1700 et seq. Of the regulations - Major or Modified Sources located in PSD areas. This rule may be applicable to the _____
11. 9 VAC 5-80-2000 et seq. of the regulations - New and modified sources located in non-attainment areas
12. 9 VAC 5-80-800 et seq. Of the regulations - Operating Permits and exemptions. This rule may be applicable to _____

COMMENTS SPECIFIC TO THE PROJECT:


(Kotur S. Narasimhan)
Office of Air Data Analysis

DATE: November 17, 2006



RECEIVED
DEC 04 2006
DEQ-Office of Environmental
Impact Review

MEMORANDUM

TO: John Fisher, Environmental Program Planner
FROM: *PWK*
Paul Kohler, Waste Division Environmental Review Coordinator
DATE: December 4, 2006
COPIES: Sanjay Thirunagari, Waste Division Environmental Review Manager; file
SUBJECT: Environmental Impact Report: Asymmetric Warfare Complex, A. P. Hill; 06-189F

The Waste Division has completed its review of the Environmental Impact report for the Asymmetric Warfare Complex, in Bowling Green, Virginia. We have the following comments concerning the waste issues associated with this project:

Hazardous waste issues were briefly mentioned in the report. The report did not include a search of waste-related data bases. The Waste Division staff performed a cursory review of its data files and determined that Fort A. P. Hill (VA2210020416) is on the EPA CERCLIS list but is not on the NPL. Fort A P Hill (VA2210020416) is also a LQG and a former TSD. The following solid waste facilities are located in the vicinity: Caroline County Landfill, permit GW 182 Sanitary LF; Caroline County Landfill, permit SWP 147, closed Sanitary LF; Caroline County Landfill, Permit SWP 182, closed Sanitary LF; US Army - Fort A P Hill, permit SWP 332 closed Sanitary LF; US Army - Fort A P Hill, permit SWP 393, closed CDD LF. Finally, there is a Formerly Used Defense Site (FUDS) in the vicinity. Eric Salopek responded (see attached memo) with separate comments regarding FUDS issues. Steve Mihalko responded (see attached e-mail) regarding Federal Facilities issues. The following websites may prove helpful in locating additional information for these identification numbers:
http://www.epa.gov/echo/search_by_permit.html or
http://www.epa.gov/enviro/html/rcris/rcris_query_java.html.

Any soil that is suspected of contamination or wastes that are generated during construction-related activities must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Part 107.

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Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Paul Kohler at (804) 698-4208.

MEMORANDUM

TO: John Fisher, Environmental Program Planner

FROM: Paul Kohler, Waste Division Environmental Review Coordinator

DATE: December 4, 2006

COMES: Supply Management, Waste Division Environmental Review Manager, JIS

SUBJECT: Environmental Impact Report, Asymmetric Warfare Complex, A. P. Hill, 06-1587

The Waste Division has completed its review of the Environmental Impact Report for the Asymmetric Warfare Complex, in Bedford County, Virginia. We have the following comments concerning the waste issues associated with this project:

Hazardous waste issues were briefly mentioned in the report. The report did not include a search of waste-related data bases. The Waste Division staff performed a cursory review of its data base and determined that Fort A. P. Hill (VA21100418) is on the RCRA CERCLIS list but is not on the NPL. Fort A. P. Hill (VA21100418) is also a MOU and a former TSD. The following solid waste facilities are located in the vicinity: Caroline County Landfill, former DW 101 Landfill, LP, Caroline County Landfill, former SWP 147, closed landfill, LP, Caroline County Landfill, former SWP 102, closed landfill, LP, US Army - Fort A. P. Hill, former SWP 102, closed landfill, LP, US Army - Fort A. P. Hill, former SWP 101, closed landfill, LP. Finally, there is a former Land Defense Site (LDS) in the vicinity, the location responded (see attached memo) with separate comments regarding TSDs found. No other facilities responded (see attached memo) regarding Federal facilities issues. The following website may prove helpful in locating additional information for these identification numbers:

<http://www.wastebody.com>

<http://www.epa.gov/epaosopr/tad1/tad.html>

Any soil that is suspected of contamination or release that was generated during construction related activities must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10-1-400 et seq.; Virginia Hazardous Waste Management Regulations (VHWRM) (VAC 28-507, Virginia Solid Waste Management Regulations (VSWMB) (VAC 28-50), Virginia Regulations for the Transportation of Hazardous Materials (VWAC 28-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq., and the applicable regulations contained in Title 40 of the Code of Federal Regulations and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Part 107.

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DIVISION OF WASTE PROGRAM
COORDINATION

OFFICE OF REMEDIATION PROGRAMS

MEMORANDUM

TO: John Fisher, OEIR

FROM: Eric J. Salopek, ORP

DATE: September 20, 2006

COPY: Paul Kohler, OWP

SUBJECT: Fort A. P. Hill FUDS – CO3VA0026

The purpose of this memorandum is to provide comments to your office on the referenced Formerly Used Defense Site (FUDS), in relation to the review of "Environmental Assessment for the Proposed Asymmetric Warfare Group Ranges." According to our files, a total of five parcels from Fort A. P. Hill totaling 1,271.34 acres were disposed of by the DoD between 1953 and 1985. All of these parcels are located around the perimeter of the active installation.

The location of the nearest FUDS parcel to the nearest proposed Project Area exceeds 3 miles.

According to the DoD, there is no known/suspected ordnance and/or hazardous waste on these FUDS parcels. However, please be aware that our office has not conducted an investigation to either support or contradict this assertion.

Given the distances between the five FUDS parcels and the proposed ranges, it is highly unlikely that any historic practices of the FUDS impacted, or are likely to impact, the proposed range Project Areas.

From: Mihalko, Stephen
Sent: Tuesday, November 14, 2006 9:08 AM
To: Kohler, Paul
Cc: Willis, Durwood
Subject: Environmental Assessment for the Proposed Asymmetric Warfare Complex US Army Fort A.P. Hill

Fort A.P. Hill is not undergoing installation restoration under the CERCLA process (and we currently have no IR oversight responsibilities for our FFR staff). They are currently working with EPA Region III under the Hazardous Waste (RCRA/HSWA) Corrective Action Program. Wanda Martinez (215-814-3434) is the EPA RPM assigned to this facility. It would likely be beneficial if she reviewed this assessment to determine if it will affect any of the corrective action work they might be doing. That would likely be the only comment I would make to the facility. Please let me know if there are any questions.

If you cannot meet the deadline, please notify JOHN FISHER at 804/698-4339 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
- B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency.
- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**

Please return your comments to:

MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
629 EAST MAIN STREET, SIXTH FLOOR
RICHMOND, VA 23219
FAX #804/698-4319

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DEQ-Office of Environmental
Impact Review

John E. Fisher

JOHN E. FISHER
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

No significant impact to the forest resources of the Commonwealth.

(signed) *Jedd A. Grol* (date) *11/17/06*
(title) *Asst Director - FM*
(agency) *Dept. of Forestry*

PROJECT # 06-189F

8/98

L. Preston Bryant, Jr.
Secretary of Natural Resources



Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street
Richmond, Virginia 23219-2010
(804) 786-6124

MEMORANDUM

DATE: November 21, 2006
TO: John E. Fisher, DEQ
FROM: Robert Munson, DCR-DPRR *Robert S. Munson*
SUBJECT: DEQ-06-189F: US Army-Ft. AP Hill Asymmetric Warfare Complex

The Department of Conservation and Recreation (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

DCR staff conducted surveys for Swamp-pink (*Helonias bullata*, G3/S2S3/LT/LE) on May 9-11, 2006 and Small whorled pogonia (*Isotria medeoloides*, G2/S2/LT/LE) on June 14, 2006. DCR staff found no individuals present at this site and a limited amount of appropriate habitat. In addition, DCR also conducted a survey for New Jersey rush (*Juncus caesariensis*, G2/S2/SOC/LT), where potential habitat was found along the project area near Mill Creek; no individuals were found.

Under a Memorandum of Agreement, DCR represents the Virginia Department of Agriculture and Consumer Services (VDACS) in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

In addition, our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

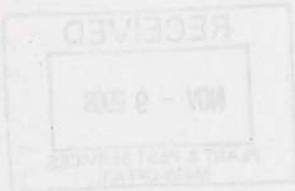
Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, which may

*State Parks • Soil and Water Conservation • Natural Heritage • Outdoor Recreation Planning
Chesapeake Bay Local Assistance • Dam Safety and Floodplain Management • Land Conservation*

contain information not documented in this letter. Their database may be accessed from www.dgif.virginia.gov/wildlife/info_map/index.html, or contact Shirl Dressler at (804) 367-6913.

Thank you for the opportunity to comment on this project.



MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
111 EAST MAIN STREET, 12TH FLOOR
RICHMOND, VA 23219
TAX 804/692-4112

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Department of Environmental Quality

COMMENTS

Comments in the project document concerning endangered species were reviewed and compared to available information. No additional comments are necessary in reference to endangered plant and insect species regarding this project.

(Agency) VDAC, Office of Plant and Pest Service
(Title) Endangered Species Coordinator
(Signature) [Handwritten Signature]
(Date) December 8, 2006

If you cannot meet the deadline, please notify JOHN FISHER at 804/698-4339 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
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- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**

Please return your comments to:

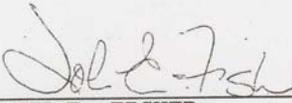
MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
629 EAST MAIN STREET, SIXTH FLOOR
RICHMOND, VA 23219
FAX #804/698-4319



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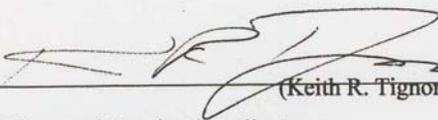
DEQ-Office of Environmental
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JOHN E. FISHER
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

Statements in the project document concerning endangered species were reviewed and compared to available information. No additional comments are necessary in reference to endangered plant and insect species regarding this project.

(signed)  (date) December 4, 2006
(title) Endangered Species Coordinator
(agency) VDACS, Office of Plant and Pest Service

PROJECT # 06-189F

8/98

Fisher, John

From: Andrew Zadnik [Andrew.Zadnik@dgif.virginia.gov]
Sent: Tuesday, December 05, 2006 10:20 AM
To: Fisher, John
Cc: ProjectReview (E-mail); ProjectReview@dgif.virginia.gov
Subject: 06-189F_ESS 22888_Asymetric Warfare Complex_A. P. Hill

This project involves construction of an Asymmetric Warfare Group training center on 450 acres of land in the geographic center of Ft. A. P. Hill, Caroline County.

The Draft EA does not indicate that any analysis was conducted to determine the potential environmental consequences of this project upon fish and wildlife resources. Also, there was no analysis of potential impacts upon Threatened and Endangered wildlife resources, such as bald eagles (FTST). If our interpretation is correct, we request that such analyses be completed and provided for our review as part of the Draft EA.

According to our records, there is a bald eagle nest approximately 5,000 ft from this project. As this project is outside the primary and secondary management zones of this nest, we do not anticipate a significant adverse impact upon the birds using this nest to occur.

However, the base should be aware of the potential to encounter a new or previously unknown nest in closer proximity to this project. Should that occur, we recommend further coordination regarding eagles.

Also, our records indicate numerous collections of the State Special Concern carpenter frog within 1-2 miles of this project. The carpenter frog is considered a Species of High Conservation Need according to the VA Wildlife Action Plan. It is associated with still water, often along the borders of quiet streams, and an abundance of aquatic vegetation. It prefers open canopy forests, moist soil, and seepage areas. We recommend that potential habitat for this species within the project area be delineated and avoided to the fullest extent possible.

On Page 20, it states that the proposed location of the AWC "is south of Route 301 along the west-southwest border of the installation." This appears to be incorrect. On Page 2, it states that the site is "...approximately 3 miles northwest of Highway 301..." The figures also show the proposed AWC north of 301 approximately in the center of the base. The Final EA should be corrected.

Generally, most of the figures included in the Draft EA are too small to be clearly interpreted (e.g., Figure 3 and Figure 4). We recommend increasing the size of the figures to be at least 1/2-3/4 of a page. Also, Figure 2 (Proposed AWC Project Area) is inadequate to determine the actual location of the proposed facility. We recommend including a figure that clearly delineates the boundaries of the facility on a standard topographic map.

On Page 22, Section 4.6.2, it states that Ft. A. P. Hill imposes a 100-ft buffer around all wetlands to minimize impacts from erosion or soil disturbance. However, according to Sheet C-101, it appears that some of these buffers may be impacted. If this is correct, we recommend maintaining 100-ft buffers to the fullest extent possible. This may require modifying the proposed bridged crossings over wetlands and stream beds. We support the proposal to use bridges to cross the onsite wetlands and streams.

Given strict erosion and sediment control measures, and preservation of riparian buffers, we find this project consistent with the Fisheries Section of the VA Coastal Resources Management Program.

Thank you,

Andrew K. Zadnik
Environmental Services Section Biologist
Department of Game and Inland Fisheries
4010 West Broad Street

If you cannot meet the deadline, please notify JOHN FISHER at 804/698-4339 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

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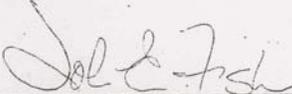
Please return your comments to:

MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
629 EAST MAIN STREET, SIXTH FLOOR
RICHMOND, VA 23219
FAX #804/698-4319

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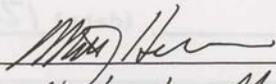
DEC 06 2006

DEQ-Office of Environmental
Impact Review


JOHN E. FISHER
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

No significant impact to mineral resources.

(signed)  (date) 12/4/07
(title) Geologist Manager
(agency) DMME

PROJECT # 06-189F

8/98

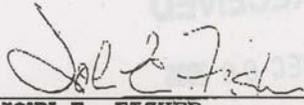
If you cannot meet the deadline, please notify JOHN FISHER at 804/698-4339 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

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Please return your comments to:

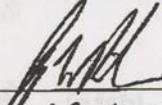
→ MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
629 EAST MAIN STREET, SIXTH FLOOR
RICHMOND, VA 23219
FAX #804/698-4319



JOHN E. FISHER
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

We have previously reviewed this project and found that it will have no effect to any known architectural or archaeological resource listed in or eligible for listing in the National Register of Historic Places or the Virginia Landmarks Register.

(signed)  (date) 12-5-06
(title) ARCHAEOLOGIST
(agency) DNR (FILE #2006-1038)

PROJECT # 06-189F

8/98

APPENDIX C
PUBLIC NOTICES/PUBLIC COMMENTS AND RESPONSES

AFFIDAVIT

THE FREE LANCE STAR
616 Amelia Street
Fredericksburg, Virginia 22401

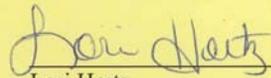
**Nepa Cultural Coordinator
Engineer & Environmental Incorporated**
Fort AP Hill
Bowling Green, VA 22427

**Subject: Directorate of Public Works
Training Complex**

I hereby certify that the attached notice was published in The Free Lance-Star, a newspaper published daily in Fredericksburg, Va. on the following date (s):

November 24, 2006

Listed additionally on-line
@ **Fredericksburg.com**


Lori Hertz
Accounting Assistant

Subscribed and sworn to before me,
This 29th day of November 2006


Notary Public

DRAFT FINDING OF NO SIGNIFICANT IMPACT
TRAINING COMPLEX
US ARMY GARRISON, FORT A.P. HILL, VIRGINIA
DIRECTORATE OF PUBLIC WORKS

The US Army Garrison, Fort A.P. Hill in Caroline County, Virginia, proposes to construct and operate a training complex. The planned training complex would be located on 450 acres of Training Area 22B east of Longstreet Camp in the northwestern portion of Fort A.P. Hill. The complex would consist of an administrative and classroom cantonment area and various training sites. The administrative cantonment area would include administrative buildings containing offices and classrooms, field quarters, a vehicle maintenance shop for standard and preventive maintenance, a fabrication shop for repair and minor modification of existing pieces of equipment, a storage building containing an arms storage vault, and associated parking areas and outbuildings. The training area would include separate sites for three training scenarios, including an urban area, a rural area and a primitive area.

The US Army Garrison at Fort A.P. Hill reviewed five possible alternatives and determined that the training complex construction in the aforementioned location was the "most preferred" based on established criteria: sufficient training space to ensure operations meet the standards established by the U.S. Army; a location close to Washington D.C. and Fort Meade, Maryland; and a location which could be restricted from surrounding activities.

Other alternatives considered included using existing facilities and/or upgrading and renovating facilities at Fort A.P. Hill; using facilities at Fort Meade and Aberdeen Proving Ground; building at Training Area 22B on Fort A.P. Hill, as well as taking no action to provide a training complex on Fort A.P. Hill. A survey of space on Fort A.P. Hill indicated that there is no adequate space which could be upgraded and meet necessary training standards without extensive cost and effort. Facilities on Fort Meade and Aberdeen Proving Ground are already committed to other uses. Training Area 30 was investigated at length, but noise from training required this alternative to be eliminated.

The No Action Alternative would eliminate timber harvesting, clearing and grading, potential air emissions, and potential noise complaints. This alternative, however, would not meet Fort A.P. Hill's objective to expand the installation's training capacity to prepare military personnel for deployment in combat or national emergencies, and it would not support the Installation Master Plan goal to maximize training capability. Therefore, the No Action Alternative was not considered reasonable and viable.

To avoid potential impacts, Fort A.P. Hill would implement mitigation measures as necessary. Air filtering devices would be installed on the paint booth and in the welding shop. Some noise impacts would occur during training operations; however, operational noise contours for the training complex would remain within the boundaries of Fort A.P. Hill. Wetlands impacts would be avoided by constructing bridge crossings over wetlands and stream beds. Stormwater management practices required by the Virginia Stormwater Management Program (VSMP) would be implemented and Fort A.P. Hill would apply for the VSMP general permit for storm water discharges prior to construction. Forestry Best Management Practices (BMPs) would be implemented to maintain water quality. Noise complaints would be investigated and mitigated in accordance with Fort A.P. Hill policy. If necessary, Fort A.P. Hill would expand the perimeter noise monitoring system to add a noise monitor in the area of concern. Cultural resources eligible for the National Register of Historic Places would be avoided during construction and operation of the ranges.

The EA concludes that, with the implementation of appropriate mitigation measures as mentioned above, the proposed action would have no significant impacts on the quality of the physical and human environment at Fort A.P. Hill. In accordance with the requirements of the National Environmental Policy Act (NEPA) Fort A.P. Hill therefore issues a Finding of No Significant Impact (FONSI) for this project, and an Environmental Impact Statement (EIS) will not be prepared.

This Environmental Assessment is available for public review at the Environmental Office, Fort A.P. Hill, Virginia. Interested

Response to comments on the Draft Final EA

In a letter dated December 18, 2006 from the Department of Environmental Quality, the following comments were made on the draft final EA:

1. Water Quality and Wetland Impacts. Any impacts to wetlands and streams would require a Virginia Water Protection Permit (VWPP) issued by DEQ (9 VAC 25-210-50). Application for VWPP may be made by submitting a Joint Permit Application (JPA) (form MRC 30-300) to VMRC, which acts as the clearinghouse for JPA's and distributes the application to the appropriate agency. Upon receipt of a JPA for the proposed surface water and wetland impacts, Virginia Water Protection Permit (VWPP) staff at DEQ's Northern Virginia Regional Office will review the proposed project in accordance with VWPP regulations and guidance.

2. Subaqueous Lands Impacts. Project impacts to subaqueous lands would require a permit from VMRC, pursuant to Section 28.2-1204 of the Code of Virginia. Encroachments channelward of ordinary high water along creeks and streams may require permitting. As with water and wetland permitting, subaqueous lands permitting may be accomplished with the submission of a JPA (form MRC 30-300) to VMRC.

Response to Items 1 & 2, above: A Joint Permit Application was submitted to VMRC for review by appropriate agencies in October 2006. As a result of that review, VMRC, U. S. Army Corps of Engineers and Virginia Department of Environmental Quality responded that the project did not require a permit for impacts to wetlands, Waters of the U.S. or subaqueous lands. Correspondence to that effect is on file at the Fort A. P. Hill Environmental Office.

3. Erosion and Sediment Control and Stormwater Management. The Army must comply with Virginia's Erosion and Sediment Control Law (Virginia Code 10.1-567) and regulations (4 VAC 50-30-30 et seq.) and Stormwater Management Law (Virginia Code 10.1-603.5) and regulations (4 VAC 3-20-210 et seq.). Activities that disturb 10,000 square feet or more of land (2,500 square feet in a Chesapeake Bay Preservation Area) would be regulated by VESCL&R and those that disturb one acre or greater would be covered by VSWML&R.

Response: To ensure continuation of full compliance with VESCL&R and VSWML&R, the Fort A.P. Hill Environmental staff currently includes two individuals certified as Virginia E&S Combined Administrators. This provides greater on-site capability regarding E&S plan development/review and project inspection.

4. Chesapeake Bay Preservation Areas. Provided the Army adheres to the general performance criteria (9 VAC 10-20-120), and the stormwater management criteria consistent with water quality protection provisions (4 VAC 3-20-71 et seq.) of the Virginia Stormwater Management Regulations (4 VAC 3-20), DCR-DCBLA concurs that the proposed action would be consistent with the coastal lands management enforceable policy of the VCP.

Response: Fort A. P. Hill acknowledges this comment.

5. Air Quality Regulations. This project may be subject to air regulations administered by the Department of Environmental Quality. The following sections of Virginia Administrative Code are applicable:

- 9 VAC 5-50-60 et seq. governing fugitive dust emissions; and

- 9 VAC 5-40-5600 et seq., for open burning

It is recommended that a Form 7 (Air Permit Application) be filed with DEQ prior to the construction of the proposed paint booth.

Response: Fort A.P. Hill will evaluate during the design period whether a Form 7 for construction permit and operating is necessary and apply if required.

6. Solid and Hazardous Wastes. *All solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state, and local environmental regulations. Some of the applicable state laws and regulations are:*

- *Virginia Waste Management Act (Code of Virginia Section 10.1-1400 et seq.);*
- *Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60);*
- *Virginia Solid Waste Management Regulations (VSWMR0 (9VAC 20-80); and*
- *Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110).*

Some of the applicable Federal laws and regulations are:

- *Resource Conservation and Recovery Act (RCRA) (42 U.S.C. Section 6901 et seq.);*
- *Title 40 of the Code of Federal Regulations; and*
- *U.S. Department of Transportation Rules for Transportation of Hazardous materials (49 CFR Part 107).*

Response: Fort A.P. Hill will manage all solid and hazardous waste in accordance with all applicable federal and state laws.

7. Protected Wildlife Species. *The Virginia Department of Game and Inland Fisheries (DGIF) recommends that the Army conduct additional analyses on threatened and endangered wildlife resources and provided the findings to the agency for its review. Should new or previously unknown bald eagle nests be encountered, DGIF recommends further coordination with agency staff. Finally, potential habitat for State Special Concern carpenter frog should be delineated.*

Response: The Army strives to protect all federal and state-listed species and habitats, and complies by the requirements of federal law for the protection of listed species. Any additional surveys outside of the ongoing effort by the Virginia Division of Natural Heritage to maintain an up-to-date and accurate inventory of the natural resources on the installation will be dependent upon funding.

APPENDIX D
COASTAL RESOURCES CONSISTENCY DETERMINATION

Determination of Consistency with Virginia's Coastal Resources Management Program Asymmetric Warfare Center

Pursuant to Section 307 of the Coastal Zone Management Act of 1972, as amended, this is a Federal Consistency Determination for Fort A.P. Hill's construction and use of an Asymmetric Warfare Complex (AWC). The Army is required to determine the consistency of its activities affecting Virginia's coastal resources or coastal uses with the Virginia Coastal Resources Management Program (VCRMP).

This document represents an analysis of project activities in light of established VCRMP Enforceable Programs. Furthermore, submission of this consistency determination reflects the commitment of the Army to comply with those Enforceable Programs. The proposed project will be constructed and operated in a manner, which is consistent with the VCRMP. Fort A. P. Hill has determined that the construction and use of an AWC would not affect the land and water uses or natural resources of the commonwealth of Virginia's coastal zone.

1. Description of Proposed Action

Under the Proposed Action, Fort A. P. Hill would construct an AWC, which will provide both an administrative area and several training areas. Approximately 450 acres of land on Fort A. P. Hill Training Area 22B approximately 3 miles northwest of Highway 301 on Lee Drive near Longstreet Camp are proposed for the AWC. The complex would consist of an administrative and classroom cantonment area and various training sites. The administrative cantonment area would include administrative buildings containing offices and classrooms, field quarters, a vehicle maintenance shop for standard and preventive maintenance, a fabrication shop for repair and minor modification of existing pieces of equipment, a storage building containing an arms storage vault and associated parking areas and outbuildings. The training area would include separate sites for three training scenarios. One would contain several permanent buildings, concrete pads and paved roads to simulate an urban area. The other two would simulate rural landscapes with gravel or dirt roads and much of the existing vegetation remaining intact. A possible floating training site would consist of portable modular training structures which could be placed anywhere within the AWC for temporary use. These structures are basically metal storage containers which have been outfitted with the necessary training equipment. Roadways would be constructed to connect the training sites and a perimeter road would be constructed along the fence line. The entire 450 acre site would be fenced and access would be limited. The concept of the AWC is to provide "train the trainer" assistance to all military services. While the average daily anticipated number of military personnel expected on site is 100 persons, the AWC could accommodate up to 150 individuals simultaneously participating in multiple training activities and operations.

2. Assessment of Probable Effects

The planning and design phase of the proposed action would have no coastal zone effects to relevant VCRMP elements. All applicable permits required for the proposed action would be obtained and complied with throughout project duration. A review of the permits and/or

approvals required under the enforceable Regulatory Program have been conducted. Fort A. P. Hill staff evaluated the construction and operation of the AWC based on the foreseeable effect on the following enforceable policies:

Fisheries - The AWC has no foreseeable impacts on finfish or shellfish resources and would not affect the promotion of commercial or recreational fisheries at the project site area. The project site is approximately six miles from the Rappahannock River. The project implements best management practices (BMPs) recommended by the Virginia Department of Conservation and Recreation and Fort A.P. Hill's Environmental Division.

Subaqueous Lands Management – The AWC has no foreseeable impact on subaqueous resources. The proposed AWC is bordered on the north by Lee Drive, on the west and south by Shackelford Road and on the east by Wilcox Road. The site is bisected by several intermittent streams and one unnamed tributary to Mill Creek. The project implements BMPs recommended by the Virginia Department of Conservation and Recreation and the Department of Forestry.

Wetlands Management –Wetlands were delineated within the area of the proposed AWC site that were not previously shown on the NWI GIS data layer. Water quality protection standards have been established for lands adjacent to wetlands and water bodies with perennial flow. The proposed project construction will include bridge crossings over wetlands and a perennial surface watercourse. This design element has been coordinated with and reviewed by the Army Corps of Engineers. It is anticipated that there would be no impacts on wetlands from construction and operation of the AWC.

Dunes Management – Construction and operation of the AWC has no foreseeable impact on coastal primary sand dunes. The project would not destroy or alter coastal primary sand dunes.

Non-Point Source Pollution Control – During project construction and long-term operation, storm water run-off will either be collected in erosion control basins or directed to a vegetated area for natural infiltration. All erosion control will be designed in accordance with the Virginia Erosion and Sediment Control handbook. Land disturbing activities within the AWC site is limited to timber harvesting, clearing, grubbing and grading. Erosion and sediment controls will be implemented in accordance with Virginia Stormwater Management Program (VSMP); Forestry BMPs for Water Quality; Chesapeake Bay Preservation Area Designation and Management guidelines; and the Virginia Department of Conservation and Recreation (DCR) VSMP General Permit for Storm Water discharges associated with land disturbing activities. Fort A. P. Hill natural resource professionals will implement the Forestry BMPs described in the Installation Integrated Natural Resources Management Plan (INRMP) for land and water quality monitoring, impact mitigation and land rehabilitation programs specific to this project. These programs would continue into the operational phase of the project. The AWC site would not cause non-point source pollution.

Point Source Pollution Control – The AWC site would be served by pre-existing water and sewer lines which run along Lee Drive. The proposed project would not generate any new point source discharges.

Shoreline Sanitation – The AWC would have no impact on shoreline sanitation.

Air Pollution Control – The AWC is located in an attainment area for air pollutants. Construction activity related to the proposed action is likely to give rise to fugitive dust emissions. During construction, fugitive dust will be kept to a minimum by employing measures that include, but are not limited to: installing and using material to enclose and vent the handling of dusty material, covering open equipment for transporting materials, washing down construction vehicles, providing construction entrances, applying water to suppress dust, and washing down paved roadways immediately adjacent to the construction site. The AWC would have negligible impact on air quality. Construction and operation of the proposed project would be subject to regulation 9 VAC 5-50-80/ 90, *Visible and Fugitive Dust Emissions*, by the Department of Environmental Quality (DEQ).

Coastal Lands Management – The AWC would have no impact on any coastal lands.

Chesapeake Bay Preservation Areas –The AWC would not involve either development or redevelopment activities on any properly designated Chesapeake Preservation Area as defined by the Chesapeake Bay Preservation Act, Virginia Code 10.1-2100 *et seq.* and its implementing Chesapeake Bay Preservation Area Designation and Management Regulations, 9 VAC 10-20-10 *et seq.*

3. Summary of Findings

Based on the above analysis and as elaborated in the Draft Environmental Assessment, Fort A.P. Hill finds the proposed AWC fully consistent, or consistent to the maximum extent practicable, with the federally approved enforceable provisions of VCRMP, pursuant to the Coastal Zone Management Act of 1972, as amended and in accordance with 15 CFR Part 930.30(c).

By certification that the proposed action is consistent with VCRMP Enforceable Programs, the commonwealth of Virginia will be notified that it has 60 days from receipt of this letter, in which to concur with or object to this Consistency Determination. However, pursuant to 15 CFR Part 903.63(b), if the commonwealth of Virginia has not issued a decision by the 60th day from receipt of this determination, it shall notify Fort A. P. Hill of the status of the matter and the basis for further delay. The State's concurrence, objection, or notification of review status shall be sent to:

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