

Finding of No Significant Impact

Environmental Assessment for the Asymmetric Warfare Group 800- and 1,200-Meter Training Ranges at Fort A.P. Hill, Virginia

Pursuant to the Council on Environmental Quality Regulations (CEQ) (40 CFR 1500-1508) for implementing the procedural provisions of the National Environmental Policy Act of 1969, as amended, (NEPA) and 32 CFR 651 (*Environmental Analysis of Army Actions*), Fort A.P. Hill has prepared an Environmental Assessment (EA) for the potential environmental, cultural, and socioeconomic effects of the Selected Action to construct and operate 800- and 1,200- Meter Training Ranges for the Asymmetric Warfare Group (AWG) at Fort A.P. Hill, Virginia. The EA is incorporated into this finding.

Selected Action

The Army's Selected Action consists of modifying the existing Asymmetric Warfare Group (AWG) Small Arms Range by constructing and operating two outdoor training ranges necessary to meet training requirements for the AWG. The action also includes the construction of necessary facilities to support AWG activities at the site. The proposed AWG Training Ranges will be constructed on 675 acres within the post's Controlled Access Area (CA) #10 and #13. The 800-meter range will include a 600 square foot firing zone. The range will provide an open gunnery environment with portable targets to optimize the gunnery and training experience. Two separate driving courses will be included in the 1,200-meter range. One will be an improved, serpentine, gravel road and the other will be an unimproved trail. The improved, serpentine driving course will accommodate medium tactical vehicles, such as Stryker fighting vehicles, and 5-ton trucks performing simultaneous training exercises. A complete description of the Selected Action is included in Section 2.0 of the attached EA.

Alternatives Considered

A number of alternatives, along with the No Action Alternative, were considered by Fort A.P. Hill and the AWG for the proposed AWG Training Ranges, as part of the NEPA process. Each alternative was considered for meeting the purpose and need and impact to the natural and human environment. Alternatives that did not meet the purpose and need, the screening criteria, or had too great of an environmental impact were not considered for further analysis in the EA. A complete description of the alternatives considered for the proposed project is included in Section 3.0 of the attached EA.

Factors Considered in Determining that the Project Would Not Cause Significant Adverse Impacts

The analysis included in the attached EA concluded that there will be no significant impacts as a result of constructing and operating the AWG Training Ranges. The CEQ significance criteria are listed below along with a brief explanation of how the project will adhere to these standards. References to the attached EA are provided where appropriate.

1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.

The Selected Action will result in adverse impacts to soils, topography, and geology; water resources; air quality; noise; cultural resources; hazardous materials; vegetation; fish and wildlife; wetlands; and utilities. The Selected Action also will result in beneficial impacts to hazardous materials and population and the local economy. These impacts are described in greater detail in Section 4.0 and summarized in Section 4.5 of the attached EA. The adverse impacts will be minor in nature, with some moderate impacts to vegetation, and will not outweigh the benefit that the Army will gain through the development and operation of the AWG Training Ranges.

2) The degree to which the Selected Action affects public health or safety.

Section 4.2.7 and Section 4.4.5 of the attached EA address Hazardous Materials and Safety, respectively. The findings of these sections indicate that safety within the proposed project area will be improved through the removal of Munitions and Explosives of Concern (MEC) prior to construction. Operation of the Selected Action will comply with all Army safety regulations, avoiding any potential impact to public health or safety. During the initial public comment period for the Selected Action, the Army received seven pieces of correspondence. Nearly all of the comments made in this correspondence were focused on the potential increases in noise that will result from the Selected Action. These comments have been addressed in Section 4.2.5 of the attached EA.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The proposed project area contains or is adjacent to cultural resources, wetlands, and threatened and endangered species habitat. The Virginia Department of Historic Resources concurred that none of the cultural resources located within the proposed project area were eligible for listing on the National Register of Historic Places due to lack of integrity (Section 4.2.6 of the attached EA). The Selected Action will be designed to avoid impacts to wetland resources and threatened and endangered species. The only impact to wetlands will come through the construction of a bridge over a marsh along the proposed 1,200-meter range (Section 4.3.4 of the attached EA). The federally-threatened and state-endangered swamp pink (*Helonias bullata*) is known to exist in proximity to the proposed project area; however, the range design will avoid all known colonies.

The federally-protected bald eagle (*Haliaeetus leucocephalus*) is known to exist adjacent to the proposed project area. The Virginia Department of Game and Inland Fisheries agreed that the actions described in Section 4.3.3 of the attached EA will be protective of the eagles inhabiting the nearby woods.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The Army held a public meeting on November 30, 2010 at the Town of Bowling Green Town Hall. During the meeting, the Army answered questions about the Selected Action and accepted agency and public comment. The public comment period extended for 30 days after the meeting. During that time, the Army received seven pieces of correspondence. Nearly all of the comments made in this correspondence were focused on the potential increases in noise that will result from the Selected Action. These comments have been addressed in Section 4.2.5 of the attached EA. During the public review of the EA, the Army received one piece of correspondence from the public and two from regulatory agencies. These pieces of correspondence, which are appended to the EA and addressed at the end of this Finding of No Significant Impact (FNSI), did not represent a quantity of comments to indicate significant controversy. The issues raised in these comments are issues that Fort A.P. Hill works to address on a daily basis.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Selected Action has been thoroughly reviewed by Army specialists to ensure that it conforms to all Army regulations. There are no uncertain, unknown, or unique risks associated with the Selected Action.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Selected Action is similar to many other existing and future actions at Fort A.P. Hill and other Department of Defense installations. It does not establish a precedent or represent a decision in principle about future considerations.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

The Selected Action contains all elements necessary to construct and operate the AWG Training Ranges. No additional actions will be necessary. Section 4.6 of the attached EA addresses cumulative impacts. The Selected Action, in combination with any cumulative action, will not result in any significant impact to the environment.

- 8) **The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.**

The Virginia Department of Historic Resources concurred that none of the cultural resources located within the proposed project area were eligible for listing on the National Register of Historic Places due to lack of integrity (Section 4.2.6 of the attached EA). Therefore there will be no significant impact to cultural resources.

- 9) **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

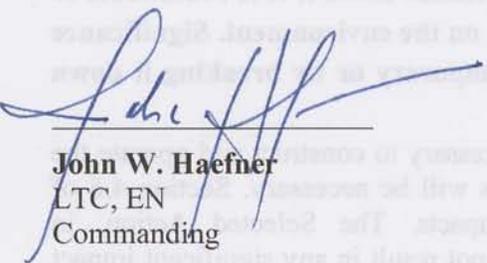
The federally-threatened and state-endangered swamp pink (*Helonias bullata*) is known to exist in proximity to the proposed project area; however, the design will avoid all known colonies. The federally-protected bald eagle (*Haliaeetus leucocephalus*) is known to exist adjacent to the proposed project area. The Virginia Department of Game and Inland Fisheries agreed that the actions described in Section 4.3.3 of the attached EA will be protective of the eagles inhabiting the nearby woods.

- 10) **Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

The Selected Action is in compliance with all Federal, State, and local laws and regulations.

Conclusion

I have reviewed the Environmental Assessment for the Proposed Asymmetric Warfare Group 800- and 1,200-Meter Training Ranges, the information provided by interested parties, and the information contained in this Finding of No Significant Impact, and I find that the AWG Training Ranges will not significantly affect the quality of the human environment. Therefore, preparation of an Environmental Impact Statement, pursuant to Section 102(2) (c) of the National Environmental Policy Act of 1969, as amended, is not required.


John W. Haefner
LTC, EN
Commanding

Date: 28 JUL 2011

Comments Submitted During the Public Review of the EA

Ms. Bonnie Cannon (Comment #0001): Why does the Army even think it does not have any impact?

Response: Minor impacts will occur and are addressed in the attached EA.

Ms. Bonnie Cannon (Comment #0002): Is there going to be some planned pretesting and preassessment so we can assess the noise impact?

Response: The attached EA includes a complete noise study that follows Army protocol for measuring noise impact from these types of activities in environments like Fort A.P. Hill.

Ms. Bonnie Cannon (Comment #0003): I do not see why this could not be relocated somewhere up near Rappahannock Academy off of Rte 17 in ranges that is away from the Town of Bowling Green.

Response: The Army has defined specific areas within Fort A.P. Hill that can be used for such activities. The EA further explains these areas and how all available options for locating the AWG Training Ranges were considered.

Mr. Marc Holma, Virginia Department of Historic Resources (Comment #0004): Concur: No historic properties will be affected by the proposed undertaking.

Response: Comment noted.

Ms. Ellie Irons, Virginia Department of Environmental Quality (DEQ) Office of Environmental Impact Review (Comment #0005): DEQ recommends that stream and wetland impacts be avoided to the maximum extent practicable. To minimize unavoidable impacts to wetlands and waterways, DEQ recommends the following practices:

- Operate machinery and construction vehicles outside of stream-beds and wetlands; use synthetic mats when in-stream work is unavoidable.
- Preserve the top 12 inches of material removed from wetlands for use as wetland seed and root-stock in the excavated area.
- Erosion and sedimentation controls should be designed in accordance with the most current edition of the Virginia Erosion and Sediment Control Handbook. These controls should be in place prior to clearing and grading, and maintained in

good working order to minimize impacts to state waters. The controls should remain in place until the area is stabilized.

- Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil disturbance, to the maximum extent practicable.
- Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub or forested). The applicant should take all appropriate measures to promote revegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.
- Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats or geotextile fabric in order to prevent entry in state waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state.
- All non-impacted surface waters within the project or right-of-way limits that are within 50 feet of any clearing, grading or filling activities should be clearly flagged or marked for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.
- Measures should be employed to prevent spills of fuels or lubricants into state waters.

Response: These measures, which also will be addressed in the permitting process, will be incorporated into the pre-construction planning, construction activities, and post construction monitoring. All activities will be supervised by Fort A.P. Hill Environmental Division staff.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #0006): Coordinate with the VMRC (Dan Bacon at 757-247-2256) regarding the submission of a JPA.

Response: Comment noted.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #0007): Prior to construction and operation, contact DEQ NRO (Terry Darton, NRO Air Permit Manager, at 703-583-3845) for a permitting determination.

Response: Comment noted.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #0008): Coordinate with DCR DCBLA (David Sacks at 804-371-7504 or David.Sacks@dcr.virginia.gov) regarding the submission of a water quality impact assessment.

Response: Comment noted.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #0009): The DEQ DLPR has the following recommendations:

DEQ encourages all construction projects and facilities to implement pollution prevention principles, including:

- the reduction, reuse and recycling of all solid wastes generated; and
- the minimization and proper handling of generated hazardous wastes.
- Contact the Environmental Protection Agency (EPA) (Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at 215-814-3434) for locations of solid waste management units (SWMUs) and areas of concern (AOCs)(identified in the attached detailed comments) to determine which ones will impact or be impacted by the proposed project.
- Contact DEQ's NRO (Richard Doucette at 703-583-3813) and/or the Fort A. P. Hill Environmental Office to establish the location of the solid waste facilities identified in the attached comments.
- Contact EPA (Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at 215-814-3434) and/or the Fort A.P. Hill contacts (listed in the attached comments) to establish if potential SWMUs and/or AOCs under the RCRA CA Program could be impacted by the proposed training ranges.

Response: Comment noted.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #00010): Contact DCR DNH at (804) 371-2708 to secure updated information on natural heritage resources if a significant amount of time passes before the project is implemented since new and updated information is continually added to the Biotics Data System.

- Avoid the documented Swamp pink populations and the source of the seeps that supports those populations.
- Due to the legal status of the Swamp pink, coordinate with the FWS (Cindy Schulz at 804-693-6694 or cindy_schulz@fws.gov) and VDACS (Keith Tignor at Keith.Tignor@vdacs.virginia.gov) to ensure compliance with protected species legislation.

Contact DCR (Robbie Rhur at Robbie.Rhur@dcr.virginia.gov or Rene Hypes at Rene.Hypes@dcr.virginia.gov) for additional information about these comments and recommendations.

Response: No new studies have been performed since the survey that was completed and approved as part of this project. The design incorporated the findings of this survey to avoid documented Swamp pink populations and the source of the seeps that supports those populations. Fort A.P. Hill will coordinate with DCR if/when future surveys are performed.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #00011): To minimize overall impacts to wildlife and natural resources, DGIF has the following recommendations about development activities:

- Maintain undisturbed wooded buffers of at least 100 feet in width around all onsite wetlands and on both sides of all perennial and intermittent streams;
- Avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable;
- Design stormwater controls to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of low impact development. They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes; and
- Adhere to erosion and sediment controls during ground disturbance.
- Ensure that all tree removal and ground clearing adhere to a time-of-year restriction from March 15 through August 15 of any year to protect nesting resident and migratory songbirds.
- Ensure that development activities on Fort AP Hill adhere to the currently approved Integrated Natural Resources Management Plan for the installation.

Contact Amy Ewing with DGIF at (804) 367-2211 for additional information regarding these comments.

Response: These measures will be incorporated into the pre-construction planning, construction activities, and post construction monitoring. All activities will be supervised by Fort A.P. Hill Environmental Division staff.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #00012): DOF recommends that Fort A.P. Hill mitigate the loss of forestland. The mitigation could be in the form of reforesting open lands, improving the growth of existing forestlands, or conserving lands through conservation easements so they will remain in forestland for perpetuity.

The DOF has the following recommendations to protect trees that will not be removed:

- To the extent feasible, existing groupings and/or clusters of trees and natural vegetation should remain on the site to provide aesthetic and environmental benefits, as well as reducing future open space maintenance costs.
- Trees not slated for removal should be protected from the effects of future construction activities. These trees should be marked and fenced at least to the drip line or the end of the root system, whichever extends farther from the 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 contractors 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.
- All harvesting operations should follow Forestry Best Management Practices (BMPs) for water quality as outlined by the DOF's Voluntary BMP Guidelines publication.

Questions concerning the protection of trees and mitigation options may be addressed to DOF (Todd Groh, Assistant Director of the DOF Forest Resource Management Division, at Todd.Groh@dof.virginia.gov).

Response: To the extent feasible, these actions will be included in the construction planning, construction activities, and post-construction monitoring conducted by the Fort A.P. Hill Environmental Division.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #00013): DEQ recommends that to the extent practicable, the responsible party consider the following water conservation measures:

- Grounds should be landscaped with hardy native plant species to conserve water as well as minimize the need to use fertilizers and pesticides.
- Convert turf to low water-use landscaping such as drought resistant grass, plants, shrubs and trees.
- Consider installing low flow restrictors/aerators to faucets.
- Improve irrigation practices by:

- upgrading sprinkler clock; watering at night, if possible, to reduce evapotranspiration (lawns need only 1 inch of water per week and do not need to be watered daily; over watering causes 85 percent of turf problems);
 - installing a rain shutoff device; and
 - collecting rainwater with a rain bucket or cistern system with drip lines.
- Check for and repair leaks (toilets and faucets) during regular routine maintenance activities.

Response: To the extent feasible, these actions will be included in the construction planning, construction activities, and post-construction monitoring conducted by the Fort A.P. Hill Environmental Division.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #00014): Contact the VDH Rappahannock Area Health District in Caroline County (804-633-5465) regarding applicable sewage regulations and requirements for the vault toilets.

Response: Comment noted.

Ms. Ellie Irons, DEQ Office of Environmental Impact Review (Comment #00015): We have several pollution prevention recommendations that may be helpful in constructing or operating this project:

- 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 environmental management system or 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.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. For more information, contact DEQ's Office of Pollution Prevention (Sharon Baxter at 804-698-4344)

Response: To the extent feasible, these actions will be included in the construction planning, construction activities, and post-construction monitoring conducted by the Fort A.P. Hill Environmental Division.

Comments Submitted During the Initial Scoping Period for the EA

Ms. Bonnie Cannon (Comment #0016): Can't it be located elsewhere onsite away from the Town and/or residential communities?

Response: See response to Comment #0003.

Ms. Bonnie Cannon (Comment #0017): Furthermore, aren't there more US Army facilities where AWG could be located?????

Response: It is outside the scope of this project and the attached EA to assess the decision to relocate the AWG training facilities to Fort A.P. Hill.

Mr. C. Douglas Barnes, County of Spotsylvania County Administrator (Comment #0018): Please be advised that Spotsylvania County has no issues with the Environmental Assessment for the proposed construction and operation of the Asymmetric Warfare Group Training Range Site at Fort A.P. Hill.

Response: Comment noted.

Ms. Amy Ewing, Virginia Department of Game and Inland Fisheries, (Comment #0019): According to our records, state Threatened bald eagles a state Threatened Bachman's sparrows have been documented from the general project area. We recommend the EA being prepared for this project address any impacts upon these species and their habitats and how the Army proposes to avoid, minimize, and/or mitigate impacts upon these species.

Response: Comment noted. Additional consultation was conducted and included in the EA to address any potential impacts to these species.

Ms. Amy Ewing, Virginia Department of Game and Inland Fisheries, (Comment #0020): We also recommend that the Army review the INRMP for Ft. AP Hill and ensure that construction and operation of the proposed training range does not conflict with the wildlife management and protection strategies laid out in that document.

Response: Comment noted. Consultation letters appended to the EA document coordination with DGIF on adherence to the INRMP.

Mr. Paul Kohler, Virginia Department of Environmental Quality, (Comment #0021): The report author should analyze the data in the web-based Waste Division databases to determine if the project would affect or be affected by any sites identified in the databases. These are the Solid Waste Database, CERCLA Facilities, Voluntary Remediation Program, and Hazardous Waste Facilities databases.

Response: Comment noted.

Mr. Paul Kohler, Virginia Department of Environmental Quality, (Comment #0022): Any soil that is suspected of contamination or wastes that are generated 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); and Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110).

Response: Comment noted.

Mr. Paul Kohler, Virginia Department of Environmental Quality, (Comment #0023): Also, if an older structure will be demolished as part of this project, the structure should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP). If they are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed.

Response: Comment noted. No structures will be demolished as part of the project.

Mr. Paul Kohler, Virginia Department of Environmental Quality, (Comment #0024): Finally, DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All hazardous wastes should be minimized.

Response: Comment noted.

Mr. William Smith, Sawan Kirpal Meditation Center, (Comment #0025): To have additional ranges in proximity to the center will add to the outside noise level that detracts from this very important purpose of our lives.

Response: See response to Comment #0003.

Mr. William Smith, Sawan Kirpal Meditation Center, (Comment #0026): At some activities, some people and especially children do not feel safe with all the existing firing. To add to this will greatly detract and cause more concern.

Response: Safety is a top priority at Fort A.P. Hill. The EA addresses the safety precautions taken at all training exercises, including the AWG Training Ranges.

Mr. David Storke, Town of Bowling Green Mayor, (Comment #0027): First, we hope that in the process of developing the Environmental Assessment, alternative sites for the ranges will be sought out and evaluated.

Response: See response to Comment #0003.

Mr. David Storke, Town of Bowling Green Mayor, (Comment #0028): We feel the impact of noise on the surrounding area needs intensive and detailed study.

Response: See response to Comment #0002.

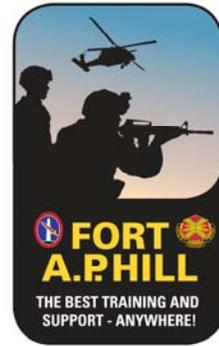
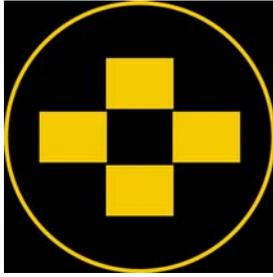
Mr. David Storke, Town of Bowling Green Mayor, (Comment #0029): We ask that the Environmental Assessment presents and analyzes information and projections on the amount and intensity of the smoke that will be created by the new activity at the proposed sites and how this will change from the existing conditions.

Response: It is difficult to develop projections on the amount and intensity of smoke that will be created. The EA, however, does present information on existing smoke and analyzes the impact the AWG Training Ranges will have on these conditions.

Mr. David Storke, Town of Bowling Green Mayor, (Comment #0030): Finally, if a site is selected that is as close to the perimeter of the Post as the currently proposed site, Town Council asks that there be some consideration given to restricting firing activity on Sundays.

Response: See response to Comment #0002.

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U.S. Army Garrison Fort A.P. Hill



Bowling Green, Virginia

Environmental Assessment for the Proposed Asymmetric Warfare Group 800- and 1,200-Meter Training Ranges

July 2011

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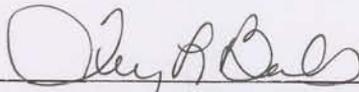


**Environmental Assessment
U.S. Army Garrison Fort A.P. Hill**

**Asymmetric Warfare Group
800- and 1200- Meter
Training Ranges**

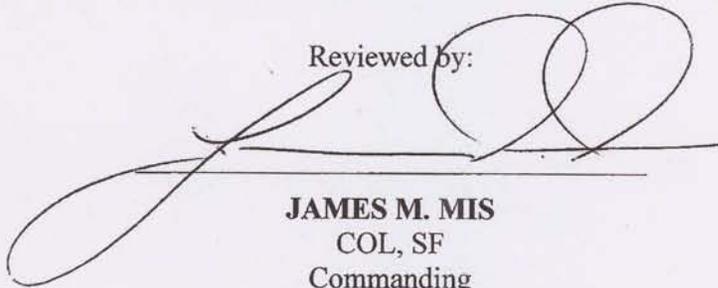
July 2011

Reviewed by:



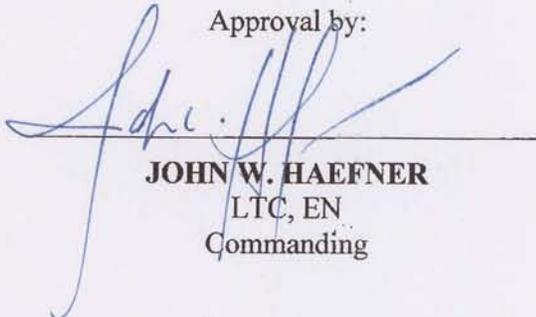
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Executive Summary

Introduction

The United States Army (Army) operates Army Garrison Fort A.P. Hill (Fort A.P. Hill or the post) to provide realistic joint and combined arms training support to the United States' defense forces. One of these units is the Asymmetric Warfare Group (AWG). 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 that which constantly changes and adapts to an ever-changing environment. The AWG is organized for continuous operations, capable of deploying quickly, and able to operate in multiple simultaneous areas of responsibility. It focuses on current and evolving asymmetric threats, such as terrorism, to U.S. forces in order to devise tactics, techniques and procedures, training activities, and technology to address these threats.

The AWG's headquarters is located at Fort Meade in Anne Arundel County, Maryland. The Army has moved the AWG training facilities to Fort A.P. Hill to take advantage of the post's resources and unify it with other military training efforts. In order to provide the necessary training to meet the mission and goals of the AWG, the Army is proposing to construct and operate two AWG Training Ranges at Fort A.P. Hill. The proposed project area for the site consists of 675 acres in the post's Controlled Access Area (CA). Portions of the proposed project area currently support the AWG Small Arms Range and Fort A.P. Hill artillery firing points.

This Environmental Assessment (EA) evaluates the potential impacts to the physical, biological, and human environments related to the Proposed Action to develop and operate the proposed AWG Training Ranges at Fort A.P. Hill, Virginia. The EA also analyzes the No Action Alternative.

Proposed Action and Alternatives

The Proposed Action for this EA is modify the existing AWG Small Arms Range by constructing and operating two outdoor ranges necessary to meet training requirements for the AWG. The action also includes the construction of facilities to support AWG activities at the site. The proposed AWG Training Ranges would be constructed on 675 acres within the post's CA 10 and 13. This location is south of U.S. Route 301 and southeast of Carter's Corner, at the southern end of the post. While the anticipated average daily number of military personnel expected on site is 24 persons, the AWG Training Ranges could accommodate up to 40 individuals simultaneously participating in multiple training activities and operations. The proposed ranges would be designed to support training activities 24 hours a day.

Inclusion of the No Action Alternative is required by Council on Environmental Quality (CEQ) regulations and serves as the benchmark against which federal actions can be evaluated. Under the No Action Alternative, the AWG Training Ranges would not be constructed. The group's current activities at Fort A.P. Hill would continue. The No Action Alternative is evaluated in detail in this EA. Other alternatives that are not

evaluated in detail are discussed, as are the criteria that were used to eliminate them from further consideration.

Environmental Consequences

Implementing the Proposed Action would be expected to result in both short- and long-term impacts on environmental resources and conditions. The EA does not identify the need for any mitigation measures, outside of those included in the Proposed Action.

Table ES-1 provides a summary of the environmental consequences related to each alternative. A more detailed explanation of impacts is presented in Chapter 4.

Table ES-1: Summary of Environmental Consequences		
Resource	Proposed Action	No Action Alternative
Soils, Topography, and Geology	<i>Overall impact:</i> short- and long-term, minor, adverse impacts	<i>Overall impact:</i> no impact
Floodplains	<i>Overall impact:</i> no impact	<i>Overall impact:</i> no impact
Water Resources	<i>Overall impact:</i> long-term, minor, adverse	<i>Overall impact:</i> no impact
Air Quality	<i>Overall impact:</i> long-term, minor, adverse	<i>Overall impact:</i> no impact
Noise	<i>Overall impact:</i> long-term, moderate, adverse	<i>Overall impact:</i> long-term, moderate, adverse
Cultural Resources	<i>Overall impact:</i> long-term, minor, adverse	<i>Overall impact:</i> long-term, minor, adverse
Hazardous Materials	<i>Overall impact:</i> long-term, minor, beneficial and long-term, minor, adverse	<i>Overall impact:</i> long-term, minor, adverse
Aesthetic Resources	<i>Overall impact:</i> no impact	<i>Overall impact:</i> no impact
Vegetation	<i>Overall impact:</i> long-term, moderate, adverse	<i>Overall impact:</i> no impact
Fish and Wildlife	<i>Overall impact:</i> long-term, minor, adverse	<i>Overall impact:</i> no impact

Table ES-1: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
Threatened and Endangered Species	<i>Overall impact:</i> long-term, minor, adverse	<i>Overall impact:</i> no impact
Wetlands	<i>Overall impact:</i> long-term, minor, and adverse	<i>Overall impact:</i> no impact
Land Use	<i>Overall impact:</i> no impact	<i>Overall impact:</i> no impact
Transportation	<i>Overall impact:</i> short-term, minor, adverse	<i>Overall impact:</i> no impact
Utilities and Energy Conservation	<i>Overall impact:</i> long-term, minor, adverse	<i>Overall impact:</i> no impact
Population and Economics	<i>Overall impact:</i> long-term, minor, beneficial	<i>Overall impact:</i> no impact
Safety	<i>Overall impact:</i> no impact	<i>Overall impact:</i> no impact
Cumulative Impacts	Both the Proposed Action and the No Action Alternative would contribute to minor cumulative impacts related to the resources discussed above. These cumulative impacts are discussed in Chapter 4 of this document.	

Conclusions

On the basis of the analyses performed in this EA, implementation of the Proposed Action would have no significant direct, indirect, or cumulative impacts on the quality of the natural or human environment. Preparation of an Environmental Impact Statement (EIS) is not required.

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Acronyms and Abbreviations

AR – Army Regulation

Army – U.S. Army

AWC – Asymmetric Warfare Complex

AWG – Asymmetric Warfare Group

BMP – best management practice

CA – Controlled Access Area

CDNL – C-weighted day-night level (noise)

CEQ – Council on Environmental Quality

cft – cubic feet

CZMA – Coastal Zone Management Act

CZMP – Coastal Zone Management Program

dB – decibel

dBA – A-weighted decibels

dBp – peak level decibels

DCR – Virginia Department of Conservation and Recreation

DEQ – Virginia Department of Environmental Quality

DGIF – Virginia Department of Game and Inland Fisheries

DHR – Virginia Department of Historic Resources

DNL – day-night average sound level

EIS – Environmental Impact Statement

EPA – U.S. Environmental Protection Agency

EPCRA – Emergency Planning and Community Right-to-Know Act

FICUN – Federal Interagency Committee on Urban Noise

FNSI – Finding of No Significant Impact

Fort A.P. Hill – U.S. Army (Army) Garrison Fort A.P. Hill

I-95 – Interstate 95

IED – Improvised Explosive Devices

JPA – Joint Permit Application

LUPZ – Land Use Planning Zone

m – meter(s)

MEC – Munitions and Explosives of Concern

msl – relative to mean sea level

NEPA – the National Environmental Policy Act of 1969, as amended

NRCS – U.S. Department of Agriculture’s Natural Resource Conservation Service

NPDES – National Pollution Discharge Elimination System

NZ – Noise Zone

PK15(Met) – peak sound levels, without frequency weighting and accounting for the statistical variation caused by weather, expected to be exceeded by 15 percent of all events that might occur

RCRA – Resource Conservation and Recovery Act

Route 301 – U.S. Route 301

RPA – Resource Protection Area

SDZ – surface danger zone(s)

sf – square feet

SWPPP – Storm Water Pollution Prevention Plan

TBT – Tributyltin

the post – U.S. Army Garrison Fort A.P. Hill

TMDL – total maximum daily load

USACE – U.S. Army Corps of Engineers

USFWS – U.S. Fish and Wildlife Service

VMRC – Virginia Marine Resources Commission

VPDES – Virginia Pollution Discharge Elimination System

VSMP – Virginia Stormwater Management Program

VWP – Virginia Water Protection Permit

1.0 Purpose and Need for Action

1.1 Introduction and Scope of the Document

United States Army (Army) Garrison Fort A.P. Hill (Fort A.P. Hill or the post) is situated within the boundaries of Caroline County, Virginia, along U.S. Route 301 (Route 301), just a short distance from the Interstate 95 (I-95) corridor. The post is located 20 miles southeast of Fredericksburg, Virginia, midway between Richmond, Virginia, and the Washington, D.C. metropolitan area. To the south and west, the post 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 (Figure 1).

The post is located within the upper Atlantic Coastal Plain, in the York River and Rappahannock River Watersheds. Fort A.P. Hill's terrain consists of rolling hills with some low areas and wetlands. Most of the installation is forested, with wooded areas containing both hardwood and coniferous trees. Route 301 divides the post into northern and southern sections. The northern portion of the post is dedicated to maneuver operations and the southern portion contains a 27,000-acre modern range facility and impact area (Figure 2).

The Army operates Fort A.P. Hill to provide realistic joint and combined arms training support to the United States' defense forces. One of these units is the Asymmetric Warfare Group (AWG). 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 that which constantly changes and adapts to an ever-changing environment. The AWG is organized for continuous operations, capable of deploying quickly, and able to operate in multiple simultaneous areas of responsibility. It focuses on current and evolving asymmetric threats, such as terrorism, to U.S. forces in order to devise tactics, techniques and procedures, training activities, and technology to address these threats. The success of the AWG in accomplishing this mission will be crucial in the global war on terrorism and is anticipated to be a critical component of future Army and joint military forces operations.

The AWG's headquarters is located at Fort Meade in Anne Arundel County, Maryland. The Army has moved the AWG training facilities to Fort A.P. Hill to take advantage of the post's resources and unify it with other military training efforts. In order to provide the necessary training to meet the mission and goals of the AWG, the Army is proposing to construct and operate two AWG Training Ranges at Fort A.P. Hill. The proposed project area for the training ranges consists of 675 acres in the post's Controlled Access Area (CA) # 10 and 13 (Figure 3). Portions of the proposed project area currently support the existing AWG Small Arms Range and artillery firing points.

This Environmental Assessment (EA) addresses the proposal to develop the AWG Training Ranges, as well as the potential impacts to the physical, biological, and human environments in and around Fort A.P. Hill. This document has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA);

regulations of the Council on Environmental Quality (CEQ) (40 CFR 1508.9); and Title 32, CFR Part 651, Environmental Analysis of Army Actions.

1.2 Purpose and Need for the Proposed Action

The stated mission of Fort A.P. Hill is to provide realistic, joint forces and combined arms training support to America's defense forces. Included among the groups that train at Fort A.P. Hill is the AWG. The AWG mission is to provide operational advisory assistance in support of Army and Joint Force Commanders to enhance the combat effectiveness of the operating force and enable the defeat of asymmetric threats. AWG enhances the capabilities of U.S. combat units by making them faster and more adept at identifying and attacking enemy vulnerabilities, and by preparing them for a broader spectrum of threats. The purpose of the proposed AWG Training Ranges is to allow Fort A.P. Hill and the AWG to continue to meet their respective missions.

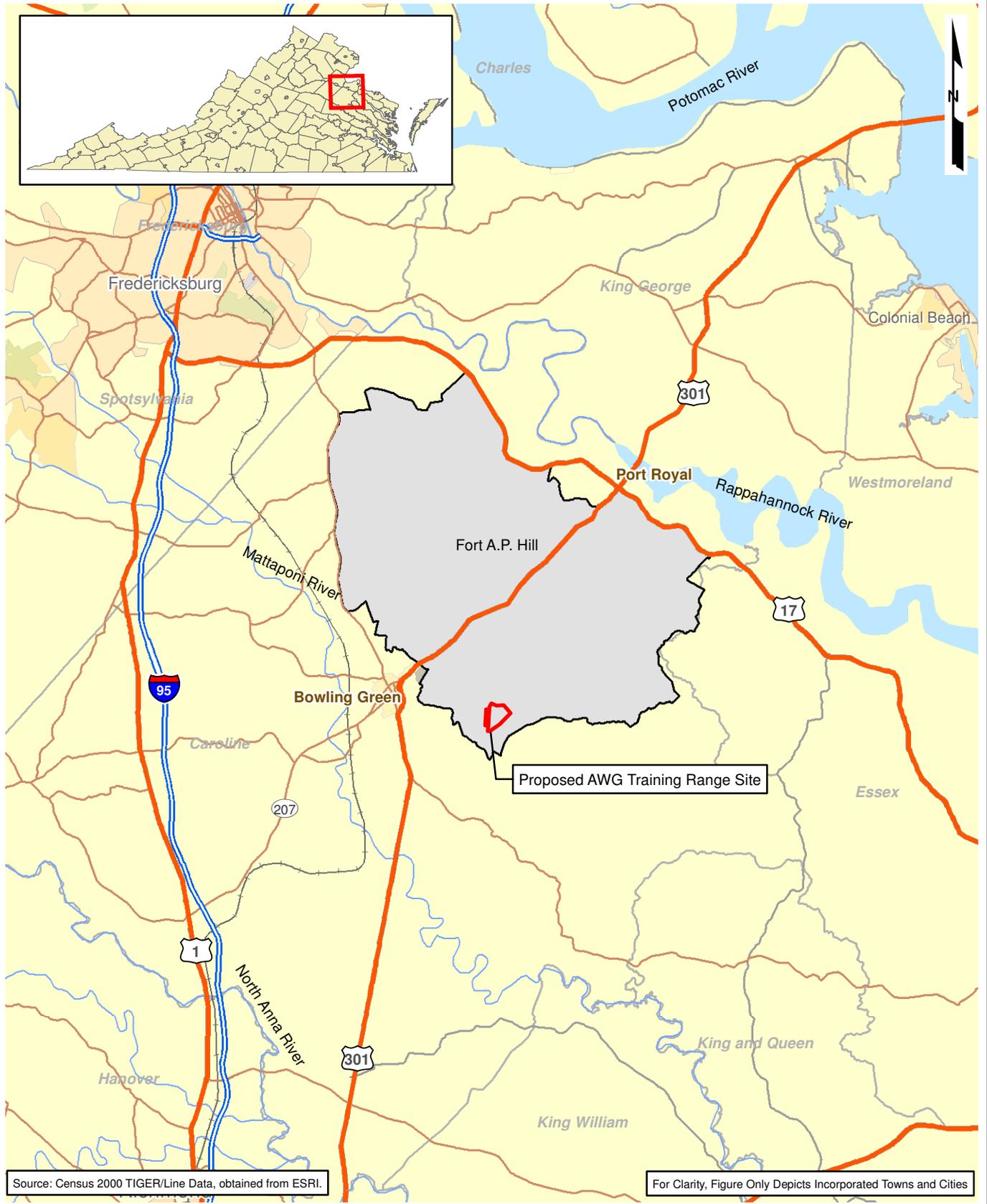
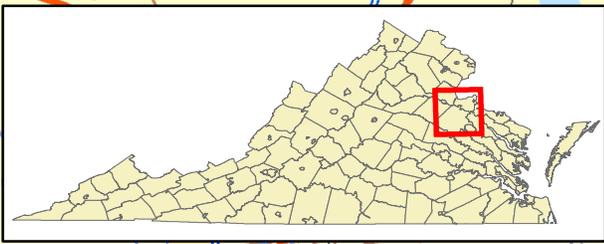
The training provided by the AWG is guided by needs and objectives that have been outlined in recent military policy. This includes the standards established by the Army Improvised Explosive Devices (IED) Task Force and the Joint IED Defeat Task Force. These task forces have identified the need to maintain a variety of weapons systems and engagement platforms. Therefore, there is a need to provide the AWG with the necessary training space, instrumentation, and target systems to meet current training requirements.

Fort A.P. Hill has initiated plans to construct an Asymmetric Warfare Complex (AWC) to support the AWG. Activities at the proposed AWG Training Ranges would require the movement of personnel and supplies to and from the AWC. Activities at both locations would be carefully coordinated to allow the AWG to meet its mission at the post. Therefore, there is a need to provide efficient transportation between the AWC and the proposed ranges using the existing road system at the post.

The activities included in AWG training are often unique to military actions. As such, these training exercises require a controlled environment for safe and effective execution. Therefore, there is a need to locate the proposed AWG Training Ranges in an area that could be restricted from surrounding activities and used exclusively for AWG purposes.

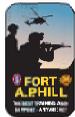
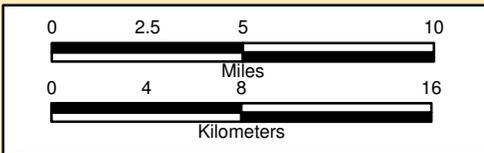
1.3 Scope of the Document

This EA is limited to assessing the impacts of construction and training operations associated with the AWG Training Ranges on the following environmental resources: soils, topography, and geology; floodplains; water resources; air quality; noise; cultural resources; hazardous materials; aesthetic resources; vegetation; fish and wildlife; threatened and endangered species; wetlands; land use; transportation; utilities and energy conservation; population and economics; and safety. Potential cumulative and secondary impacts associated with this project also are analyzed. Proposed mitigation measures to minimize environmental impact are provided, where necessary. The relocation of the AWG training facilities to locations other than Fort A.P. Hill is outside the scope of this EA.



Source: Census 2000 TIGER/Line Data, obtained from ESRI.

For Clarity, Figure Only Depicts Incorporated Towns and Cities

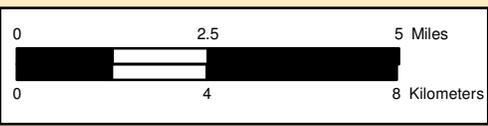
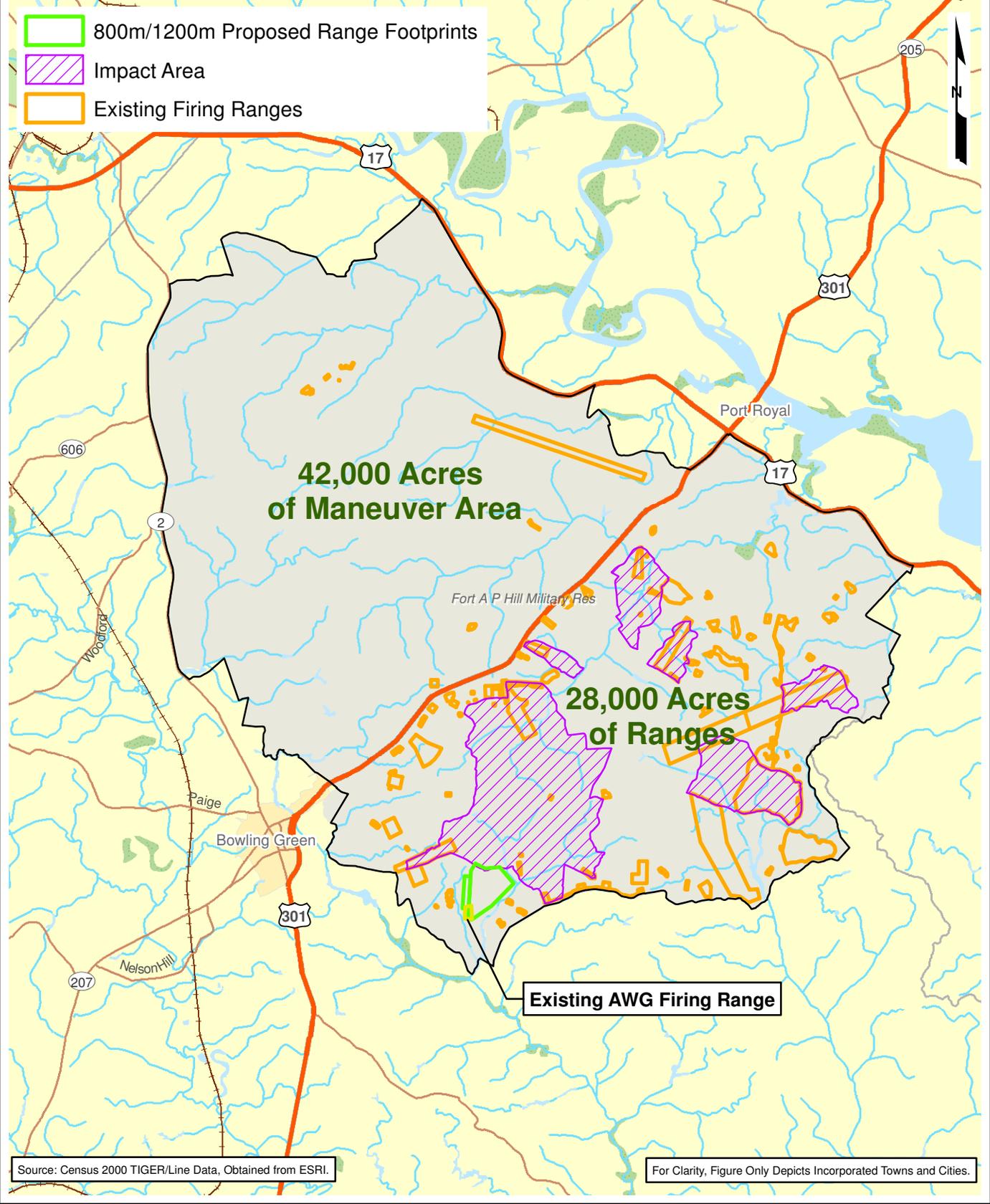


Regional Location

**AWG Training Ranges
Fort A.P. Hill, Virginia**

Figure 1

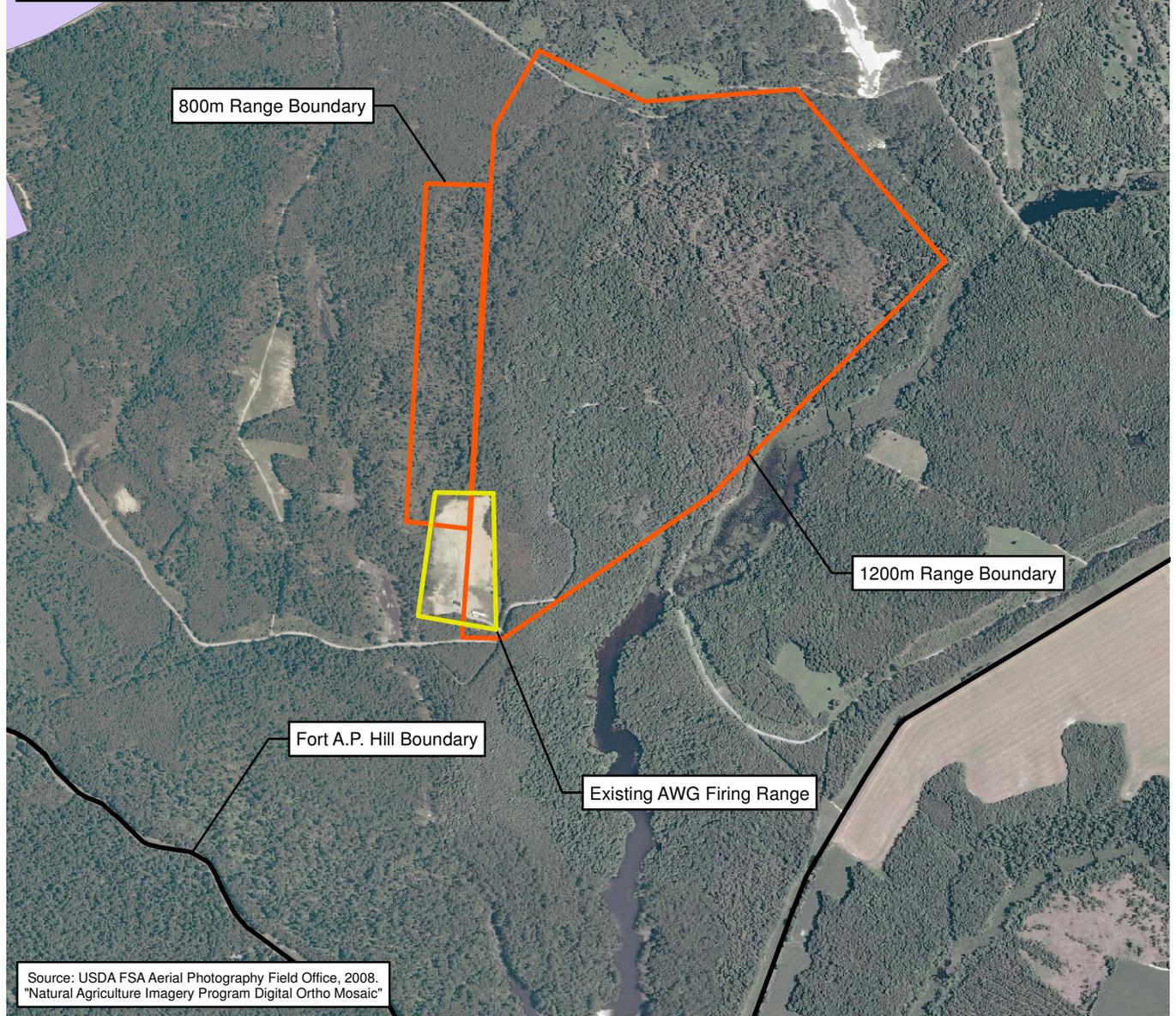
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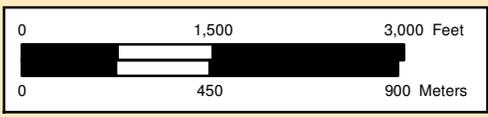
Fort A.P. Hill Overview

AWG Training Ranges
 Fort A.P. Hill, Virginia

Figure 2



Source: USDA FSA Aerial Photography Field Office, 2008.
 "Natural Agriculture Imagery Program Digital Ortho Mosaic"



Aerial Photograph
AWG Training Ranges
Fort A.P. Hill, Virginia

Figure
3

1.4 Interagency Coordination and Public Comment Period

This EA was coordinated with appropriate federal, state, and local agencies. Copies of agency correspondence are provided in Appendix A. In addition, agency and public input will be obtained during public comment periods. The initial public comment period for the proposed project included the 30 days following the public information open house held on November 30, 2010 at the Town of Bowling Green Town Hall. Another 30-day comment period will be held following publication of this EA. The list of recipients for the public review document is included in Appendix E. 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 (FNSI) will be issued. A notice of availability will be published to announce the availability of the FNSI.

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2.0 Proposed Action

The Proposed Action for this EA is to construct and operate two outdoor training ranges necessary to meet training requirements for the AWG. The action also includes the construction of necessary facilities to support AWG activities at the site. The proposed AWG Training Ranges would be constructed on 675 acres within the post's CA 10 and 13. This location is south of Route 301 and southeast of Carter's Corner, at the southern end of the post (Figure 3). While the anticipated average daily number of military personnel expected on-site is 24 persons, the AWG Training Ranges could accommodate up to 40 individuals simultaneously participating in multiple training activities and operations. The proposed AWG Training Ranges would be designed to support training activities 24 hours a day.

The proposed project area already contains an active range, the AWG Small Arms Range, and also contains the existing Artillery Firing Point 1. Under the Proposed Action, the site would still be capable of supporting artillery training actions, though it would not be a part of the AWG's actions. To accommodate these existing uses, the site includes a gated entrance, gravel access road, covered bleacher area, and metal observation tower. If possible, these structures would be incorporated into the new site design. No fueling or vehicle maintenance operations are planned for the range site. These services would be handled at existing Fort A.P. Hill facilities.

During the planning process for the Proposed Action, a Munitions and Explosives of Concern (MEC) survey was conducted for the proposed project area. Based on the observed explosive hazards, the proposed 800-meter (m) range footprint is perceived to contain high, medium and low risk areas. The proposed 1,200m range footprint also is perceived to contain high, medium and low risk areas. Clearance of MEC to design construction depth plus one foot is proposed in the high to medium risk areas of the 800m and 1,200m Ranges (Army 2009a). These recommendations would be incorporated into the Proposed Action and completed prior to any construction activity.

2.1 800-Meter Range

The proposed 800m firing range would be constructed in accordance with the U.S. Army Corps of Engineers (USACE) standard design for an open land, walking 800m small arms range with support facilities. The range would include pervious shooting pads and a stabilized, 600 square foot (sf) firing zone. The range would provide an open gunnery environment with portable targets to optimize the gunnery and training experience.

Electricity for the structures associated with the 800m range would be provided by overhead lines that service the existing AWG Small Arms Range. Other structures included with the range, and their approximate footprints, are included in Table 1.

Table 1: Site Improvements Associated with the Proposed 800-Meter Range

Structure	Linear Feet (if applicable)	Square-feet	Acres
Firing Range			
Stabilized Firing Zone		600	0.014
Service Road	3,020	78,520	1.80
Site Clearing		1,089,000	25.00
Range Operations and Control Area			
Access Road	450	15,750	0.36
Fencing	1,589	1,589	0.04
Sidewalks/Walkways		1,200	0.028
Parking		3,330	0.08
Site Clearing		392,040	9.00

In addition to these footprints, approximately 79,700 cubic feet of soil would be impacted by grading activities necessary to support the proposed infrastructure. Directional/instructional signs would be located in select areas of the range, along with target structures. Clearing during construction of this range would be kept at the minimum acreage necessary and remain within the design footprint. Sustainable principles would be integrated into the design, development, and operation of the proposed facility.

2.2 1,200-Meter Range

The proposed 1,200m range would be built in accordance with the USACE standard design for a two-road, driver training and engagement 1,200m range with support facilities. Two separate driving courses would be included in the range. One would be an improved, serpentine, gravel road and the other would be an unimproved trail. The improved, serpentine driving course would be 15 to 20 feet, wide with a gravel base strong enough to accommodate medium tactical vehicles, such as Stryker fighting vehicles, and 5-ton trucks performing simultaneous training exercises. The courses would be supported by a new bridge that would span approximately 150 feet of nearby marshland. The bridge would be approximately 25 feet wide and would be capable of supporting all vehicles that used the training course. It would be supported by a system of piles. Piles would be positioned at each end of the bridge and driven through the upland soils. Piles also would support the center of the bridge and extend into the marshland below.

Both stationary and moving armor and infantry targetry would be placed on the 1,200m range. The range would be able to accommodate weaponry up to and including .50

caliber multi-purpose machine guns. Targetry would consist of a series of free standing, portable radio-controlled and battery operated targets, target emplacements consisting of five-foot-square earthen and concrete pads, a series of steel and/or concrete bunkers and berms, four moving armored targets with truck silhouettes, and multiple pop-up targets. Radio controlled targets would allow both day and night firing capabilities. Concrete turning pads able to accommodate both wheeled and tracked vehicles would be situated throughout the range course. An urban cluster of building facades would be located in one area of the range.

Utilities for the structures associated with the 1,200m range would be provided by new underground power and water lines. An estimated 39,370 linear feet of underground utility lines would be installed. Other structures included with the range, and their approximate footprints, are included in Table 2.

Table 2: Site Improvements Associated with the Proposed 1,200-Meter Range

Structure	Linear Feet (if applicable)	Square-feet	Acres
Fighting Trenches	200	400	0.01 (1,200 cubic feet)
Service Road	27,680	719,660	16.52
Site Clearing		2,613,600	60.00
Range Operations and Control Area			
Access Road	450	16,650	0.38
Security Fencing	1,580	1,580	0.04
Sidewalks/Walkways		1,200	0.03
Parking		29,930	0.69
Site Clearing		392,040	9.00

2.3 Shared Facilities

In addition to these footprints, approximately 48,620 cubic feet of soil would be impacted by grading activities necessary to support the proposed infrastructure. Directional/instructional signs would be located in select areas of the range, along with target structures. Clearing during construction of this range would be kept at the minimum acreage necessary and remain within the design footprint. Sustainable principles would be integrated into the design, development, and operation of the proposed facility.

In addition to the features listed in Table 1 and Table 2, there are several structures that would be constructed within the proposed AWG Training Ranges that would be used to support both the 800m and 1,200m ranges. These shared elements include: Range

Operations Center, Operations and Storage Building, Vault Latrine, Bleacher Enclosure, Covered Mess, After Action Review Building, Ammunition Breakdown Building, Bivouac Area, Vehicle Staging Area, Battery Storage, and Classroom Building. Because these elements would be located in close proximity to one another, individual footprints are not listed. The total footprint for the shared structures is an estimated 37,500 sf (0.80 acres).

2.4 Design Mitigation

Although the bald eagle is no longer a listed a federally-endangered species, it is afforded protection under the Virginia Endangered Species Act, the Bald Eagle Protection Act, and the Migratory Bird Treaty Act. Currently there is one active bald eagle nest that exists adjacent to the proposed project area. During the construction process, construction vehicles and equipment would be moved through the proposed project area to develop this network of trails and roads. Once construction is complete, military vehicles would move through the area, firing at various targets. In one location, the road network and an armored target would be within 500 feet of the existing bald eagle's nest. To protect the nest and its inhabitants, the management buffer of 330 feet included in the USFWS's "National Bald Eagle Management Guidelines" would be implemented (USFWS 2007). To comply with USFWS's guidelines, any construction and clearing in the proposed project area within 660 feet of the nest would be completed outside the breeding/nesting season (December 15- July 15) when bald eagles are most sensitive to disturbance and have the greatest probability of abandoning the nest. Additional discussion of these guidelines is included in Section 4.3.3 of this document.

All other sensitive resources, including federally-listed endangered species and their habitats, have been avoided by the proposed design.

2.5 Proposed Action

The description presented above is the Proposed Action. This alternative meets the screening criteria (see Section 3.2), and is the only action alternative considered for further analysis in this EA.

3.0 Alternatives Considered

3.1 Alternatives Development

For proposed actions that require preparation of an EA, CEQ 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. Should the No Action Alternative be selected, Fort A.P. Hill and the AWG would respond to future needs and conditions without major actions or changes in the present course of management. Additionally, the EA should identify any alternatives eliminated from detailed analysis and indicate the reasons for their elimination.

A number of alternatives, along with the No Action Alternative, were considered by Fort A.P. Hill and the AWG for the proposed AWG Training Ranges, as part of the NEPA process. Each alternative was considered for meeting the purpose and need and impact to the natural and human environment. Alternatives that did not meet the purpose and need, the screening criteria, or had too great of an environmental impact were not considered for further analysis in the EA.

3.2 Screening Criteria

Fort A.P. Hill and the AWG considered several criteria for choosing a preferred site to construct and operate the proposed AWG Training Ranges. Screening criteria for the proposed site include:

- Sufficient training space to ensure that operations meet the standards established by the Army IED Task Force and the Joint IED Defeat Task Force including instrumentation and target systems necessary to support current weapons systems and engagement platforms;
- A location within close proximity of the proposed AWC to be built on Fort A.P. Hill, including easy access and a close proximity to existing roads;
- A location which consolidates AWG training activities, buildings and support structures and which could be restricted from surrounding activities and used exclusively for AWG purposes.

3.3 No Action Alternative

Under the No Action Alternative, the Army would continue to use the proposed project area to support the existing AWG Small Arms Range and Artillery Firing Point 1. Fort A.P. Hill would not construct two new AWG Training Ranges. Without this range complex, the AWG would be unable to provide appropriate training at Fort A.P. Hill. There is no other range on the installation capable of supporting the entire needs of the AWG's mission. Therefore, the AWG would be unable to complete its mission and goals due to a lack of appropriate training facilities. The No Action Alternative would be expected to have a negative impact on national security and training objectives and mission.

3.4 Alternatives Considered but Dismissed from Further Analysis

Consideration was given to constructing the 800m range on 226 acres between existing Ranges 33 and 34; however, this would require the construction of duplicate support facilities for the two AWG ranges. Consideration also was given to upgrading, renovating, and modernizing existing range facilities at Fort A.P. Hill. Existing range facilities, however, do not support the unique and constantly evolving target arrays or target configurations needed by the AWG. A survey of space on Fort A.P. Hill indicated that the only other suitable location for the proposed AWG Training Ranges was Range 28P. Developing this range to support the proposed AWG Training Ranges would have created unacceptable conflicts with adjacent ranges. These conflicts would have reduced training throughput of the entire Fort A.P. Hill range complex. Therefore, this location was considered but rejected as a possible location.

Because other potential locations did not meet the screening criteria they were not considered as viable alternatives and were not carried forward in this document.

4.0 Affected Environment and Environmental Consequences

This section describes the physical, natural, and human environments in and around the proposed project area, as well as the environmental consequences associated with the alternatives presented in Section 3.0. NEPA requires consideration of context, intensity, and duration of adverse and beneficial impacts (direct, indirect, and cumulative) and measures to mitigate for impacts. These elements are considered in the following impact analysis.

4.1 Methodology for Assessing Impacts

The CEQ regulations that implement NEPA require assessment of impacts to the human environment, which includes natural and cultural resources. As required by NEPA, potential impacts are described in terms of type (beneficial or adverse), context (site-specific, local, or regional), duration, and level of intensity (negligible, minor, moderate, or major). Both indirect and direct impacts also are described; however, they may not be identified specifically as direct or indirect. These terms are defined below. Overall, these impact analyses and conclusions were based on the review of existing literature and studies, information provided by on-site experts and other government agencies, professional judgments, and Army staff insight.

Type

Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions, while adverse impacts would deplete or negatively alter resources.

- | | |
|--------------------|---|
| Beneficial: | A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition. |
| Adverse: | A change that moves the resource away from a desired condition or detracts from its appearance or condition. The definition does not imply a significant impact nor does it include the regulatory connotations it carries in the permitting process. |
| Direct: | An impact that is caused by an action and occurs at the same time and place. |
| Indirect: | An impact that is caused by an action but is later in time or farther removed in distance, but still reasonably foreseeable. |

Context

Context is the setting within which an impact occurs and can be site specific, local, post-wide, or regional. Site-specific impacts would occur at the location of the action, local impacts would occur within the general vicinity of the project area, post-wide impacts would affect a greater portion outside the project area yet within the boundary of Fort A.P. Hill, and regional impacts would extend beyond post boundaries.

- Site Specific:** The impact would occur within project site.
- Local:** The impact would occur within the general vicinity of the project area.
- Post-wide:** The impact would affect a greater range outside the project area yet within the post.
- Regional:** The impact would affect localities and/or towns surrounding the post.

Duration

Impacts can be either short-term or long-term.

- Short-term:** Impacts would be temporary in duration and would be associated with the construction process. Depending on the resource, impacts would last as long as construction was taking place, or up to one year after construction is completed.
- Long-term:** Impacts last beyond the construction period, and the resources may need more than one year post construction to resume their preconstruction condition.

Level of Intensity

For the purposes of this NEPA analysis general level of intensity definitions (minor, moderate, major) are used and described below.

- Minor:** Impacts would be detectable but would be of a magnitude that would not have an appreciable impact on the given resource.
- Moderate:** Impacts would be readily apparent and would result in substantial changes to the given resource.
- Major:** The impacts would be readily apparent, would result in substantial changes to the given resource, and be markedly different from existing conditions.

Significant Impacts

CEQ regulations define significant impacts by context and intensity.

Context: This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity: This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

- 1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.
- 2) The degree to which the proposed action affects public health or safety.
- 3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- 4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- 5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
- 6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- 7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

- 8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
- 9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- 10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

[43 FR 56003, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979]

4.2 Physical Environment

4.2.1 Soils, Topography, and Geology

Fort A.P. Hill is located in the Atlantic Coastal Plain Physiographic Province. The topography of the Coastal Plain is a terraced landscape that stair-steps down to the Atlantic Ocean and major rivers. The terrain varies between rolling countryside and mostly level plains, interrupted by numerous shallow valleys. The elevations within the Atlantic Coastal Plain range from 60 to 250 feet relative to mean sea level (msl). Variations in elevations within the proposed project area are more limited than the surrounding region; however, the site possesses the same rolling hills as the surrounding region. Elevations within the proposed project area range from 115 feet msl in the southeast to 210 feet msl in the northwest.

The geology within the Coastal Plain is dominated by resources from the Tertiary Age. The sand, silt, and clay that occur within this area were deposited during interglacial highstands of the sea under conditions that exist today (William and Mary 2010). Within the proposed project area, there are no known unique geologic features. The same sands, silts, and clays that dominate the region exist beneath the surface of the proposed project area.

The soils on the proposed range site, which are common throughout the region, include Bibb-Chastain silt loam, Kempsville-Emporia-Remlik complex, Kempsville-Emporia complex, and Slagle fine sandy loam (Figure 4). These soils range from poorly to well-drained. They have water tables that extend from 0 to more than 80 inches below the surface. A common feature of all of the soil types is the depth to bedrock, more than 80 inches (NRCS 2010a).

According to the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS), the Kempsville-Emporia complex and Slagle fine sandy loam are classified as prime farmland soils. The Kempsville-Emporia complex also is classified as a farmland of statewide importance (NRCS 2010b). The proposed project area's inclusion in Fort A.P. Hill has permanently removed these soils from future agricultural use.

Therefore, under the Farmland Protection Act these areas are not regulated as prime farmland.

In addition to prime farmland soils, the NRCS also identifies hydric soils. Hydric soils are those soils that are sufficiently wet in the upper part to develop anaerobic conditions during the growing season. In some cases, these soils are associated with wetland habitats. The Chastain and Bibb components of the Kempsville-Emporia-Remlik complex and the Roanoke component of the Kempsville-Emporia complex are classified as hydric (NRCS 2010c). Therefore, these soils experience wet conditions during certain times of the year. The hydric components are generally present on stream terraces, floodplains, and swamps.

Current conditions at the site include the developed features to support the AWG Small Arms Range and the artillery firing points. These features include impervious surfaces and compacted soils that contribute to increased erosion and stormwater runoff. Erosion in the proposed project area also is influenced by natural wind and rain action. The existing developed structures represent a small area of impervious surface that directs stormwater into the surrounding grasses and water resources. The speed at which the water leaves the impervious surfaces has led to limited levels of soil erosion around the site.

Impacts of the Proposed Action

Under the Proposed Action, there would be short- and long-term impacts to soils and topography. The elements included in the Proposed Action would be confined to the upper soil layers and would not reach the depths of any geologic resource.

Short-term, minor, adverse impacts to soils and topography would occur during the construction process. These impacts would consist of grading and excavation and compaction related to the storage and movement of construction vehicles and equipment. Short-term impacts also would occur as soils were excavated for fighting and utility trenches and fencing. Approximately 42,740 linear feet of trenching and fencing is included in the Proposed Action. Excluding utility trenches, this covers an estimated 3,570 sf (0.08 acres). Utility trenches are not included in this estimate as there would be no long-term aboveground impact to soils or topography through their installation. Approximately 1,200 cubic feet of soil would be permanently impacted through the construction of the proposed fighting trenches. The impacted soils could be used for their aboveground design, while the soils excavated for the utility trenches and fencing could be replaced or spread across the site as part of other grading activities.

The Proposed Action would require, approximately, 3,000,000 sf (70 acres) of the proposed project area to be cleared. This would result in a short-term, moderate, adverse impact, as large areas of soils were temporarily exposed. Some of these exposed soils would be included in the long-term impacts described below. The use of an approved erosion and sediment control plan, described below, would offset some of these impacts.

Long-term, moderate, adverse impacts would occur as part of the construction process, as portions of the proposed project area were graded to achieve the necessary slopes for new structures and the training ranges. Other areas would be developed and made impervious to support different elements of the Proposed Action.

Additional long-term, moderate, adverse impacts would occur through the construction of impervious surfaces. Some areas would be partially excavated and then be covered with cement, asphalt, or other impervious building materials. Soils surrounding these structures also may be compacted to provide support. The compacted or covered areas would lack natural conditions, such as the ability to support vegetation or absorb stormwater. Additional impacts would occur in areas where structures that did not require impervious surfaces were installed. This may include the covered mess, bleacher area, or unpaved roads. Although these areas would not be paved, their continued use would result in soil compaction that would have similar characteristics to the paved surfaces described above. Approximately 934,590 sf (21.46 acres) would be included in these impacts (Table 1 and 2).

As noted above, prime farmland soils exist within the project area. The inclusion of the site in Fort A.P. Hill has permanently removed these resources from future agricultural production and therefore they are not protected under the Farmland Protection Policy Act of 1981. To minimize impacts to soils, prior to construction, erosion and sediment control plans, stormwater management plans, and grading plans would be included in the approved designs to minimize future erosion. Erosion and sediment control plan would be developed and installed at the beginning of the construction process. Erosion and sediment control measures would be maintained and inspected throughout the construction process. These plans would meet the standards set by DCR in the *Virginia Erosion and Sediment Control Handbook: Third Edition 1992* (DCR 1992).

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no new developments that would result in impacts to soils, topography, or geology within the proposed project area. The existing access roads, bleacher areas, and observation tower would remain at the site. Foot and vehicle traffic, along with the natural conditions described above, would lead to minimal amounts of additional soil compaction and/or erosion of soils. This would result in no impact to the existing conditions of soils, topography, and geology.

Conclusion

The Proposed Action would result in minor adverse impacts to soils and topography. The No Action Alternative would have no impact on these resources. No mitigating actions would be required since there would be no significant impacts.

Legend

NRCS Soils

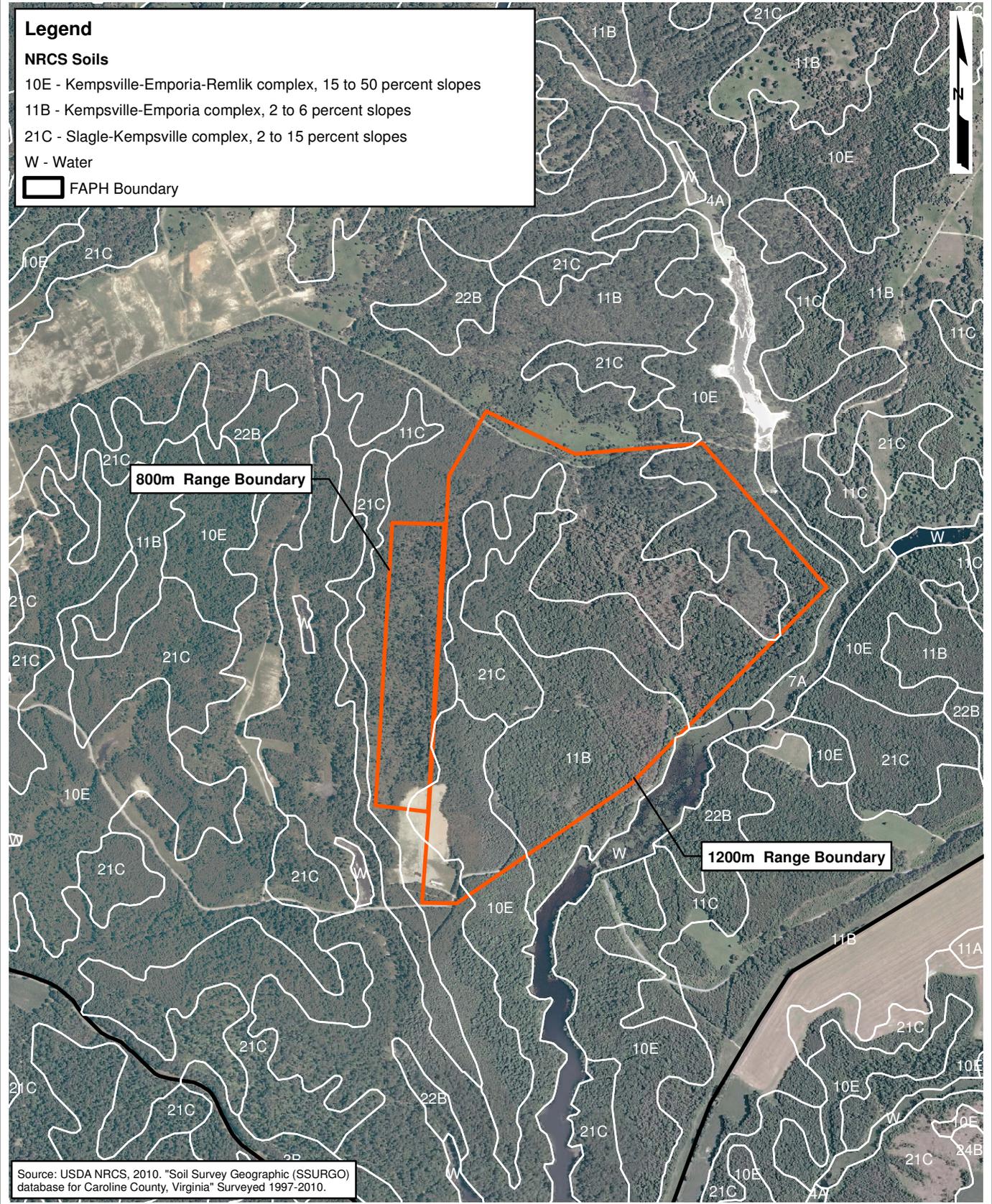
10E - Kempsville-Emporia-Remlik complex, 15 to 50 percent slopes

11B - Kempsville-Emporia complex, 2 to 6 percent slopes

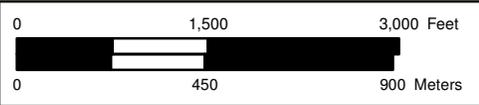
21C - Slagle-Kempsville complex, 2 to 15 percent slopes

W - Water

 FAPH Boundary



Source: USDA NRCS, 2010. "Soil Survey Geographic (SSURGO) database for Caroline County, Virginia" Surveyed 1997-2010.



Soils Map
AWG Training Ranges
Fort A.P. Hill, Virginia

Figure 4

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4.2.2 Floodplains

Floodplains are those areas that are inundated during flood events. The floodplain absorbs floodwaters, protecting the surrounding area and allowing the waters to recede after the event is over. Floodplains within and adjacent to the proposed project area include the area labeled Zone A on the Flood Insurance Rate Map for Caroline County Virginia and Incorporated Areas Panel 250 of 525 (FEMA 2009). This area is confined to the channel of Smoots Run and Smoots Pond. This zone, also referred to as the 100-year floodplain, must be kept free of encroachment so that the 1 percent annual chance flood can be carried without substantial increases in flood heights. There are no manmade structures that are located within the proposed project area in this zone. The South Range Road runs adjacent to the project area and crosses through this zone (FEMA 2009).

The remainder of the proposed project area is labeled Zone X. These are areas determined to be outside of the 0.2 percent annual chance flood hazard (FEMA 2009). The existing AWG Small Arms Range and artillery firing points are located within this zone. The remainder of the zone consists of forests or fields that are undeveloped (See Appendix D).

Impact of the Proposed Action

Under the Proposed Action, the only impact to floodplains would be a new bridge constructed within the 100-year floodplain. The bridge would be part of the 1,200m range. The bridge would be elevated above the floodplain so that the 100-year flood could pass under the structure and there would be no rise in flood elevation. This encroachment would result in no impact to floodplains, as it would not result in any noticeable increase in potential flood heights or alter the conveyance of floodwaters.

The remainder of the proposed structures would be located outside of the 500-year floodplain. Structures in this area would not increase the threat of a flood or impair the conveyance of food waters. All actions would be consistent with Executive Order 11988: Floodplain Management, because the Proposed Action avoids to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains.

Impact of the No Action Alternative

Under the No Action Alternative, there would be no new development within the portion of the 100-year floodplain that runs through the proposed project area. The existing AWG Small Arms Range structures would remain in Zone X, beyond the 500-year floodplain. These structures would have no impact on floodplains as they would not increase the threat of a flood or impair the conveyance of food waters through the zone.

Conclusion

Both the Proposed Action and the No Action Alternative would result in no impact to floodplains. No mitigating actions would be required since there would be no significant adverse impacts.

4.2.3 Water Resources

Located in Caroline County, Virginia, Fort A.P. Hill sits in the York River and Rappahannock River Watersheds. Both the York River and Rappahannock River Watersheds drain into the Chesapeake Bay. Fort A.P. Hill is an active member of the Department of Defense Chesapeake Bay Quality Management Board. This body reviews progress toward program goals and objectives by Department of Defense installations in the Chesapeake Bay Watershed. Compliance with these goals and objectives includes maintaining uncut forested buffers along streams, shorelines and roads, where possible. In addition to full compliance with the Chesapeake Bay Preservation Area Designation and Management Regulations, the post requires the establishment and conservation of 100-foot wide Resource Protection Areas (RPA) around all wetlands and perennial streams. Due to biological importance, RPA designations also include intermittent streams. The construction of facilities, roads, trails, and mechanical firebreaks (i.e. plow lines) are prohibited from occurring within a RPA; the sole exception to the latter is in the event of wildfire suppression which may require subsequent remediation. Fort A.P. Hill also applies land disturbance restrictions within the RPA to include forestry and other vegetation management activities. However, case-by-case "RPA encroachment" exceptions are evaluated. Examples of such exceptions may include, but are not limited to, establishing desired terrain conditions for military mission support, thinning of overstocked forest stands for forest health improvement, forest insect and disease treatments, site-specific habitat management practices, and/or ecological restoration.

Within the York River Watershed, the post is located in the Mattaponi River Subwatershed. The Mattaponi River Subwatershed drains approximately 900 square miles. The overall York River Watershed includes an estimated 2,660 square miles. The Rappahannock River Watershed contains an estimated 2,850 square miles. Fort A.P. Hill is located in the upper portions of all of these watersheds. The Virginia Department of Environmental Quality (DEQ) lists portions of the three watersheds on its most current 303(d) Impaired Waters Assessment (DEQ 2010b). Similarly, the Virginia Department of Health has current fish consumption advisories for portions of these water bodies (VDH 2010).

The primary water resources within and adjacent to the proposed project area are Smoots Run, Smoots Pond, and their related drainages. These water bodies drain into the Mattaponi River. Smoots Run and Smoots Pond are not included in the most current 303(d) Impaired Waters Assessment (DEQ 2010b). Furthermore, DEQ does not maintain any monitoring stations along Smoots Run or in Smoots Pond (DEQ 2010c). The best indicator of threats to the water resources in the proposed project area is the information collected by the DEQ for other tributaries that run through the post. Several of these water resources have levels of pH, dissolved oxygen, or bacteria that exceed desirable conditions. These conditions are common throughout much of the Coastal Plain and have not been attributed to specific actions at Fort A.P. Hill. The U.S. Environmental Protection Agency (EPA) or DEQ have yet to develop a Total Maximum Daily Loads (TMDLs) for these pollutants within the streams of Fort A.P. Hill (DEQ 2010b).

The EPA, however, has adopted the Chesapeake Bay TMDL which applies to actions at Fort A.P. Hill. As part of the Army's Chesapeake Bay Program, the Army Environmental Command provides program management, technical, and public affairs support for

projects in the Chesapeake Bay watershed. This includes compliance with the EPA's TMDL.

Within the proposed project area, the topography gently slopes towards the surrounding water bodies. Much of this topography is heavily vegetated, creating a thick natural buffer, absorbing most of the stormwater runoff from developed portions of the site, including the features associated with the AWG Small Arms Range and artillery firing points.

Impacts of the Proposed Action

Under the Proposed Action, there would be minor short- and long-term impacts to water resources. Short-term, minor, adverse impacts to water resources would occur during the construction process. The footprints of these impacts are listed in Table 1 and Table 2. Impacts would result from stormwater runoff associated with the exposure, stockpiling, and movement of soils. The use of appropriate erosion and sediment controls, discussed below, would prevent any measurable impact from these actions. These impacts would be reduced and monitored through a Virginia Stormwater Management Permit and Storm Water Pollution Prevention Plan (SWPPP) that would be prepared. In addition, Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to rivers and waters of the Commonwealth. This program is administered by DCR (Virginia Code 10.1-560 et seq.). Also, construction activity having the potential to discharge stormwater requires coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater for Construction Activities. These permits would be obtained prior to construction.

The development of the Proposed Action would include the clearing of approximately 103 acres of forested area within the Smoots Run watershed. The amount of clearing, however, is the sum of many smaller areas. Proposed clearing would maintain the forested buffer adjacent to waterways, with no clearing proposed within 100 feet of jurisdictional waters, except where necessary for road or trail crossings.

One area where the buffer would be disturbed would be the bridge within the 1,200m range that would extend over the marshland. The construction of the bridge is consistent with the types of exceptions Fort A.P. Hill allows in its RPAs. Short-term, minor, adverse impacts would occur during the construction process and would be related to displaced soils and sediments along the surrounding uplands and on the marsh bottom, as piles and bridging were installed. Compliance with the permitting process described above, as well as the design and maintenance of appropriate erosion and sediment controls, would minimize these short-term impacts. Once construction was complete, the bridge would represent an impervious surface that could increase the speed of run-off and the pollutant load in stormwater runoff. This increase would be small as it would be confined to the bridge. The surrounding area would continue to be protected by a greater than 100-foot wide buffer of existing vegetation. This would result in a long-term, minor, adverse impact.

As discussed above in Section 4.2.1, long-term, minor, adverse impacts would occur as a result of the construction process. To minimize impacts to water resources from these developments, erosion and sediment control plans and stormwater best management

practices (BMPs) would be included in the approved designs. These plans would meet the standards set by DCR in the *Virginia Erosion and Sediment Control Handbook: Third Edition 1992* (DCR 1992).

The Proposed Action would not rely on or require any groundwater withdrawals. There are no sole source aquifers beneath the proposed project area that would be impacted by the Proposed Action. Also, land within Fort A.P. Hill is not included in any Groundwater Management Areas. Therefore, there would be no impact to groundwater.

The Proposed Action would require permits under Section 404 of the Clean Water Act and the Virginia Water Protection Permit Program for actions that affect the jurisdictional waters of Smoots Run. A Section 401 certification also would be required to ensure that the Proposed Action would comply with federal and state water quality standards. Section 404 of the Clean Water Act and the Virginia Water Protection Permit Program regulate activities within Waters of the U.S., which includes Smoots Run and its surrounding tributaries. These permits would be issued by the USACE Norfolk District Regulatory Office. The Army would obtain for the appropriate 401 and 404 permits using the Joint Permit Application (JPA) process administered by the Virginia Marine Resources Commission (VMRC). The Proposed Action also would occur within Virginia's Coastal Zone Management Area. Compliance with Coastal Zone Management Act (CZMA) is outlined in Appendix B of this document.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no changes made within the proposed project area that would impact water resources. Limited amounts of impervious surface would still exist in close proximity to these resources as part of AWG Small Arms Range. Furthermore, the Army's existing actions within the proposed project area would result in the introduction of sediments and other pollutants. The thick vegetative buffer that surrounds the nearby water bodies, however, would continue to buffer the resources from any increase in existing pollutant levels. This would result in no impact to water resources.

Conclusion

The Proposed Action would result in a long-term, minor, adverse impact to water quality. The No Action Alternative would result no impact to existing water quality conditions. No mitigating actions would be required since there would be no significant adverse impacts.

4.2.4 Air Quality

Caroline County is an attainment area for all federal and state air quality standards (EPA 2010a, DEQ 2010a). Based upon the data collected by the U.S. Geological Survey, Caroline County is a candidate for designation as an Ozone Non-Attainment Area. If so designated by the EPA, Caroline County would be classified in an area together with the City of Fredericksburg, as well as Spotsylvania and Stafford Counties. These localities would be required to develop a plan to bring the region into compliance with the ozone standards (Caroline County 2001).

Air pollution associated with Fort A.P. Hill includes emissions from heating equipment, building and equipment maintenance activity, weapons firing, other training activities, generators and other fuel burning equipment, and vehicle operation. The post currently has an air quality state operating permit for all emissions activities. The most recently completed emission data at the post was collected in 2009 (Table 3). These conditions are further documented in the post's Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II Emissions Reporting (Army 2010d). These levels of releases resulted in the EPA categorizing the region's air quality as good (EPA 2010b).

Table 3: Fort A.P. Hill Emission Data for 2009

Pollutant	Emission (in tons)
Volatile organic compounds	2.35
Nitrogen oxides	3.55
Sulfur oxides	1.08
Particulate matter	0.19
Carbon monoxide	0.87

Source: Army data

In addition to these emissions, activities at Fort A.P. Hill also result in smoke being released into the air. Smoke initiates within the post boundaries and is often contained within the immediate area. Sometimes, however, smoke that initiates on the post travels beyond its boundaries. Smoke is produced as a result of some training exercises as well as natural and manmade fires. Within the Fort A.P. Hill impact area, the use of incendiary ammunition, particularly illumination rounds, has subjected many parts of the CA to frequent fires. Some prescribed burning also has been used in perimeter parts of this area to reduce fuel loads, control the spread of ammunition-ignited wildfires, and protect commercially viable stands of timber. Large sections of the CA located near range targets have a typical burning regime of one to three years (Army 2009b).

Existing conditions within the proposed project area also are influenced by emissions from vehicles traveling along South Range Road and entering the existing AWG Small Arms Range. Within the range, current air quality conditions are influenced by small arms and artillery fire.

Impacts of the Proposed Action

Construction of the Proposed Action would have short-term minor impacts on air quality. Hauling of construction material, operating of construction equipment, and other construction activities could result in temporary increases in vehicle exhaust, dust, and other emissions. These activities, however, would be consistent with other similar actions that have and will continue to occur in the immediate area.

Once construction was complete, changes in air quality would be related to different patterns of use of motor vehicles and military training exercises. This change in motor vehicle use would occur as different staff drove to and from the post and used Fort A.P.

Hill roads to access the proposed AWG Training Ranges. In addition, smoke related to fires could continue to exist. These changes would not alter existing air quality conditions described in the post's EPCRA Tier II Emissions Reporting (Army 2010d).

Emissions related to the training exercises within the proposed project area would consist of exhaust from vehicle emissions and smoke from weapons training. These activities exist throughout the post and would result in a long-term, minor, adverse impact to air quality. The location of the proposed AWG Training Ranges could result in these emissions escaping the boundaries of the post more often than in other locations; however, much of the smoke and other emissions generated at Fort A.P. Hill initiate along its southern boundary. Therefore, changes in emissions related to the proposed AWG Training Ranges would not result in a measurable increase to these existing emissions. There are no regulatory emissions restrictions for the proposed training site. All actions would comply with National Ambient Air Quality Standards and the existing Fort A.P. Hill state operating permit because the level and averaging time of criteria pollutants would remain within the acceptable levels identified by the EPA (EPA 2010c).

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no change in air quality conditions in and around Fort A.P. Hill. The post would continue to be a source of emissions due to construction activities, vehicle exhaust, and military training exercises. This would include the continued use of AWG Small Arms Range and prescribed burns included in the post's resource management plans. These activities would be consistent with other impacts throughout the post and would result in no impact to regional air quality conditions.

Conclusion

The Proposed Action would result in a long-term, minor, adverse impact to air quality. The No Action Alternative would have no impact on existing conditions. No mitigating actions would be required since there would be no significant adverse impacts.

4.2.5 Noise

Caroline County, Virginia is a relatively rural area. As such, obtrusive noise sources are generally confined to heavily trafficked road corridors in close proximity to agricultural, commercial, or industrial activities, or along the boundary of Fort A.P. Hill.

To quantify its noise impact and plan the location of new activities accordingly, Fort A.P. Hill uses guidelines adopted by the Department of Defense. These guidelines, developed by the Federal Interagency Committee on Urban Noise (FICUN), address areas on or near noise producing activities, such as highways, airports and firing ranges. The Army uses these land use 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. The Army still 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.

Army Regulation (AR) 200-1 is used for determining land use recommendations in regards to operational noise. Much like other government agencies, the Army's NZs were developed to be used for all geographical areas and are applicable for all Army installations.

NZs are designated as NZ I, NZ II or NZ III based on the number of decibels (dB) produced for different noise events. Though most common everyday sounds are measured with A-weighting (dBA) to conform to the frequency response of the human ear, because of the short impulsive nature of the sound, small arms noise is assessed using unweighted peak (dBP) levels.

NZ descriptions for Fort A. P. Hill small arms activity include:

- NZ I consists of the areas around a noise source where a single event noise is less than 87 dBP for small arms.
- NZ II consists of the area where a single event noise is between 87 and 104 dBP for small arms. Noise-sensitive land uses should be limited in these areas when possible.
- NZ III consists of the area around a noise source where a single event noise is greater than 104 dBP for small arms. Noise sensitive land uses are not recommended for NZ III areas.

The existing small-caliber weapons noise contours are shown in the Operational Noise Consultation included in Appendix C. The existing activity generates a Zone II [PK15(met) 87 dB] noise contour that extends less than 1,500 meters beyond the eastern and southern boundaries of the post. The Zone III [PK15(met) 104 dB] noise contour extends less than 400 meters beyond the southern boundary of the post, crossing State Route 618. Based upon the available aerial imagery, there are several scattered residential properties and/or areas within the existing Noise Zone II [PK15(met) 87 dB contour] and a few residential properties within the existing Noise Zone III [PK15(met) 104 dB contour] that extends beyond the southern boundary along State Route 618 (Army 2011).

Within the proposed project area, high noise levels are only present during training activities. Prior to the initiation of AWG activities at the post, the noise within this area consisted of heavy artillery fire. Since the arrival of AWG, this area is primarily used for small arms training. The change in normal activity has resulted in a decrease in the level of noise produced within the proposed project area. When training is not occurring, the site is impacted from the noise of other training activities located across Fort A.P. Hill.

Impacts of the Proposed Action

Under the Proposed Action, there would be short-term, minor, adverse impacts related to construction activities. These activities would be timed to minimize noise levels during nighttime hours. Construction noise is common throughout the region and would not noticeably alter noise levels within or outside the post.

The existing AWG Small Arms Range would support weaponry up to .50 caliber multi-purpose machine guns. The proposed AWG Training Ranges would be designed to support training activities 24 hours a day.

Under the Proposed Action, The proposed AWG Training Range activity would generate a Zone II [PK15(met) 87 dB] noise contour that extends beyond the southern and southwestern boundaries of Fort A.P. Hill. The Zone III [PK15(met) 104 dB] noise contour would not extend beyond the boundary (Army 2011)

The addition of the AWG Training Range activity would negligibly increase the amount of land off post contained within the existing small arms Zone II. The off post Zone III area would not increase. Based upon the available aerial imagery, the slight increase in noise would add one additional residence within the Zone II. It should be noted that the AWG Training Range would have multiple firing and target point locations within the range footprint. The outer extents of the small arms NZs are delineated based on utilization of the loudest weapon (.50 caliber) at firing points closest to the boundary. Levels would be lower when other types of small arms and/or interior firing points are used. Overall, this increase would be minor compared to existing conditions.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no change in the use of small arms fire at AWG Small Arms Range. There would be no change in the existing NZs described above. Several scattered residences would be located within NZ II and a few residences located in NZIII (Army 2011), resulting in a continuing long-term, moderate, adverse impact.

Conclusion

The Proposed Action and the No Action Alternative would result in a long-term, moderate, adverse impact to noise. No mitigating actions would be required since there would be no significant adverse impacts.

4.2.6 Cultural Resources

As part of the background research for the proposed project, a Phase I Cultural Resources Survey was conducted. The reconnaissance-level survey included the entire proposed project area and would be designed to identify and record cultural resources within this area. Only one architectural resource was identified within the proposed project area. This site, the W. Scott Whittaker Farmstead (DHR # 44CE564), had been identified in previous surveys and had been determined to be not eligible for listing on the National Register of Historic Places (National Register) by the Virginia Department of Historic Resources (DHR). The additional elements of the site that were identified during this survey were not of value to result in a change to this designation.

The reconnaissance-level survey's archaeological findings included a nineteenth century dump site (DHR Site 44CE593); a foundation from a farmstead dating to the late nineteenth or early twentieth century (DHR Site 44CE596); another farmstead site (Site 44CE597); a trash pit and related structure which appears to be related to military training (DHR Site 44CE564 – previously determined not eligible for the National Register); a site containing artifacts from a farmstead dating to the late nineteenth or early twentieth

century (DHR Site 44CE594); the structural foundation ruins of a house, several outbuildings, a barn, and a small dump site (DHR Site 44CE591); domestic yucca plants growing in alignment with associated materials dating to the late nineteenth to early twentieth century (DHR Site 44CE595); an artifact scatter with a possible well (DHR Site 44CE592); a dump/artifact scatter dating to the late nineteenth to early twentieth century (DHR Site 44CE598); and a dump/artifact scatter dating to the mid- nineteenth to early twentieth century (DHR Site 44CE590) (Paciulli Simmons 2009a).

Following the reconnaissance-level survey, Army cultural resource staff conducted a Phase II Cultural Resources Survey (Army 2010c) to determine the integrity of these previously unknown archaeological resources. The findings of this survey determined that these resources did not possess the integrity necessary to be listed on the National Register. DHR concurred with this finding on November 4, 2011 (Appendix A). Loss of integrity is expected to continue due to natural aging, wind and rain action, and activities associated with the existing AWG Small Arms Range and artillery firing points.

Impacts of the Proposed Action

Given the results of the Phase II archaeological investigations, there are no historic resources within the proposed project area that are eligible for listing on the National Register. Therefore, there would be no impact to historic properties and the Proposed Action would be in compliance with Section 106 of the National Historic Preservation Act.

Impacts of the No Action Alternative

Given the results of the Phase II archaeological investigations, there are no resources within the proposed project area that are eligible for listing on the National Register. Therefore, any long-term, minor, adverse impact to cultural resources would affect resources that had been previously impacted. Existing training activities and natural conditions would result in no impact to historic properties and would be in compliance with Section 106 of the National Historic Preservation Act.

Conclusion

The Proposed Action would result in long-term, minor, adverse impacts to cultural resources that had been previously disturbed and were not eligible for listing on the National Register. The No Action Alternative would result in similar adverse impacts. No mitigating actions would be required since there would be no significant adverse impacts.

4.2.7 Hazardous Materials

Within the area surrounding Fort A.P. Hill, there are only a few sites (gas stations) monitored by the EPA for the presence, use, or transfer of hazardous materials. These sites are some distance from the proposed project area and do not have any notable toxic releases associated with them (EPA 2010b)

Within the boundary of Fort A.P. Hill, the EPA lists two separate facilities that are monitored. The first is the Fort A.P. Hill, which represents all military actions at the site. The second is the American Water Inc. facilities that provide water and wastewater treatment at the post.

Fort A.P. Hill keeps a record of air emissions, surface water discharges, releases of toxic materials on land, and transfer of toxic materials to off-site disposal areas. Much of the information at the post has been focused on local streams, air emissions, and the movement of toxic materials on land. Over the past 8 years, the Army has moved relatively small amounts of lead off site for recycling/reuse purposes (EPA 2010b).

The Army does not store any hazardous materials within the proposed project area. MEC are known to exist throughout Fort A.P. Hill. As part of the project planning, the Army conducted a MEC reconnaissance to identify any unexploded ordnance within the proposed project area. Varying levels of these munitions were found throughout the area. In some cases, these remnants pose no threat to future use. In other areas, the threat is high enough to require remedial action (Army 2009a).

Current conditions within the site include the continued deposits of spent ammunition related to the existing AWG Small Arms Range and artillery firing points. Gasoline and other fuels are only present in vehicles that access the site for training and maintenance activities.

Impacts of the Proposed Action

Under the Proposed Action, the Army would complete the recommended remedial action to address MEC within the proposed project area. This procedure would follow standard protocol outlined in Field Manual 21-16: Unexploded Ordnance Procedures (Army 1994). The completion of this remedial action would reduce the threat of hazardous materials related to unexploded ordnance within the proposed project area, resulting in a long-term, minor, beneficial impact.

During the construction process, fuels and other hazardous materials could be brought on site to support construction machinery. These materials would be properly stored and dispensed per regulations and Department of Defense policies. Once construction was complete, the only hazardous materials that would be present on the site would be fuels used in training vehicles. Fuel for these vehicles would be stored and dispensed in other locations on the post and would have no impact to the proposed project area. Fort A.P. Hill is aware of the hazards related to spent ammunition and the post remains in compliance with the Resource Conservation and Recovery Act (RCRA). Although all rules and regulations would be followed, the introduction of additional hazardous materials would result in a long-term, minor, adverse impact.

The Proposed Action would comply with RCRA, the Comprehensive Environmental Response, Compensation, and Liability Act, Oil Pollution Act, Toxic Substances Control Act, related Army guidelines, and Executive Order 13148: Greening the Government Through Leadership in Environmental Management. Compliance would be achieved by reducing existing hazards and limiting any new hazardous materials (fuels).

Impacts of the No Action Alternative

Under the No Action Alternative there would be no impact from the use of hazardous materials within the proposed project area. MEC would remain scattered throughout the area until the Army obtained appropriate funding to address these hazards. The continued operation of the current AWG Small Arms Range within the proposed project area would have no impact on the current use of hazardous materials.

Conclusion

The Proposed Action would result in long-term, minor, beneficial impacts and long-term, minor, adverse impacts to hazardous materials. The No Action Alternative would result in long-term, minor, adverse impacts to hazardous materials. Mitigation, in the form of unexploded ordnance clean-up and disposal, would be required and completed prior to construction.

4.2.8 Aesthetic Resources

Fort A.P. Hill's aesthetic resources include developed military use areas, forested parcels, wetlands, and open water areas. The proposed project area includes a number of these different vistas. The existing AWG Small Arms Range is located in a clearing that is surrounded by forested lands and bordered by South Range Road. The existing AWG Small Arms Range is defined by a cleared tract with long grasses and small hills and depressions. A covered bleacher area, a storage shed, and a tall, metal observation tower are positioned around the entrance driveway. Several firing points line the edge of the bleacher area. The entire area is bounded by a thick forest.

Impacts of the Proposed Action

The Proposed Action would result in some short-term, minor adverse impacts related to construction activities. During the construction process, vehicles and equipment would be moved onto and through the post, and operated in an area that generally consists of a small military area and a large wooded area. The presence and activity of these construction vehicles would temporarily interfere with these vistas, but would do so in a manner that is common in other areas of the post and the surrounding region.

Under the Proposed Action, additional clearings would be created within the proposed project area. Given the topography of the area, these clearings would create a similar appearance as the existing clearing. The Proposed Action also would include the construction of additional buildings, roads, and firing points within these new clearings. This would transform the site from a small military area and a large undisturbed wooded area to one of the many military use areas and more limited wooded areas. These vistas are common throughout the post.

Some of the development included in the Proposed Action (the 1,200m range bridge) would extend into the vistas that exist in and around Smoots Run and Smoots Pond. These interruptions would be limited and consistent with other developments that exist in and around these water resources. The majority of the water vistas, as well as the forested cover that borders the proposed project area would remain uninterrupted. By maintaining appropriate visual screening and vistas that are consistent with other areas on the post, the Proposed Action would result in no impacts to aesthetic resources. All developments would remain screened from areas outside of the post.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no new development within the proposed project area. The majority of the area would remain heavily forested. The forested areas would create a thick boundary around the open area that comprises AWG Small Arms Range. Military actions would be confined to this area, limiting interruptions

in the existing forest and water vistas. By maintaining appropriate visual screening, the No Action Alternative would result in no impact to existing aesthetic resources.

Conclusion

The Proposed Action would result in no impacts to the aesthetic resources that define Fort A.P. Hill. The No Action Alternative would result in no impact to existing conditions. No mitigating actions would be required since there would be no significant adverse impacts.

4.3 Natural Resources

4.3.1 Vegetation

Most of Virginia is covered by a temperate broadleaf deciduous forest that is divided into four basic types: mixed mesophytic, oak-chestnut, oak-pine, and southeastern evergreen forests. Approximately 85 percent of Fort A.P. Hill is forested, with equal amounts of coniferous, deciduous, and mixed coniferous-deciduous forests. Loblolly pine (*Pinus taeda*) and Virginia pine (*Pinus virginiana*) are the dominant conifer species and white oaks (*Quercus alba*), red oaks (*Quercus rubra*), and tulip-poplar (*Liriodendron tulipifera*) are the most dominant hardwoods. These forest conditions, along with open grass fields and wetlands are common throughout the proposed project area (wetlands are discussed below in Section 4.2.4). The existing AWG Small Arms Range consists of an open field with tall grasses. The entire area is lined by thick buffer of pines and oaks. This thick forest buffer, which serves as a riparian buffer for the surrounding water bodies, is interrupted by a service road that runs through portions of the site and the adjacent South Range Road. Forested areas that surround Controlled Access areas throughout the range complex are routinely impacted by discharged ammunition. Repeated impacts from ammunition can result in the thinning of shrubs or the loss of larger trees. Existing conditions at the site include the use of the AWG Small Arms Range and artillery firing points which have resulted in these types of impacts.

Impacts of the Proposed Action

The Proposed Action would include short-term, minor, adverse impacts to vegetation. Long-term impacts would include the clearing of approximately 4,486,698 sf (103 acres) of grassland and forest (Table 1 and Table 2). These impacts, described in greater detail under Section 4.2.1, would result in the permanent loss of all vegetation in this area. This area, however, would not be one large space. In some areas it would consist of narrow roads cut through heavily forested areas or small firing points that would remain surrounded by grasses. In some cases, however, the impact would consist of the loss of all the vegetation contained within a relatively large footprint. These developments would result in long-term, moderate, adverse impacts on vegetation.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no new impacts to vegetation. The AWG Small Arms Range and artillery firing points would continue to be used for military training. This would result in limited impacts to vegetation, through the movement of personnel over and through vegetated areas. Impacts also would occur through the continued discharge of ammunition into the surrounding wooded areas. These

impacts have occurred at the site for some time and would continue to be confined to a limited area, resulting in no impact to existing conditions.

Conclusion

The Proposed Action would result in long-term, moderate, adverse impacts to the vegetation at Fort A.P. Hill. The No Action Alternative would result in no impact to existing conditions. No mitigating actions would be required since there would be no significant adverse impacts.

4.3.2 Fish and Wildlife

The Virginia Department of Game and Inland Fisheries' (DGIF) Fish and Wildlife Information Service notes the presence of up to 381 different fish and wildlife species occurring within a three-mile radius of Fort A.P. Hill (DGIF 2010). Common mammal species in the area include white-tail deer (*Odocoileus virginiana*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), muskrat (*Ondatra zibethica*), woodchuck (*Marmota monax*), raccoon (*Procyon lotor*), eastern mole (*Scalopus aquaticus*), eastern gray squirrel (*Sciurus carolinensis*), cottontail rabbit (*Sylvilagus floridanus*), gray fox (*Urocyon cinereoargenteus*), and red fox (*Vulpes fulva*).

Bird species common to the area inhabit the forests and clearings of Fort A.P. Hill. Representative species include red-tailed hawk (*Buteo jamaicensis*), great-horned owl (*Bubo virginianus*), American goldfinch (*Carduelis tristis*), downy woodpecker (*Picoides pubescens*), Eastern wood-pewee (*Contopus virens*), American crow (*Corvus brachyrhynchos*), red-eyed vireo (*Vireo olivaceus*), yellow warbler (*Dendroica petechia*), gray catbird (*Dumetella carolinensis*), ovenbird (*Seiurus aurocapilla*), wood thrush (*Hylocichla mustelina*), wild turkey (*Meleagris gallopavo*), mourning dove (*Zenaidura macroura*), song sparrow (*Melospiza melodia*), northern mockingbird (*Mimus polyglottos*), Carolina chickadee (*Poecile carolinensis*), white-breasted nuthatch (*Sitta carolinensis*), Carolina wren (*Thryothorus ludovicianus*), and eastern kingbird (*Tyrannus tyrannus*). All of these species would be expected to be present primarily in upland areas.

Common bird species encountered in wetlands and open water areas include wood duck (*Aix sponsa*), mallard (*Anas platyrhynchos*), great blue heron (*Ardea herodias*), red-winged blackbird (*Agelaius phoeniceus*), green heron (*Butorides virescens*), and belted kingfisher (*Ceryle alcyon*).

Reptile and amphibian species expected to occur at Fort A.P. Hill include the northern copperhead (*Agkistrodon contortrix mokasen*), northern black racer (*Coluber constrictor constrictor*), eastern kingsnake (*Lampropeltis getulus*), eastern garter snake (*Thamnophis sirtalis*), eastern box turtle (*Terrapene carolina*), snapping turtle (*Chelydra serpentina*), spotted salamander (*Ambystoma maculatum*), red-spotted newt (*Notophtalmus viridescens*), American toad (*Bufo americanus*), spring peeper (*Pseudacris crucifer*), and bullfrog (*Rana catesbeiana*).

Surveys at Fort A.P. Hill have identified 40 species of fishes that inhabit the installation's streams, lakes, and ponds. Species found in streams include redbfin pickerel (*Esox americanus*), mud sunfish (*Acantharchus pomotis*), creek chub (*Semotilus atromaculatus*), tessellated darter (*Etheostoma olmstedi*), and American eel (*Anguilla rostrata*) (Army 2010a).

Current operation of AWG Small Arms Range, artillery firing points, and the surrounding training ranges create a variety of disturbances to the local wildlife populations. These disturbances include noise and emissions from weapons and vehicles and the increased presence of humans in undisturbed portions of the post. When training exercises are not occurring, these impacts are not present. The presence and success of many of the species listed above suggests they have adapted to these impacts or are able to find other suitable habitat during disturbances.

Impacts of the Proposed Action

During the construction process, short-term, minor, adverse impacts would include noise and emissions from construction equipment, temporary displacement of soils for the installation of fences and trenches, and the construction of new buildings and facilities. During the construction process, the surrounding area would provide ample habitat for any wildlife species that were displaced. Most of the species in the area are transient species and regularly encounter these types of disturbances.

Under the Proposed Alternative, 4,486,698 sf (103 acres) would be cleared (Table 1 and Table 2). These impacts are described in greater detail under Section 4.2.1. This would result in the destruction of existing natural habitat. Wildlife species that inhabit this area would be forced to move to the surrounding areas within Fort A.P. Hill or find other suitable habitat outside the post.

Once construction was complete, previously forested habitat would be converted to open, developed areas. These habitats are common at Fort A.P. Hill and would result in long-term, minor, beneficial impacts for some species, like the white-tailed deer that benefit from habitat that exists along the border of forested and open areas. For other species that are confined to forest habitats, there would be long-term, minor, adverse impacts as these species would have their habitat reduced or be forced to leave the proposed project area.

The proposed project area also would experience short- and long-term, minor, adverse impacts related to the high-level of human disturbance during training exercises. These disturbances occur at other training locations within Fort A.P. Hill, making the outlying vegetative buffer an important piece of habitat. When no training exercises were underway, there would be no human disturbance at the site.

Impacts to aquatic species would be limited to the installation of the bridge along the 1,200m range. As was the case with the terrestrial species, short-term, minor, adverse impacts would occur during the construction process. The use of appropriate erosion and sediment control measures and an elevated bridge that spans the stream channel would reduce impacts to the aquatic environment. Pilings supporting the bridge would create the only long-term, minor, adverse impact to aquatic species. This impact would result in the elimination of a very small amount of the channel floor. There would be an increased level of human disturbance in the area when the bridge was in use. This impact, however, would be limited to short periods during training exercises.

To minimize impacts to fish and wildlife, erosion and sediment control plans, stormwater management plans, and grading plans would be included in the approved designs. These plans would meet the standards set by DCR in the *Virginia Erosion and Sediment Control Handbook: Third Edition 1992* (DCR 1992). These efforts would be coordinated with the

U.S. Fish and Wildlife Service (USFWS), DGIF, DCR, and the Virginia Department of Agriculture and Consumer Services to ensure compliance with the Fish and Wildlife Coordination Act and the Migratory Bird Treaty Act. Compliance would be achieved through concurrence from these agencies that the Proposed Action did not result in the damage or loss of wildlife resources.

Impacts of the No Action Alternative

Under the No Action Alternative, no new development would occur within the proposed project area. The AWG Small Arms Range and nearby artillery firing points would continue to be regularly used, creating high levels of human disturbance in the proposed project area. These disturbances would be confined to specific training exercises. The undeveloped nature of the surrounding area would provide ample habitat for species to retreat during these disruptions. Therefore, there would be no impact to existing conditions.

Conclusion

The Proposed Action would result in long-term, minor, adverse impacts to fish and wildlife at Fort A.P. Hill. The No Action Alternative would result in no impact to existing conditions. No mitigating actions would be required since there would be no significant adverse impacts.

4.3.3 Threatened and Endangered Species

Of the 381 wildlife species that the DGIF identified within close proximity to the proposed project area, five are considered to be state-threatened species. One of these state-threatened species also is considered to be a federal species of concern. In addition, there is one species that is considered a federal species of concern/state species of concern (Table 5).

Of these six species, five are birds. The birds are transient species that are able to make use of many of the habitats in the region and at Fort A.P. Hill. The yellow lance is a freshwater mussel that is confined to rivers. The wetland habitat that exists within the proposed project area would not support this species. The mussel requires continually flowing water, which does not exist in marshlands (DGIF 2010).

Although the bald eagle is no longer a listed a federally-endangered species, it is afforded protection under the Virginia Endangered Species Act, the Bald Eagle Protection Act, and the Migratory Bird Treaty Act. Currently there is one active bald eagle nest that exists adjacent to the proposed project area. Other bald eagle nests exist throughout the range area at Fort A.P. Hill. The forested buffer along the boundary of the post provides a thick visual screen between these nests and much of the military training and maneuvers. The sounds and vibrations created by these actions, however, regularly impact the nests. Anecdotal evidence presented by the Fort A.P. Hill staff suggests that the bald eagles have successfully adapted to these disturbances.

Table 5: Threatened and Endangered Species

Common Name	Scientific Name	Status	Type
upland sandpiper	<i>Bartramia longicauda</i>	state-threatened	bird
loggerhead shrike	<i>Lanius ludovicianus</i>	state-threatened	bird
Bachman's sparrow	<i>Aimophila aestivalis</i>	state-threatened	bird
bald eagle	<i>Haliaeetus leucocephalus</i>	state-threatened federal species of concern	bird
migrant loggerhead shrike	<i>Lanius ludovicianus migrans</i>	state threatened	bird
yellow lance	<i>Elliptio lanceolata</i>	federal species of concern state species of concern	mussel
small whorled pogonia	<i>Isotria medeoloides</i>	federally-threatened state-endangered	plant
swamp pink	<i>Helonias bullata</i>	federally-threatened state-endangered	plant
American ginseng	<i>Panax quinquefolius</i>	state-endangered	plant
New Jersey rush	<i>Juncus caesariensis</i>	state-threatened	plant

Source: DGIF 2010, EEE 2009

In addition to threatened and endangered wildlife species, the proposed project area contains habitat suitable for four threatened and endangered plant species. In June of 2009 a survey was conducted over the area for the proposed 1,200m range for the federally-threatened, state-endangered small whorled pogonia (*Isotria medeoloides*), the federally-threatened, state-endangered swamp pink (*Helonias bullata*), the state-endangered American ginseng (*Panax quinquefolius*), and the state-threatened New Jersey rush (*Juncus caesariensis*). A thorough search of appropriate habitat was conducted; however, no individuals of small whorled pogonia, American ginseng or New Jersey rush were found. Two swamp pink colonies and their associated critical habitat were identified within forested wetlands in the east-central portion of the site; one with three plants and one with nine plants (EEE 2009).

Impacts of the Proposed Action

Under the Proposed Alternative, 4,486,698 sf (103 acres) would be cleared (Table 1 and Table 2). These impacts are described in greater detail under Section 4.2.1. During the construction process, short-term, minor, adverse impacts would include noise and emissions from construction equipment, temporary displacement of soils for the installation of fences and trenches, and the construction of new buildings and facilities. The design of the proposed AWG Training Ranges avoided areas of known swamp pink colonies. Therefore, the only threatened and endangered species that exist within the proposed project area are transient species that regularly encounter these types of disturbances. Despite its transient nature, there is a known bald eagle's nest that is actively used within the proposed project area.

The proposed design of the training range includes the development of a network of maneuver training roads and trails. During the construction process, construction vehicles and equipment would be moved through the proposed project area to develop this network of trails and roads. Once construction was complete, military vehicles would move through the area, firing at various targets. In one location, the road network and an armored target would be within 500 feet of the existing bald eagle's nest.

To protect the nest and its inhabitants, the management buffer of 330 feet recommended in the USFWS's "National Bald Eagle Management Guidelines" would be implemented (USFWS 2007). USFWS's bald eagle management buffers are based on whether activity will be visible from the nest and if there is similar activity within one mile from the nest (Table 6). Fort A.P. Hill has been an active military training site for nearly 70 years and has been home to numerous bald eagles for much of this time.

Forest canopy surrounding the nest site is thick. The forest includes the riparian buffer that lines the nearby bodies of water, as well as upland areas that cover the much of the proposed project area. The development of the proposed AWG Training Ranges would result in the loss of some of this forest cover; however, no clearing would occur within 330 feet of the nest as part of this project. The area immediately surrounding the bald eagle nest would remain intact, as would much of the other area on the adjacent slopes. This forested cover would continue to visually screen the nest from construction and military training activities. Given the presence of numerous training ranges within a mile of the existing nest site, and that the existing screening provided by the surrounding forest would not be fully compromised, the recommended 330 foot buffer would be sufficient for protecting the bald eagle nest from disturbance due to the proposed project area (DGIF 2011).

In addition to the forested buffer, topography surrounding the existing nest site is relatively steep as it slopes away from the level uplands and approaches Smoots Run, Smoots Pond, and their surrounding drainages. This slope would prevent construction vehicles, construction activities, and military training operations from getting too close to the nest.

Table 6: USFWS Bald Eagle Management Buffers

	If there is no similar activity within 1 mile of the nest	If there is similar activity closer than 1 mile from the nest
If the activity will be visible from the nest	600 feet. Landscape buffers are recommended.	660 feet, or as close as existing tolerated activity of similar scope. Landscape buffers are recommended.
If the activity will not be visible from the nest	Category A: 330 feet. Clearing, external construction, and landscaping between 330 and 660 feet should be done outside breeding season. Category B: 660 feet.	330 feet or as close as existing tolerated activity of similar scope. Clearing, external construction and landscaping within 660 feet should be done outside breeding season.

Source: USFWS 2007

To comply with USFWS’s guidelines, any construction and clearing in the proposed project area within 660 feet of the nest would be completed outside breeding/nesting season (December 15- July 15) when bald eagles are most sensitive to disturbance and have the greatest probability of abandoning the nest. By complying with the USFWS guidelines, the proposed project would reduce moderate impacts to long-term, minor, adverse impacts to threatened and endangered species. In making this determination, the Army consulted with the USFWS, DGIF, and DCR and determined that there would be no adverse effect on listed species or critical habitat.

Impacts of the No Action Alternative

Under the No Action Alternative, no new development would occur within the proposed project area. The AWG Small Arms Range and nearby artillery firing points would continue to be regularly used, creating high levels of human disturbance in the proposed project area. These disturbances would be confined to specific training exercises. The undeveloped nature of the surrounding area would provide significant buffers and ample habitat for threatened and endangered species to retreat during these disruptions. Therefore, there would be no impact to existing conditions.

Conclusion

The Proposed Action would result in long-term, minor, adverse impacts to threatened and endangered species at Fort A.P. Hill. The No Action Alternative would result in no impact to existing conditions. Complying with the USFWS guidelines would avoid any significant adverse impacts.

4.3.4 Wetlands

The proposed project area contains jurisdictional Waters of the U.S. (i.e., wetlands, streams, and open water). A wetland delineation was conducted to identify the limits of these wetlands and other Waters of the U.S. and a Preliminary Jurisdictional Determination (NAO-2009-02815; issued April 5, 2010; expires April 5, 2015) was issued by the U.S. Army Corps of Engineers (USACE) confirming the delineation. The project area contains palustrine forested, palustrine scrub-shrub, palustrine emergent, and palustrine open water wetlands and jurisdictional streams (see Table 7 below and Figure 6). The wetlands within the project area derive the majority of their hydrology from groundwater seepage.

Table 7: Wetlands Identified Within the Proposed 1,200-Meter Range

Wetland Type	Acres	Square Feet
Palustrine Emergent Wetland	4.72	205,475
Palustrine Forested Wetland	49.67	2,163,589
Palustrine Open Water	10.74	467,872
Palustrine Scrub/Shrub	2.60	113,049
Total	67.7	2,949,985
Jurisdictional Streams	4,928 linear feet	

Source: Paciulli Simmons 2009b

The undeveloped nature of the area surrounding most of these resources, along with the thick vegetative buffer, protects these resources from surrounding military activities. Natural conditions, such as erosion and stormwater runoff, are the primary influences to these resources.

Impacts of the Proposed Action

The Proposed Action would require clearing and grading for site preparation and construction of supporting infrastructure including roads, staging areas, targets, outbuildings, and utilities. The Army has designed the proposed project to avoid and minimize impacts to jurisdictional Waters of the U.S. and other wetlands to the maximum extent practicable, without compromising the purpose and need of the Proposed Action. The only proposed impact would result from a bridged crossing of a palustrine forested wetland associated with the 1,200m range. The bridge would be supported on pilings and no fill would be placed in wetlands; however, tree removal would be required within the forested wetland.

Although the direct impact to wetlands would be limited to diameter of the pilings, additional indirect impacts would occur from shading. The proposed bridge would be approximately 20 feet wide. This width would prevent vegetation beneath and adjacent to the bridge from receiving the same amount of sunlight it had received prior to construction. In some cases, this shading may have little impact on the species. In other

cases, it may limit the success of the species. Shading impacts would be considered in the permitting process.

The Proposed Action would require a Section 404 of the Clean Water Act Permit (Nationwide Permit) for actions that affect the jurisdictional waters of Smoots Run. A Section 401 certification also would be required to ensure that the Proposed Action would comply with federal and state water quality standards. Section 404 of the Clean Water Act regulate activities within Waters of the U.S., which includes Smoots Run and its surrounding tributaries. This permit would be issued by the USACE Norfolk District Regulatory Office. The Army would obtain for the appropriate 401 and 404 permits using the Joint Permit Application (JPA) process administered by the Virginia Marine Resources Commission (VMRC). The Proposed Action also would occur within Virginia's Coastal Zone Management Area. Compliance with Coastal Zone Management Act (CZMA) is outlined in Appendix B of this document. In addition, a Minor Water Quality Impact Assessment application for Caroline County would be completed. Based on the proposed design, impacts to wetlands and Waters of the U.S. would be less than one-tenth of an acre and be confined to the installation of bridge piles. Therefore, the overall impact would be long-term, minor, and adverse.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no new development within the proposed project area that could impact surrounding wetlands. Stormwater runoff from developed areas within Fort A.P. Hill, as well as the undeveloped areas, would continue to impact wetlands. Impacts would consist of increased speeds of stormwater runoff, which could impact soils and vegetation within the wetlands, and increased pollutant loads. There would be no impact to existing conditions, under the No Action Alternative

Conclusion

The Proposed Action would result in long-term, minor, adverse impacts to the wetlands at Fort A.P. Hill, when the proposed mitigation is considered. The No Action Alternative would result in no impact to existing wetlands.

4.4 Socioeconomic Characteristics

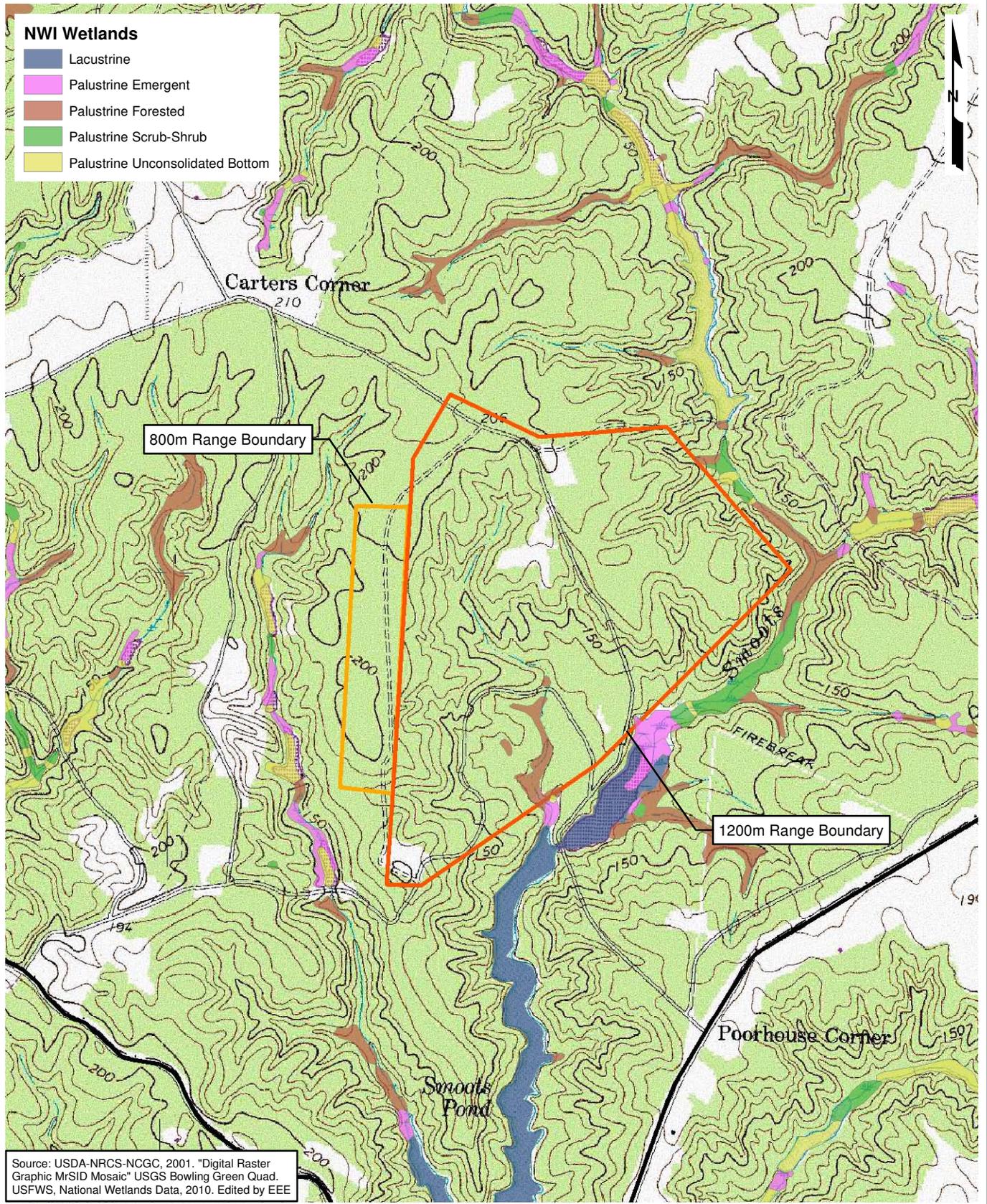
4.4.1 Land Use

The Caroline County Comprehensive Plan provides land use classifications for the entire County. The area of the County located along the southern boundary of Fort A.P. Hill and east of the Town of Bowling Green, Virginia is included in the Sparta Agricultural Preserve Area (Caroline County 2001).

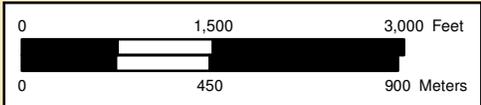
Within Fort A.P. Hill, Route 301 divides the post into northern and southern sections, allowing maneuver and range operations to occur simultaneously. The northern portion of

NWI Wetlands

- Lacustrine
- Palustrine Emergent
- Palustrine Forested
- Palustrine Scrub-Shrub
- Palustrine Unconsolidated Bottom



Source: USDA-NRCS-NCGC, 2001. "Digital Raster Graphic MrSID Mosaic" USGS Bowling Green Quad. USFWS, National Wetlands Data, 2010. Edited by EEE



NWI Wetlands
AWG Training Ranges
Fort A.P. Hill, Virginia

Figure 5

the post is dedicated to maneuver operations and the southern portion contains a 27,000-acre modern range facility and impact area. The AWG Small Arms Range is located in the southern portion of the post. The proposed project area, which includes this range, extends along the southern border of the post and the designated range facility and CA # 10 and 13 (Figure 2).

Impacts of the Proposed Action

The proposed AWG Training Ranges would be confined to land already included within the Fort A.P. Hill boundary. Therefore there would be no impact to the county's existing land classifications.

Within the post, the proposed AWG Training Ranges would be included in the appropriate zone. The Proposed Action would convert the existing range into a much larger range, eliminating potential space for additional training ranges to be developed. This would result in no impact to the use of lands within Fort A.P. Hill.

Impacts of the No Action Alternative

Under the No Action Alternative there would be no new development at the proposed project area. Developments at Fort A.P. Hill would remain within the post boundary, avoiding any impact on the County's land use plan.

Within the boundary of the post, the AWG Small Arms Range and artillery firing points would continue to operate within the range and impact area. There would be no impact to land use, as this use would be consistent with the land use plans at Fort A.P. Hill.

Conclusion

Neither the Proposed Action nor the No Action Alternative would have an impact on land use. No mitigating actions would be required since there would be no significant adverse impacts.

4.4.2 Transportation

The primary access route to Fort A.P. Hill is Route 301, which bisects the post, provides access to the entrance of the post. Highway access also is available via I- 95, U.S. Route 17, and Virginia State Route 2 via local roads. Within the post, transportation is provided by a series of roads that provide access to all functional areas. Secondary and tertiary light-duty roadways provide access between and within various functional areas. Access to the existing AWG Small Arms Range and artillery firing points is provided by South Range Road. Additional service roads run through the site, as well.

Impacts of the Proposed Action

Under the Proposed Alternative, the Army would continue to use primary access routes to move personnel to and from Fort A.P. Hill. The addition of AWG training personnel would have no impact compared to the existing level of traffic. This pattern has been a part of the regional transportation system for some time and would not adversely impact regional traffic. The movement of construction vehicles and equipment to the post would have a short-term, minor, adverse impact on local and Fort A.P. Hill roads.

Within the post, the movement of training personnel is part of regular operations. The post's roads are designed to provide efficient movement of personnel. The traffic on the roads leading to the proposed project area would increase, as personnel and vehicles were brought onsite to use the larger training range. The anticipated traffic volume would have no impact on transportation.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no change in transportation patterns to or within Fort A.P. Hill. The Army would continue to use primary access routes to move personnel to and from Fort A.P. Hill. Roads within the post would continue to support the movement of personnel to different functional areas. There would be no impact to existing transportation conditions.

Conclusion

The Proposed Action would result in short-term, minor, adverse impacts on transportation. The No Action Alternative would result in no impact to transportation. No mitigating actions would be required since there would be no significant adverse impacts.

4.4.3 Utilities and Energy Conservation

The electric distribution system at Fort A.P. Hill is privately owned and operated by Rappahannock Electric Cooperative, which performs all capital improvements and maintenance. Water and wastewater treatment is provided by an onsite facility operated by American Water, Inc. The water and wastewater system is used exclusively by the post. Telephone and other services are provided by local providers. Within the proposed project area, an overhead electrical line runs along South Range Road. Underground water and sewer lines, along with electricity lines, run along South Range Road. None of these utilities are actively used within the proposed project area.

Impacts of the Proposed Action

Under the Proposed Alternative, the existing overhead electricity line would be extended to provide service to the 800m range. The existing electricity and water lines along South Range Road would be extended through trenches to provide service to the 1,200m range and the structures that would service both ranges. By avoiding duplication of these structures on both ranges, the proposed action reduces the utility demand that could be created by such a development. The proposed use of the AWG Training Ranges would result in limited increases in the use of these utilities and would not overwhelm the existing distribution systems, resulting in long-term, minor, adverse impacts.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no change to the existing utility layout or demand. Existing lines would continue to run through the proposed project area, but would not service the site. There would be no impact to utilities.

Conclusion

The Proposed Action would result in long-term, minor, adverse impacts to utilities and energy conservation. The No Action Alternative would have no impact on utilities and

energy conservation. No mitigating actions would be required since there would be no significant adverse impacts.

4.4.4 Population and Economics

Fort A.P. Hill is located in Caroline County, Virginia, southeast of the City of Fredericksburg, Virginia. In 2000, Caroline County had a population of 22,121. This population had grown to an estimated 27,870 by 2009. The Town of Bowling Green, which is located in the County and near the proposed project area, had a population of 935. At the time of the last Census, children under five years of age made up nearly eight percent of the County population. Individuals under five years of age made up just over five percent of the Town's population, well below the national average of nearly seven percent (Census 2010).

In 2000, the median household income in the County was \$57,302, the Town of Bowling Green average was \$32,250, and the national average household income was \$41,994. The per capita income in the County was \$25,072, an estimated \$20,233 in the Town of Bowling Green, and the national level was \$21,587. Approximately seven percent of the County's population was below the poverty level, while over 13 percent of the nation's population was below the poverty level (Census 2010).

Fort A.P. Hill is the largest employer as compared with neighboring Caroline County. Other primary labor categories in Caroline County include: distribution and light manufacturing, environmental remediation, tourism, business services, and retail/commercial (Caroline County 2010).

Impacts of the Proposed Action

Under the Proposed Action, there would be a short-term, moderate, beneficial impact to the local population through the increase in construction jobs and material requests. Once construction was complete, these jobs and requests would end.

The Proposed Action would result in long-term, minor, beneficial impact related to an increased number of military personnel being transported to and from Fort A.P. Hill. This would provide a beneficial impact to local businesses that may serve these personnel during their travels.

Additional long-term, minor, beneficial impacts would come from the inclusion of the AWG Training Ranges at Fort A.P. Hill. This would further enhance the post's status as one of the nation's premiere military training facilities. This status could help attract additional personnel to the area, which could result in future beneficial impacts to the local economy.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no impact to the local economy, as Fort A.P. Hill would remain the second largest employer in the county. The post would remain as one of the premiere military training facilities. Future development could help attract additional personnel to the area, which could result in future beneficial impacts to population and economics.

Conclusion

The Proposed Action would result in minor beneficial impacts on population and the economy. The No Action Alternative would result in no impact to existing population and economic conditions. No mitigating actions would be required since there would be no significant adverse impacts.

4.4.5 Safety

To provide safe conditions across Fort A.P. Hill, the Army maintains an Installation Safety Office on the post. The vision of the Safety Office is to provide a "...Warrior Culture that achieves the highest level of combat power without compromising the safety or health of its members, by making informed risk based decisions at appropriate levels." Staff at the Safety Office act as advisors to directors and supervisors so work tasks and assignments can be completed quickly and efficiently without compromising safety.

This advice is provided through an essential task list which includes the following:

- Leaders will refuse to accept unsafe conditions or acts as "the cost of doing business" or "that's the way it's always been."
- All Warriors and workers and their families and guests are entitled to a safe and healthy place to work, train, live and recreate.
- Our Warriors, leaders, managers, supervisors and workers are not "risk averse"; through the judicious use of composite risk management processes and adherence to safety regulations, standards, policies and principles, Fort A.P. Hill employees, partners, contractors and Warriors will work together as a team to accept and manage risks in order to complete missions, assignments and tasks safely and efficiently Plan, implement and oversee execution of the Command Safety Program.

The basis for decisions made by the Safety Office are made in compliance with AR 385-10/PAM385-10 the Army Safety Program, AR 385-63 Range Safety, PAM 385-63 Range Safety, PAM 385-64 Ammunition and Explosives Safety and FM 5-19 Composite Risk Management.

Within the proposed project area, safety efforts are aimed at transporting to and from the existing range, preparing personnel for training exercises, and conducting training exercises.

Impacts of the Proposed Action

Under the Proposed Action, additional structures and training facilities would be constructed within the proposed project area. This would involve a change in the personnel being transported to the site and the training exercises that were being conducted. These activities would continue to be dictated by APH Regulation 385-10 and direction from the post's Safety Office.

In addition, the design of the proposed ranges included the identification and management of Surface Danger Zones (SDZs). The SDZ includes the area between the

firing point and the target area, as well as a predetermined space surrounding the firing line and beyond the target area. These areas are determined by the type of weapons being used and the conditions in which they are fired. Activity within these SDZs is strictly controlled during training exercises. The development of the proposed training ranges would require some initial adjustments; however, over the long-term, there would be no impact to safety within the proposed project area.

Impacts of the No Action Alternative

Under the No Action Alternative, there would be no change in the use of the proposed project area. The Army would continue to maintain and update the safety precautions it undertakes when using the existing AWG Small Arms Range and artillery firing points, resulting in no impact to current conditions.

Conclusion

The Proposed Action and the No Action Alternative would have no impact on safety. No mitigating actions would be required since there would be no significant adverse impacts.

4.5 Summary of Environmental Consequences

Table 8 provides a summary of the environmental consequences related to each alternative. A more detailed explanation of the impacts is presented in the sections above.

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
Soils, Topography, and Geology See Section 4.2.1	Short-term construction impacts and long-term impacts related to surface clearing, grading, and physical development would occur.	No impact to current conditions. Wind and rain would continue to result in erosion and military activity would compact soils.
	Overall impact: short- and long-term, minor, adverse impacts	Overall impact: no impact
Floodplains See Section 4.2.2	Development within critical flood zones would be limited to a new bridge which would be designed to above the flood elevation. All other development would be outside critical flood zones. Therefore, there would be no impact.	No impact would occur. Current activities would remain outside critical flood zones.
	Overall impact: no impact	Overall impact: no impact

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
Water Resources See Section 4.2.3	Short-term construction impacts and long-term impacts related to increased impervious surfaces and pollutant loads. <i>Overall impact:</i> long-term, minor, adverse	No new impact would occur. Water resources would continue to be impacted by natural conditions and manmade pollutants outside the proposed project area. <i>Overall impact:</i> no impact
Air Quality See Section 4.2.4	Short-term impacts related to construction and long-term changes in vehicle and training emissions. <i>Overall impact:</i> long-term, minor, adverse	No impact to current activities or emissions <i>Overall impact:</i> no impact

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
<p>Noise See Section 4.2.5</p>	<p>Short-term impacts related to construction and long-term changes in sound levels within a confined area inside and along the post's boundary.</p> <p>Overall impact: long-term, moderate, adverse</p>	<p>Continuation of current noise levels.</p> <p>Overall impact: long-term, moderate, adverse</p>
<p>Cultural Resources See Section 4.2.6</p>	<p>Long-term impacts to previously disturbed resources that are not eligible for listing on the National Register.</p> <p>Overall impact: no impact</p>	<p>Long-term impacts to previously disturbed resources that are not eligible for listing on the National Register</p> <p>Overall impact: no impact</p>

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
Hazardous Materials See Section 4.2.7	Short-term impact related to construction and long-term impacts from unexploded ordnance remediation and use of fuels for training vehicles.	No change to existing operations
	<i>Overall impact:</i> long-term, minor, beneficial and long-term, minor, adverse	<i>Overall impact:</i> long-term, minor, adverse
Aesthetic Resources See Section 4.2.8	Changes would be consistent with existing vistas within Fort A.P. Hill	No impact to existing vistas
	<i>Overall impact:</i> no impact	<i>Overall impact:</i> no impact
Vegetation See Section 4.3.1	Short-term impacts related to construction and long-term impacts related to clearing and new development.	No impact to existing conditions
	<i>Overall impact:</i> long-term, moderate, adverse	<i>Overall impact:</i> no impact

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
Fish and Wildlife See Section 4.3.2	Short-term impacts related to construction and long-term impacts from clearing, development, and increased human activity. Overall impact: long-term, minor, adverse	No impact to current conditions Overall impact: no impact
Threatened and Endangered Species See Section 4.3.3	By following the USFWS bald eagle guidelines, the project would avoid any significant impacts to the existing bald eagle nest and its inhabitants that exist within the proposed project area. Overall impact: long-term, minor, adverse	No impact to current conditions Overall impact: no impact

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
<p>Wetlands See Section 4.3.4</p>	<p>Long-term impacts related to installation of new bridge in marshland and increased stormwater runoff.</p> <p><i>Overall impact:</i> long-term, minor, and adverse</p>	<p>No impact to current conditions</p> <p><i>Overall impact:</i> no impact</p>
<p>Land Use See Section 4.4.1</p>	<p>No impact. New development that would not conflict with county or post's land use plans.</p> <p><i>Overall impact:</i> no impact</p>	<p>No change to existing conditions</p> <p><i>Overall impact:</i> no impact</p>
<p>Transportation See Section 4.4.2</p>	<p>Short-term impacts related to construction activity.</p> <p><i>Overall impact:</i> short-term, minor, adverse</p>	<p>No impact to existing conditions</p> <p><i>Overall impact:</i> no impact</p>

Table 8: Summary of Environmental Consequences

Resource	Proposed Action	No Action Alternative
Utilities and Energy Conservation See Section 4.4.3	Long-term impact related to additional utility lines and increased demand.	No impact to current conditions
	Overall impact: long-term, minor, adverse	Overall impact: no impact
Population and Economics See Section 4.4.4	Short-term impacts related to construction demands and long-term impacts from increased activity at and recognition of the post.	No impact to existing conditions
	Overall impact: long-term, minor, beneficial	Overall impact: no impact
Safety See Section 4.4.5	New training activities would comply with post procedures.	No impact to current conditions
	Overall impact: no impact	Overall impact: no impact
Cumulative Impacts See Section 4.6	Both the Proposed Action and the No Action Alternative would contribute to cumulative impacts related to the resources discussed above.	

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4.6 Cumulative Impacts

The CEQ regulations that implement NEPA require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as impacts which result when the impact of the proposed action is added to the impacts of other present and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions (40 CFR 1508.7).

To determine the potential cumulative impacts, existing and anticipated future projects at Fort A.P. Hill and the surrounding area were identified. Potential projects identified as cumulative actions included any planning or development activity currently being implemented or expected to be implemented in the reasonably near future. The projects identified as contributing to cumulative impacts on the resources addressed by this EA include previous and future development within the boundary of Fort A.P. Hill and those taking place in the surrounding community. Given the similarities between these actions and their potential impacts, they have been divided into the following cumulative impacts.

Construction and Current Operation of Fort A.P. Hill

In the spring of 1940, the War Plans Division of the Army General Staff developed a plan to raise a national army of four million men to conduct simultaneous operations in the Pacific and European theaters. To meet this need, Fort A.P. Hill was established as an Army training facility on June 11, 1941, pursuant to War Department General Order No. 5. In its first year, the installation was used as a maneuver area for the II Army Corps and for three activated National Guard divisions from Mid-Atlantic States. The post also played an important role as a staging area in World War, II, the Korean War, and the Vietnam War.

Today, Fort A.P. Hill is used year-round for military training of both active and reserve troops of the Army, Navy, Marines, and Air Force, as well as other government agencies. These include the Department of State and Department of the Interior; U.S. Customs Service; and federal, state and local security and law enforcement agencies. Activities and development within the post are focused on training exercises for these groups, as well as constructing new training facilities and supporting infrastructure.

Future projects at the post are anticipated to be of an equal or lesser size than previous and current developments. These projects include the repair or replacement of damaged culverts that have flooded wildlife habitat that are normally dry. These developments and activities have the potential to impact soils, topography, and geology; floodplains; water resources; air quality; noise; cultural resources; hazardous materials; aesthetic resources; vegetation; fish and wildlife; threatened and endangered species; wetlands; land use; transportation; utilities and energy conservation; population and economics; and safety.

Development Outside Fort A.P. Hill

Since the opening of Fort A.P. Hill; Caroline County, the Town of Bowling Green, and other surrounding communities have experienced increasing levels of growth and development. This has included increases in population, residential and commercial development, and improved roads and utilities. An example of this development is the

recent extension of the underground water and sewer utility system. These developments and activities have the potential to impact soils, topography, and geology; floodplains; water resources; air quality; noise; cultural resources; hazardous materials; vegetation; fish and wildlife; threatened and endangered species; wetlands; land use; transportation; utilities and energy conservation; population and economics; and safety.

4.6.1 Cumulative Impact Analysis

The contribution of the two alternatives analyzed in this EA, the Proposed Action and the No Action Alternative, to the cumulative actions described above is different for each resource. Unless otherwise noted below, the No Action Alternative does not contribute to cumulative impacts. There is no contribution because the No Action Alternative has no impact on resources. In addition, the Proposed Action does not contribute to cumulative impacts related to floodplains aesthetic resources, cultural resources, land use, transportation, and safety because the alternative has no long-term impact on these resources. By not contributing to these cumulative impacts, the Proposed Action and/or the No Action Alternative are not leading to increasing impacts to resources within the post or throughout the region.

Except for floodplains and land use, the Proposed Action would make minor contributions to the cumulative actions described above. In most cases, these contributions are the result of the minor adverse impacts related to the implementation of the Proposed Action. These contributions result in increases in erosion of soil, stormwater runoff into surrounding bodies of water and wetlands, movement of fuels, air emissions, and utility demand. While these increases may be of some consequence relative to the proposed project area, they do not represent significant increases to impacts on these resources. Therefore, the cumulative projects, along with the Proposed Action, would have a long-term, minor, adverse cumulative impact on soils, water, hazardous materials, air, and noise.

Other minor contributions to cumulative impacts are related to actions that are occurring on the post and throughout the surrounding region. These contributions result in the loss of wildlife habitat or increases in vehicular traffic on regional, local, and post roads. In the case of wildlife habitat, adverse impacts regularly occur within the boundary of the post and throughout the surrounding region. The Army's continued preservation of undisturbed lands at Fort A.P. Hill offsets the intensity of this impact. The contributions to cumulative impacts related to transportation are minor and consist of actions that are similar throughout the region. The cumulative projects, along with the Proposed Action, would have a long-term, minor, adverse cumulative impact on fish and wildlife resources and transportation.

The greatest contribution to cumulative impacts that is analyzed in this EA is the moderate adverse impact the Proposed Action would have on vegetation and both the Proposed Action and No Action Alternative would have on noise. The action would result in a measurable loss of vegetation within the proposed project area. The area that would be cleared under the Proposed Action is not as great when compared to the cumulative actions described above or the size of the proposed project area. The moderate adverse impact from noise already exists in and around the proposed project area. As illustrated in Appendix C, the Proposed Action would not noticeably increase

the cumulative noise impact. The cumulative projects, along with the Proposed Action, would have a long-term, minor, adverse cumulative impact on vegetation and noise.

With regards to population and economy, the Proposed Action contributes beneficial increments to cumulative impacts. Beneficial contributions are a result of improving the post's role in the local economy. In some cases, a beneficial increment may not be great enough to completely offset an adverse cumulative impact. In the case of these three resources, however, the cumulative impacts are already beneficial. Therefore, the cumulative projects, along with the Proposed Action, would have a long-term, minor, beneficial cumulative impact on population and economy.

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5.0 Preparers and References

5.1 Preparers, Contributors, and Reviewers

This document was prepared by EEE Consulting, Inc. with input and review from staff at Fort A.P. Hill the U.S. Army Public Health Command, and the Asymmetric Warfare Group.

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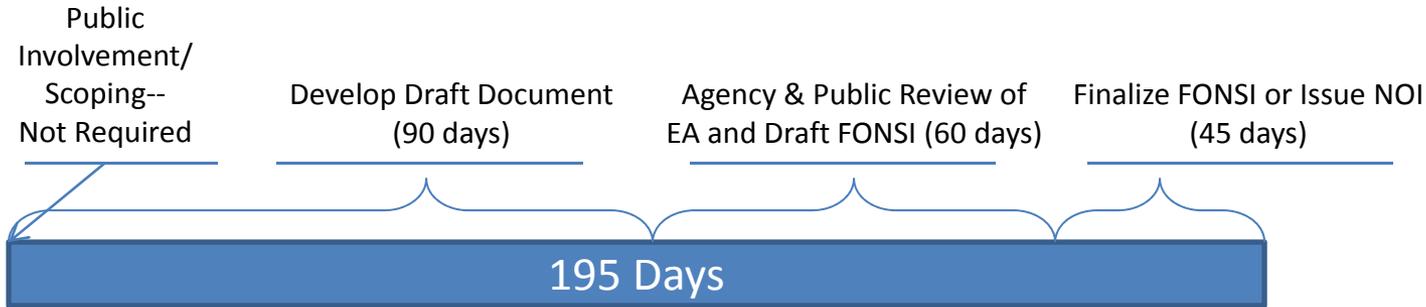
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APPENDIX A
AGENCY CORRESPONDENCE AND PUBLIC COMMENT

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Typical EA Process



800/1200m Range EA Process

Public Scoping Process:

Initial Scoping Letters Mailed – October 21, 2010

Follow-up Scoping Letters Mailed – October 27, 2010

Scoping Open House – November 30, 2010

Comment Period Closes – December 30, 2010
(70 days)

Public Review of Environmental Assessment and Draft FONSI

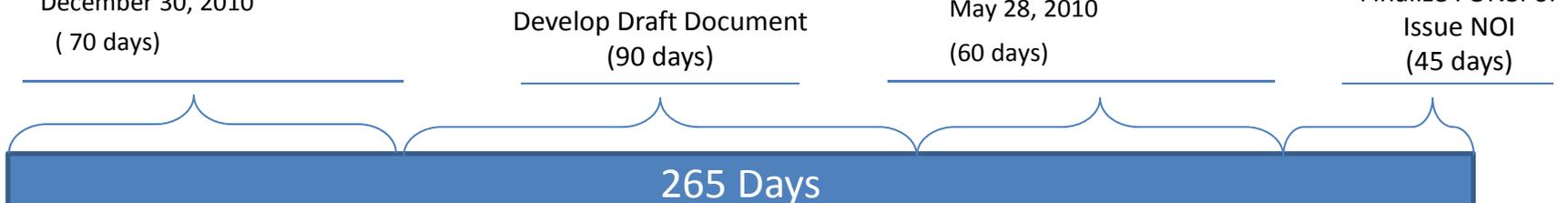
Letters mailed to NEPA mailing list – April 28, 2010

Legal Notice Advertised in the Fredericksburg Free Lance Star – April 28, 2010

Legal Notice Advertised in the Caroline Progress – April 28, 2010

Comment Period Closes – May 28, 2010
(60 days)

Finalize FONSI or Issue NOI (45 days)





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY GARRISON, FORT A.P. HILL
18436 FOURTH STREET
FORT A.P. HILL, VIRGINIA 22427-3114

October 18, 2010

Office of the Commander

Dear Interested Party:

Subject: Request for Comments on Proposed Action (General Scoping)

The United States Army is preparing an Environmental Assessment (EA) for the construction and operation of the Asymmetric Warfare Group (AWG) Training Range Site at Fort A.P. Hill (FAPH), Virginia. AWG is the Army's asymmetric warfare expert, predicting, and contributing to the rapid defeat of asymmetric threats. This training site would collocate 800-meter and 1200-meter firing ranges and supporting facilities. The proposed training range site would be constructed on 675 acres within a current range area south of Route 301, southeast of Carter's Corner at the southern end of the installation. The site is bounded on the northeast by a series of ponds which drain into Smoots Run. It is bounded on the southeast by Smoots Run and Smoots Pond. The northwest and southwest boundaries lie near and along Danger Trail. The training range site would be a controlled access area, as are all the training sites within the southern impact area of Fort A. P. Hill.

The 800-meter range would include shooting pads constructed of pervious material and a stabilized, 30-foot by 200-foot shooting range. A gravel parking area, a gravel down range maintenance access road, an operations and storage building, an ammunition breakdown building, a vault latrine and a covered eating shelter also would be constructed.

The 1200-meter range would include a control area, down-range electrical systems, range operations center, operations/storage building, bleacher enclosure, after action review building, vehicle staging area, battery storage building, and information systems. The range itself would consist of two separate driving courses. One course would be an improved serpentine gravel road, the other an unimproved trail. The improved serpentine driving course would be 15 to 20 feet wide with a gravel base strong enough to accommodate medium tactical vehicles performing simultaneous training exercises. Both stationary and moving armor and infantry targetry would be emplaced on the 1200-meter range. Targetry would consist of a series of free standing, portable radio-controlled and battery operated targets, target emplacements consisting of five-foot square earthen and concrete pads, a series of steel and/or concrete bunkers and berms, four moving armored targets, and multiple pop-up targets. Concrete turning pads able to accommodate both wheeled and tracked vehicles would be situated throughout the range course.

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While the anticipated average daily number of military personnel expected on site is 24 persons, the AWG ranges could accommodate up to 40 individuals simultaneously participating in multiple training activities and operations during daytime and nighttime hours.

Because the proposed project relies on federal funding and occurs on federal property, it must comply with the National Environmental Policy Act of 1969, as amended (NEPA). We welcome any comments you may have regarding the project. Our intent is to address your agency's concerns and incorporate any recommendations into the planning process at the earliest possible time. To aid in your review, we are enclosing a project location map depicting the site and a proposed design for the project.

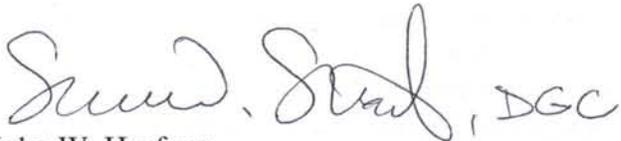
In order to sufficiently address key project issues while maintaining the project schedule, we are requesting that you provide a written response to this letter by November 18, 2010. Please send your response to Fort A.P. Hill Public Affairs Office, 18346 4th Street, Fort A.P. Hill, Virginia 22427 or by email at faphpao@conus.army.mil. If you have any questions, please contact the Public Affairs Office at (804) 633-8324/8120 or at the above referenced email address.

Also, as part of the NEPA scoping process, the public is invited to attend an informational open house anytime between the hours of 5:00 to 8:00 p.m. on November 3 at the Bowling Green Town Hall at 117 Butler Street. The public open house is being held to invite comments and questions from the public and discuss the environmental analysis that will be conducted as required by the National Environmental Policy Act (NEPA).

There will be an additional opportunity to comment on this project during the review process for the Environmental Assessment.

We look forward to working cooperatively with you to make this important project successful for all parties involved.

Sincerely,

FOR  DGC
John W. Haefner
Lieutenant Colonel, US Army
Commanding

Enclosures



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY GARRISON, FORT A.P. HILL
18436 FOURTH STREET
FORT A.P. HILL, VIRGINIA 22427-3114

October 26, 2010

Office of the Commander

Dear Interested Party:

Subject: Request for Comments on Proposed Action

Fort A.P. Hill is committed to improved communications with neighboring localities and interested citizens, especially when it comes to growth or major adjustments in mission training, tenant organizations and other factors related to installation operations.

You were provided a letter, dated October 21, 2010 related to our plans to begin an Environmental Assessment (EA) process for the proposed construction and operation of the Asymmetric Warfare Group (AWG) Training Range Site here.

Unfortunately, this letter caused some confusion among a small number of recipients. I hope this letter clarifies our intent.

As I noted, we are in the preliminary stages of an EA for this small arms range. An EA is a tool that helps federal agencies with informed decision making. As we begin the National Environmental Policy Act (NEPA) process, we want interested citizens and neighboring community leaders to have an opportunity to hear about the range concept and, if desired, to offer any comments or recommendations they may have about the range's design or alternatives to the proposed action. While only limited details of any potential environmental impacts will be available at this stage, public input may help us in evaluating impacts of the proposed action and any alternatives.

The October 21, 2010 letter outlines the range concept. Our plan called for an open house November 3, 2010 that would have featured displays and informal discussion with environmental division staff members conducting the EA and military personnel proposing construction of the range.

Apparently, some letter recipients believed that the open house was to be a public hearing. This will not be a public hearing. To enable interested citizens to better plan their schedules, we have worked with Caroline County and Town of Bowling Green professional staff leaders to reschedule the open house to November 30, 2010. The open house is between 5:00 and 8:00 p.m. at the Bowling Green Town Hall at 117 Butler Street. No formal presentations are scheduled. Citizens wanting to look at exhibits and talk with Army personnel may attend at any time during that three-hour window.

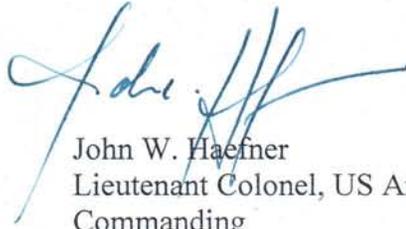
“EXCELLENCE THROUGH SERVICE”

Again, anyone wanting to offer comments or recommendations about the proposed range can also provide written input. These can be mailed to Fort A.P. Hill Public Affairs Office, 18346 4th Street, Fort A.P. Hill, Virginia 22427 or emailed at faphpao@conus.army.mil. Comments are requested by December 15, 2010. If you have any questions, please contact the Public Affairs Office at (804) 633-8324/8120 or at the above referenced email address.

We will provide additional opportunity for public comment on this project during the later review process for the Environmental Assessment.

Thank you for your interest in Fort A.P. Hill and your support of our nation's fighting men and women.

Sincerely,

A handwritten signature in blue ink, appearing to read "John W. Haefner". The signature is stylized with a large initial "J" and a long horizontal stroke extending to the right.

John W. Haefner
Lieutenant Colonel, US Army
Commanding

Enclosure

Mailing List for AWG Training Range EA Scoping Letters - October 2010

The Honorable	Wayne	Acors	Madison District, Caroline County Board of Supervisors
		Alan C. Barkoff	
Mr.	Percy	Ashcraft	Caroline County Administrator
Mr.	Percy	Ashcraft	County Administrator, Caroline County
Mr.	Dan	Bacon	Virginia Marine Resources Commission
Mr.	C. Douglas	Barnes	Spotsylvania County Administrator
Mr.	Ernie	Bates	Rappahannock Electric Cooperative
Ms.	Deanna	Beacham	Virginia Council on Indians
Mr.	G. William	Beale	Chief Executive Officer, Union First Market Bank
Mr.	David & Linda	Beck	Portobago Bay Home Owners Association
		Bessy Allen	
Mr.	Harry	Betchy	Portobago Bay Home Owners Association
Mr.	Thomas	Blackwell	Essex County Commissioner of Revenue
	Edward & Margaret	Blevins	Portobago Bay Home Owners Association
Mr.	Jeff	Bodner	Portobago Bay Home Owners Association
Ms.	Mildred	Bohlmann	
	Michael	Bohlmann	Portobago Bay Home Owners Association
		Bonnie Cannon	
		Bowling Green Library	
Ms.	Regena	Bronson	U.S. Army Corps of Engineers
Mr.	Cedell	Brooks, Jr.	King George Board of Supervisors
Mr.	Kevin	Byrnes	George Washington Regional Commission
Mr.	Beverly	Cameron	Fredericksburg City Manager
Ms.	Bonnie	Cannon	
		Caroline Library, Inc.	Port Royal Branch
Mr.	William & Phyllis	Carpenter	Edmont of Port Royal Bed & Breakfast
Ms.	Sharon	Carter	Caroline County Commissioner of Revenue
		Central Rappahannock Regional Headquarters	
The Honorable	Mary Frances	Coleman	Bowling Green Town Council
Ms.	Cleopatra	Coleman	Historic Port Royal, Inc.
The Honorable	Mary Frances	Coleman	Bowling Green Town Council
Mr.	Richard	Cope	

Mailing List for AWG Training Range EA Scoping Letters - October 2010

Mr.	Richard	Cottrell	Portobago Bay Home Owners Association
Ms.	Allison	Daguilar	Portobago Bay Home Owners Association
		Daniel Webb	
		David Ware	
The Honorable	Jean	Davis	Bowling Green Town Council
Ms.	Carolyn & John	Davis	
The Honorable	Jean	Davis	Bowling Green Town Council
Mr.	Walter A. "Pete"	Davis, Jr.	Chairman, Caroline County Planning Commission
Captain (Retired)	James	Day	President, Rappahannock Chapter Association of the United States Arm
Captain (Retired)	James	Day	Co-Chair, Fort A.P. Hill Installation Community Council
Mr.	Tylan	Dean	US Fish and Wildlife Service
Mr.	David	Dickson	Virginia National Defense Industrial Authority
	E.L.	Donalson	Portobago Bay Home Owners Association
	Spencer	Dorsey	
Ms.	Mary	Dorsey	Portobago Bay Home Owners Association
Ms.	Shirl	Dressler	Virginia Department of Game and Inland Fisheries
	Larry & Carolyn	Ervin	
		Essex Public Library	
Mr.	Thomas	Faha	Virginia Department of Environmental Quality - Northern Regional Off
Ms.	Sharon	Farmer	
Mr.	Scott	Fearnow	Portobago Bay Home Owners Association
Ms.	Cynthia	Fields	Portobago Bay Home Owners Association
Mr.	Mike	Finchum	Caroline Co Dept of Planning & Community Development
Ms.	Judith	Fulks	Belvedere Plantation, Nottingham Fairways
	Jacqueline & George	George	Portobago Bay Home Owners Association
		George Ellis	
The Honorable	Roy	Gladding	Mayor, Town of Tappahannock
The Honorable	Roy	Gladding	Mayor, Town of Tappahannock
		Glenn McDearmow	
Ms.	Kathryn	Grinde	
Mr.	Scott	Hagen	

Mailing List for AWG Training Range EA Scoping Letters - October 2010

	Mr. & Mrs.	Hall	
Ms.	Terri	Harrison	Town Clerk, Port Royal
Dr.	James	Heimbach	Port Royal Town Council
Mr.	Marc	Holma	Virginia Department of Historic Resources
Mr.	Pete	Humes	Chairman, Fredericksburg Regional Chamber of Commerce Military Affairs Council
Mr.	Pete	Humes	Chairman, Fredericksburg Regional Chamber of Commerce Military Affairs Council
Ms.	Rene	Hypes	Virginia Department of Conservation and Recreation - Division of Natural Resources
Ms.	Ellie	Irons	Department of Environmental Quality
Reverend	Kevin	James	Pastor, Salem Baptist Church
		Jean M. Davis	
Mr.	Harald	Jenewein	Portobago Bay Home Owners Association
Ms.	Caren	Johnson	Portobago Bay Home Owners Association
		Jule Nullard (?)	
Dr.	Gregory	Killough	Superintendent, Caroline County Public Schools
Dr.	Gregory	Killough	Superintendent, Caroline County Public Schools
Mr.	Gary	Kline	
Mr.	John	Lampmann	President, Portobago Bay Home Owners Association
The Honorable	J.G. Glen	Lanford	Bowling Green Town Council
The Honorable	J.G. Glen	Lanford	Bowling Green Town Council
Mr.	Helmut	Linne von Berg	Portobago Bay Home Owners Association
Sheriff	Tony	Lippa	Sheriff, Caroline County
Ms.	Tamatha	Locklerr	
The Honorable	Nancy	Long	Mayor, Town of Port Royal
The Honorable	Nancy	Long	Mayor, Port Royal
Ms.	Linda	Lumpkin	Essex County Assistant County Administrator
	B. Walton	Mahon	
Mr.	Stephen	Manster	Town of Bowling Green
Mr.	Stephen	Manster	Town Manager, Town of Bowling Green
		Mark Mallin	
Ms.	Cindy	Matern	President, Caroline County Chamber of Commerce
Ms.	Cindy	Matern	President, Caroline County Chamber of Commerce

Mailing List for AWG Training Range EA Scoping Letters - October 2010

Mr.	Guy	Mattox, Jr.	
Ms.	Merry	Maxwell	US Fish and Wildlife Service
The Honorable	Glenn	McDearmon	Vice Mayor, Town of Bowling Green
Ms.	Vivian	McDonald	
Mr.	Steve	Meehan	Portobago Bay Home Owners Association
		Mike Bhagat	
Ms.	Della	Mills	Port Royal Town Council
Dr.	W. Angus	Muir	President, Caroline County Countryside Alliance
Ms.	Sharon	Nelson Craig	Holland & Knight LLP
	Michael & Marilyn	Newman	Portobago Bay Home Owners Association
	Fred & Crystal	Pannell	Portobago Bay Home Owners Association
Mr.	Joe	Parker	Photography by Joe Parker
Mr.	David	Paylor	Virginia Department of Environmental Quality
	Glen & Jennifer	Pickerel	Portobago Bay Home Owners Association
Mr.	Kenneth	Pogue	
The Honorable	Robert	Popowicz	Caroline Co Board of Supervisors – Port Royal District
The Honorable	Bobby	Popowicz	Port Royal District, Caroline County Board of Supervisors
Ms.	Patricia	Posner	
Mr.	Travis	Quesenberry	King George County Administrator
Mr.	David	Richardson	Portobago Bay Home Owners Association
Ms.	Anne	Richardson, Chief	Rappahannock Tribe Cultural Center
Ms.	Margaret	Roberts	
Ms.	Jane	Robinson	
Mr.	Rudy	Rodriguez	
The Honorable	David "Maxie"	Rozell	Chairman, Caroline County Board of Supervisors
The Honorable	David "Maxie"	Rozell	Chairman, Caroline County Board of Supervisors
Mr.	Clarence	Runstmann	Portobago Bay Home Owners Association
The Honorable	Jason	Satterwhite	Bowling Green Town Council
The Honorable	Jason	Satterwhite	Bowling Green Town Council
	John and Sylvia	Sellers	Portobago Bay Home Owners Association
The Honorable	Jeff	Sili	Bowling Green District, Caroline County Board of Supervisors
The Honorable	Jeff	Sili	Caroline Co Board of Supervisors – Bowling Green District

Mailing List for AWG Training Range EA Scoping Letters - October 2010

Mr.	Robert	Simmons	Portobago Bay Home Owners Association
Mr.	Ed	Simmons, Jr.	Caroline Progress
The Honorable	Dale	Sisson, Jr.	Chairman, King George County Board of Supervisors
The Honorable	Dale	Sisson, Jr.	Chairman, King George County Board of Supervisors
The Honorable	Gary	Skinner	Spotsylvania County Board of Supervisors
The Honorable	Gary	Skinner	Chairman, Spotsylvania County Board of Supervisors
The Honorable	Edwin E. "Bud"	Smith	Chairman, Essex County Board of Supervisors
Mr.	William	Smith III	Portobago Bay Home Owners Association
The Honorable	Edwin E. "Bud"	Smith, Jr.	Chairman, Essex County Board of Supervisors
Ms.	Susan	Spears	President, Fredericksburg Regional Chamber of Commerce
Ms.	Susan	Spears	President, Fredericksburg Regional Chamber of Commerce
		Stan Scott	
Mr.	Charles	Stapp	Portobago Bay Home Owners Association
Ms.	Toni	Stinson	Caroline Progress
The Honorable	David	Storke	Mayor, Town of Bowling Green
The Honorable	David	Storke	Mayor, Town of Bowling Green
Colonel	Sandra	Thacker	Peumansend Creek Regional Jail
The Honorable	Floyd	Thomas	Mattaponi District, Caroline County Board of Supervisors
The Honorable	Thomas	Tomzak	Mayor, City of Fredericksburg
The Honorable	Thomas	Tomzak	Mayor, City of Fredericksburg
		Virginia Department of Agriculture and Consumer Services	
		Virginia Department of Environmental Quality Office of Air Data Analysis	
		Virginia Department of Environmental Quality Waste Management Division	
		Virginia Department of Environmental Quality Water Division	
		Virginia Department of Forestry	
		Virginia Department of Health	
		Virginia Department of Mines, Minerals, and Energy	
		Virginia Department of Transportation	
The Honorable	Daniel	Webb	Bowling Green Town Council
The Honorable	Daniel	Webb	Bowling Green Town Council
Mr.	David	Whitlow	Essex County County Administrator
Mr.	Kevin	Wightman	

Mailing List for AWG Training Range EA Scoping Letters - October 2010

		William Butler	
		William Smith	
Ms.	Paula	Williams	Portobago Bay Home Owners Association
Mr.	Robert	Wilson	George Washington Regional Commission
	Boyd	Wisdom	Portobago Bay Home Owners Association
	C.B.	Wisdom, Jr.	
Mr.	Chuck	Womble	President, Sparta Ruritan Club
The Honorable	Otis	Wright	Bowling Green Town Council
Ms.	Dorothy	Wright	
The Honorable	Otis	Wright	Bowling Green Town Council



DEPARTMENT OF THE ARMY
U. S. ARMY GARRISON, FORT A.P. HILL
DIRECTORATE OF PUBLIC WORKS
19952 NORTH RANGE ROAD
FORT A.P. HILL, VIRGINIA 22427-3123

REPLY TO
ATTENTION OF

June 14, 2010

Directorate of Public Works

Mr. Marc Holma
Commonwealth of Virginia
Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

RE: Proposed Asymmetric Warfare Group Range Development
Fort A.P. Hill, Caroline County, Virginia
DHR File No.: 2008-1135

Dear Mr. Holma:

Fort A.P. Hill is planning to construct a 1200-meter range complex at Fort A.P. Hill, Caroline County, Virginia. Phase I, reconnaissance-level, archaeological survey was conducted by Paciulli, Simmons & Associates. One previously recorded archaeological site (44CE0564) was re-located and nine previously unrecorded archaeological sites (44CE0590 through 44CE0598) were identified within the area of potential effects. Site 44CE0564 was identified and evaluated during previous investigations and was determined not eligible for inclusion in the National Register of Historic Places (National Register). Sites 44CE0591, 44CE0596, and 44CE0597 are recommended potentially eligible, as no subsurface testing has been conducted at these sites and they appear to have the potential to contain intact subsurface deposits that may yield additional information important in history. The remaining six sites (44CE0590, 44CE0592 through 44CE0595, and 44CE0598) are recommended not eligible for inclusion in the National Register owing to lack of site integrity resulting from previous disturbances. The results of the archaeological survey are presented in the form of a technical report. Archaeological evaluations are currently being planned for Sites 44CE0591, 44CE0596, and 44CE0597, and the results of these additional investigations will be submitted to the Virginia Department of Historic Resources for review.

Please indicate if you concur/nonconcur that (1) Sites 44CE0591, 44CE0596, and 44CE0597 are potentially eligible for inclusion in the National Register and (2) Sites 44CE0590, 44CE0592 through 44CE0595, and 44CE0598 are not eligible for inclusion in the National Register. Thank you for assisting us in complying with Section 106 of the National Historic Preservation Act. If you have any questions, please contact Terry Banks or John Mullin at (804) 633-8255.

Sincerely,

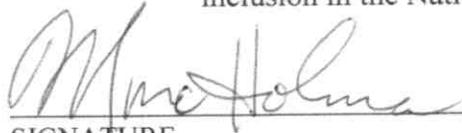
John Mullin
Cultural Resource Manager

Enclosures

“EXCELLENCE THROUGH SERVICE”

Project: Proposed construction of a 1200-meter range at Fort A.P. Hill, Caroline County, Virginia.

CONCUR/NONCONCUR: Sites 44CE0591, 44CE0596, and 44CE0597 are not eligible for inclusion in the National Register of Historic Places.



SIGNATURE

VDHR File: 2008-1135

DATE 4 Nov 10



DEPARTMENT OF THE ARMY
U. S. ARMY GARRISON, FORT A.P. HILL
DIRECTORATE OF PUBLIC WORKS
19952 NORTH RANGE ROAD
FORT A.P. HILL, VIRGINIA 22427-3123

REPLY TO
ATTENTION OF

June 14, 2010

Directorate of Public Works

Department of Conservation and Recreation
Division of Natural Heritage
Attn: Project Review
217 Governor Street, Suite 312
Richmond, Virginia 23219-2094

RE: Proposed Training Range Site for the Asymmetrical Warfare Group (AWG)
Fort A.P. Hill, Caroline County, Virginia

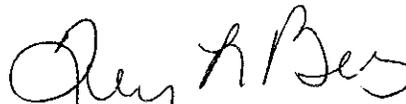
To Whom It May Concern:

In the near future, the U. S. Army Garrison, Fort A. P. Hill, will be submitting for your review and comment an Environmental Assessment (EA) regarding the proposed development of a Training Range Site for the Asymmetrical Warfare Group (AWG). Prior to the submission of this document, Fort A.P. Hill wishes to inform you, in greater detail than the EA allows, of the considerations given to threatened and endangered plant species in the development of this project. Please consider this letter when reviewing and commenting on the EA.

The proposed AWG Training Range Site is located in the active live-fire range complex of the Fort A.P. Hill Military Reservation in Caroline County, Virginia. The area is currently used as a live-fire training range and undergoes prescribed burning at least once annually. The purpose of the proposed action is to provide specialized training in weapons qualifications and operations designed to augment the full-spectrum training, planning and execution of countermeasures. A field survey for threatened and endangered plants was conducted between June 1 and July 8, 2009 in association with this proposed project. During the field survey, two swamp pink colonies were found within forested wetlands in the east-central portion of the site; one with three plants and one with nine plants. No individuals of small whorled pogonia, American ginseng or New Jersey rush were found.

Enclosed is a copy of the report for your review. If you have any questions, please contact Kristine Brown at (804) 633-8417.

Sincerely,


Terry L. Banks
Chief, Environmental Division

Enclosure

“EXCELLENCE THROUGH SERVICE”



DEPARTMENT OF THE ARMY

**U. S. ARMY GARRISON, FORT A.P. HILL
DIRECTORATE OF PUBLIC WORKS
19952 NORTH RANGE ROAD
FORT A.P. HILL, VIRGINIA 22427-3123**

REPLY TO
ATTENTION OF

June 14, 2010

Directorate of Public Works

Mr. Tylan Dean
US Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

RE: Proposed Training Range Site for the Asymmetrical Warfare Group (AWG)
Fort A.P. Hill, Caroline County, Virginia

To Whom It May Concern:

In the near future, the U. S. Army Garrison, Fort A. P. Hill, will be submitting for your review and comment an Environmental Assessment (EA) regarding the proposed development of a Training Range Site for the Asymmetrical Warfare Group (AWG). Prior to the submission of this document, Fort A.P. Hill wishes to inform you, in greater detail than the EA allows, of the considerations given to threatened and endangered plant species in the development of this project. Please consider this letter when reviewing and commenting on the EA.

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Enclosed is a copy of the report for your review. If you have any questions, please contact Kristine Brown at (804) 633-8417.

Sincerely,

Terry L. Banks
Chief, Environmental Division

Enclosure

“EXCELLENCE THROUGH SERVICE”

"The Best Training & Support - Anywhere!"

(804) 633-8324

DSN: 578-8324

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

From: Bonnie Cannon [<mailto:bcreenactorlady@gmail.com>]

Sent: Tuesday, November 02, 2010 10:47 PM

To: FAPH PAO

Subject: Request for Comments on Proposed Asymmetric Warfare Group (AWG) Training Site

To Whom It May Concern:

I am writing in response to documentation I received about the Proposed Asymmetric Warfare Group (AWG) proposed training site and the newspaper articles I have been reading and I am "highly upset" and have major concerns about such an occurrence. Having been born and reared in the Bowling Green area of Caroline County and am now retired as of 1 October 2010, this is entirely "TOO CLOSE" to the town of Bowling Green of which I am a resident. I DO NOT want to be kept awake 24/7 during daytime and/or nighttime hours and I do not want to see our small town living atmosphere of which we enjoy so much being disturbed by locating this proposed action so close to the Town of Bowling Green. Can't it be located elsewhere onsite away from the Town and/or residential communities????? Furthermore, aren't there more US Army facilities where AWG could be located????? Going back to the EOD school for a moment, that was originally suppose to be bracked to Ft. Pickett (which DID NOT occur as it SHOULD HAVE), is this a brack decision also? Why, all of a sudden, does AWG have to be located to Ft. A. P. Hill????? Can't it be located at Ft. Pickett or elsewhere? How about all the deserts and/or sandy lands and/or Federal installations that are located out in the Midwest -- couldn't some of these proposals be located out there?????The EOD school could even be located out there.

Again, I do not want to see this located in the proposed area as it is TOO TOO CLOSE to the Town of Bowling Green. After all, we have an designated historic area of the Town of Bowling Green and we want our properties to stay protected, as is similar to Port Royal, and I do not want to see that change. Our homes and churches also have plaster walls which will be damaged if this occurs. So I ask repeatedly to relocate this proposed AWG project elsewhere.

Also, about approximately a month ago, there was training going on on the Post site somewhere near Bowling Green on SUNDAY morning near the TOWN OF BOWLING GREEN and it was very disturbing that this occurred during the SUNDAY morning hours of our CHURCH services in the Town of Bowling Green. I would like to see this "CEASE" to happen ON ANY GIVEN SUNDAY at Ft. A. P. Hill with all due respect for the Lord's Day so we can have peace and quiet during our church service times. In riding through the Town on any given occasion, note how many Churches that are actually located in the Town. "Your attention to this would be appreciated".

Please pass my comments on to Lt. Colonel Haefner and on up the chain of command and I do hope there will be a Public Comment session on this and that the US Army will listen to and be understanding and listen to residential communities. After all, this is my home, where I will be 24 hours a day now that I am retired, after having worked my 38-yr career to now enjoy what we have worked so hard to establish over the past years.

I will gladly work with or serve on any community involvement committee on this proposed training site.

Thanking you I am,

Sincerely,

Bonnie E. Cannon

Resident of Town of Bowling Green -- 804-633-7006

Jennifer Erickson

Public Affairs Officer

Fort A.P. Hill, VA

"The Best Training & Support - Anywhere!"

(804) 633-8324

DSN: 578-8324

Classification: UNCLASSIFIED

Caveats: FOUO

Classification: UNCLASSIFIED

Caveats: FOUO

County of Spotsylvania
Founded 1721

Board of Supervisors
HENRY CONNORS, JR.
GARY JACKSON
JERRY I. LOGAN
EMMITT B. MARSHALL
BENJAMIN T. PITTS
GARY F. SKINNER
THOMAS C. WADDY, JR.



County Administrator
C. DOUGLAS BARNES
Deputy County Administrator
ERNEST L. PENNINGTON
P.O. BOX 99
SPOTSYLVANIA, VIRGINIA 22553
Voice: (540) 507-7010
Fax: (540) 507-7019

Service, Integrity, Pride

November 18, 2010

Fort A. P. Hill Public Affairs Office
18346 4th Street
Fort A. P. Hill, Virginia 22427

Attention: Public Affairs Office

In reference to Lieutenant Colonel John W. Haefner's letter of October 21, 2010, please be advised that Spotsylvania County has no issues with the Environmental Assessment for the proposed construction and operation of the Asymmetric Warfare Group Training Range Site at Fort A. P. Hill.

Sincerely,

C. Douglas Barnes
County Administrator

C: Wanda Parrish, Planning Director

Scott Smizik

From: Brown, Kristine L Mrs CIV USA IMCOM [kristine.l.brown@us.army.mil]
Sent: Wednesday, November 24, 2010 8:03 AM
To: John Marling
Cc: Scott Smizik; Applegate, Jason R Mr CTR US USA IMCOM
Subject: FW: ESSLog# 22888_NEPA scoping_Ft. AP Hill_Asymmetric Warfare Group Training Range (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: FOUO

FYI, re: scoping for AWG Training Range

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

From: Erickson, Jennifer CIV USA
Sent: Tuesday, November 23, 2010 5:07 PM
To: Banks, Terry L Ms CIV USA IMCOM; Brown, Kristine L Mrs CIV USA IMCOM
Subject: ESSLog# 22888_NEPA scoping_Ft. AP Hill_Asymmetric Warfare Group Training Range

We have searched our databases for the presence of listed species in the general vicinity of the proposed training range on Ft. AP Hill. We were not provided a map of the area, so we determined the location of the project simply based on the description in the letter to us.

According to our records, state Threatened bald eagles and state Threatened Bachman's sparrows have been documented from the general project area. We recommend the EA being prepared for this project address any impacts upon these species and their habitats and how the Army proposes to avoid, minimize, and/or mitigate impacts upon these species.

We also recommend that the Army review the INRMP for Ft. AP Hill and ensure that construction and operation of the proposed training range does not conflict with the wildlife management and protection strategies laid out in that document.

Thanks, Amy

Amy M. Ewing

Environmental Services Biologist

Virginia Dept. of Game and Inland Fisheries

804-367-2211

See note that came into FAPH PAO inbox. Thanks.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

TDD (804) 698-4021

www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

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

November 29, 2010

John W. Haefner
Lieutenant Colonel, US Army

Re: Fort A.P. Hill: Asymmetric Warfare Group Training Range Site

Dear Mr. Haefner

The Department of Environmental Quality has received your scoping request letter regarding the preparation of an Environmental Assessment (EA) for the construction and operation of the Fort A.P. Hill: Asymmetric Warfare Group Training Range Site at Fort A.P. Hill (FAPH), Virginia. The DEQ Waste Division staff has reviewed your letter and has the following comments concerning the waste issues associated with this project:

Neither solid nor hazardous waste issues were addressed in the letter. The letter did not include a search of waste-related data bases. Waste Division staff performed a cursory review of its data files and determined that there are a number of hazardous waste sites and solid waste sites located within the same zip code, however their proximity to the subject site is unknown. These are as follows.

HW

FORT A P HILL, VA2210020416 LQG (ACTIVE) & TSD (ACTIVE)

SW

Caroline County Landfill, GW 182, Sanitary Landfill
Caroline County Landfill, SWP 147, Closed Sanitary Landfill
Caroline County Landfill, SWP 182, Sanitary Landfill
US Army - Fort A P Hill, SWP 332, Closed Sanitary Landfill
US Army - Fort A P Hill, SWP 332, Closed Sanitary Landfill
US Army - Fort A P Hill, SWP 393, Closed CDD Landfill
US Army - Fort A P Hill, SWP 393, Closed CDD Landfill
Haynesville Correctional Center, PBR 373, RMW Steam Sterilizer

When the environmental impact report is written or compiled, it should include an environmental investigation on and near the property to identify any solid or hazardous waste sites or issues. This should include a search of waste-related databases. Steve Mihalko of DEQ's Federal Facilities Program was contacted for his review of this determination and his comments were "I looked it over and the site does not impact any IR or MMRP Sites. Therefore I have no comments."

The report author should analyze the data in the web-based Waste Division databases to determine if the project would affect or be affected by any sites identified in the databases. These are the Solid Waste Database, CERCLA Facilities, Voluntary Remediation Program, and Hazardous Waste Facilities databases.

The Solid Waste Database

A list of active solid waste facilities in Virginia.

CERCLA Facilities Database

A list of active and archived CERCLA (EPA Superfund Program) sites.

Hazardous Waste Facilities Database

A list of hazardous waste generators, hazardous waste transporters, and hazardous waste storage and disposal facilities. Data for the CERCLA Facilities and Hazardous Waste Facilities databases are periodically downloaded by the Waste Division from U.S. EPA's website.

Accessing the DEQ Databases:

The report author should access this information on the DEQ website at

<http://www.deq.state.va.us/waste/waste.html> . Scroll down to the databases which are listed under Real Estate Search Information heading.

The ***solid waste information*** can be accessed by clicking on the Solid Waste Database tab and opening the file. Type the county or city name and the word County or City, and click the Preview tab. All active solid waste facilities in that locality will be listed.

The ***Superfund information*** will be listed by clicking on the Search EPA's CERCLIS database tab and opening the file. Click on the locality box, click on sort, then click on Datasheet View. Scroll to the locality of interest.

The ***hazardous waste*** information can be accessed by clicking on the Hazardous Waste Facility tab. Go to the Geography Search section and fill in the name of the city or county and VA in the state block, and hit enter. The hazardous waste facilities in the locality will be listed.

The ***Voluntary Remediation Program*** GPS database can be accessed by clicking on "Voluntary Remediation," then "What's in my backyard" in the center shaded area, and then under "Mapping Applications," click on "What's in my backyard" again.

This database search will include most waste-related site information for each locality. In many cases, especially when the project is located in an urban area, the database output for that locality will be extensive.

This database search will include most waste-related site information for each locality. In many cases, especially when the project is located in an urban area, the database output for that locality will be extensive.

Any soil that is suspected of contamination or wastes that are generated 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); and 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., 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 Parts 107.

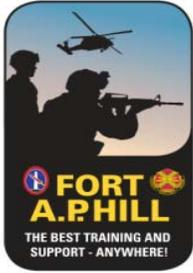
Also, if an older structure will be demolished as part of this project, the structure should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP). If they are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed.

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

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

Sincerely,

Paul W. Kohler
Environmental Specialist II



U.S. Army

Fort A.P. Hill

Public Comment Form

Proposed Asymmetric Warfare Group Training Range at Fort A.P. Hill

Name: William Smith, Sawan Kirpal Meditation Center

Address: 16493 Maple Drive, Bowling Green, VA 22427

Phone: 804 633-1397

Email: smithwp@bealenet.com

Do you want to be included on future project mailings? Yes No

In the space below, please provide us with your any comments, issues, or concerns you may have related to the proposed Asymmetric Warfare Group Training Range at Fort A.P. Hill. Feel free to use additional pages for your comment, as necessary. Once complete, please submit your comments to the addresses provided in this information packet.

Concerned Individuals:

Kay Cataldo, Director, Sawan Kirpal Meditation Center (SKMC)

Jule & Bill Millard, Peni Letourneau, Alan Barkoff, Marilyn Handel, Susanne Smith, Lawrence & Lisa Smith and family, Ron Madray and family, Jay and Barb McFall

The SKMC is under the greater organization of the Science of Spirituality which has over 2000 centers worldwide. The SKMC center has been in Bowling Green since 1971 with 58 acres. SKMC has multiple large functions throughout the year including a summer camp for children, and a senior camp and annually 24 organized retreats. It has weekly and daily activities to include daily meditation, evening and weekend services, and private individual retreats.

SKMC can house 300 people indoors and many more in a natural setting. Our children's camp is 10 days long and more than 300 people attend. Larger activities may be more than 1000 people for up to several days. All of our activities include silent meditation which is a form of going within ourselves to strengthen our connection with God. To have additional ranges in proximity to the center will add to the outside noise level that detracts from this very important purpose of our lives.



The Historic Town of
BOWLING GREEN
V I R G I N I A

December 20, 2010

Ms. Jennifer Erickson
Public Affairs Officer
Fort A. P. Hill Public Affairs Office
18436 4th Street
Fort A. P. Hill, Virginia 22427

Dear Ms. Erickson,

By this letter, the Town of Bowling Green submits input relating to the scoping process for the development of an Environmental Assessment for the proposed ranges to be used by the Asymmetric Warfare Group at Fort A. P. Hill. This input is the result of discussion by Town Council at its meeting of December 2, 2010, and is designed to raise questions and concerns that the Town Council feels should be addressed in the Environmental Assessment.

First, we hope that in the process of developing the Environmental Assessment, alternative sites for the ranges will be sought out and evaluated; sites that are not as close to the perimeter of the Post as the currently proposed site. It is the feeling of Council that this should be done as a matter of policy for the benefit of the residents of the surrounding area.

Second, we feel that analysis of the impact of noise on the surrounding area needs intensive and detailed study. It is our understanding that the proposed site is currently used as a firing range and the surrounding community is already experiencing some impact from the noise created by the existing range activity. The Environmental Assessment should focus on two levels of activity and the differences between the two. First, there should be a presentation about the existing level and frequency of the noise and firing that is created by the existing range activity. Then there should be extensive detail provided about the noise and firing level and frequency that will be created by the activity of the Asymmetric Warfare Group, with an explanation of the difference between the two levels of activity. We also ask for some discussion about the potential for additional activity in the future around the proposed range sites and discussion of the additional noise level that such activity would create. We also ask for some indication of the maximum size of the weapons that will be used at the proposed sites.

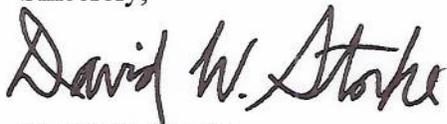
Town Council is also aware that the firing of certain weapons creates not only noise, but also creates smoke that travels beyond the perimeter of the Post. We have been informed by residents of the area that this is the case. We ask that the Environmental Assessment

presents and analyzes information and projections on the amount and intensity of the smoke that will be created by the new activity at the proposed sites and how this will change from the existing condition.

Finally, if a site is selected that is as close to the perimeter of the Post as the currently proposed site, Town Council asks that there be some consideration given to restricting firing activity on Sundays.

The Town Council of Bowling Green supports Fort A. P. Hill and its activities to provide appropriate training areas for the Asymmetric Warfare Group. We welcome the opportunity to work with the Post staff and its consultants to find the most advantageous location that creates the best training environment with minimal impact on the surrounding area. Please let me know if you need any clarification of any of the points noted in this correspondence.

Sincerely,

A handwritten signature in black ink that reads "David W. Storke". The signature is written in a cursive style with a large, prominent "D" and "S".

David W. Storke
Mayor



DEPARTMENT OF THE ARMY
U. S. ARMY GARRISON, FORT A.P. HILL
DIRECTORATE OF PUBLIC WORKS
19952 NORTH RANGE ROAD
FORT A.P. HILL, VIRGINIA 22427-3123

REPLY TO
ATTENTION OF

December 17, 2010

Virginia Department of Game and Inland Fisheries

Amy M. Ewing
Environmental Services Biologist
4010 West Broad Street
Richmond, Virginia 23230

Re: ESSLog# 22888 NEPA scoping Ft. A.P. Hill Asymmetric Warfare Group Training Range

Dear Ms. Ewing:

Thank you for your response to our initial project scoping letter for the proposed Asymmetric Warfare Group (AWG) Training Range at Fort A.P. Hill. In your response, dated November 23, 2010, you note the presence of the state threatened bald eagle and state threatened Bachman's sparrow. Per your recommendation, both species will be addressed in the Environmental Assessment (EA) we are preparing for the proposed project. We expect the EA to be ready for regulatory and public review in early 2011.

As you are aware there are several bald eagle nests within the southern portion of Fort A.P. Hill. Within the area of the proposed training range (Figure 1), two nests have been observed. Recently, the tree that held one of the nests fell (CA-01-04). The remaining nest (CA-05-02) is situated in a currently undeveloped portion of the post. The development of the AWG Training Range is proposed for the area, and is an important addition to Fort A.P. Hill that will enhance our Armed Forces' ongoing development of counterterrorism training. The protection of the bald eagle, a valuable natural resource as well as our national symbol, also is important. The eagle is afforded protection under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and Virginia's Endangered Species Act. Per a cooperative agreement between the Virginia Department of Game and Inland Fisheries (DGIF) and the U.S. Fish and Wildlife Service (USFWS) signed in 1976, the DGIF has assumed responsibility for coordinating protection of this species in Virginia. Therefore, we wish to continue consultation with you related to the bald eagle within the proposed project area.

The proposed design of the training range includes the development of a network of maneuver training roads and trails. Military vehicles would move through the network, stopping to fire at various targets. In one location the road network and an armored target would be within 500 feet of the existing nest (Figure 1).

The proposed design is consistent with the USFWS National Bald Eagle Management Guidelines (May 2007). Table 1 is taken from these guidelines and outlines the USFWS buffers.

“EXCELLENCE THROUGH SERVICE”

While the guidelines recommend distance buffers, maintaining forested areas, and avoiding certain activities during the breeding season, the USFWS document notes that, “the appropriate size for the distance buffer may vary according to the historical tolerances of eagles to human activities....”. More specifically, the guidance document establishes two categories of actions that require different distance buffers given the presence of similar activity within one mile of the nest and if the activity will be visible from the nest. Given the presence of numerous training ranges within a mile of the existing nest site, and that the existing screening provided by the surrounding forest would not be fully compromised, we believe that the USFWS’s suggested 330 foot buffer would provide sufficient protection for the nest from military training activities.

Table 1: USFWS Bald Eagle Management Buffers

	If there is no similar activity within 1 mile of the nest	If there is similar activity closer than 1 mile from the nest
If the activity will be visible from the nest	600 feet. Landscape buffers are recommended.	660 feet, or as close as existing tolerated activity of similar scope. Landscape buffers are recommended
If the activity will not be visible from the nest	Category A: 330 feet. Clearing, external construction, and landscaping between 330 feet and 660 feet should be done outside breeding season. Category B: 660 feet	330 feet or as close as existing tolerated activity of similar scope. Clearing, external construction, and landscaping within 660 feet should be done outside breeding season.

The USFWS document notes that even when there is similar activity within one mile of the nest and the activity would not be visible from the nest, a 660 foot buffer should be maintained during the breeding season. Given the circumstances outlined above, we propose that time of year restrictions be placed on specific land disturbing construction activities within the USFWS 330 foot buffer.

The Fort A.P. Hill Bald Eagle Management Plan guidelines note that protective measures “may be modified as necessary in individual cases based on a number of factors such as topography, existing forest canopy, and observed reactions of eagles to disturbance at the particular site.” We believe several factors support substitution of the USFWS Management Guidelines for the Fort A.P. Hill Management Plan guidelines as they apply to the proposed AWG Training Range project.

Topography surrounding the existing nest site is relatively steep as it slopes away from the level uplands and approaches Smoots Run, Smoots Pond, and their surrounding drainages. This slope will prevent construction vehicles, construction activities, as well as military training operations from getting too close to the nest. These conditions keep the proposed limits of disturbance approximately 500 feet from the nest.

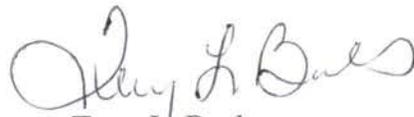
Forest canopy surrounding the nest site is thick. The forest includes the riparian buffer that surrounds the nearby bodies of water, as well as upland areas that cover the site. The development of the proposed training range would result in the loss of some of this forest cover; however, no clearing would occur within 500 feet of the nest as part of this project. The area immediately surrounding the nest would remain intact, as would much of the other areas on the adjacent slopes. This forested cover would continue to visually screen the nest from construction and military training activities.

Finally, our experience with bald eagle nests within the southern portion of Fort A.P. Hill indicates that the birds that have made nests in the area are tolerant of military training actions. Fort A.P. Hill has been an active military training site for nearly 60 years and has been home to numerous bald eagles for much of this time. The presence of nests within an area that includes active training ranges illustrates this point.

We request your concurrence and/or recommendations related to the adoption of the 100 meter (330 foot) primary buffer around this specific bald eagle nest (CA-05-02, Smoots Run #2) and an appropriate buffer for the breeding season and/or any time of year considerations that should be made in this specific situation.

If you have any questions or would like to discuss the issue in greater detail, please do not hesitate to contact Ms. Kristine Brown at 804-633-8417

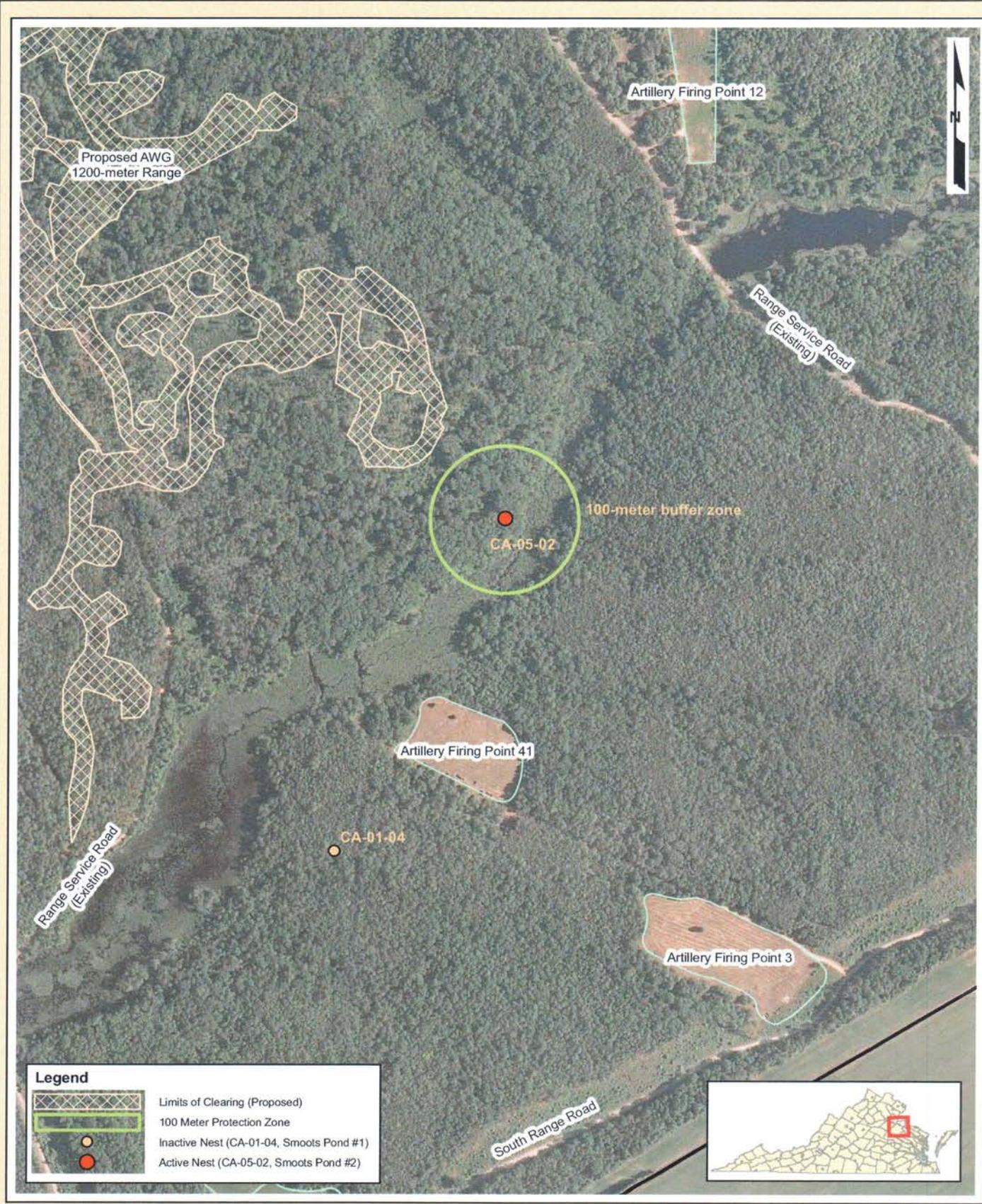
Sincerely,



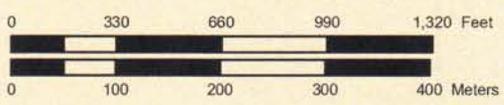
Terry L. Banks
Chief, Environmental Division

Enclosures

cc: USFWS, Virginia Field Office
John Marling, EEE Consulting



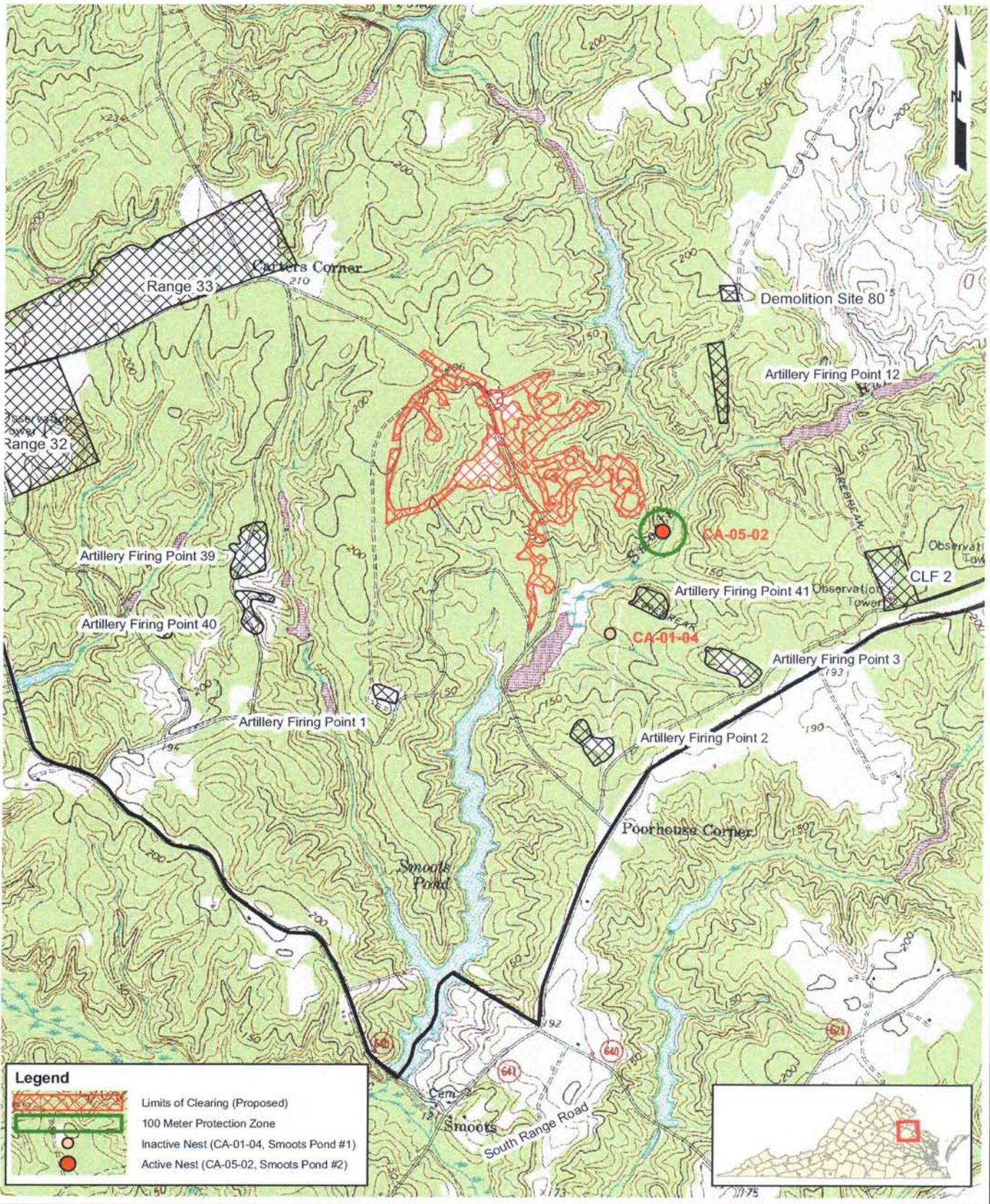
Legend	
	Limits of Clearing (Proposed)
	100 Meter Protection Zone
	Inactive Nest (CA-01-04, Smoots Pond #1)
	Active Nest (CA-05-02, Smoots Pond #2)



**Natural Heritage
Protection Zone**

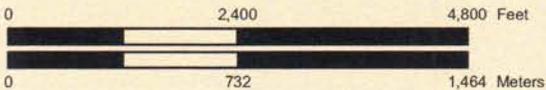
**AWG Training Range Complex
Fort A.P. Hill, Virginia**

**Figure
1**



Legend

-  Limits of Clearing (Proposed)
-  100 Meter Protection Zone
-  Inactive Nest (CA-01-04, Smoots Pond #1)
-  Active Nest (CA-05-02, Smoots Pond #2)



**USGS Topographic
Quadrangle**

**AWG Training Range Complex
Fort A.P. Hill, Virginia**

**Figure
2**

Scott Smizik

From: John Marling
Sent: Monday, February 07, 2011 12:58 PM
To: Scott Smizik
Subject: FW: ESSLog# 22888_NEPA scoping - Ft. AP Hill AWG training range

Categories: Red Category

From: Ewing, Amy (DGIF) [<mailto:Amy.Ewing@dgif.virginia.gov>]
Sent: Monday, February 07, 2011 11:32 AM
To: kristine.j.brown@us.army.mil
Cc: Cooper, Jeff (DGIF); John Marling
Subject: ESSLog# 22888_NEPA scoping - Ft. AP Hill AWG training range

Ms. Brown,

We received a letter from the Dept. of the Army detailing the Army's measures to protect a bald eagle nest and its residents from harm during development and use of the Assymmetric Warfare Group Training Range located on Ft. A.P. Hill in Caroline County, VA. We are agreeable to the measures outlined in the letter, dated December 17, 2011, and find them protective of the eagles inhabiting the nearby woods.

We appreciate the follow-up to our original comments on this project and look forward to reviewing the project's Environmental Assessment.

Thanks, Amy

Amy M. Ewing
Environmental Services Biologist
Virginia Dept. of Game and Inland Fisheries
804-367-2211

Town Council scrambled to hold a special meeting Tuesday of last week to amend action it took in October to obtain bond financing for the project.

The council originally authorized the project with a bond issue not to exceed an interest rate of 4.75 percent.

However, bond interest rates have spiked recently, exceeding the level the council first authorized. At its special meeting last week, it voted to modify its original resolution with a maximum interest rate of 5.95 percent.

At the higher interest rate, the town's an-

nual debt service would increase from the original projected amount of about \$215,000 to \$243,000, an increase of about 13 percent. Over the 30 years of the bond, that amounts to an additional \$840,000.

"It's a difficult pill to swallow," observed Councilor Glen Lanford, "but we'll have to swallow it." The council voted unanimously moments later to approve the change.

increase from \$215,000 to \$243,000.

now recent events had significantly and quickly impacted the bond market.

Two factors have combined to affect the bond market, he said. One was the recent mid-term elections in which Republicans captured a majority in the House of Representatives. The Republican leadership is not inclined to extend the Build America Bonds program, which is scheduled to expire at the end of December. In addition, the Federal Reserve Bank announced plans to buy \$600 billion in Treasury bonds.

Both developments were not unexpected, but bond traders have been caught off guard by how sharply and quickly the market reacted to

see Debt page A3



Map shows where two new target ranges are planned on Fort A.P. Hill.

'Open house' on ranges Nov. 30

By Tim Cox
Editor

BOWLING GREEN — Fort A.P. Hill will hold an 'open house' Nov. 30 to provide information to the public about two proposed firing ranges on the Army base. The

open house will be held from 5-8 p.m. at the Bowling Green Town Hall.

Supervisor Jeff Sili, whose district borders the southern portion of military base, where the new ranges would be located, said he

see Ranges page B5

Caroline FRED service is because of budget misur

By Hilary Lewis

Fredericksburg Regional Transit buses running throughout Caroline County may soon be parked. Due to a mix-up between FRED and county officials, Caroline did not allocate enough money in the current budget to continue bus service after January.

Luckily, the Board of Supervisors was able to buy another month of the transit service at its Nov. 16 meeting, postponing the shutdown of FRED service in Caroline until Feb. 14.

The miscommunication arose when the county budgeted \$53,000 for FRED service, which buys 1,605 hours of transportation.

FRED officials assumed the county had set aside the total amount it requested, \$101,329, and continued to operate with the understanding that the county had purchased 3,069 hours as proposed.

Through the end of December, however, FRED will have provided all but 71 hours of service in Caroline, leaving the county with the option of shutting down service completely or making up a shortfall of \$48,329.

Kathleen Beck, director of public transit for the FRED Regional Transit System, urged the county to continue the service. FRED has operated in Caroline since 2002. It runs two routes, making stops in Bowling Green, Carmel Church,



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A3 Sports

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he went to the base and asked officials to move the open house to the Sparta area, but they declined.

"They won't do it," he said. "I think they ought to meet people" closest to where the new facilities and activities would be located, he said. "But they don't want to do that."

People who live near the base - on Perimeter Road in the Sparta area, for example - sometimes can hear training activities, he noted. On certain days, depending on conditions, even residents of Bowling Green can hear shooting from the machinegun firing range, he said.

"As they step this up and increase activity, there's going to be some impact," said Sili. "Is it going to bother the average person? Maybe and maybe not."

Army officials announced plans for the new ranges and the open house in October. It will not deliver any formal presentations about the project, noted Lt. Col. John Haefner, the fort's commander, said in a letter that was distributed earlier. Instead, the public will have the opportunity to look at various displays and talk to Army officials about the project.

The new ranges will provide training for the Army's Asymmetric Warfare Group (AWG) and will enable soldiers and other military personnel to train with Humvees equipped with .50-caliber machineguns.

The open house is part of the Army's process of conducting an environmental assessment for the proposed ranges. Although the open house is not considered a public hearing, people will have the opportunity to offer comments or recommendations about the design of the ranges

Supervisor Jeff Sili said he has received a few phone calls from constituents about the issue, and another citizen raised it at a recent community meeting he held. 'I've had a bunch of people ask me what this means,' he said.

and alternatives. The public also will have an opportunity to comment later in the review process of the environmental assessment, base officials said.

Sili said he has learned nothing more yet. "I don't know what it all means yet," he said.

He has received a few phone calls from constituents about the issue, and another citizen raised it at a recent community meeting he held, said Sili. "I've had a bunch of people ask me what this means," he said.

"The purpose of constructing and operating two firing ranges, which would be used by the AWG, is to provide specialized training in weapons qualification and operations designed to augment the full-spectrum training, planning and execution of countermeasures to asymmetric warfare offered at Fort A. P. Hill," says a fact sheet Army officials distributed earlier. "This training would be made available to all forces within the U.S. military. The need for the range site is to provide the AWG with full time ranges from which key weapons training tasks can be accomplished. Fort A. P. Hill and the AWG currently have no firing ranges that can provide the effectiveness in training or force preparedness necessary to meet an existing need in multiple simultaneous areas of operation."

The Asymmetric Warfare Group - the terminol-

ogy refers to war between forces that are significantly different in strength or strategy and tactics - is a special mission unit created during the War on Terrorism. The group, which is headquartered at Fort Meade, Md., works to find solutions to problems that field commanders are experiencing both in Iraq and Afghanistan.

The Army expects an average of 24 military personnel to use the range on a daily basis although it would be able to accommodate 40.

The training area would consist of two firing ranges, 800 meters and 1,200 meters, and supporting facilities on 675 acres in the southern end of the base. The ranges would be used to for training with light wheeled vehicles and light armored vehicles, such as Humvees, armored Humvees and vehicles similar to the Mine Resistant Ambush Protected Vehicle or MRAP, armed with no larger than a .50-caliber machinegun.

Some work on the environmental assessment,

such as plant surveys, has already been done. The entire process includes surveys of noise levels, air quality, wetlands and other environmental factors.

The assessment would be issued and distributed for public comment in the January-March time frame. After considering those comments, the base commander would decide how to proceed.

If he decides the proposed ranges would have no significant impact, the Army Corps of Engineers could move forward to award a construction contract before the end of the federal fiscal year Sept. 30.

If the base commander decided otherwise, the Army would have to go through the more lengthy, formal process of producing an environmental impact statement, which could take one or two years to complete.

People who want to offer comments or recommendations about the ranges may do so in writing by Dec. 15 to the Fort A.P. Hill public affairs staff. Written remarks may be sent via mail to Fort A.P. Hill Public Affairs Office, 18346 4th St., Fort A.P. Hill, Va., 22427, or via e-mail to faphpao@conus.army.mil.

For questions, call the public affairs staff at (804) 633-8324 or 8120.

Optimists selling ornaments

The Optimist Club of Caroline County is selling Christmas ornaments for \$10 each.

To order ornaments, e-mail Percy Ashcraft at pashcraft@co.caroline.va.us or call (804) 448-1974.

Ornaments may also be purchased at the Caroline County Visitor Center after Dec. 4.

All proceeds go to the Optimist Club of Caroline County.

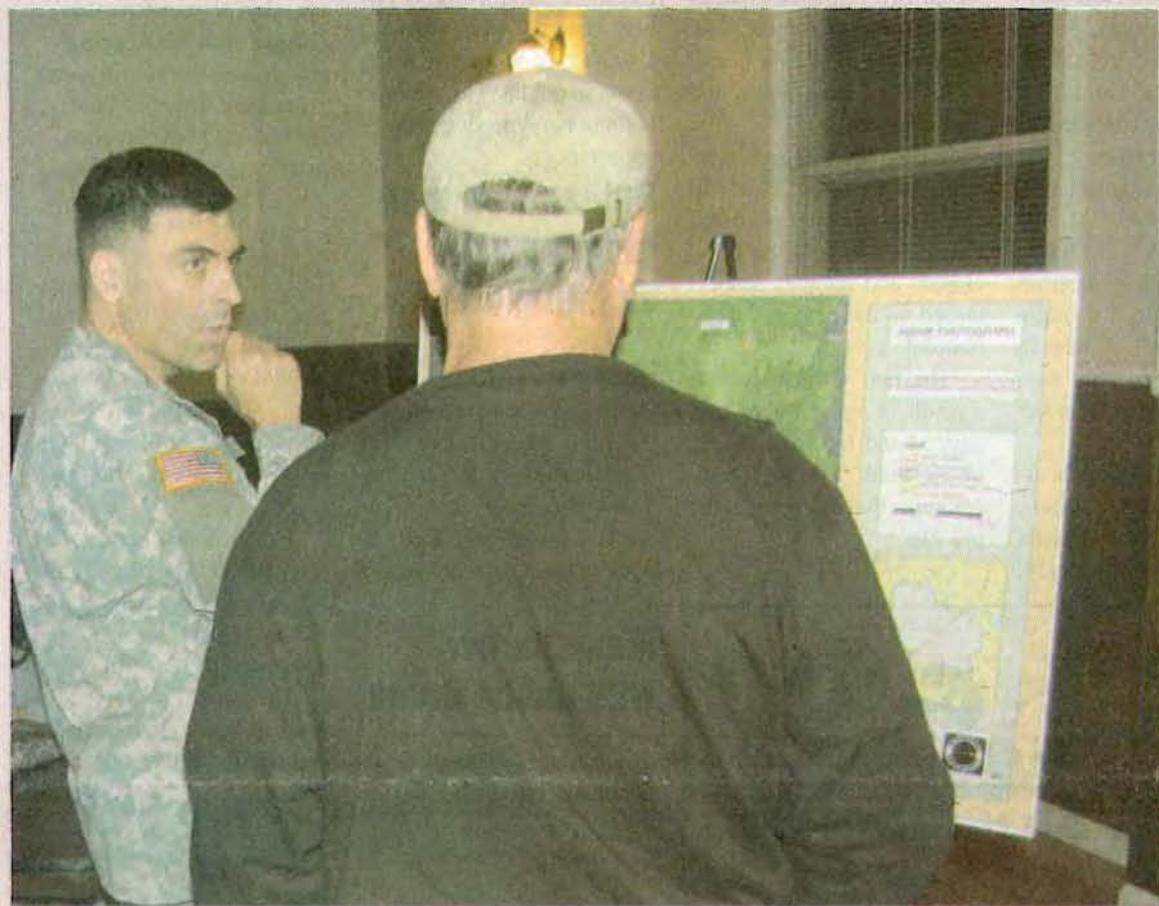


Photo by Tim Cox

Army Lt. Col. John Haefner (left), commander of Fort A.P. Hill, listens to a citizen's comments during 'open house' meeting in Bowling Green Monday night about proposed new firing ranges.

Proposed ranges draw interest

By Tim Cox
Editor

BOWLING GREEN – Fort A.P. Hill held an 'open house' in the Town Hall this week to solicit public comment about its proposal to add two new firing ranges on the Army base.

The event Tuesday evening moderate interest; 31 people signed a registration form at the open house.

What was their response to the Army's plans? That depends on whom you talk to.

A little over an hour into the event, Lt. Col. John Haefner, the fort's commander, said he had talked to about 20 people. He characterized the feedback he received from people as "largely positive" and "very supportive."

He talked to a number of residents of the Sparta area, noted Haefner, who live close to the base and the area where the new ranges would be located. "They're happy that they're part of the process," he said, while at the same time they realize it is early in the planning process and much of the information about the project is preliminary.

Supervisor Jeff Sili, who represents Caroline County's Bowling Green Magisterial District, which is adjacent to the base and contains the Sparta area,

said he had talked to about seven or eight people after an hour.

"Most don't want it," said Sili.

People he talked with wonder why the Army base needs more firing ranges, said Sili. They also are uncertain about what the exact impact they would have on the Army's neighbors.

Bessie Allen, who lives in the Sparta area, viewed the Army's exhibits and talked to some of its representatives, which included military and civilian personnel and consultants.

"I don't think it's going to interfere with me," said Allen, who has lived in the community since World War II.

Tom Ball, who lives just outside of Bowling Green, owns property adjoining the base in the area in question. He emphatically supports the Army's plans.

"As long as the noise will save one man's life over there (in Afghanistan), the noise will not bother me," he said.

"I'm not against anything they do to save a man's life," he added.

The Army had about nine exhibits on display – various pictures, diagrams, and descriptions of the base, the proposed ranges, the Asymmetric Warfare

see Ranges page A6

Group, and the environmental assessment process – as well as the officials on hand to interact with citizens. Information was distributed to people as they walked in, and citizens also were invited to offer written comments that evening or in the future.

The Army announced plans for the new ranges and the open house in October. The new ranges will provide training for the Asymmetric Warfare Group and will enable soldiers and other military personnel to train with Humvees equipped with .50-caliber machineguns.

The open house is part of the Army's process of conducting an environmental assessment for the proposed ranges. The public also will have an opportunity to comment later in the review process of the environmental assessment, base officials said.

The Asymmetric Warfare Group - the terminology refers to war between forces that are significantly different in strength or strategy and tactics - is a special mission unit created during the War on Terrorism. The group, which is headquartered at Fort Meade, Md., works to find solutions to problems that field commanders are experiencing both



The Army displayed a number of exhibits like one above.

in Iraq and Afghanistan.

The Army expects an average of 24 military personnel to use the range on a daily basis although it would be able to accommodate 40.

The training area would consist of two firing ranges, 800 meters and 1,200 meters, and supporting facilities on 675 acres in the southern end of the base. The ranges would be used to for training with light wheeled vehicles and light armored vehicles, such as Humvees, armored Humvees and vehicles similar to the Mine Resistant Ambush Protected Vehicle or MRAP, armed with no larger than a .50-caliber machinegun.

Some work on the environ-

mental assessment, such as plant surveys, has already been done. The entire process includes surveys of noise levels, air quality, wetlands and other environmental factors.

People who want to offer comments or recommendations about the ranges may do so in writing by Dec. 15 to the Fort A.P. Hill public affairs staff. Written remarks may be sent via mail to Fort A.P. Hill Public Affairs Office, 18346 4th St., Fort A.P. Hill, Va., 22427, or via e-mail to faphpao@conus.army.mil.

For questions, call the public affairs staff at (804) 633-8324 or 8120.

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Fort A.P. Hill holding open house on proposal to build two additional ranges

I received this from BG Supervisor Jeff Sili this morning (I'm posting this with his permission):

Jeff Sili:

For your blog
 Yesterday I was called by the Caroline Progress to make a comment on a meeting for which I received no prior notification from A.P. Hill. The following press release forwarded to me today by the Progress was received after last week's paper deadline. When the notice is published next week on a Thursday it will give Bowling Green citizens approximately 4 days to attend the meeting. I would appreciate your publication of the meeting notice in order to inform the public who have a vested interest in the outcome. I make no judgement call on the project itself as I do not know enough about it to comment however 4 days notice to the public is not sufficient.

Thanks
 Jeff Sili/Bowling Green District Supervisor

About Portsia Smith:



Portsia Smith covers Caroline County government and schools.

Contact

• Send an e-mail to Portsia Smith

About this blog:

This is a news blog providing extra information, links and documents for the Caroline County community. It serves as supplemental coverage for The Free Lance-Star newspaper. Comments are welcome!

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PRESS RELEASE MORE INFORMATION CONTACT

DATE: October 22, 2010
 A.P. Hill Public Affairs Office
 Jennifer Erickson, (804) 633-8324
 faphpao@conus.army.mil

FOR

Fort

FORT A.P. HILL INITIATES EA FOR PROPOSED AWG TRAINING SITE

FORT A.P. HILL, Va. – The U.S. Army is preparing an Environmental Assessment for the proposed construction and operation of the Asymmetric Warfare Group Training Range Site at Fort A.P. Hill, Va. Because the proposed project relies on federal funding and occurs on federal property, it must comply with the National Environmental Policy Act of 1969 as amended.

As part of the NEPA scoping process, **the public is invited to an open house, Nov. 3, at the Bowling Green Town Hall, 117 Butler Street, in downtown Bowling Green, between the hours of 5 and 8 p.m.** There, installation staff and their consultants will be available to discuss details of the project and answer any questions regarding the NEPA process.

AWG is the Army's asymmetric warfare expert, predicting, and contributing to the rapid defeat of asymmetric threats. The training site would consist of 800-meter and 1,200-meter firing ranges with supporting facilities. The proposed project would be constructed on 675 acres within a current range area south of Route 301, southeast of Carter's Corner at the southern end of the installation. The proposed site is bounded on the northeast by a series of ponds which drain into Smoots Run. It is bounded on the southeast by Smoots Run and Smoots Pond. The northwest and southwest boundaries lie near and along Danger Trail. The proposed training range site would be a controlled access area, as are all the training sites within the southern impact area of Fort A. P. Hill.

The 800-meter range would include shooting pads constructed of pervious material and a stabilized, 30-foot by 200-foot

Tags

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Board of Supervisors BOS

shooting range. A gravel parking area, a gravel down range maintenance access road, an operations and storage building, an ammunition breakdown building, a vault latrine and a covered mess shelter also would be constructed.

The 1,200-meter range would include a controlled area; down-range electrical systems; a range operations center; operations/storage building; bleacher enclosure; an after action review building; vehicle staging area; battery storage building; and, information systems. The range itself would consist of two unimproved trails. The improved serpentine driving course would be 15 feet by 20 feet wide with a gravel base strong enough to accommodate medium tactical vehicles performing simultaneous training exercises. Both stationary and moving armor and infantry targetry would be emplaced on the 1,200-meter range. Targetry would consist of a series of free-standing, portable radio-controlled and battery-operated targets; target emplacements consisting of five-foot square earthen and concrete pads; a series of steel and/or concrete bunkers and berms; four moving armored targets; and, multiple pop-up targets. Concrete turning pads able to accommodate both wheeled and tracked vehicles would be situated throughout the range course.

While the anticipated average daily number of military personnel expected on site is 24 persons, the AWG ranges could accommodate up to 40 individuals simultaneously participating in multiple training activities and operations during day and nighttime hours.

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No comments. [Be the first to post!](#) By psmith on October 22nd, 2010 1:38 pm

Tags: [Fort AP Hill](#), [Jeff Sili](#)

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Water, Earth and Sky

New A.P. Hill ranges planned

Fort A.P. Hill wants to build two new firing ranges for its Asymmetric Warfare Group training on 675 acres on an existing range area south of U.S. 301 in Caroline County. Base staff and consultants will answer questions on the projects at an open house Nov. 3, 5-8 p.m. at the Bowling Green Town Hall, 117 Butler St. Look for my story on Friday with more details. View the environmental assessments [here](#).

No comments. Be the first to post! By rdennen on October 20th, 2010 2:32 pm

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About Rusty Dennen:



Rusty Dennen writes about military affairs and the environment for The Free Lance-Star. **Contact** - Send an e-mail to Rusty Dennen
About this blog: This blog expands upon environmental coverage in The Free Lance-Star.

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AFFIDAVIT

THE FREE LANCE STAR
616 Amelia Street
Fredericksburg, Virginia 22401

Fort AP Hill
19952 North Range Road
Bowling Green, Virginia 22427

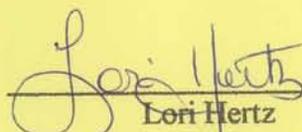
Subject: Public Notice
Fort A.P. Hill, Va.

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):

April 28, 2011

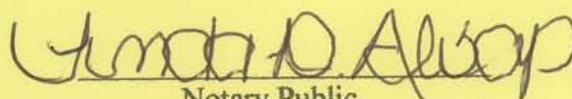
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FORT A.P. HILL, Va.
The United States Army has prepared an Environmental Assessment (EA) for the construction and operation of the Asymmetric Warfare Group (AWG) Training Range Site at Fort A.P. Hill (FAPH), Virginia.
Because the proposed project relies on federal funding and occurs on federal property, it must comply with the National Environmental Policy Act of 1969, as amended (NEPA). As part of the NEPA process, citizens are invited to comment on the EA during a 30-day review period that initiates at the date of this press release. This EA is available for public review at the Bowling Green, Essex and Port Royal Libraries. The EA may also be obtained by contacting the FAPH Environmental Division, at 804/633-8255, ERND@us.army.mil or on the Fort A.P. Hill website at: <http://www.aphill.army.mil/sites/directorates/ea.asp>. Interested parties are invited to submit written comments for consideration on or before 30 days after publication of this notice to Commander, US Army Garrison Fort A.P. Hill, ATTN: ED, 19952 North Range Road, Fort A.P. Hill, VA 22427-3123.



Lori Hertz
Accounting Assistant

Subscribed and sworn to before me,
This 22nd day of June 2011.



Notary Public

PUBLIC NOTICE MEETING CHANGE

The Caroline County Board of Supervisors will hold regular monthly meetings in May on May 3 and 24, 2011. The meetings will be held at the Community Services Center and begin at 6:00 p.m. Please contact the County Administrator's office at 633-3499 with any questions.

TRUSTEE'S SALE OF 747 Canterbury Drive Rutherford Glen, VA 22546

In execution of a certain deed of trust dated October 23, 2009, in the original principal amount of \$192,850.00 recorded in the Clerk's Office, Circuit Court for Caroline County, Virginia, in Deed Book 1012 Page 357, default having occurred in the payment of the Note thereby secured and at the request of the holder, the undersigned Substitute Trustee will offer for sale at public auction in the front of the Circuit Court building for Caroline County, Main Street & Courthouse Lane, Bowling Green, Virginia, on May 24, 2011, at 5:01 P.M., the property described in said deed of trust, located at public address, and more particularly described as follows: ALL THAT CERTAIN LOT, PIECE OR PARCEL OF LAND, TOGETHER WITH ALL IMPROVEMENTS THEREON, SITUATE, LYING AND BEING IN MADISON MAGISTERIAL DISTRICT, CAROLINE COUNTY, VIRGINIA, AND KNOWN, NUMBERED AND DESIGNATED AS LOT B-SIX HUNDRED SIXTY-SIX (B-66) AS SHOWN AND DESCRIBED ON A PLAT OF LAKE LAND D'OR RESORT DEVELOPMENT, WHICH PLAT WAS RECORDED IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF CAROLINE COUNTY, VIRGINIA IN DEED BOOK 205 AT PAGE 382 REFERENCE TO SAID PLAT IS HEREBY MADE FOR A FURTHER AND MORE PARTICULAR DESCRIPTION OF THE REAL ESTATE HEREIN CONVEYED AS TO METES AND BOUNDS. TERMS OF SALE: ALL CASH. A bidder's deposit of ten percent (10%) of the sale price or ten percent (10%) of the original principal balance of the debt, whichever is lower, in the form of cash or certified funds payable to the Substitute Trustee must be present at the time of the sale. The balance of the purchase price will be due within fifteen (15) days of sale, otherwise Purchaser's deposit may be forfeited to Trustee. Time is of the essence. Sale is subject to post sale confirmation that the borrower did not file for protection under the U.S. Bankruptcy Code prior to the sale, as well as to post-sale confirmation and audit of the status of the loan with the loan servicer including, but not limited to, determination of whether the borrower entered into any repayment agreement, reinstated or paid off the loan prior to the sale. In any such event, the sale shall be null and void, and the Purchaser's sole remedy, in law or equity, shall be the return of his deposit without interest. Additional terms to be announced at the sale. A form copy of the Trustee's memorandum of foreclosure sale and contract to purchase real property is available for viewing at www.bgwales.com. This is a communication from a debt collector and any information obtained will be used for that purpose. The sale is subject to seller confirmation. Substitute Trustee: Equity Trustees, LLC, 2020 N. 14th Street, Suite 750, Arlington, VA 22201, (703)548-4600. For information contact: Bierman, Geesing, Ward & Wood, LLC, attorneys for Equity Trustees, LLC, 4520 East West Highway, Suite 200, Bethesda, MD 20814, (301) 961-6555, website: www.bgwales.com. BGGWF# 129530 ASAFP# 3975994 04/28/2011, 05/05/2011

TRUSTEE'S SALE OF 518 Hessler Drive Rutherford Glen, VA 22546

In execution of a certain deed of trust dated March 07, 2008, in the original principal amount of \$173,392.00 recorded in the Clerk's Office, Circuit Court for Caroline County, Virginia, in Deed Book 952 Page 674, default having occurred in the payment of the Note thereby secured and at the request of the holder, the undersigned Substitute Trustee will offer for sale at public auction in the front of the Circuit Court building for Caroline County, Main Street & Courthouse Lane, Bowling Green, Virginia, on May 24, 2011, at 5:01 P.M., the property described in said deed of trust, located at the above address, and more particularly described as follows: ALL THAT CERTAIN LOT, PIECE OR PARCEL OF LAND, TOGETHER WITH ALL APPURTENANCES THERETO BELONGING IN RIVER IN THE SOUTHWEST CORNER OF THE LYING, BEING AND SITUATE IN MADISON MAGISTERIAL DISTRICT, CAROLINE COUNTY, VIRGINIA, AND DESIGNATED AS LOT NO. THREE HUNDRED SIXTY-EIGHT (368) AS SHOWN AND DESCRIBED ON A PLAT OF LAKE LAND OR DEVELOPMENT, WHICH PLAT IS OF RECORD IN THE OFFICE OF THE CLERK OF THE CIRCUIT COURT OF CAROLINE COUNTY, VIRGINIA, IN DEED BOOK 191 AT PAGE 44. REFERENCE TO SAID PLAT IS HEREBY MADE FOR A FURTHER AND MORE PARTICULAR DESCRIPTION OF THE REAL ESTATE HEREIN CONVEYED AS TO METES AND BOUNDS. TERMS OF SALE: ALL CASH. A bidder's deposit of ten percent (10%) of the sale price or ten percent (10%) of the original principal balance of the subject debt, whichever is lower, in the form of cash or certified funds payable to the Substitute Trustee must be present at the time of the sale. The balance of the purchase price will be due within fifteen (15) days of sale, otherwise Purchaser's deposit may be forfeited to Trustee. Time is of the essence. Sale is subject to post sale confirmation that the borrower did not file for protection under the U.S. Bankruptcy Code prior to the sale, as well as to post-sale confirmation and audit of the status of the loan with the loan servicer including, but not limited to, determination of whether the borrower entered into any repayment agreement, reinstated or paid off the loan prior to the sale. In any such event, the sale shall be null and void, and the Purchaser's sole remedy, in law or equity, shall be the return of his deposit without interest. Additional terms to be announced at the sale. A form copy of the Trustee's memorandum of foreclosure sale and contract to purchase real property is available for viewing at www.bgwales.com. This is a communication from a debt collector and any information obtained will be used for that purpose. The sale is subject to seller confirmation. Substitute Trustee: Equity Trustees, LLC, 2020 N. 14th Street, Suite 750, Arlington, VA 22201, (703)548-4600. For information contact: Bierman, Geesing, Ward & Wood, LLC, attorneys for Equity Trustees, LLC, 4520 East West Highway, Suite 200, Bethesda, MD 20814, (301) 961-6555, website: www.bgwales.com. BGGWF# 129530 ASAFP# 3975994 04/28/2011, 05/05/2011



REQUEST FOR BIDS Bowling Green Primary School Additions and Renovation Caroline County Public Schools

Proposals are requested from firms interested in providing Architectural and Engineering services for Bowling Green Primary School Additions and Renovation. Contact Mr. George Gagnon, Supervisor of Maintenance, immediately for a packet describing the information to be included in your Proposal. Proposals must be received by 2:00 p.m. on May 6, 2011 at the office of: George T. Gagnon, Maintenance Supervisor, Caroline County Public Schools, 16221 Richmond Turnpike, Bowling Green, VA 22427. Phone: 804-633-6770 Fax: 804-633-6039

TRUSTEE'S SALE OF 104 Hessler Drive Rutherford Glen, VA 22546

In execution of a certain deed of trust dated June 30, 2006, in the original principal amount of \$274,950.00 recorded in the Clerk's Office, Circuit Court for Caroline County, Virginia, in Deed Book 944 Page 478, default having occurred in the payment of the Note thereby secured and at the request of the holder, the undersigned Substitute Trustee will offer for sale at public auction in the front of the Circuit Court building for Caroline County, Main Street & Courthouse Lane, Bowling Green, Virginia, on May 24, 2011, at 5:02 P.M., the property described in said deed of trust, located at the above address, and more particularly described as follows: ALL THAT CERTAIN LOT, PARCEL OR TRACT OF LAND WITH ALL RIGHTS AND PRIVILEGES THERETO APPURTENANT, AND ALL IMPROVEMENTS THEREON, SITUATE, LYING AND BEING IN MADISON MAGISTERIAL DISTRICT, CAROLINE COUNTY, VIRGINIA, KNOWN AND DESIGNATED AS LOT NO. 403 (FOUR HUNDRED THREE) LAKE CAROLINE RESORT DEVELOPMENT, AS SHOWN ON A PLAT OF SURVEY RECORDED IN DEED BOOK 171, PAGE 548 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF CAROLINE COUNTY, VIRGINIA. TERMS OF SALE: ALL CASH. A bidder's deposit of ten percent (10%) of the sale price or ten percent (10%) of the original principal balance of the subject debt of trust, whichever is lower, in the form of cash or certified funds payable to the Substitute Trustee must be present at the time of the sale. The balance of the purchase price will be due within fifteen (15) days of sale, otherwise Purchaser's deposit may be forfeited to Trustee. Time is of the essence. Sale is subject to post sale confirmation that the borrower did not file for protection under the U.S. Bankruptcy Code prior to the sale, as well as to post-sale confirmation and audit of the status of the loan with the loan servicer including, but not limited to, determination of whether the borrower entered into any repayment agreement, reinstated or paid off the loan prior to the sale. In any such event, the sale shall be null and void, and the Purchaser's sole remedy, in law or equity, shall be the return of his deposit without interest. Additional terms to be announced at the sale. A form copy of the Trustee's memorandum of foreclosure sale and contract to purchase real property is available for viewing at www.bgwales.com. This is a communication from a debt collector and any information obtained will be used for that purpose. The sale is subject to seller confirmation. Substitute Trustee: Equity Trustees, LLC, 2020 N. 14th Street, Suite 750, Arlington, VA 22201, (703)548-4600. For information contact: Bierman, Geesing, Ward & Wood, LLC, attorneys for Equity Trustees, LLC, 4520 East West Highway, Suite 200, Bethesda, MD 20814, (301) 961-6555, website: www.bgwales.com. BGGWF# 129609 ASAFP# 3975991 04/28/2011, 05/05/2011

NOTICE OF SUBSTITUTE TRUSTEE'S SALE APPROXIMATELY 54.045 ACRES, RT. 601 GOLANSVILLE ROAD CAROLINE COUNTY, VIRGINIA

Default having been made by Front Street Associates, LLC, in the payment of the indebtedness secured by a Deed of Trust dated November 28, 2005 and recorded in the Clerk's Office of the Circuit Court of Caroline County, Virginia, in Deed Book 795, page 28, in the original principal sum of \$350,000.00, Legacy Title & Closing, LLC, having been duly substituted as Trustee and being required to do so by the Noteholder, and Front Street Associates, in accordance with the provisions of the aforesaid Deed of Trust and after having given notice to the owner of the real estate of the date, time, place and terms of the sale, will offer for sale at public auction on: **MAY 3, 2011 AT 2:00 P.M.** at the site of the secured property, which fronts on Rt. 601, aka Golansville Road, Bowling Green, Virginia, (Caroline County, Virginia) all of the above property with any improvements thereon together with any interest the Substitute Trustee may have in the Personal Property located on or used in the operation of the Real Property, together, the "Property". For a more particular description of the property to be sold, reference is made to the aforesaid Deed of Trust. **TERMS OF SALE:** CASH. Terms of sale to be completed within 14 days from date of sale or deposit will be forfeited and property will be resold at costs of defaulting purchaser. A deposit of ten percent (10%) of the bid amount in cash or certified check shall be required. All real estate taxes to be adjusted as of date of sale. All costs of conveyance, examination of title, state and local recording fees, grantor taxes, notary fees, etc., to be at cost of purchaser. Settlement shall be within thirty (30) days of the sale date in the offices of the Substitute Trustee. Purchaser agrees to pay the Seller's attorney at settlement, a fee of \$295.00 for review of the settlement documents. Time of the essence will pertain to the settlement date. Sale is subject to post sale confirmation that the borrower did not file for protection under the U.S. Bankruptcy Code prior to the sale, as well as to post-sale confirmation and audit of the status of the loan with the loan servicer including, but not limited to, determination of whether the borrower entered into any repayment agreement, reinstated or paid off the loan prior to the sale. In any such event, the sale shall be null and void, and the Purchaser's sole remedy, in law or equity, shall be the return of his deposit without interest. Additional terms may be announced at the time of sale. Pursuant to the Federal Fair Debt Collection Practices Act, we advise you that this firm is a debt collector attempting to collect the indebtedness referred to herein and any information obtained will be used for that purpose. The Property shall be conveyed by Special Warranty Deed and SUBJECT TO all matters of record, taking priority over the Deed of Trust, if any. The property and the improvements thereon will be sold as without representations or warranties of any kind. The Trustee shall have no duty to obtain possession for purchaser. The Purchaser will be required to execute a Contract of Sale concerning the purchase of the property, a copy of which will be available immediately before announcing the sale. **LEGACY TITLE & CLOSING, LLC. SUBSTITUTE TRUSTEE** 4515 Radford Avenue, Suite 206 Richmond, VA 23220 (804) 282-9555, ext. 103 **CALLS PERTAINING TO SALE WILL BE TAKEN BY:** Midley Auction & Realty (804) 355-2100 Foreclosure by Fortis Foreclosure Services 4402 W. Broad St., Richmond, VA 23230

Bank Ordered Absolute Auction Sat. April 30, 2011 @ 10AM 13154 Harmony Lane King George, Va. 22485

Selling complete contents of 6000 sq ft building packed with merchandise from former Harmony Park farm supply store. Farm/garden supply of all kinds, including landscaping, stones, slate, fertilizer, lime, potting soil, ect., knowledge and skill, supplies, pool supplies/chemicals, ornamentals, statues, furniture, and fountains for outdoor, 2 horse trailers, 40 storage containers. Liquors were used for personal storage and includes furniture, household and more. For photos and details www.grindstaffauctions.com **Grindstaff's Auction's and Realty Inc.** VAA# 612

PUBLIC NOTICE

FORT A.P. HILL, Va. - The United States Army has prepared an Environmental Assessment (EA) for the construction and operation of the Asymmetric Warfare Group (AWG) Training Range Site at Fort A.P. Hill (FAPH), Virginia. Because the proposed project relates to federal funding and occurs on federal property, it must comply with the National Environmental Policy Act of 1969, as amended (NEPA). As part of the NEPA process, citizens are invited to comment on the EA during a 30-day review period that initiates at the date of this press release. This EA is available for public review at the Bowling Green, Essex and Port Royal Libraries. The EA may also be obtained by contacting the FAPH Environmental Division, at 804-633-8255, ERND@aphill.army.mil or on the Fort A.P. Hill website at: <http://www.aphill.army.mil/efacilities/awg>. Interested parties are invited to submit written comments for consideration on or before 30 days after publication of this notice to Commander, US Army Garrison Fort A.P. Hill, ATTN: ED, 19952 North Range Road, Fort A.P. Hill, VA 22427-5123.

CAROLINE COUNTY BOARD OF SUPERVISORS PUBLIC HEARING Beginning at 7:30 p.m.

The Caroline County Board of Supervisors will hold a public hearing on Tuesday, May 3, 2011, in the Community Services Center, Auditorium, located at 17202 Richmond Turnpike, Milford, Virginia, to accept comments on two alternative plans for redrawing election district boundaries generally equalize the population between the districts. The Board should go to staggered terms. Every ten years after the completion of the decennial census, local governments are required by law to evaluate population changes and make recommendations to make changes necessary to ensure equal representation by and between elected officials. The new election district boundaries and staggered terms provision would amend Chapter 5, Election Districts in the Code of Virginia, Caroline County, Virginia. Options for consideration include: **Five District Option** The five district option retains the current five election districts, but adjusts the boundaries of the districts to generally equalize the population between the districts. The districts and the election precincts are generally identified as follows: **BOWLING GREEN** The Bowling Green District begins at the intersection of Route 666 and the CSX Railroad and runs east to the Fort A.P. Hill boundary. It then follows the Ft. A.P. Hill boundary to the south and east to the Caroline/Essex County line, then continues north to the County line and runs east to Route 601, then north to Route 600, west to Route 649, north to Route 648, west to Route 2301, north to Route 683, west to Reedy Creek, then continuing west to Route 666, north to Route 657, east to Route 656, north to Route 712, 655, west to Route 656, then continuing west to the high tension powerlines, then north to the CSX railroad tracks, then east to an unnamed stream, the continuing east to Route 2301, north to the Bowling Green Bypass, west to the Mattaponi River, then north to Route 2301, west to the CSX Railroad tracks, north to the intersection of Route 666 and its beginning. Two precincts will be created, Bowling Green and Sparta, with the precinct boundary running along Route 721 from 2301 to and along Route 641 to AP Hill. **MADISON DISTRICT** Madison District begins at the intersection of the Spotsylvania County line and the South River, then north along the power lines to Gatewood Road, then east along Route 1, south to Route 683, west to Route 658, then continuing in a westerly direction to Route 639, then west to Route 738, west to Spotsylvania County and then northwest along the County line back to the beginning point at the South River. The Madison District will be split into two voting precincts (North Madison and South Madison) with Route 639 as the precinct boundary. **REEDY CHURCH DISTRICT** The Reedy Church District begins at the intersection of the electric transmission lines and Hanover County line, runs north along the electric line to Route 601, east to Polecat Creek, east to Route 1, then south to Route 657, then south along Route 657 to an unnamed stream, then east along the stream to Route 1, then south along Route 1 to Route 207, then east along Route 207 to Route 652, then north along the electric line to Route 672, north to Route 638, east to Route 207, south to the intersection of Route 714, west to an unnamed road to the electric transmission lines, south to the intersection of Route 656, east to the intersection of Route 654, south to the intersection of Route 654, south to Reedy Creek, east to the intersection of Route 648, east to Route 649, south to Route 600, east to Route 601, south to the Caroline/King William County line, west along the County line back to the beginning at the electric transmission line. Two precincts will be created, Camel Church and Dawn, with the precinct boundary beginning at the I-95/Hanover/Caroline County Line running along I-95 north to the CSX railroad, then east along CSX to Route 652, then south along Route 652 to Route 654, north to the District boundary. **PORTR ROYAL DISTRICT** The Port Royal District begins at the intersection of the South River and the Spotsylvania County Line, follows the County line northeast to the Rappahannock River, southeast along the River to the Essex County Line, south to Fort A.P. Hill boundary, then generally west along the Ft. A.P. Hill boundary to Route 631, west along Route 668 to the CSX railroad tracks, then south along the tracks to Route 605, west to Route 638, continuing in a southerly direction to the South River, west to Route 1, north to Route 604, west to the electric transmission line, then south to the South River. Two precincts will be created, West Spotsylvania Line. The two election precincts; Woodford and Port Royal will be retained with State Route 2 as the precinct boundary. **MATTAPONI DISTRICT** The Mattaponi District begins at the electric transmission lines and Hanover County line, runs north along the transmission line to Route 601, east to Polecat Creek, continuing east to Route 1, then south to Route 657, then east along the stream to Route 1, then south along Route 1 to Route 207, then east along Route 207 to Route 652, then north along Route 652 to Route 716, then east along Route 716 to Route 705, northeast on Route 705 to Route 652, then generally north on Route 652 to Polecat Creek, then east along Polecat Creek to Dejamette Mill Run, north to Route 601, west to Route 672, north to Route 604, west to the electric transmission line, then south to the South River. Two precincts will be created, Chilsburg and Lake, with Route 603 from the South River down to the Hanover County line as the precinct boundary. **STAGGERED ELECTIONS** The current terms of the members of the Board of Supervisors are for four (4) years, with all seats open for re-election at the same time. The Board of Supervisors will also receive input on the advisability of electing members biennially for four (4) year staggered terms. Any persons desiring to be heard in favor of or in opposition to the above is hereby invited to be present at the Public Hearing. Copies of the above including maps and supporting documents are on file in the Department of Planning & Community Development, 233 West Broad Street, Bowling Green, Virginia 22427 and on the County website at: www.Caroline.com. **Aim Parlin** Interim County Administrator



30015235 07/31/2011 S2 PZ
 TIM. SOUTHARDEPT. OF THE ARMY
 19952 N RANGE RD
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Two proposed ranges would have no impact, says Army

By Tim Cox
 Editor

Two new proposed firing ranges at Fort A.P. Hill would have no significant impact on the environment, the Army tentatively has determined.

The preliminary environmental assessment means that a more detailed analysis – an environmental impact statement – would not be required.

The Army's assessment and its draft finding are available for public review and comment for 30 days through May 27. In

addition, they are subject to review and comment by various federal and state agencies for 60 days through June 26.

After the public and agency reviews, the Army will evaluate any comments, and Lt. Col. John Haefner, the installation commander, will make a final decision.

Fort A.P. Hill held an 'open house' at the Bowling Green Town Hall in December to disseminate information about the proposed ranges and receive public comment as part of the environmental assessment process. In addition, other work on the environmental

assessment, such as plant surveys, had already been done by that point. The entire process includes surveys of noise levels, air quality, wetlands and other environmental factors.

The Army announced plans for the new ranges and the open house in October. The new ranges will provide training for the Asymmetric Warfare Group and will enable soldiers and other military personnel to train with Humvees equipped with .50-caliber machineguns.

The site would be built on 675 acres

within a current range area south of U.S. 301, southeast of Carter's Corner at the southern end of the installation. It would be a controlled access area as are all the training sites within the southern impact area of the installation.

The Asymmetric Warfare Group - the terminology refers to war between forces that are significantly different in strength or strategy and tactics - is a special mission unit created during the War on Terrorism. The

see Ranges page A7



THE CAROLINE
 Progress

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The environmental assessment and draft finding documents are available for review and comment at the Caroline County Public Library branches in Bowling Green and Port Royal.

group, which is headquartered at Fort Meade, Md., works to find solutions to problems that field commanders are experiencing both in Iraq and Afghanistan.

The Army expects an average of 24 military personnel to use the range on a daily basis although it would be able to accommodate 40.

The training area would consist of two firing ranges, 800 meters and 1,200 meters, and supporting facilities. The ranges would be used to for training with light wheeled vehicles and light armored vehicles, such as Humvees, armored Humvees and vehicles similar to the Mine Resistant Ambush Protected Vehicle or MRAP, armed with no larger than a .50-caliber machinegun.

As part of the environmental assessment, the proposed ranges were reviewed for the noise they would generate by the Army's Institute of Public Health. The institute's analysis concluded that the propose

firing ranges would not be noticeably louder to nearby residents than existing noise from small arms, mortar or artillery. "However, though not anticipated to be significant, neighbors may discern an increase in the frequency of small arms firing," the study added.

Installation officials also indicated steps they will take to protect a bald eagle nest within the area of the proposed ranges. The nest would be protected by a 330-foot buffer plus an appropriate buffer for the breeding season, Terry L. Banks, chief of the Fort A.P. Hill environmental division, said in a letter to the Virginia Department of Game and Inland Fisheries. Amy Ewing, an environmental services biologist with the state agency, concurred with the proposed protective measures.

The environmental assessment and draft finding documents are available for review and comment at the Caroline County Public Library branches in Bowling

Green (17202 Richmond Turnpike, Milford,) and Port Royal (419 King Street) and at the Essex County Public Library (117 N. Church Lane, Tappahannock).

Electronic versions of the documents are available at the Fort A.P. Hill website at <http://www.aphill.army.mil>.

Written comments should be addressed to Commander, U.S. Army Garrison, Fort A.P. Hill, ATTN: ED, 19952 North Range Road, Fort A.P. Hill, Va., 22427-3123 or via e-mail at faphpao@us.army.mil.

tween 9 p.m. and 4:30 a.m. Sundays through Thursdays. Exact closure hours will vary, depending on the direction

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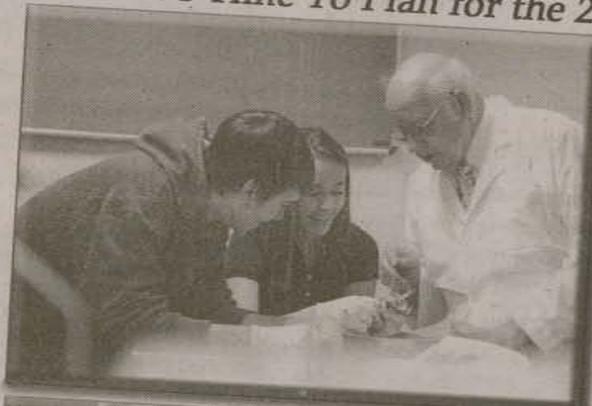
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THE CARMEL SCHOOL

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Army base plans new firing ranges

Meeting being planned for new A.P. Hill facility to train with Humvees, machineguns

By Tim Cox
Editor

The Army is planning to build two new firing ranges on the southern portion of Fort A.P. Hill that would be used to train soldiers operating in Humvees and with .50 caliber weapons.

The range would be used to train soldiers of the Asymmetric Warfare Group, which is headquartered at Fort Meade, Md.

The Army expects an average of 24 military personnel to use the range on a daily basis although it would be able to accommodate 40.

The Army already has begun

work on an environmental assessment for the proposed project. As part of the assessment, it plans to hold an 'open house' meeting in the near future. Staff from Fort A.P. Hill and military consultants will be on hand to discuss the project and answer questions about the environmental assessment process. The Army initially announced the meeting would be held Nov. 3 but said later it would be rescheduled.

The ranges would be located on 675 acres in the southern end of the base. The facility would be bounded on the southeast by Smoots Run and Smoots Pond. The area is near the Caroline County communi-

ties of Poorhouse Corner, Smoots and Elliotts Mill, roughly between Sparta and Bowling Green.

The training area would consist of two firing ranges, 800 meters and 1,200 meters, and supporting facilities.

The 1,200-meter range would include a serpentine driving course for "medium tactical vehicles" engaged in training, the Army said in a news release issued by the base. It also would feature concrete turning pads for wheeled and tracked vehicles.

When asked what kind of military vehicles and weapons would be used on the ranges, Terry

Banks, chief of the Fort A.P. Hill environmental division, said, "Basically, .50-caliber weaponry and Humvees."

The ranges would be used for training with light wheeled vehicles and light armored vehicles, such as Humvees, armored Humvees and vehicles similar to the Mine Resistant

Ambush Protected Vehicle or MRAP, armed with no larger than a .50-caliber machinegun, David San Miguel, a base spokesman, added later.

The Asymmetric Warfare Group - the terminology refers to war between forces that are signifi-

cantly different in strength or strategy and tactics - is a special mission unit created during the War on Terrorism. The group works to find solutions to problems that field commanders are experiencing both in Iraq and Afghanistan.

The open house is part of the environmental assessment process, Banks explained. Some work on the assessment, such as plant surveys, has already been done. The entire process includes surveys of noise levels, air quality, wetlands and other environmental factors.

The assessment would be issued and distributed for public comment in the January-March

see Ranges page A2

Ranges from page A1

time frame, said Banks. After considering those comments, the base commander would decide how to proceed.

If he decides the proposed ranges would have no significant impact, the Army Corps of Engineers could move forward to award a construction contract before the end of the federal fiscal year Sept. 30.

If the base commander decided otherwise, the Army would have to go through the more lengthy, formal process of producing an environmental impact statement, which could take one or two years to complete.

The base completed an earlier environmental assessment in 2006 related to the 800-meter range, and

the commander made a finding of no significant impact related to that assessment, noted Banks. The Army has taken no further action on the project since then.

The new ranges could be used for training without restrictions throughout the year, Banks indicated.

"That will be part of the assessment," she said, to look at nearby populated areas and how they might be affected.

"Part of the...process is to look at alternatives," she added, to determine if the ranges could be located somewhere else on the base.

"The community can suggest alternatives," said Banks.

Caroline County Admin-

istrator Percy Ashcraft said he was not aware of the Army's plans and declined to comment without knowing more details.

"From the county's point of view...the more informed the citizens are, and the better," the more smoothly the process will go for the Army and county residents, he said.

"Generally, communication is just the issue," he added.

Supervisor Jeff Sili, who represents the Bowling Green District, which is adjacent to the base area where the range would be located, said he knew nothing about the plans for the range until he was informed by *The Caroline Progress*. "I have gotten nothing," he

said. The county's planning staff also was unaware of the Army's plans, he said.

"I'm very dismayed," Sili added, that the Army did not previously notify county officials of plans for the range.

Earlier this year, the Board of Supervisors voted to oppose plans by the Army to relocate its Explosive Ordinance Detonation (EOD) School to Fort A.P. Hill. The board's opposition was formalized after a working group of local officials, citizens and Army leadership met twice in an effort to draft a memorandum of understanding between the county and the Army.

The 800-meter range would include shooting pads constructed of pervious

material and a stabilized, 30-foot by 200-foot shooting range. Associated facilities would include a gravel maintenance access road and parking area, an operations and storage building, an ammunition breakdown building, a vault latrine, and a covered mess shelter.

The 1,200-meter range would include a controlled area, down-range electrical systems, a range operations center, an operations/storage building, a bleacher enclosure, a review building, vehicle staging area, battery storage building, and information systems. The range would consist of two unimproved trails. An improved serpentine driving course would be 15-20 feet wide with a gravel base designed

for medium tactical vehicles performing simultaneous training exercises.

Both stationary and moving armor and infantry targets would be on the 1,200-meter range. They would include free-standing, portable radio-controlled and battery-operated targets. Target emplacements would consist of 5-foot square earthen and concrete pads, a series of steel and/or concrete bunkers and berms, four moving armored targets, and, multiple pop-up targets. Concrete turning pads for wheeled and tracked vehicles would be situated throughout the range course.

Scott Smizik

From: Brown, Kristine L Mrs CIV USA IMCOM [kristine.l.brown@us.army.mil]
Sent: Friday, May 13, 2011 11:45 AM
To: John Marling; Scott Smizik
Subject: FW: Here I sit on the Computer at 11:45 at Night, Wide Awake, What is Going On???
(UNCLASSIFIED)

Categories: Red Category

Classification: UNCLASSIFIED
Caveats: FOUO

FYI comment on AWG EA.

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

From: Banks, Terry L Ms CIV USA IMCOM
Sent: Friday, May 13, 2011 7:23 AM
To: Brown, Kristine L Mrs CIV USA IMCOM
Cc: Sergi, Sergio CIV USA IMCOM
Subject: FW: Here I sit on the Computer at 11:45 at Night, Wide Awake, What is Going On??? (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: FOUO

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

From: Erickson, Jennifer CIV USA
Sent: Thursday, May 12, 2011 6:07 PM
To: Banks, Terry L Ms CIV USA IMCOM
Subject: FW: Here I sit on the Computer at 11:45 at Night, Wide Awake, What is Going On???

Terry,

Forwarding Bonnie Cannon's e-mail for inclusion in public comments for AWG.

V/r,

Jennifer Erickson
Public Affairs Officer
Fort A.P. Hill, VA
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-----Original Message-----

From: Erickson, Jennifer CIV USA

Sent: Thursday, May 12, 2011 6:06 PM

To: 'Bonnie Cannon'

Subject: RE: Here I sit on the Computer at 11:45 at Night, Wide Awake, What is Going On???

Bonnie,

We did have training on the southern portion of the post at Fort A.P. Hill during the timeframe you reported. We had a unit preparing for deployment that was concluding training as a part of its 3-day live-fire exercise. The unit's training concluded today.

Regarding AWG, I will forward your comments to our Environmental Division for inclusion as a part of the public comment period.

Very Respectfully,

Jennifer Erickson

Public Affairs Officer

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

From: Bonnie Cannon [<mailto:bcreenactorlady@gmail.com>]

Sent: Thursday, May 12, 2011 12:07 AM

To: Erickson, Jennifer CIV USA

Subject: Here I sit on the Computer at 11:45 at Night, Wide Awake, What is Going On???

Dear Jennifer,

Here I sit at the computer at 11:45 at night, up and out of bed, and cannot go to sleep. My entire household is wide awake, the dog is barking and jumping up and down and out of the bed, and the windows are vibrating in our home which is not good for the plaster. Is all of this necessary this time of the night so close to the Town of Bowling Green??? You must remember we "do have a life" and now I will have a horribly felt day tomorrow as I probably won't now be able to drift off to sleep for several hours now.

Also, with respect to the letter I received a week ago in regard to the Asymmetric Warfare, why does the ARMY even think it does not have any impact? Is there going to be some planned pretesting and preassessment so we can

assess the noise impact???? I think citizens of this County are at least due that out of all respect. I do not see why this could not be relocated somewhere up near Rappahannock Academy off of Rte 17 in ranges that is away from the Town of Bowling Green. I DO NOT want to listen to Asymmetric Warfare 24/7 as I want to have a life besides listening to that. "It is entirely too close to the Town of Bowling Green." The ARMY really needs to reassess the significance of the impact of this Asymmetric Warfare.

I surely do hope that there will be NO DISTURBANCE or noises of any kind on any given SUNDAY any times during the Church hours as there are a lot of Churches in the Town of Bowling Green with services beginning as early as 08:30 and lasting up until 1:00 P.M. We need to respect the Lord's Day.

Is now 12:05 A.M.

Thanks,
Bonnie E. Cannon
Bowling Green

Classification: UNCLASSIFIED
Caveats: FOUO

Classification: UNCLASSIFIED
Caveats: FOUO

Project: Proposed combined 800-meter and 1,200-meter range complex at Fort A.P. Hill, Caroline County, Virginia

CONCUR: No historic properties will be affected by the proposed undertaking.


SIGNATURE

VDHR File: 2008-1135

DATE 16 Jan 11



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Secretary of Natural Resources

David K. Paylor
Director

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1-800-592-5482

June 16, 2011

Ms. Terry Banks
Chief, Environmental Division
19952 North Range Road
Fort A.P. Hill, Va. 22427-3123

RE: Environmental Assessment and Federal Consistency Determination for Asymmetric Warfare Group 800- and 1,200-Meter Training Ranges at Fort A.P. Hill, Caroline County, Virginia (DEQ 11-080F)

Dear Ms. Banks:

The Commonwealth of Virginia has completed its review of the above-referenced draft supplemental environmental assessment (EA), which includes a federal consistency determination (FCD). 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 FCDs submitted under the Coastal Zone Management Act. The following agencies joined in this review:

Department of Environmental Quality
Department of Game and Inland Fisheries
Department of Conservation and Recreation
Department of Health
Department of Historic Resources
Department of Forestry
Virginia Marine Resources Commission

The Department of Agriculture and Consumer Services, George Washington Regional Commission and Caroline County also were invited to comment.

PROJECT DESCRIPTION

The Department of the Army issued an EA, including a FCD, for construction to benefit the Asymmetric Warfare Group at Fort A.P. Hill. The Army's proposed action is to construct and operate two training ranges (800 meters and 1,200 meters in length) on 675 acres. The EA also analyzes the no action alternative. The proposed project area contains active firing ranges and includes a gated entrance, gravel access road, covered bleacher area and metal observation tower, which may be incorporated in the new site design. In addition to the construction of the ranges, the Army will construct support facilities, including parking areas, sidewalks, fencing and service roads, a bridge, operations center and associated support buildings, vault latrine, eating area, and storage buildings. The Army has issued a draft Finding of No Significant Impact. The FCD states that the project would be implemented in a manner consistent with the Virginia Coastal Zone Management Program (VCP) (previously called the Virginia Coastal Resources Management Program).

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Wetlands Management. The EA (page 43) states that the construction of a bridge on one of the ranges would affect a wetland and the proposed project area contains jurisdictional waters. A wetland delineation has been conducted. The EA (page 44) also states that permits under the Clean Water Act would be necessary to implement the proposed action.

1(a) Agency Jurisdiction. The State Water Control Board promulgates Virginia's water regulations, covering a variety of permits to include Virginia Pollutant Discharge Elimination System Permit, Virginia Pollution Abatement Permit, Surface and Groundwater Withdrawal Permit, and the VWP Permit. The VWP Permit is a state permit which governs wetlands, surface water and surface water withdrawals/impoundments. It also serves as § 401 certification of the federal Clean Water Act § 404 permits for dredge and fill activities in waters of the United States. The VWP Permit Program is under the Office of Wetlands and Water Protection and Compliance within the DEQ Division of Water Quality Programs. In addition to central office staff who review and issue VWP Permits for transportation and water withdrawal projects, the six DEQ regional offices perform permit application reviews and issue permits for the covered activities.

1(b) Agency Comments. The DEQ Northern Regional Office's (NRO) Virginia Water Protection (VWP) Permit Program states that the project is for the modification of an existing Asymmetric Warfare Group Small Arms Range. The submittal indicates that impacts to surface waters may be necessary.

1(c) Agency Finding. DEQ NRO states that a VWP permit from DEQ may be required should impacts to surface waters be necessary.

1(d) Agency Recommendations. DEQ recommends that stream and wetland impacts be avoided to the maximum extent practicable. To minimize unavoidable impacts to wetlands and waterways, DEQ recommends the following practices:

- Operate machinery and construction vehicles outside of stream-beds and wetlands; use synthetic mats when in-stream work is unavoidable.
- Preserve the top 12 inches of material removed from wetlands for use as wetland seed and root-stock in the excavated area.
- Erosion and sedimentation controls should be designed in accordance with the most current edition of the *Virginia Erosion and Sediment Control Handbook*. These controls should be in place prior to clearing and grading, and maintained in good working order to minimize impacts to state waters. The controls should remain in place until the area is stabilized.
- Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil disturbance, to the maximum extent practicable.
- Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub or forested). The applicant should take all appropriate measures to promote revegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.
- Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats or geotextile fabric in order to prevent entry in state waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state.
- All non-impacted surface waters within the project or right-of-way limits that are within 50 feet of any clearing, grading or filling activities should be clearly flagged or marked for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.
- Measures should be employed to prevent spills of fuels or lubricants into state waters.

1(e) Requirements. If impacts to surface waters or wetlands are proposed, a VWP permit may be required. Coordinate with the DEQ NRO (Trisha Beasley, VWP Program Manager, at Trisha.Beasley@deq.virginia.gov) regarding potential VWP requirements. Upon receipt of a Joint Permit Application (JPA) for the proposed surface water impacts, DEQ will review the proposed project in accordance with the VWP permit program regulations and guidance (see Item 2 regarding a JPA submittal).

1(f) Conclusion. Provided the project complies with applicable requirements, it would be consistent with the wetlands management enforceable policy of the VCP.

2. Subaqueous Lands Management. The EA (B-4) states that impacts to subaqueous land would be confined to the installation of piles associated with the proposed bridge structure. The piles would displace a small area of subaqueous land and a permit would be obtained from the Virginia Marine Resources Commission (VMRC).

2(a) Agency Jurisdiction. The VMRC regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to *Virginia Code* § 28.2-1200 through 1400.

The VMRC serves as the clearinghouse for the Joint Permit Application (JPA) used by the:

- Corps for issuing permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act;
- DEQ for issuance of a Virginia Water Protection permit;
- VMRC for encroachments on or over state-owned subaqueous beds as well as tidal wetlands; and
- local wetlands board for impacts to wetlands.

The VMRC will distribute the completed JPA to the appropriate agencies. Each agency will conduct its review and respond.

2(b) Agency Comments. Pursuant to Section 28.2-1200 *et seq.* of the Code of Virginia, VMRC has jurisdiction over any encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water along natural rivers and streams above the fall line or mean low water below the fall line, a permit may be required from VMRC. Any jurisdictional impacts will be reviewed by VMRC during the JPA process.

2(c) Agency Recommendation. Coordinate with the VMRC (Dan Bacon at 757-247-2256) regarding the submission of a JPA.

2(d) Conclusion. Provided the project complies with applicable requirements, it would be consistent with the subaqueous lands management enforceable policy of the VCP.

3. Nonpoint Source Pollution Control. The EA (page B-5) states that the proposed action would require ground disturbance for facility construction and will include the development of a site-specific stormwater pollution prevention plan (SWPPP).

3(a) Agency Jurisdiction. The Department of Conservation and Recreation (DCR) Division of Soil and Water Conservation (DSWC) administers the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R) and Virginia Stormwater Management Law and Regulations (VSWML&R).

3(b) Erosion and Sediment Control, and Stormwater Management. The Army and its 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) and Virginia Stormwater Management Law and Regulations, including coverage under the General Permit for Discharges of Stormwater from Construction Activities, 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, borrow areas, soil stockpiles and related land-disturbance activities that result in the land-disturbance of 2,500 square feet if it is in an area analogous to Chesapeake Bay Preservation Area would be regulated by VESCL&R.

Accordingly, the Army must prepare and implement an erosion and sediment control plan to ensure compliance with state law and regulations. The erosion and sediment control plan is submitted to the DCR regional office that serves the area where the project is located for review for compliance. The Army is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites and other mechanisms consistent with agency policy.

3(c) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities. According to the DCR DSWC, the operator or owner of construction activities involving land-disturbing activities equal to or greater than 2,500 square feet in areas designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations, adopted pursuant to the Chesapeake Bay Preservation Act, are required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific SWPPP. The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit, and it must address water quality and quantity in accordance with the VSMP Permit Regulations. General information and registration forms for the General Permit for Discharges of Stormwater from Construction Activities are available on DCR's website at www.dcr.virginia.gov/soil_&_water/vsmp.shtml.

3(d) Conclusion. Provided the project complies with applicable requirements, it would be consistent with the nonpoint source pollution control enforceable policy of the VCP.

4. Air Pollution Control. The EA (page 29) states that construction of the proposed project would have short-term impacts on air quality. Post-construction impacts would be associated with exhaust from vehicles accessing the range. There would be no significant adverse impacts.

4(a) Agency Jurisdiction. The DEQ Air Division, on behalf of the Air Pollution Control Board, is responsible for developing regulations that become Virginia's Air Pollution Control Law. DEQ is charged with carrying out mandates of the state law and related

regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate regional office is directly responsible for the issue of necessary permits to construct and operate all stationary sources in the region as well as to monitor emissions from these sources for compliance. As a part of this mandate, the environmental documents of new projects to be undertaken in the state are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

4(b) Ozone Attainment Area. According to DEQ's Division of Air Program Coordination, the project site is located within an ozone attainment area.

4(c) Fugitive Dust. During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 through 9 VAC 5-50-120 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.

4(d) Open Burning. If project activities include the burning of vegetative debris or construction or demolition material or the use of special incineration devices in the disposal of land clearing debris, this activity must meet the requirements under 9VAC5-130-10 through 9VAC5-130-60 and 9 VAC 5-130-100 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 project developer should contact officials with the locality to determine what local requirements, if any, exist.

4(e) Fuel-Burning Equipment. The DEQ NRO states that should the Army install fuel-burning equipment (boilers, generators, etc.) or other equipment that emits air pollution, the project may be subject to 9VAC5-80, Article 6, Permits for New and Modified sources and as such the Army should contact the air permitting manager at the DEQ NRO prior to construction and operation of fuel-burning or other air-pollution-emitting equipment for a permitting determination.

4(f) Agency Recommendation. Prior to construction and operation, contact DEQ NRO (Terry Darton, NRO Air Permit Manager, at 703-583-3845) for a permitting determination.

4(g) Conclusion. Provided the project complies with applicable requirements, it would be consistent with the air pollution control enforceable policy of the VCP.

5. Chesapeake Bay Preservation Act. The EA (page 27) states that construction of a bridge would affect a Resource Protection Area (RPA). The EA indicates that construction of the bridge in an RPA is consistent with the construction exemptions allowed in an RPA.

5(a) Agency Jurisdiction. The DCR Department of Chesapeake Bay Local Assistance (DCBLA) administers the coastal lands management enforceable policy of the VCP, which is governed by the Chesapeake Bay Preservation Act (*Virginia Code* §10.1-2100-10.1-2114) and Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC10-20 *et seq.*).

5(b) Chesapeake Bay Preservation Areas. In Caroline County, the areas protected by the Chesapeake Bay Preservation Act, as locally implemented, require conformance with performance criteria. These areas include RPAs and Resource Management Areas (RMAs).

(i) *RPAs.* RPAs include the following:

- tidal wetlands,
- certain non-tidal wetlands and tidal shores,
- and a minimum 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow.

(ii) *RMAs.* RMAs require less stringent performance criteria than RPAs. RMAs, as locally designated, include the following:

- floodplains,
- highly erodible soils,
- highly permeable soils,
- steep slopes in excess of 15 percent,
- nontidal wetlands not included under the RPA designation, and
- other lands including but not limited to an area 300 feet in width contiguous to and landward of the inland limit of the RPA.

5(c) Agency Comments. DCR DCBLA states that the proposed clearing would maintain the forested buffer adjacent to waterways, with no clearing proposed within 100 feet of jurisdictional waters, except where necessary for road or trail crossings. One area where the buffer would be disturbed would be for a bridge within the 1,200-meter range that would extend over a marshland.

5(d) Analysis and Requirements.

- Pursuant to the Coastal Zone Management Act of 1972, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent with the VCP (Section 307(c)(1) of the Management Act and 15 CFR Part 930, sub-part C of the Federal Consistency Regulations).
- While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the Regulations, § 9 VAC 10-20-10 *et seq.*, as one of the enforceable programs of the VCP.
- Federal actions on installations located within Tidewater are required to be consistent with the performance criteria of the regulations on lands analogous to locally designated CBPAs.

5(e) Chesapeake Ecosystem Unified Plan. The 1998 Federal Agencies' Chesapeake Ecosystem Unified Plan requires the signatories, including the Department of Defense/Army, to fully cooperate with local and state governments in carrying out voluntary and mandatory actions to comply with the management of stormwater. In that Plan, the agencies also committed to encouraging construction design that:

- minimizes natural area loss on new and rehabilitated federal facilities;
- adopts low-impact development and best management technologies for stormwater, sediment and erosion control, and reduces impervious surfaces; and
- considers the Conservation Landscaping and Bay-Scapes Guide for Federal Land Managers.

5(f) Chesapeake 2000 Agreement. The Chesapeake 2000 Agreement committed the government agency signatories to a number of sound land use and stormwater quality controls. The signatories additionally committed their agencies to lead by example with respect to controlling nutrient, sediment and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued Directive No. 01-1, Managing Storm Water on State, Federal and District-owned Lands and Facilities, which includes specific commitments for agencies to lead by example with respect to stormwater control.

5(g) Conclusion on Coastal Lands Management Consistency. Provided that the project is consistent with the following Chesapeake Bay Preservation Act requirements, DCBLA concurs that it is consistent with the Coastal Lands Management enforceable policy of the VCP. The requirements are:

- Land-disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation and minimizing impervious cover.
- For land disturbance of 2,500 square feet or more, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992.

- Stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*, § 4VAC50-60-10, shall be satisfied.
- Section § 9VAC10-20-130 d of the Regulations states that roads and driveways not exempt from § 9VAC10-20-150B1 may be constructed in or across RPAs provided each of the following conditions is met:
 - There are no reasonable alternatives to aligning the road or driveway in or across the RPA;
 - The alignment and design of the road or driveway are optimized to minimize (i) encroachment in the RPA and (ii) adverse effects on water quality;
 - The design and construction of the road or driveway satisfy all applicable criteria of the regulations, including submission of a water quality impact assessment.

5(h) Agency Recommendation. Coordinate with DCR DCBLA (David Sacks at 804-371-7504 or David.Sacks@dcr.virginia.gov) regarding the submission of a water quality impact assessment.

6. Solid and Hazardous Waste Management. The EA (page 34) states that Fort A.P. Hill is aware of the hazards related to spent ammunition and the post remains in compliance with the Resource Conservation and Recovery Act (RCRA). The Army also proposes to complete remedial action to address munitions and explosives of concerns within the proposed project area.

6(a) Agency Jurisdiction. Solid and hazardous wastes in Virginia are regulated by DEQ, the Virginia Waste Management Board and the U.S. Environmental Protection Agency. They administer programs created by the federal Resource Conservation and Recovery Act, Comprehensive Environmental Response Compensation and Liability Act, commonly called Superfund, and the Virginia Waste Management Act. DEQ administers regulations established by the Virginia Waste Management Board and reviews permit applications for completeness and conformance with facility standards and financial assurance requirements. All Virginia localities are required, under the Solid Waste Management Planning Regulations, to identify the strategies they will follow on the management of their solid wastes to include items such as facility siting, long-term (20-year) use and alternative programs such as materials recycling and composting.

6(b) Database and Data File Searches. The DEQ Division of Land Protection and Revitalization (DLPR) states that the EA addresses potential solid and hazardous waste issues but the extent of the review is unclear. The division conducted a cursory review of its files, including a Geographic Information System (GIS) database search, and determined that there are a few facility waste sites within the same zip code, although their proximities to the subject site are unknown. The division states that Fort A.P. Hill is listed as subject to RCRA Corrective Action (CA). The DEQ Office of Remediation Programs indicates that the sites for the proposed ranges have no impact on the

cleanups or investigations that are on-going at the facility under the Federal Facilities Program. Detailed comments on Formally Used Defense Sites (FUDS), Voluntary Remediation Program (VRP), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), petroleum release sites, hazardous waste site and solid waste facilities are attached.

6(c) Agency Recommendations. The DEQ DLPR has the following recommendations:

- DEQ encourages all construction projects and facilities to implement pollution prevention principles, including:
 - the reduction, reuse and recycling of all solid wastes generated; and
 - the minimization and proper handling of generated hazardous wastes.
- Contact the Environmental Protection Agency (EPA) (Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at 215-814-3434) for locations of solid waste management units (SWMUs) and areas of concern (AOCs)(identified in the attached detailed comments) to determine which ones will impact or be impacted by the proposed project.
- Contact DEQ's NRO (Richard Doucette at 703-583-3813) and/or the Fort A.P. Hill Environmental Office to establish the location of the solid waste facilities identified in the attached comments.
- Contact EPA (Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at 215-814-3434) and/or the Fort A.P. Hill contacts (listed in the attached comments) to establish if potential SWMUs and/or AOCs under the RCRA CA Program could be impacted by the proposed training ranges.

6(d) Requirement. 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.

7. Natural Heritage Resources. The EA (page 36) states that the proposed action would result in the permanent loss of vegetation in mostly forested areas.

7(a) Agency Jurisdiction. The mission of DCR is to conserve Virginia's natural and recreational resources. DCR supports a variety of environmental programs organized within seven divisions including the Division of Natural Heritage (DNH). DNH's mission is conserving Virginia's biodiversity through inventory, protection and stewardship. The Virginia Natural Area Preserves Act, 10.1-209 through 217 of the Code of Virginia, was passed in 1989 and codified DCR's powers and duties related to statewide biological inventory: maintaining a statewide database for conservation planning and project review, land protection for the conservation of biodiversity, and the protection and ecological management of natural heritage resources (the habitats of rare, threatened

and endangered species, significant natural communities, geologic sites, and other natural features).

7(b) Agency Findings. DCR searched its Biotics Data System for occurrences of natural heritage resources from the project area.

According to the information currently in DCR's files, the Carter's Corner Conservation Site is located within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality and number of element occurrences they contain on a scale of 1 to 5 with 1 being the most significant. Carter's Corner Conservation Site has been given a biodiversity significance ranking of B2, which represents a site of very high significance. The natural heritage resources of concern at this site are Swamp pink (*Helonias bullata*, G3/S2S3/LT/LE) and the Bald eagle (*Haliaeetus leucocephalus*, G5/S2S3B,S3N/NL/LT).

Swamp pink has been documented within the project area. Swamp-pink inhabits groundwater-influenced, perennially saturated, nutrient-poor headwater wetlands and is sensitive to hydrologic alterations to its habitat. The major direct threat to this species is habitat loss. Indirect threats result from activities that affect the hydrologic regime including such upslope activities as timber harvesting, land clearing and development, and agriculture. Downstream threats to the hydrology of a swamp pink habitat arise from flooding caused by road crossings with culverts that become blocked and beaver activity (VanAlstine, 1994). In Virginia, swamp-pink is currently known from 45 locations, three of which are historic. This species is currently classified as threatened by the U.S. Fish and Wildlife Service (FWS) and as endangered by the Virginia Department of Agriculture and Consumer Services (VDACS).

The Bald eagle breeds from Alaska eastward through Canada and the Great Lakes region, along coastal areas off the Pacific and Atlantic Oceans, and the Gulf of Mexico, and in pockets throughout the western United States (NatureServe, 2009). In Virginia, it primarily breeds along the large Atlantic slope rivers (James, Rappahannock, Potomac, etc.) with a few records at inland sites near large reservoirs (Byrd, 1991). Bald eagle nest sites are often found in the midst of large wooded areas near marshes or other bodies of water (Byrd, 1991). Bald eagles feed on fish, waterfowl, seabirds (Campbell et. al., 1990), various mammals and carrion (Terres, 1980). This species is currently classified as threatened by the Department of Game and Inland Fisheries (DGIF). Threats to this species include human disturbance of nest sites (Byrd, 1991), habitat loss, biocide contamination, decreasing food supply and illegal shooting (Herkert, 1992).

7(c) Threatened and Endangered Plant and Insect Species. The Endangered Plant and Insect Species Act of 1979, Chapter 39, §3.1-102- through 1030 of the *Code of Virginia*, as amended, authorizes VDACS to conserve, protect and manage endangered species of plants and insects. VDACS Virginia Endangered Plant and Insect Species Program personnel cooperates with the U.S. FWS, DCR DNH and other agencies and organizations on the recovery, protection or conservation of listed threatened or endangered species and designated plant and insect species that are rare throughout their worldwide ranges. In those instances where recovery plans, developed by FWS, are available, adherence to the order and tasks outlined in the plans should be followed to the extent possible. VDACS has regulatory authority to conserve rare and endangered plant and insect species through the Virginia Endangered Plant and Insect Species Act. Under a Memorandum of Agreement established between the VDACS and DCR, DCR has the authority to report for VDACS on state-listed plant and insect species.

- DCR DNH states that since it has been determined that this project or activity may impact Swamp pink, a state-protected plant, VDACS will respond directly to ensure compliance with Virginia's Endangered Plant and Insect Species Act. Further correspondence regarding the potential impacts of this project or activity on state-listed plant and insect species should be directed to VDACS.
- VDACS did not respond to DEQ's request for comment.

7(d) State Natural Area Preserves. DCR files do not indicate the presence of any State Natural Area Preserves under the agency's jurisdiction in the project vicinity.

7(e) Agency Recommendations.

- Contact DCR DNH at (804) 371-2708 to secure updated information on natural heritage resources if a significant amount of time passes before the project is implemented since new and updated information is continually added to the Biotics Data System.
- Avoid the documented Swamp pink populations and the source of the seeps that supports those populations.
- Due to the legal status of the Swamp pink, coordinate with the FWS (Cindy Schulz at 804-693-6694 or cindy_schulz@fws.gov) and VDACS (Keith Tignor at Keith.Tignor@vdacs.virginia.gov) to ensure compliance with protected species legislation.

Contact DCR (Robbie Rhur at Robbie.Rhur@dcr.virginia.gov or Rene Hypes at Rene.Hypes@dcr.virginia.gov) for additional information about these comments and recommendations.

8. Fish and Wildlife Resources, and Protected Species. The EA (pages 39-42) identifies potential protected species documented in the project area. The Army plans to implement a management buffer around any Bald eagle nests.

8(a) Agency Jurisdiction. The Department of Game and Inland Fisheries (DGIF), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state- or federally-listed endangered or threatened species, but excluding listed insects (Virginia Code Title 29.1). DGIF is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S.C. sections 661 *et seq.*) and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce or compensate for those impacts. Furthermore, DGIF and the VMRC administer the fisheries management enforceable policy of the VCP.

8(b) Agency Findings. According to DGIF's records, the state-listed threatened Bachman's sparrows and state-listed threatened bald eagles have been documented from the project area. Based on the habitats proposed for disturbance on site and the measures, which have been previously coordinated with DGIF, that the Army has outlined in the EA to protect the Bald eagles nesting on site, DGIF does not anticipate the proposed project to result in adverse impacts upon these listed species.

8(c) Agency Recommendations. To minimize overall impacts to wildlife and natural resources, DGIF has the following recommendations about development activities:

- Maintain undisturbed wooded buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams;
- Avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable ;
- Design stormwater controls to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of low impact development. They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes; and
- Adhere to erosion and sediment controls during ground disturbance.
- Ensure that all tree removal and ground clearing adhere to a time-of-year restriction from March 15 through August 15 of any year to protect nesting resident and migratory songbirds.
- Ensure that development activities on Fort AP Hill adhere to the currently approved Integrated Natural Resources Management Plan for the installation.

Contact Amy Ewing with DGIF at (804) 367-2211 for additional information regarding these comments.

8(d) Conclusion. Assuming adherence to erosion and sediment controls during construction activities, DGIF finds this project consistent with the fisheries management enforceable policy of the VCP.

9. Forest Resources. The EA (page 27) states that the implementation of the proposed action would include the clearing of approximately 103 acres of forested area within the Smoots Run watershed. The proposed clearing would maintain the forested buffer adjacent to waterways.

9(a) Agency Jurisdiction. The mission of the Virginia Department of Forestry (DOF) is to protect and develop healthy, sustainable forest resources for Virginians. DOF was established in 1914 to prevent and suppress forest fires and reforest bare lands. Since the Department's inception, it has grown and evolved to encompass other protection and management duties including: protecting Virginia's forests from wildfire, protecting Virginia's waters, managing and conserving Virginia's forests, managing state-owned lands and nurseries, and managing regulated incentive programs for forest landowners.

9(b) Agency Findings. DOF finds that this project will have a significant impact to the overall forest resources of the Commonwealth, specifically the loss of forest cover, tree canopy and the associated benefits. The EA indicates that a total of 103 acres of forestland will be cleared or affected by this project.

9(c) Agency Recommendations. DOF recommends that Fort A.P. Hill mitigate the loss of forestland. The mitigation could be in the form of reforesting open lands, improving the growth of existing forestlands, or conserving lands through conservation easements so they will remain in forestland for perpetuity.

The DOF has the following recommendations to protect trees that will not be removed:

- To the extent feasible, existing groupings and/or clusters of trees and natural vegetation should remain on the site to provide aesthetic and environmental benefits, as well as reducing future open space maintenance costs.
- Trees not slated for removal should be protected from the effects of future construction activities. These trees should be marked and fenced at least to the drip line or the end of the root system, whichever extends farther from the 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 contractors 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.
- All harvesting operations should follow Forestry Best Management Practices (BMPs) for water quality as outlined by the DOF's Voluntary BMP Guidelines publication.

Questions concerning the protection of trees and mitigation options may be addressed to DOF (Todd Groh, Assistant Director of the DOF Forest Resource Management Division, at Todd.Groh@dof.virginia.gov).

10. Historic Structures. The EA (page 33) states that Phase I and Phase II cultural resource surveys were completed. The EA states that there are no historic resources within the proposed project area that are eligible for listing on the National Register of Historic Places.

10(a) Agency Jurisdiction. DHR conducts reviews of projects to determine their effect on historic structures or cultural resources under its jurisdiction. DHR, as the designated Historic Preservation Office for the Commonwealth, ensures that federal actions comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and its implementing regulation at 36 Code of Federal Regulations Part 800. The NHPA requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. Section 106 also applies if there are any federal involvements, such as licenses, permits, approvals or funding. DHR also provides comments to DEQ through the state environmental impact report review process.

10(b) Agency Comments. DHR states (email, M. Holma/J.Wellman, May 25, 2011) that its database indicates that although Fort A.P. Hill consulted with DHR regarding eligibility for three archaeological sites in October 2010 (all were found not eligible for listing on the National Register of Historic Places and DHR concurred), the Army has not followed up that consultation with DHR's comment on effect.

10(c) Agency Finding. After additional consultation with the Army, DHR finds (email, M. Holma/J.Wellman, June 16, 2011) that no historic properties will be affected by the proposed undertaking.

11. Waterworks Operation Regulations. The EA (page 13) states that new underground water lines would be installed. Existing utilities serve the current range.

11(a) Agency Jurisdiction. The Virginia Department of Health (VDH) Office of Drinking Water (ODW) reviews projects for the potential to impact public drinking water sources (groundwater wells and surface water intakes). VDH ODW administers both federal and state laws governing waterworks operation.

11(b) Agency Findings. VDH states that there are no apparent impacts to public drinking water sources due to this project. No groundwater wells are within a 1-mile radius of the project site. No surface water intakes are located within a 5-mile radius of the project site. The project does not fall within Zone 1 (up to 5 miles into the watershed) or Zone 2 (greater than 5 miles into the watershed) of any public surface water sources.

Contact Barry E. Matthews with VDH at (804) 864-7515 for additional information on water supply sources.

11(c) Requirements. VDH states that potential impacts to public water distribution systems must be verified by the local utility. Installation of new water lines and appurtenances must comply with the Commonwealth's Waterworks Regulations.

11(d) Water Conservation Recommendations. DEQ recommends that to the extent practicable, the responsible party consider the following water conservation measures:

- Grounds should be landscaped with hardy native plant species to conserve water as well as minimize the need to use fertilizers and pesticides.
- Convert turf to low water-use landscaping such as drought resistant grass, plants, shrubs and trees.
- Consider installing low flow restrictors/aerators to faucets.
- Improve irrigation practices by:
 - upgrading sprinkler clock; watering at night, if possible, to reduce evapotranspiration (lawns need only 1 inch of water per week and do not need to be watered daily; over watering causes 85 percent of turf problems);
 - installing a rain shutoff device; and
 - collecting rainwater with a rain bucket or cistern system with drip lines.
- Check for and repair leaks (toilets and faucets) during regular routine maintenance activities.

12. Non-discharging Sewer Systems. The EA (page 10) states that two vault toilets will be installed.

12(a) Agency Jurisdiction. VDH has authority for non-discharging systems such as septic tanks and drain fields. This authority is contained in the Sewage Handling and Disposal Regulations (12VAC5-610-10 *et seq.*).

12(b) Agency Recommendation. Contact the VDH Rappahannock Area Health District in Caroline County (804-633-5465) regarding applicable sewage regulations and requirements for the vault toilets.

13. Pesticides and Herbicides. Should construction or operation of the proposed facilities require the use of herbicides or pesticides for landscape maintenance, these chemicals should be used in accordance with the principles of integrated pest

management. The least toxic pesticides that are effective in controlling the target species should be used. Contact the Virginia Department of Agriculture and Consumer Services (VDACS) at (804) 786-3501 for more information.

14. Pollution Prevention. DEQ advocates that principles of pollution prevention be used in all construction projects. 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.

14(a) Agency Recommendations. We have several pollution prevention recommendations that may be helpful in constructing or operating this project:

- 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 environmental management system or 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.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. For more information, contact DEQ's Office of Pollution Prevention (Sharon Baxter at 804-698-4344).

15. Local and Regional Comments. The George Washington Regional Commission and Caroline County were invited to comment.

15(a) Jurisdiction. In accordance with the *Code of Virginia*, Section 15.2-4207, planning district commissions encourage and facilitate local government cooperation and state-local cooperation in addressing, on a regional basis, problems of greater than local significance. The cooperation resulting from this is intended to facilitate the recognition and analysis of regional opportunities and take account of regional influences in planning and implementing public policies and services. Planning district commissions promote the orderly and efficient development of the physical, social and economic elements of the districts by planning, and encouraging and assisting localities to plan for the future.

15(b) Local Comments. Caroline County did not respond to DEQ's request for comment.

15(c) Regional Comments. The George Washington Regional Commission did not respond to DEQ's request for comment.

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 Zone Management Program (previously called the Virginia Coastal Resources Management Program) (VCP). The VCP consists of a network of programs administered by several agencies. DEQ coordinates the review of FCDs with agencies administering the enforceable and advisory policies of the VCP.

PUBLIC PARTICIPATION

In accordance with 15 CFR §930.2, the public was invited to participate in the Commonwealth's review of the FCD. A public notice of this proposed action was published on the DEQ website from May 13, 2011, to June 3, 2011. No public comments were received in response to the notice.

CONSISTENCY CONCURRENCE

Based on the information provided in the EA and FCD, and the comments of agencies administering the enforceable policies of the VCP, DEQ concurs that the proposed activity is consistent with the VCP and has no objection to the implementation of the proposed action provided that the Army complies with all requirements of applicable permits and other authorizations that may be required. The Army must ensure that the proposed action is consistent with the enforceable policies and that this project is constructed and operated in accordance with all applicable federal, state and local laws and regulations. However, there may be other applicable state and federal requirements that are not included in the state's concurrence with the FCD. DEQ also encourages the Army to consider the Advisory Policies of the VCP as well (attachment 2).

REGULATORY AND COORDINATION NEEDS

1. Water Quality and Wetlands Management. The Army should ensure compliance with the Virginia Water Protection (VWP) Program pursuant to Virginia Code §62.1-44.15:20 *et seq.* and Virginia regulations 9VAC25-210-10 *et seq.* A Joint Permit Application (JPA) may be obtained from and submitted to the Virginia Marine Resources Commission (VMRC), which serves as a clearinghouse for the joint permitting process involving the VMRC, DEQ, U.S. Army Corps of Engineers (Corps) and local wetlands boards. Coordinate with the DEQ NRO (Trisha Beasley, VWP Program Manager, at Trisha.Beasley@deq.virginia.gov) regarding potential VWP requirements. Contact the Corps (Regena Bronson with the Corps Fredericksburg Field Office at 540-548-2838)

concerning questions on Section 404 of the Clean Water Act (see attached May 5, 2011, letter from the Corps).

2. Subaqueous Lands Management. The VMRC regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands pursuant to § 28.2-1200 through 1400 of the *Code of Virginia*. A permit may be required from the VMRC prior to the commencement of construction. Coordinate with the VMRC (Dan Bacon at 757-247-2256) regarding the submission of a JPA.

3. Erosion and Sediment Control, and Stormwater Management.

3(a) Erosion and Sediment Control. The Army and its authorized agents conducting regulated land-disturbing activities equal to or greater than 2,500 square feet in areas analogous to Chesapeake Bay Preservation Areas must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R) and Virginia Stormwater Management Law and Regulations. The Army also must prepare and implement an erosion and sediment control plan to ensure compliance with state law and regulations. The erosion and sediment control plan should be submitted to the DCR Tappahannock Regional Office at (804) 443-6752 (Reference: VESCL §10.1-567).

3(b) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities. For land-disturbing activities equal to or greater than 2,500 square feet in areas analogous to those designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations, adopted pursuant to the Chesapeake Bay Preservation Act, the Army is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit, and it must address water quality and quantity in accordance with the VSMP Permit Regulations. Specific questions regarding the Stormwater Management Program requirements should be directed to Holly Sepety with DCR at (804) 225-2613 (Reference: Virginia Stormwater Management Law Act §10.1-603.1 *et seq.*; VSMP Permit Regulations §4VAC-50 *et seq.*).

4. Air Quality Regulations. Activities associated with this project may be subject to air regulations administered by DEQ. The state air pollution regulations that may apply to the construction phase of the project are:

- fugitive dust and emissions control (9 VAC 5-50-60 *et seq.*) and
- open burning restrictions (9VAC5-130-10 through 9VAC5-130-60).

Also, permits may be required for any boilers or fuel-burning equipment. Prior to construction and operation, contact DEQ NRO (Terry Darton at 703-583-3845) for a permitting determination.

5. Coastal Lands Management/Chesapeake Bay Preservation Areas. In order to ensure consistency with the Coastal Lands Management enforceable policy of the Virginia Coastal Resources Management Program (VCP), activities at Fort A.P. Hill must be consistent with the general performance criteria (9VAC10-20-120 *et seq.* and 130) and the stormwater management criteria that are consistent with water quality protection provisions (4VAC3-20-17 *et seq.*) of the Virginia Stormwater Management Regulations (4VAC3-20 *et seq.*) in addition to the conditions described in Section 9VAC10-20-130 d of the Chesapeake Bay Preservation Area Designation and Management Regulations, stating that roads and driveways not exempt from § 9VAC10-20-150B1 may be constructed in or across RPAs if certain conditions are met.

5(a) Water Quality Impact Assessment. Coordinate with DCR DCBLA (David Sacks at 804-371-7504 or David.Sacks@dcr.virginia.gov) regarding the submission of a water quality impact assessment.

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) (9VAC20-60);
- Virginia Solid Waste Management Regulations (VSWMR) (9VAC20-80);
- Virginia Vegetative Waste Management Regulations (9VAC20-101 *et seq.*); and
- Virginia Regulations for the Transportation of Hazardous Materials (9VAC20-110).

Some of the applicable federal laws and regulations are:

- 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
- U.S. Department of Transportation Rules for Transportation of Hazardous materials (49 Code of Federal Regulations Part 107).

6(a) Coordination.

- Contact the Environmental Protection Agency (EPA) (Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at 215-814-3434) for locations of solid waste management units (SWMUs) and areas of concern (AOCs)(identified in the attached detailed comments) to determine which ones will impact or be impacted by the proposed project.
- Contact DEQ's NRO (Richard Doucette at 703-583-3813) and/or the Fort A.P. Hill Environmental Office to establish the location of the solid waste facilities identified in the attached comments.

Ms. Terry Banks
Fort A.P. Hill Ranges
11-080F

- Contact EPA (Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at 215-814-3434) and/or the Fort A.P. Hill contacts (listed in the attached comments) to establish if potential SWMUs and/or AOCs under the RCRA CA Program could be impacted by the proposed training ranges.

7. Natural Heritage Resources.

- Contact the DCR DNH (Rene Hypes at 804-786-7951) for an update on natural heritage information if a significant amount of time passes before it is utilized.
- Due to the legal status of the Swamp pink, coordinate with the FWS (Cindy Schulz at 804-693-6694 or cindy_schulz@fws.gov) and VDACS (Keith Tignor at Keith.Tignor@vdacs.virginia.gov) to ensure compliance with protected species legislation.

8. Waterworks. All utility work involving installation of new waterlines and appurtenances must comply with the Commonwealth's Waterworks Regulations. VDH states that potential impacts to public water distribution systems must be verified by the local utility.

9. Non-discharging Sewer Systems. Contact the VDH Rappahannock Area Health District in Caroline County (804-633-5465) regarding applicable sewage regulations and requirements for the vault toilets.

10. Forest Resources. Coordinate with DOF (Todd Groh, Assistant Director of the DOF Forest Resource Management Division, at Todd.Groh@dof.virginia.gov) regarding the mitigation of the loss of forestland.

Thank you for the opportunity to review the EA and FCD for this undertaking. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4325 or Julia Wellman at (804) 698-4326 for clarification of these comments.

Sincerely,



Ellie L. Irons, Manager
Office of Environmental Impact Review

Enclosures

cc: Eldon James, GWRC
Alan Partin, Caroline County

ec: Amy Ewing, DGIF
Keith Tignor, VDACS
Robbie Rhur, DCR
Barry Matthews, VDH



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

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TDD (804) 698-4021

www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

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

Attachment 1

Enforceable Regulatory Programs comprising Virginia's Coastal Zone Management Program (VCP)

- a. **Fisheries Management** - The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Marine Resources Commission (VMRC); Virginia Code 28.2-200 to 28.2-713 and the Department of Game and Inland Fisheries (DGIF); Virginia Code 29.1-100 to 29.1-570.

The State Tributyltin (TBT) Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing TBT. The use of TBT in boat paint constitutes a serious threat to important marine animal species. The TBT program monitors boating activities and boat painting activities to ensure compliance with TBT regulations promulgated pursuant to the amendment. The VMRC, DGIF, and Virginia Department of Agriculture Consumer Services (VDACS) share enforcement responsibilities; Virginia Code 3.1-249.59 to 3.1-249.62.

- b. **Subaqueous Lands Management** - The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, tidal wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Department of Environmental Quality (DEQ). The program is administered by the Marine Resources Commission; Virginia Code 28.2-1200 to 28.2-1213.

- c. **Wetlands Management** - The purpose of the wetlands management program is to preserve wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation.

(1) The tidal wetlands program is administered by the Marine Resources Commission; Virginia Code 28.2-1301 through 28.2-1320.

(2) The Virginia Water Protection Permit program administered by DEQ includes protection of wetlands --both tidal and non-tidal; Virginia Code §62.1-44.15:5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.

Attachment 1 continued

Page 2

- d. Dunes Management - Dune protection is carried out pursuant to The Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission; Virginia Code 28.2-1400 through 28.2-1420.
- e. Non-point Source Pollution Control – (1) Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by the Department of Conservation and Recreation; Virginia Code 10.1-560 et seq.

(2) Coastal Lands Management is a state-local cooperative program administered by the DCR's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater (see i) Virginia; Virginia Code §10.1-2100 –10.1-2114 and 9 VAC10-20 et seq.
- f. Point Source Pollution Control - The point source program is administered by the State Water Control Board (DEQ) pursuant to Virginia Code 62.1-44.15. Point source pollution control is accomplished through the implementation of:
 - (1) the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to Section 402 of the federal Clean Water Act and administered in Virginia as the Virginia Pollutant Discharge Elimination System (VPDES) permit program.
 - (2) The Virginia Water Protection Permit (VWPP) program administered by DEQ; Virginia Code §62.1-44.15:5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.
- g. Shoreline Sanitation - The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code 32.1-164 through 32.1-165).
- h. Air Pollution Control - The program implements the federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code 10-1.1300 through §10.1-1320).
- (i) Coastal Lands Management is a state-local cooperative program administered by the DCR's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater, Virginia established pursuant to the Chesapeake Bay Preservation Act; Virginia Code §10.1-2100 –10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative Code 9 VAC10-20 et seq.

Attachment 2

Advisory Policies for Geographic Areas of Particular Concern

- a. Coastal Natural Resource Areas - These areas are vital to estuarine and marine ecosystems and/or are of great importance to areas immediately inland of the shoreline. Such areas receive special attention from the Commonwealth because of their conservation, recreational, ecological, and aesthetic values. These areas are worthy of special consideration in any planning or resources management process and include the following resources:
- a) Wetlands
 - b) Aquatic Spawning, Nursery, and Feeding Grounds
 - c) Coastal Primary Sand Dunes
 - d) Barrier Islands
 - e) Significant Wildlife Habitat Areas
 - f) Public Recreation Areas
 - g) Sand and Gravel Resources
 - h) Underwater Historic Sites.
- b. Coastal Natural Hazard Areas - This policy covers areas vulnerable to continuing and severe erosion and areas susceptible to potential damage from wind, tidal, and storm related events including flooding. New buildings and other structures should be designed and sited to minimize the potential for property damage due to storms or shoreline erosion. The areas of concern are as follows:
- i) Highly Erodible Areas
 - ii) Coastal High Hazard Areas. including flood plains.
- c. Waterfront Development Areas - These areas are vital to the Commonwealth because of the limited number of areas suitable for waterfront activities. The areas of concern are as follows:
- i) Commercial Ports
 - ii) Commercial Fishing Piers
 - iii) Community Waterfronts

Although the management of such areas is the responsibility of local government and some regional authorities, designation of these areas as Waterfront Development Areas of Particular Concern (APC) under the VCRMP is encouraged. Designation will allow the use of federal CZMA funds to be used to assist planning for such areas and the implementation of such plans. The VCRMP recognizes two broad classes of priority uses for waterfront development APC:

- i) water access dependent activities:
- ii) activities significantly enhanced by the waterfront location and complementary to other existing and/or planned activities in a given waterfront area.

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: Julia H. Wellman

DEQ - OEIA PROJECT NUMBER: 11 - 080F

PROJECT TYPE: STATE EA / EIR FEDERAL EA / EIS SCC
 CONSISTENCY CERTIFICATION

PROJECT TITLE: ASYMETRIC WARFARE GROUP 800- AND 1,200- METER TRAINING RANGES

PROJECT SPONSOR: DOD / DEPARTMENT OF THE ARMY / FORT A. P. HILL

PROJECT LOCATION: OZONE 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 5-130 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: May 13, 2011



MEMORANDUM

TO: Julia Wellman, Environmental Program Planner

FROM: Richard Criqui, DLPR Review Coordinator 

DATE: May 20, 2011

COPIES: Leslie A. Romanchik, Hazardous Waste Program Manager
EIR File

SUBJECT: Environmental Assessment Report – Asymmetric Warfare Group – 800 and 1,200 Meter Training Ranges, DOD/Dept. of Army, Fort A.P. Hill - DEQ Project No. 11-080F – Review

The Division of Land Protection and Revitalization (DLPR) has completed its review of the Report entitled, *Environmental Assessment for the Proposed Asymmetric Warfare Group, 800 and 1,200 Meter Training Ranges* (EA Report), U.S. Army Garrison Fort A.P. Hill, Bowling Green, Virginia, dated April 2011. The project site is located in zip code 22427.

We have the following comments concerning the Report and potential related waste issues associated with this project:

This Report under Project No. 11-080F did briefly address potential solid and/or hazardous waste issues under Section 4.2.7 of the EA Report. However, the extent of the review and research of both potential solid and hazardous waste issues at the site is unclear. This Report, under DEQ Project No. 11-080F, does not specifically state that DEQ's databases were searched, nor does it indicate that information was obtained from the DEQ's DLPR (former Waste Division) files or EPA files.

The DLPR staff has conducted a cursory review of its database files under zip code 22427, including a GIS database search (within a 1.0 mile radius) of the project site and determined the information below.

A few facility waste sites were located within the same zip code of Fort A.P. Hill, Bowling Green, Virginia, under zip code 22427 and/or within a 1.0 mile radius from the project site; however, their proximity to the project site and potential impact to the project is unknown.

The staff's summary comments are as follows:

Hazardous Waste Facilities

Search of the RCRAInfo database under zip codes 22427, and/or within 1.0 mile of the project site found the following facility information under large quantity generators (LQGs) and permitted treatment, storage, disposal (TSD) facilities under the RCRA:

- U.S. Army Garrison, Fort A.P. Hill
Bowling Green, VA, 22427
EPA ID No. VA2210020416

The above facility is a Permitted and Active Treatment, Storage, Disposal (TSD) facility, and a Large Quantity Generator (LQG) of hazardous waste. The Fort A.P. Hill facility is also listed as subject to RCRA Corrective Action (CA). The facility is listed as having achieved the following status under RCRA CA:

CA770NG - Engineering Controls Established – Non-Groundwater Control.
CA772GC – Institutional Control Evaluated, Selected, Implemented – Governmental Control
CA772GC – Institutional Controls Established – Governmental Control
CA770GW – Engineering Controls Established – Groundwater Control
CA770GW – Engineering Control in Place with Institutional Control – Groundwater Treatment

See the following EPA site for further Fort A.P. Hill facility information under RCRA CA:
<http://www.epa.gov/reg3wcmd/ca/va/pdf/va2210020416.pdf>. Contact Barbara Smith, Project Manager for RCRA CA, EPA Region 3 at (215) 814-3434 for locations of solid waste management units (SWMUs) and areas of concern (AOCs), which exist at the Fort A.P. Hill facility site and which may impact or be impacted by the proposed project.

The A.P. Hill Facility contact under RCRA is listed as:

Ms. Terry L. Banks, Fort A.P. Hill, Bowling Green, VA 22427
Phone: 804-633-8255

Solid Waste Facilities

Search of the DEQ's Solid Waste Sites Inventory under zip code 22427, and/or within 1.0 mile of the project site found the following facilities:

- SWP147, Closed Sanitary Landfill, Caroline County Landfill, 18280 Lakeewood Road, Bowling Green, VA, 22427, Solid Waste Unit Status – Closed, Solid Waste Permit Status – Revoked.
- SWP182, Sanitary Landfill, Caroline County Landfill, 18280 Lakeewood Road, Bowling Green, VA, 22427, Solid Waste Unit Status – Inactive, Solid Waste Permit Status – Permitted.
- SWP332, Closed Sanitary Landfill, U.S. Army – Fort A.P. Hill, 19952 N. Range Road, Fort A.P. Hill, Bowling Green, VA, 22427, Solid Waste Unit Status – Post-Closure, Solid Waste Permit Status – Post-Closure Permit.
- SWP393, Closed CDD Landfill, U.S. Army – Fort A.P. Hill, 19952 N. Range Road, Fort A.P. Hill, Bowling Green, VA, 22427, Solid Waste Unit Status – Closed, Solid Waste Permit Status – Permitted.

PBR – Permit-by-Rule
SWP- Solid Waste Permit

The facility project manager or engineer should contact the DEQ's Northern Regional Office and/or the Fort A.P. Hill Environmental Office to establish the location of the above solid waste facilities.

CERCLA Sites

The following CERCLA facility site was found on the CERCLIS database under zip code 22427, and/or within 1.0 mile of the project site.

- Fort A.P. Hill, U.S. Route 301, Bowling Green, VA, 22427, EPA ID No. VA2210020416, Not an NPL Status Site, Federal Facility Site, Federal Facility Lead Cleanup and Other Cleanup Activity.

The DEQ's Office of Remediation Programs, Federal Facilities Program, Project Manager for the Fort A.P. Hill facility indicated that the sites for the proposed ranges have no impact on the cleanups or investigations that are on-going at the facility under the Federal Facilities Program.

The project manager or engineer should check with the EPA and/or the Fort A.P. Hill contacts listed under Hazardous Waste Facilities above to establish if potential SWMUs and/or AOCs under the RCRA CA Program could be impacted by the proposed training ranges.

FUDs Sites

No FUDs facility sites were found on DEQ's FUDs Sites Inventory under zip code zip code 22427, and/or within 1.0 mile of the project site.

VRP Sites

No DEQ Voluntary Remediation Program (VRP) facility sites were found on DEQ's VRP Sites Inventory under zip code zip code 22427, and/or within 1.0 mile of the project site.

Petroleum Release Sites

No petroleum release sites were found on the DEQ's Inventory under zip code zip code 22427 and/or within 1.0 miles of the project site.

GENERAL COMMENTS

Soil, Sediment, and Waste Management

Any soil that is suspected of contamination or wastes that are generated 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 20-81); 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.

Pollution Prevention – Reuse - Recycling

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 Richard Criqui at (804) 698-4013.

Hartshorn, David (DEQ)

RECEIVED

From: Hartshorn, David (DEQ)
Sent: Wednesday, June 01, 2011 1:34 PM
To: Wellman, Julia (DEQ)
Cc: Hartshorn, David (DEQ)
Subject: EA/CD #11-080F

JUN 02 2011

DEQ-Office of Environmental
Impact Review

NRO comments regarding the Asymmetric Warfare Group 800- and 1,200- Meter Training Ranges, Department Of Defense/Department of the Army/Fort A. P. Hill are as follows:

Virginia Water Protection Permit (VWPP) Program - The project is for the modification of an existing Asymmetric Warfare Group Small Arms Range. The submittal indicates that impacts to surface waters may be necessary. A VWP permit from DEQ may be required should impacts to surface waters be necessary. DEQ VWP staff recommends that the project avoid and minimize impacts to the surface waters to the maximum extent practicable. Upon receipt of a Joint Permit Application for the proposed surface waters impacts, DEQ VWP Permit staff will review the proposed project in accordance with the VWP permit program regulations and guidance.

Air Compliance/Permitting - The project manager is reminded that during the construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should the project install fuel burning equipment (Boilers, Generators, Compressors, etc...), or any other air pollution emitting equipment, the project may be subject to 9 VAC 5-80, Article 6, Permits for New and Modified sources and as such the project manager should contact the Air Permit Manager DEQ-NRO prior to installation or construction, and operation, of fuel burning or other air pollution emitting equipment for a permitting determination. Should any open burning or use of special incineration devices be employed in the disposal of land clearing debris during construction, the operation would be subject to the Open Burning Regulation 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100.

R. David Hartshorn
Regional Air Compliance Manager
DEQ-NRO
13901 Crown Court
Woodbridge, VA 22193
(703) 583-3895
fax (703) 583-3821
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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096



CENAO-EX

5 May 2011

MEMORANDUM FOR Commander, U.S. Army Fort A.P. Hill, 18436 4th Street, Fort A.P. Hill, VA 22427-3114

SUBJECT: Environmental Assessment (EA) for the Asymmetric Warfare Group (AWG) 800 and 1200 Meter Training Ranges for Fort A.P. Hill, Caroline County, VA

1. Based on review of the EA, <http://www.aphill.army.mil/ates/directorate/ra.asp>, fill may be proposed in waters of the United States (unnamed tributaries to Maracossic Creek and Mill Creek) regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) and may require a Department of the Army Permit.

2. In order for us to adequately review both the AWG 800 and 1200 meter range projects, we request that the following information be provided:

a. A complete project plan for each range with a depiction of all work that is subject to regulation under Section 404 of the Clean Water Act (trenching, backfilling and/or sidcasting material in jurisdictional waters and/or wetlands) should be submitted. The plan should depict all wetland and stream impacts as determined from the wetland delineation. Drawings for both temporary and permanent impacts to streams and/or wetlands should include plan-view, cross-sectional view, ordinary high water mark and wetland limits.

b. Evidence that discharges of dredged or fill material into waters of the United States are avoided or minimized to the maximum extent practicable for each impact associated with the ranges.

c. Identification of any archaeological, cultural, and historic properties that may exist on the subject site within the Corps' permit area. These areas should be clearly marked on the development plans. The requirements of the National Historic Preservation Act must be satisfied before the Corps can issue a permit.

3. In addition, work in these areas may also require authorization by state and local agencies. Please find the Joint Permit Application located at

<http://www.nad.nace.army.mil/technical/320-services/Regulatory/a20branch/JPA.asp>.

4. If you have questions, please call Ms. Regena Bronson, at our Fredericksburg Field Office, (540) 548-2838.

CF:
VA DEQ, Woodbridge
Dept of Planning, Caroline County


ANDREW W. BACKUS, P.E., PMP
Colonel, Corps of Engineers
Commanding

Wellman, Julia (DEQ)

From: Bacon, Dan (MRC)
Sent: Tuesday, May 31, 2011 5:24 PM
To: Wellman, Julia (DEQ)
Subject: Project # 11-080F

Please be advised that the Marine Resources Commission, pursuant to Section 28.2-1200 et seq of the Code of Virginia, has jurisdiction over any encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water along natural rivers and streams above the fall line or mean low water below the fall line, a permit may be required from our agency. Any jurisdictional impacts will be reviewed by VMRC during the Joint Permit Application process. Thank you for the opportunity to comment.



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street
Richmond, Virginia 23219-2010
(804) 786-1712

MEMORANDUM

DATE: June 1, 2011
TO: Julia Wellman, DEQ
FROM: Roberta Rhur, Environmental Impact Review Coordinator
SUBJECT: DEQ 11-080F: DOD/Department of Army/Fort A.P. Hill – Asymmetric Warfare Group
800 and 1200 Meter Training Ranges, Caroline CO

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (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.

According to the information currently in our files, the Carter's Corner Conservation Site is located within the project area. Conservation sites are tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. Carter's Corner Conservation Site has been given a biodiversity significance ranking of B2, which represents a site of very high significance. The natural heritage resources of concern at this site are:

Helonias bullata

Swamp pink

G3/S2S3/LT/LE

Haliaeetus leucocephalus

Bald eagle

G5/S2S3B,S3N/NL/LT

Swamp pink has been documented within the project area. Swamp-pink inhabits groundwater-influenced, perennially saturated, nutrient-poor headwater wetlands and is sensitive to hydrologic alterations to its habitat. The major direct threat to this species is habitat loss. Indirect threats result from activities that affect the hydrologic regime including such upslope activities as timber harvesting, land clearing and development, and agriculture. Downstream threats to the hydrology of a swamp pink habitat arise from

flooding caused by road crossings with culverts that become blocked and beaver activity (VanAlstine, 1994). In Virginia, swamp-pink is currently known from 45 locations, 3 of which are historic.

Please note that this species is currently classified as threatened by the United States Fish and Wildlife Service (USFWS) and as endangered by the Virginia Department of Agriculture and Consumer Services (VDACS).

DCR recommends avoidance of the documented Swamp pink populations and avoidance of the source of the seeps that supports those populations. Due to the legal status of the Swamp pink, DCR also recommends coordination with USFWS to ensure compliance with protected species legislation.

The Bald eagle breeds from Alaska eastward through Canada and the Great Lakes region, along coastal areas off the Pacific and Atlantic Oceans, and the Gulf of Mexico, and in pockets throughout the western United States (NatureServe, 2009). In Virginia, it primarily breeds along the large Atlantic slope rivers (James, Rappahannock, Potomac, etc) with a few records at inland sites near large reservoirs (Byrd, 1991). Bald eagle nest sites are often found in the midst of large wooded areas near marshes or other bodies of water (Byrd, 1991). Bald eagles feed on fish, waterfowl, seabirds (Campbell et. al., 1990), various mammals and carrion (Terres, 1980). Please note that this species is currently classified as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF).

Threats to this species include human disturbance of nest sites (Byrd, 1991), habitat loss, biocide contamination, decreasing food supply and illegal shooting (Herkert, 1992).

Due to the legal status of the Bald eagle, DCR recommends coordination with VDGIF to ensure compliance with protected species legislation.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between VDACS and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. If the documented plants and supporting seeps cannot be avoided, this project or activity may impact **Swamp pink**, a state-protected plant, VDACS will respond directly to ensure compliance with Virginia's Endangered Plant and Insect Species Act. Further correspondence regarding the potential impacts of this project or activity on state-listed plant and insect species should be directed to VDACS.

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 that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Shirl Dressler at (804) 367-6913.

Chesapeake Bay Local Assistance Division

In Caroline County, the areas protected by the *Chesapeake Bay Preservation Act*, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores, and a minimum 100-foot vegetated buffer area

located adjacent to and landward of these features and along both sides of any water body with perennial flow. RMAs, which require less stringent performance criteria, include floodplains, highly erodible soils, highly permeable soils, steep slopes in excess of 15 percent, nontidal wetlands not included under the RPA designation, and other lands including but not limited to an area 300 feet in width contiguous to and landward of the inland limit of the RPA.

Pursuant to the *Coastal Zone Management Act of 1972*, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent with Virginia's Coastal Zone Management Program (CZM Program) (see § 307(c)(1) of the Coastal Zone Management Act and 15 CFR Part 930, sub-part C of the *Federal Consistency Regulations*).

While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the Regulations, § 9 VAC 10-20-10 et seq., as one of the enforceable programs of the CZM Program. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated CBPAs. Projects that include land disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation and minimizing impervious cover. For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992. Additionally, stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*, § 4 VAC 50-60-10, shall be satisfied.

The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and erosion and sediment control. In addition, the *Chesapeake 2000* agreement committed the government agencies to sound land use and stormwater quality controls. The signatories additionally committed the agencies to lead by example with respect to controlling nutrient, sediment and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and District-owned Lands and Facilities*, which includes specific commitments for agencies to lead by example with respect to stormwater control.

This project proposes to modify the existing Asymmetric Warfare Group (AWG) Small Arms Range by constructing and operating two outdoor training ranges (800 meters and 1,200 meters), which would be constructed on 675 acres within Controlled Access Areas on the post. Section 4.2.3 of the Environmental Assessment states that the development of the proposed action would include the clearing of approximately 103 acres of forested area; however the amount of clearing is the sum of many smaller areas. Furthermore, the proposed clearing would maintain the forested buffer adjacent to waterways, with no clearing proposed within 100 feet of jurisdictional waters, except where necessary for road or trail crossings. One area where the buffer would be disturbed would be for a bridge within the 1,200-meter range that would extend over a marshland. Section § 9 VAC 10-20-130 d of the Regulations states that roads and driveways not exempt from § 9 VAC-10-20-150 B 1 may be constructed in or across Resource Protection Areas if each of the following conditions is met:

1. There are no reasonable alternatives to aligning the road or driveway in or across the RPA;
2. The alignment and design of the road or driveway are optimized to minimize (i) encroachment in the RPA and (ii) adverse effects on water quality;

3. The design and construction of the road or driveway satisfy all applicable criteria of the Regulations, including submission of a water quality impact assessment.

Provided adherence to the above requirements, the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and the Regulations.

Division of Soil and Water Conservation

The Army 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 including coverage under the general permit for stormwater discharge from construction activities, 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, borrow areas, soil stockpiles, and related land-disturbance activities that result in the land-disturbance of greater than 2,500_square feet would be regulated by VESCL&R. Accordingly, the Army must prepare and implement erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. The ESC plan is submitted to the DCR Regional Office that serves the area where the project is located for review for compliance. The Army is ultimately responsible for achieving project compliance through oversight of on site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL §10.1-567;].

The operator or owner of construction activities involving land disturbing activities equal to or greater than 2,500 square feet in areas designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act are required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the Virginia Stormwater Management Program (VSMP) Permit Regulations. General information and registration forms for the General Permit are available on DCR's website at http://www.dcr.virginia.gov/soil_and_water/index.shtml [Reference: Virginia Stormwater Management Law Act §10.1-603.1 et seq.; VSMP Permit Regulations §4VAC-50 et seq.]

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

Cc: Amy Ewing, VDGIF
Tylan Dean, USFWS
Keith Tignor, VDACS

Literature Cited

- Byrd, M.A. 1991. Bald eagle. In *Virginia's Endangered Species: Proceedings of a Symposium*. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. Pp. 499-501.
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Wellman, Julia (DEQ)

From: Ewing, Amy (DGIF)
Sent: Monday, June 06, 2011 12:51 PM
To: Wellman, Julia (DEQ)
Subject: ESSLog# 22888_31938_AWG training ranges_Ft. AP Hill

We have reviewed the Environmental Assessment (EA) for the subject project that proposes to construct and operate two outdoor training ranges necessary to meet the training requirements of the Asymmetric Warfare Group at Ft. AP Hill in Caroline County, VA.

According to our records, state Threatened Bachman's sparrows and state Threatened bald eagles have been documented from the project area. Based on the habitats proposed for disturbance on site and the measured the army has outlined in the EA and previously coordinated with us to protect the bald eagles nesting on site, we do not anticipate the proposed project to result in adverse impacts upon these listed species.

To minimize overall impacts to wildlife and our natural resources, we offer the following comments about development activities: We recommend that the applicant avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable. We recommend maintaining undisturbed naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams.

We recommend that the stormwater controls for this project be designed to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of Low Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.

We recommend that all tree removal and ground clearing adhere to a time of year restriction protective of resident and migratory songbird nesting from March 15 through August 15 of any year.

We recommend adherence to erosion and sediment controls during ground disturbance.

We recommend that all development activities on Ft. AP Hill adhere to the currently approved Integrated Natural Resources Management Plan for the installation.

Assuming adherence to erosion and sediment controls during disturbance, we find this project consistent with the Fisheries Management Section of the CZMA.

Thanks, Amy

Amy Ewing
Environmental Services Biologist
VA Dept. of Game and Inland Fisheries
4010 W. Broad Street
Richmond, VA 23230
804-367-2211
amy.ewing@dgif.virginia.gov

Wellman, Julia (DEQ)

From: Holma, Marc (DHR)
Sent: Wednesday, May 25, 2011 2:58 PM
To: Mullin, John J CTR USA IMCOM
Cc: Wellman, Julia (DEQ)
Subject: Asymmetric Warfare Group 800 and 1,200 meter Training Ranges, Fort A.P. Hill (DHR # 2008-1135; DEQ #2008-1135)

John,

I have received from DEQ for my review and comment the EA for the above referenced project. Our database indicates that although Fort A.P. Hill consulted with DHR regarding eligibility for 3 archaeological sites in October 2010--all were found not eligible and DHR concurred--the Army has not followed up that consultation with our comment on effect. In order to close the Section 106 loop on this project, and to satisfy DEQ's needs, please provide to DHR a request for our concurrence on effect. Thanks.

Marc

*Marc E. Holma, Architectural Historian
Office of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221
phone: (804) 367-2323 x114
fax: (804) 367-2391
web: www.dhr.virginia.gov*

**** Learn more about DHR's [ePIX](#) - Electronic Project Information Exchange ****

Wellman, Julia (DEQ)

From: Holma, Marc (DHR)
Sent: Thursday, June 16, 2011 10:42 AM
To: Wellman, Julia (DEQ); Mullin, John J CTR USA IMCOM
Subject: RE: Asymmetric Warfare Group 800 and 1,200 meter Training Ranges, Fort A.P. Hill (DHR # 2008-1135; DEQ #2008-1135)

John,

Here are our comments on the above referenced project.

Marc



2008-1135.pdf

*Marc E. Holma, Architectural Historian
Office of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221
phone: (804) 367-2323 x114
fax: (804) 367-2391
web: www.dhr.virginia.gov*

**** Learn more about DHR's ePIX - Electronic Project Information Exchange ****

Project: Proposed combined 800-meter and 1,200-meter range complex at Fort A.P. Hill, Caroline County, Virginia

CONCUR: No historic properties will be affected by the proposed undertaking.


SIGNATURE

VDHR File: 2008-1135

DATE 16 June 11

Wellman, Julia (DEQ)

From: Forsgren, Diedre (VDH)
Sent: Friday, May 20, 2011 3:05 PM
To: Wellman, Julia (DEQ)
Cc: Matthews, Barry (VDH)
Subject: (11-080F) EA: Asymmetric Warfare Group 800- and 1,200-Meter Training Ranges

DEQ Project #: 11-080F
Name: Asymmetric Warfare Group 800- and 1,200-Meter Training Ranges
Sponsor: DOD/Department of the Army/ Fort A. P. Hill
Location: Caroline County

VDH – Office of Drinking Water has reviewed DEQ Project Number 11-080F. Below are our comments as they relate to proximity to **public drinking water** sources (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems must be verified by the local utility.

No groundwater wells are within a 1 mile radius of the project site.

No surface water intakes are located within a 5 mile radius of the project site.

Project does not fall within Zone 1 (up to 5 miles into the watershed) or Zone 2 (greater than 5 miles into the watershed) of any public surface water sources.

There are no apparent impacts to public drinking water sources due to this project.

Diedre Forsgren

Office Services Specialist
VIRGINIA DEPARTMENT OF HEALTH
Office of Drinking Water, Room 622-A
109 Governor Street
Richmond, VA 23219
Phone: (804) 864-7241
email: diedre.forsgren@vdh.virginia.gov

Carl E. Garrison III
State Forester



COMMONWEALTH of VIRGINIA

DEPARTMENT OF FORESTRY
900 Natural Resources Drive, Suite 800
Charlottesville VA 22903
434.977.6555 ~ Fax: 434.296.2369
www.dof.virginia.gov

June 15, 2011

PROPOSED PROJECT: Asymmetric Warfare Group 800- and 1,200-Meter
Training Ranges,
DOD / U.S. Army – Fort A. P. Hill
DEQ Project #11-080F

Department of Forestry's Comments:

This project will have a significant impact to the overall forest resources of the Commonwealth, specifically the loss of forest cover, tree canopy and the associated benefits. The Environmental Assessment indicates that a total of 103 acres of forestland will be cleared or affected by this project, and therefore, Fort A.P. Hill should mitigate the loss of forestland. The mitigation could be in the form of reforesting open lands, improving the growth of existing forestlands, or conserving lands through conservation easements so they will remain in forestland for perpetuity.

Also, within construction zones and where ever feasible, existing groupings and/or clusters of trees and natural vegetation should remain on the site to provide esthetic and environmental benefits, as well as reducing future open space maintenance costs.

Trees not slated for removal can be protected from the effects of construction activities associated with future construction. These trees should be marked and fenced at least to the drip line or the end of the root system, whichever extends farther from the 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 contractors should use temporary crossing bridges or mats to minimize soil compaction and mechanical injury to plants.

Any stock piling 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.

Mission: We Protect and Develop Healthy, Sustainable Forest Resources for Virginians.

All harvesting operations should follow Forestry Best Management Practices (BMPs) for water quality as outlined by the Virginia Department of Forestry's Voluntary BMP Guidelines publication.

Questions pertaining to protection of trees and forest resources of the Commonwealth may be addressed to Todd Groh, Assistant Director of Forest Management at the DOF (telephone:434-220-9044, email: todd.groh@dof.virginia.gov).

APPENDIX B
COASTAL ZONE CONSISTENCY DETERMINATION

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Coastal Zone Management Act Consistency Determination
for the
Proposed AWG Training Ranges
at Fort A.P. Hill, Virginia

Determination under the Coastal Zone Management Act (CZMA) section 307(c) (1) and 15 CFR Part 930, sub-part C, for implementation of the Proposed Action described below. The information in this Consistency Determination is provided pursuant to 15 CFR Section 930.39. A full description of the proposed activity may be found in main body of the Environmental Assessment (EA) for the proposed AWG Training Ranges at Fort A.P. Hill, Virginia, which is incorporated by reference into this Consistency Determination.

Consistency Determination

The Virginia Coastal Zone Management Program (CZMP) contains the applicable enforceable policies presented in the left column of Table A-1. The Army has determined that the implementation of the Proposed Action would have no effects on the land or water uses or natural resources of Virginia as described in the right column of the table.

Based upon the information, data, and analysis, as contained in the EA, the Army finds that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the Virginia CZMP. Pursuant to 15 CFR Section 930.41, the Virginia CZMP has 60 days from the receipt of this document in which to concur with or object to this Consistency Determination, or to request an extension under 15 CFR section 930.41(b). Virginia's concurrence will be presumed if its response is not received by the Army on or before the 60th day from receipt of this determination. The Commonwealth of Virginia's response should be sent to Ms. Terry Banks, Chief, Environmental Division, 19952 North Range Road, Fort A.P. Hill, Virginia, 22427.

Table B-1: Fort A.P. Hill CZMA/CZMP Consistency Determination

Fisheries Management	No Effect
<p>The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the VMRC (Virginia Code '28.2-200 to '28.2-713) and the Department of Game and Inland Fisheries (DGIF) (Virginia Code '29.1-100 to '29.1-570).</p> <p>The State Tributyltin (TBT) Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing TBT. The use of TBT in boat paint constitutes a serious threat to important marine animal species. The TBT program monitors boating activities and boat painting activities to ensure compliance with TBT regulations promulgated pursuant to the amendment. The VMRC, DGIF, and Virginia Department of Agriculture and Consumer Services share enforcement responsibilities (Virginia Code '3.1-249.59 to '3.1-249.62).</p>	<p>The Proposed Action would involve limited building within the adjacent Smoots Run. This action would not have a reasonably foreseeable effect on fish spawning, nursery, or feeding grounds, and therefore none on fisheries management per the VMRC or DGIF.</p> <p>No paints containing TBT would be used under the Proposed Action.</p>
Subaqueous Lands Management	No Effect
<p>The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the DEQ, Water Division. The program is administered by the VMRC (Virginia Code '28.2-1200 to '28.2-1213).</p>	<p>Impacts to subaqueous land would be confined to the installation of piles associated with the proposed bridge structure. The piles would displace and/or compact a small area of subaqueous land. The Proposed Action would not result in any measurable changes to subaqueous lands. A Virginia Subaqueous Bed Permit would be obtained from VMRC. The Army would apply to VMRC through the Joint Permit Application (JPA) process administered by the VMRC.</p>

Table B-1: Fort A.P. Hill CZMA/CZMP Consistency Determination

Nonpoint Source Pollution Control

Virginia's Erosion and Sediment Control (ESC) Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by the Department of Conservation and Recreation (DCR) (Virginia Code 10.1-560 et seq.). Also, construction activity of less than 1 acre but part of a common plan of development disturbing 1 or more acres and having the potential to discharge stormwater requires coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater for Construction Activities.

No Effect

The Proposed Action would require ground disturbance for facility construction. A VSMP permit will be obtained for this project. The permit process will include a site-specific Storm Water Pollution Prevention Plan (SWPPP).

Wetlands Management

The purpose of the wetlands management program is to preserve tidal wetlands, prevent their despoilation, and accommodate economic development in a manner consistent with wetlands preservation.

(i) The tidal wetlands program is administered by the VMRC (Virginia Code §28.2-1301 through '28.2-1320).

(ii) The Virginia Water Protection Permit program administered by the Department of Environmental Quality includes protection of wetlands --both tidal and non-tidal. This program is authorized by Virginia Code § 62.1-44.15.5 and the Water Quality Certification requirements of Section 401 of the Clean Water Act of 1972.

Except where required for road crossing of the wetland, the project design would preserve a 100-foot buffer adjacent to all jurisdictional wetlands, conforming with the Chesapeake Bay Preservation Act.

No Effect

The Proposed Action would not affect any tidal wetlands at Fort A.P. Hill. It is unlikely that the Proposed Action would require a Virginia Water Protection (VWP) Permit as it does not propose to conduct any of the following activities in a wetland:

1. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions.
2. Filling or dumping.
3. Permanent flooding or impounding.
4. New activities that cause significant alteration or degradation of existing wetland acreage or functions.

A JPA and a Water Quality Impact Assessment will be completed and submitted to VMRC for the proposed bridge crossing. During the course of the Proposed Action, however, if it were to become evident that an impact would occur, then the installation would apply for a VWP permit prior to commencing the activity. Additionally, the installation would prepare and adhere to an Erosion and Sediment Control Plan to prevent sedimentation from entering surface waters (see non-point source pollution control section below).

Table B-1: Fort A.P. Hill CZMA/CZMP Consistency Determination

Dunes Management	No Effect
Dune protection is carried out pursuant to The Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the VMRC (Virginia Code '28.2-1400 through '28.2-1420).	No permanent alteration of or construction upon any coastal primary sand dune will take place under the Proposed Action.
Point Source Pollution Control	No Effect
The point source program is administered by the State Water Control Board pursuant to Virginia Code '62.1-44.15. Point source pollution control is accomplished through the implementation of the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to Section 402 of the federal Clean Water Act and administered in Virginia as the Virginia Pollutant Discharge Elimination System (VPDES) permit program.	American Water O&M, Inc., is now the permittee for the wastewater treatment plant at Fort A.P. Hill. Fort A.P. Hill has a petroleum, oil, and lubricants industrial general permit. The Proposed Action would not impact these permits.
Coastal Lands Management	No Effect
A state-local cooperative program administered by DCR's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater, Virginia, established pursuant to the Chesapeake Bay Preservation Act; Virginia Code §§ 10.1-2100 through 10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative code 9 VAC10-20-10 et seq.	Buffer areas of not less than 100 feet adjacent to and landward of the components listed in 9 VAC 10-20- 80 Resource Protection Areas would be adhered to. Best management practices would be developed and implemented in accordance with the VSMP SWPPP. Applicable provisions of the Chesapeake Bay Preservation Act will be adhered to during all construction and operational activities.
Shoreline Sanitation	No Effect
The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code '32.1-164 through '32.1-165).	Sanitation facilities at the AWG Training Ranges would not be close to streams, rivers, or other waters of the Commonwealth, and no adverse effects on Commonwealth waters would result from use of the facilities.

Table B-1: Fort A.P. Hill CZMA/CZMP Consistency Determination

Air Pollution Control

The program implements the federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code '10-1.1300).

No Effect

The estimated emissions from implementation of the Proposed Action would not exceed the de minimis threshold values. A conformity determination is not required.

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APPENDIX C
NOISE ANALYSIS

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DEPARTMENT OF THE ARMY
US ARMY INSTITUTE OF PUBLIC HEALTH
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MD 21010-5403

MCHB-IP-EON

MEMORANDUM FOR Directorate of Public Works (ANAP-PWE/Mr. Sergio Sergi),
19952 N. Range Road, Fort A.P. Hill, VA 22427

SUBJECT: Operational Noise Consultation, 52-EN-0DCC-11, Operational Noise
Contours for Proposed Small Caliber Asymmetric Warfare Group (AWG) Training
Range Site at Fort A.P. Hill, VA, 7 December 2010

1. We are enclosing 2 copies of the consultation.
2. Please contact us if this consultation or any of our services did not meet your needs or expectations.
3. The point of contact is Ms. Kristy Broska, Environmental Protection Specialist or Ms. Catherine Stewart, Program Manager, Operational Noise, Army Institute of Public Health, US Army Public Health Command (Provisional) [formerly US Army Center for Health Promotion and Preventive Medicine], at commercial (410) 436-3829, DSN 584-3829, or email: kristy.broska@us.army.mil or catherine.stewart@us.army.mil.

FOR THE DIRECTOR:

Encl

WILLIAM J. BETTIN
LTC, MS
Portfolio Director, Environmental Health
Engineering

CF:
AEC, IMAE-TSP (Ms. McDowell)



U.S. ARMY PUBLIC HEALTH COMMAND (Provisional)

5158 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403

OPERATIONAL NOISE CONSULTATION
NO. 52-EN-0DCC-10
OPERATIONAL NOISE CONTOURS
PROPOSED SMALL CALIBER
ASYMMETRIC WARFARE GROUP TRAINING RANGE SITE
FORT A.P. HILL, VIRGINIA
7 DECEMBER 2010

Distribution authorized to U.S. Government Agencies only; protection of privileged information evaluating another command; Dec 10. Requests for this document must be referred to Directorate of Public Works (ANAP-PWE/Mr. Sergio Sergi), 19952 N. Range Road, Fort A.P. Hill, VA 22427

Preventive Medicine Surveys: 40-5f1

PHC FORM 433-E (MCHB-CS-IP), SEP 10

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DEPARTMENT OF THE ARMY
US ARMY INSTITUTE OF PUBLIC HEALTH
5158 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MD 21010-5403

MCHB-IP-EON

EXECUTIVE SUMMARY
NO. 52-EN-0DCC-11
OPERATIONAL NOISE CONTOURS
PROPOSED SMALL CALIBER
ASYMMETRIC WARFARE GROUP TRAINING RANGE SITE
FORT A.P. HILL, VIRGINIA
7 DECEMBER 2010

1. PURPOSE. To provide Fort A.P. Hill small caliber noise contours for the proposed Asymmetric Warfare Group (AWG) Training Range Site for the appropriate National Environmental Policy Act (NEPA) documentation.

2. CONCLUSIONS.

a. The existing small caliber ranges generate a Zone II [PK15(met) 87 dB] noise contour that extends beyond the eastern and southern boundaries and a small area in which the Zone III [PK15(met) 104 dB] noise contour extends beyond the southern boundary, crossing State Route 618. Based upon the available aerial imagery, there are several scattered residential properties and/or areas within the existing Noise Zone II [PK15(met) 87 dB contour] and a few residential properties within the existing Noise Zone III [PK15(met) 104 dB contour] that extends beyond the southern boundary along State Route 618.

b. The proposed AWG Training Range activity generates a Zone II [PK15(met) 87 dB] noise contour that extends beyond the southern and southwestern boundaries. The Zone III [PK15(met) 104 dB] noise contour does not extend beyond the boundary.

c. The addition of the AWG Training Range activity would negligibly increase the amount of land off post contained within the small arms Zone II. The off post Zone III area would not increase. Based upon the available aerial imagery, the operations at the AWG would add one additional residence within the Zone II. It should be noted that the AWG Training Range would have multiple firing and target point locations within the range footprint. The outer extents of the small arms Noise Zones are delineated based on utilization of the loudest weapon (.50 caliber) at firing points closest to the boundary. Levels would be lower when other types of small arms and/or interior firing points are used.

d. The site of the proposed AWG Training Range is at that of an existing firing point (FP1). Small arms (up to .50 caliber) are currently fired at FP1. The slight enlargement of the noise contours with the addition of the AWG Training Range is attributable to an increase in the width of the firing line and variations in direction of fire from what is currently in use at FP1. The proposed small arms activity would not be noticeably louder than existing small arms, mortar or artillery operations to nearby residents. However, though not anticipated to be significant, neighbors may discern an increase in the frequency of small arms firing.

3. RECOMMENDATIONS.

a. Include the information from this consultation in the appropriate NEPA documentation.

b. Fort A.P. Hill should continue its operational noise management and outreach programs to inform the public of possible noise from training. Fort A.P. Hill should monitor both the noise environment and any proposed land use changes surrounding the installation.

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OPERATIONAL NOISE CONSULTATION
NO. 52-EN-0DCC-11
OPERATIONAL NOISE CONTOURS
PROPOSED SMALL CALIBER
ASYMMETRIC WARFARE GROUP TRAINING RANGE SITE
FORT A.P. HILL, VIRGINIA
7 DECEMBER 2010

1. REFERENCES. A list of the references used in this consultation is in Appendix A. A glossary of terms and abbreviations used are in Appendix B. Appendix C contains the Noise Zone Descriptions and Land Use Guidelines used in this consultation.
2. AUTHORITY. The Army Environmental Command, Aberdeen Proving Ground, MD funded this consultation. Funding was received through Military Interagency Purchase Request (MIPR) number 10006555 dated 1 February 2010.
3. PURPOSE. To provide Fort A.P. Hill small caliber noise contours for the proposed Asymmetric Warfare Group (AWG) Training Range Site for the appropriate National Environmental Policy Act (NEPA) documentation.
4. GENERAL. The contours presented in this consultation address the small caliber noise environment from:
 - The existing small caliber ranges.
 - The proposed AWG Training Range.
 - The cumulative projected small caliber ranges (i.e. existing small caliber ranges plus the future Infantry Platoon Battle Course (IPBC) plus the proposed AWG Training Range).
5. NOISE CONTOURING PROCEDURES.
 - a. General. Gunshots are impulsive in nature and occur over a very short period in time, only a few thousandths of a second. Unlike topographic contours, noise contours are not intended to be precise delineation of the noise zones. Variables including meteorology and the receiver's perception of the source can influence the level or impact of noise. Noise contours do not clearly divide noise zones with one side of the line compatible and the other side incompatible.

b. Small Caliber Activity. The noise simulation program used to assess small caliber weapons (.50 caliber and below) noise is the Small Arms Range Noise Assessment Model (SARNAM) (U.S. Army 2003). The SARNAM requires operational data concerning types of weapons and range layout. The SARNAM calculation algorithms assume weather conditions or wind direction that favor sound propagation are present.

(1) The noise contours in this section were created using PK15(met) as prescribed in Army Regulation (AR) 200-1 (U.S. Army 2007). The contours show the predicted peak levels for individual rounds (metric term is PK15(met)). Since the contours are based on peak levels rather than a cumulative or average level, the size of the contours will not change if the number of rounds fired increases or decreases.

(2) The inputs utilized to generate the small caliber noise contours are shown in Appendix D.

6. SMALL CALIBER NOISE CONTOURING RESULTS.

a. Existing Small Caliber Ranges. Figure 1 contains the small caliber weapons contours for the existing activity. The existing activity generates a Zone II [PK15(met) 87 dB] noise contour that extends less than 1,500 meters beyond the eastern and southern boundaries. The Zone III [PK15(met) 104 dB] noise contour extends less than 400 meters beyond the southern boundary, crossing State Route 618.

b. Proposed AWG Training Range. Figure 2 contains the small caliber weapons contours for the proposed AWG Training Range activity. The proposed AWG activity generates a Zone II [PK15(met) 87 dB] noise contour that extends up to 1,700 meters beyond the southern boundary and approximately 500 meters beyond the southwestern boundary. The Zone III [PK15(met) 104 dB] noise contour does not extend beyond the boundary.

c. Existing Compared to Proposed. Figure 3 contains an overlay of the noise contours in the southwestern area of Fort A.P. Hill. With the addition of the AWG Training Range activity, the noise contours encompass a small slice of land off post that was previously not within the Zone II. Based upon the available aerial imagery, there would be one additional residential property within the Noise Zone II [PK15(met) 87 dB contour]. However, due to the property's location in relation to existing activities, the residents should not discern an increase in peak noise levels.

d. Cumulative Projected Small Caliber Ranges. Figure 4 contains small caliber weapons contours for the existing ranges, the future IPBC range, and the proposed AWG Training Range. There would be no additional homes within the Noise Zone III contour. Though there would be a slight increase to the Zone II, the peak sound levels of the small arms firing would not be noticeably louder than existing activity.

e. Land Use Compatibility. Per AR 200-1, noise-sensitive land uses, such as housing, schools, and medical facilities are acceptable within the Noise Zone I, normally not recommended in Noise Zone II, and not recommended in Noise Zone III (U.S. Army 2007). Based upon the available aerial imagery, there are currently several scattered residential properties and/or areas within the Noise Zone II [PK15(met) 87 dB contour] and a few residential properties within the Noise Zone III [PK15(met) 104 dB contour] that extends beyond the southern boundary along State Route 618.

(1) The proposed AWG Training Range would result in one residence which currently is just beyond Noise Zone II falling slightly within Noise Zone II. No additional residences would be contained within Noise Zone III.

(2) Small arms Noise Zones are delineated based on predicted peak levels of 87 PK15 (met) and 104 PK15(met). For noise sources such as small arms, sound levels will decrease approximately 6 dB for every doubling of distance from the firing point. Though a contour is depicted on a map, the noise will not stop at the contour, but rather will gradually decrease as the distance from the firing point increases. For most individuals, it takes at least a 3 dB change in noise level to be judged barely perceptible.

(3) The proposed AWG Training Range is located over the site of an existing artillery firing point (FP1). At FP1, the weapons that would be utilized at the proposed AWG Training Range are currently being fired at the proposed location (FP1). If constructed, the AWG training range would allow more variability in the direction of fire and it would also allow for a wider firing line. These slight modifications to the firing and target locations would have a negligible impact on the noise. The slight change in the shape of the noise contours would be attributable to the expanded firing line and variations in the direction of fire. The additional residence that would be contained within Zone II is already in close proximity to the Noise Zones and therefore the change in the loudness of small arms activity should not be noticeable. Additionally, the proposed AWG activity would not be as loud as existing mortar and artillery operations. However, though not anticipated to be significant, neighbors may discern an increase in the frequency of small arms firing.

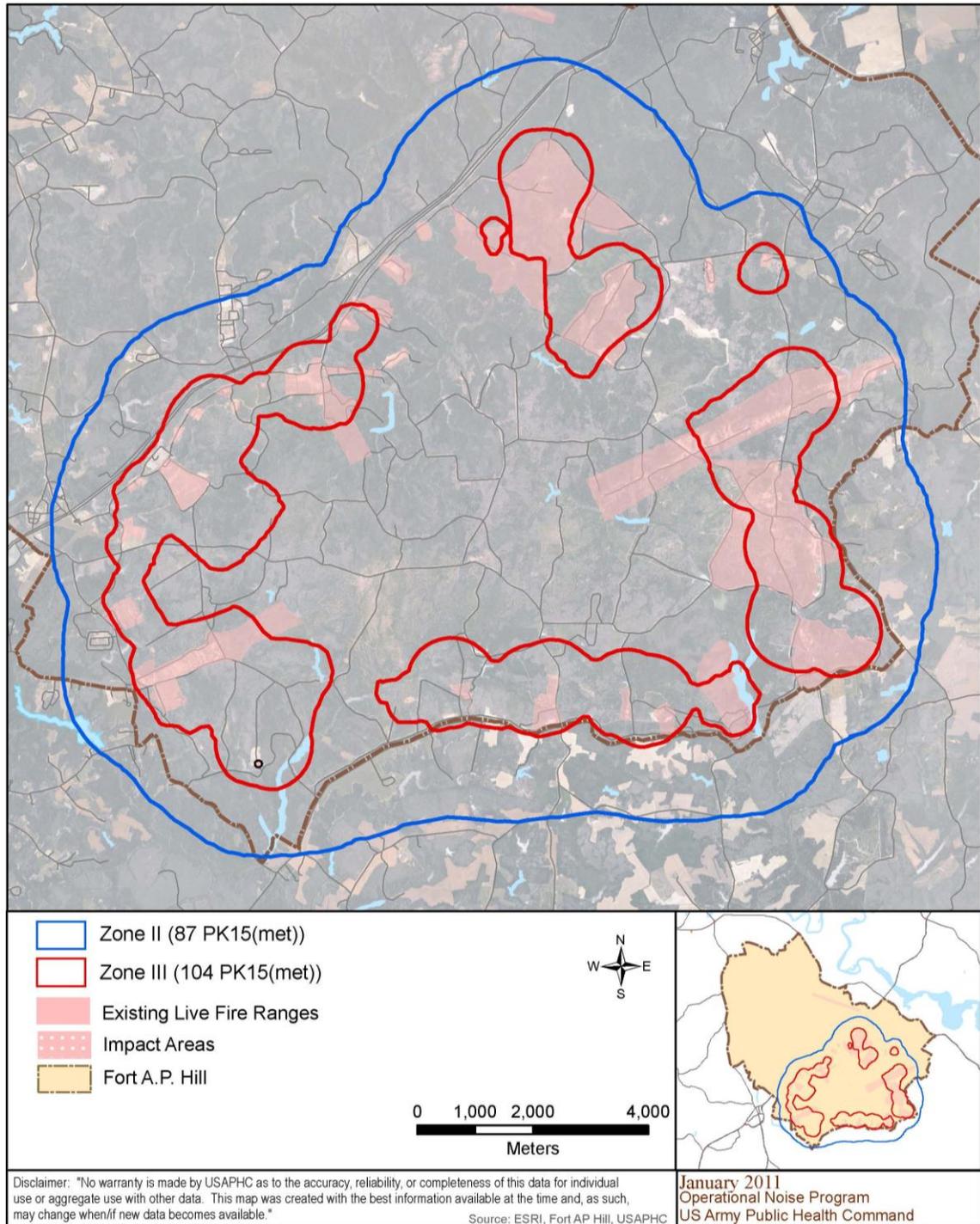


FIGURE 1. EXISTING SMALL CALIBER NOISE CONTOURS

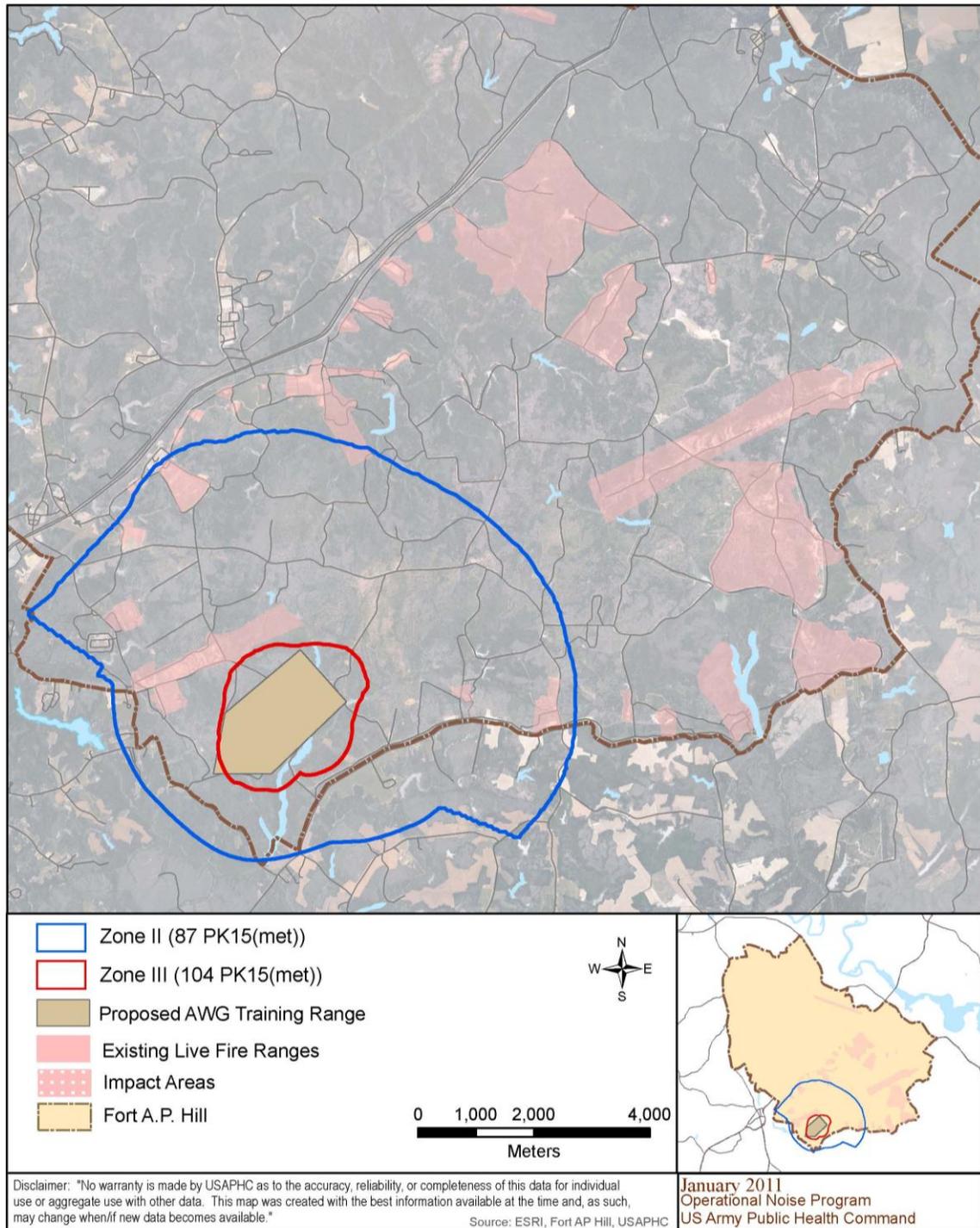


FIGURE 2. PROJECTED AWG TRAINING RANGE
SMALL CALIBER NOISE CONTOURS

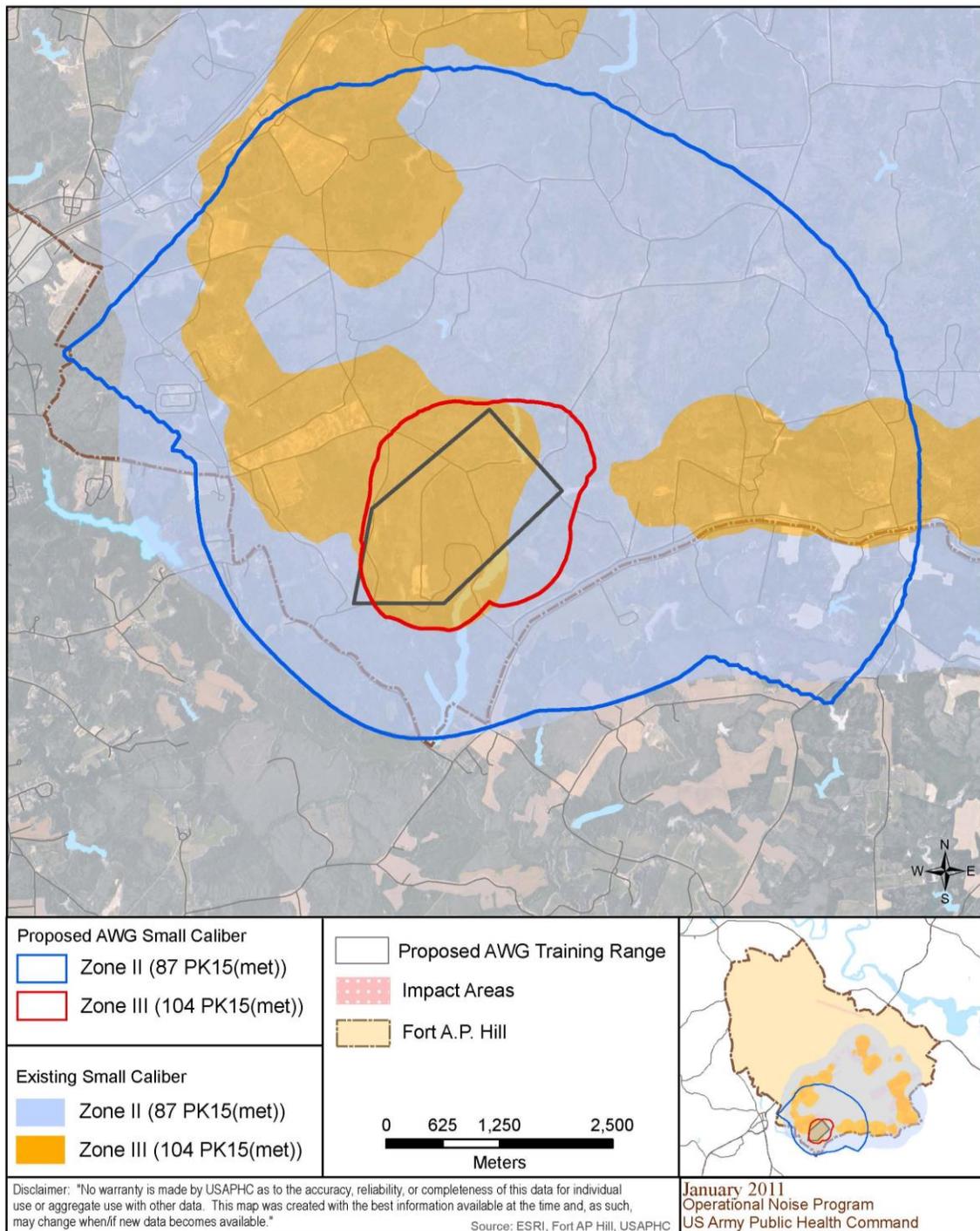


FIGURE 3. EXISTING vs. PROJECTED AWG TRAINING RANGE SMALL CALIBER NOISE CONTOURS

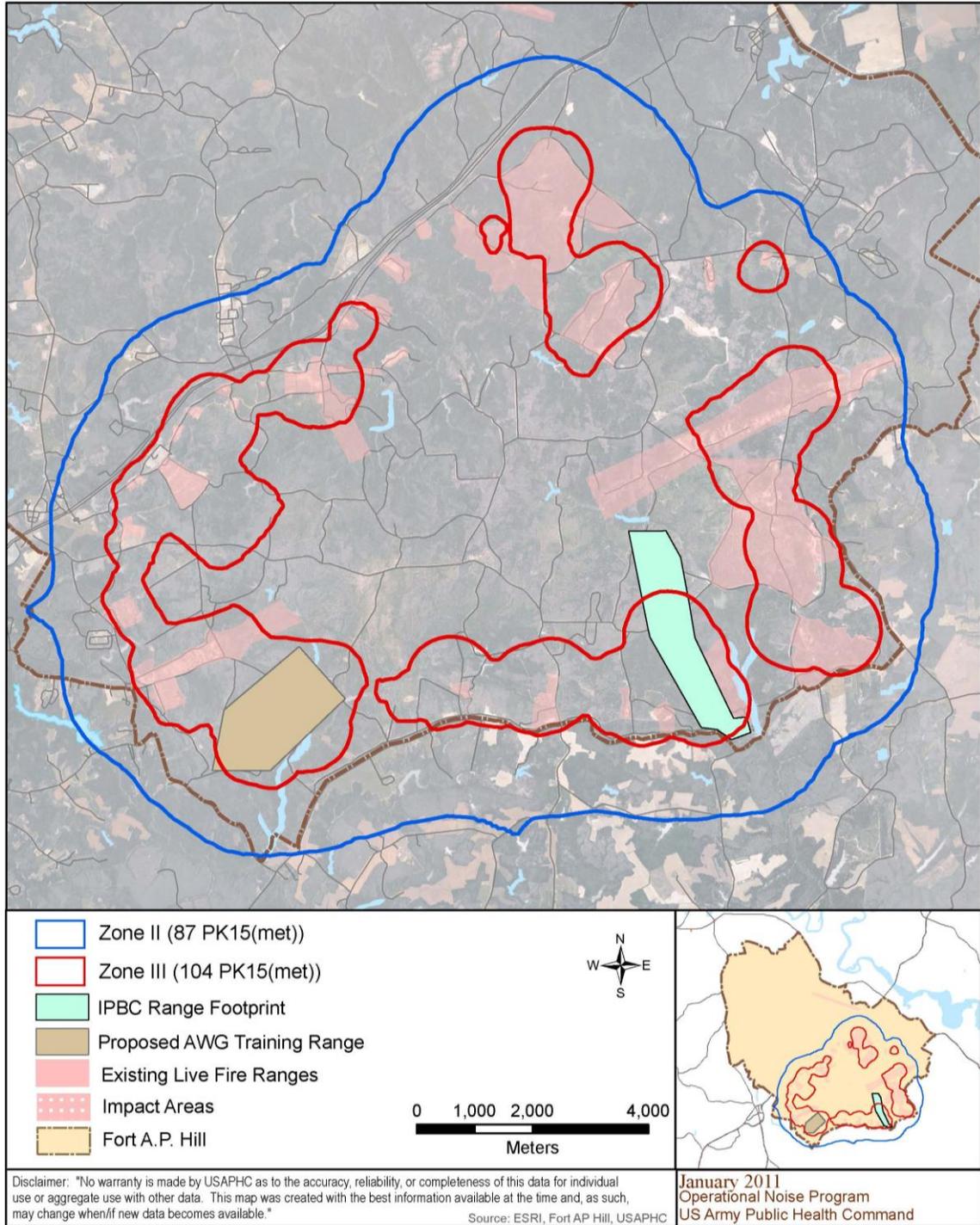


FIGURE 4. CUMULATIVE PROJECTED SMALL CALIBER RANGES

7. CONCLUSIONS.

a. The existing small caliber ranges generate a Zone II [PK15(met) 87 dB] noise contour that extends beyond the eastern and southern boundaries and a small area in which the Zone III [PK15(met) 104 dB] noise contour extends beyond the southern boundary, crossing State Route 618. Based upon the available aerial imagery there are several scattered residential properties and/or areas within the existing Noise Zone II [PK15(met) 87 dB contour] and a few residential properties within the existing Noise Zone III [PK15(met) 104 dB contour] that extends beyond the southern boundary along State Route 618.

b. The proposed AWG Training Range activity generates a Zone II [PK15(met) 87 dB] noise contour that extends beyond the southern and southwestern boundaries. The Zone III [PK15(met) 104 dB] noise contour does not extend beyond the boundary.

c. The proposed AWG Training Range is located in close proximity to existing small arms ranges, mortar, and artillery firing points. The proposed small arms activity should not be noticeably louder than existing small arms firing to nearby residents. Additionally, the proposed AWG activity would not be as loud as existing mortar and artillery operations. However, though not anticipated to be significant, neighbors may discern an increase in the frequency of small arms firing.

8. RECOMMENDATIONS.

a. Include the information from this consultation in the appropriate NEPA documentation.

b. Fort A.P. Hill should continue its operational noise management and outreach programs to inform the public of possible noise from training. Fort A.P. Hill should monitor both the noise environment and any proposed land use changes surrounding the installation.

KRISTY BROSKA
Environmental Protection Specialist
Operational Noise

APPROVED:

CATHERINE STEWART
Program Manager
Operational Noise

APPENDIX A

REFERENCES

1. The U.S. Army, 2003, Army Construction Engineering Research Laboratories, SARNAM Computer Model, Version 2.6.2003-06-06.
2. The U.S. Army, 2007, Army Regulation 200-1, Environmental Protection and Enhancement, Chapter 14 Operational Noise.

APPENDIX B

GLOSSARY OF TERMS, ACRONYMS & ABBREVIATIONS

B-1. GLOSSARY OF TERMS.

Decibels (dB) – a logarithmic sound pressure unit of measure.

PK15(met) – the maximum value of the instantaneous sound pressure for each unique sound source and applying the 15 percentile rule accounting for meteorological variation.

B-2. GLOSSARY OF ACRONYMS AND ABBREVIATIONS.

AWG	Asymmetric Warfare Group
IPBC	Infantry Platoon Battle Course
NEPA	National Environmental Policy Act
PK15(met)	Unweighted Peak, 15% Metric
SARNAM	Small Arms Range Noise Assessment Model

APPENDIX C

NOISE ZONE DESCRIPTIONS

C-1. REFERENCE. The U.S. Army, 2007, Army Regulation 200-1, Environmental Protection and Enhancement, Chapter 14 Operational Noise.

C-2. For a detailed explanation of Noise Zone Descriptions and Land Use Guidelines see Army Regulation 200-1, Chapter 14 (U.S. Army 2007).

C-3. PK15(met) Noise Contour Description. The PK15(met) is the peak sound level, factoring in the statistical variations caused by weather, that is likely to be exceeded only 15 percent of the time (i.e., 85 percent certainty that sound will be within this range). This “85 percent solution” gives the installation and the community a means to consider the areas impacted by training noise without putting stipulations on land that would only receive high sound levels under infrequent weather conditions that greatly favor sound propagation. The PK15(met) does not take the duration or the number of events into consideration, so the size of the contours will remain the same regardless of the number of events.

C-4. Land Use Guidelines.

a. The Noise Zone III consists of the area around the noise source in which the sound level is greater than 104 dB PK15(met) for small caliber weapons. Noise-sensitive land uses (such as housing, schools, and medical facilities) are not recommended within Noise Zone III.

b. The Noise Zone II consists of an area where the sound level is between 87 and 104 dB PK15(met) for small caliber weapons. Land within Noise Zone II should normally be limited to activities such as industrial, manufacturing, transportation, and resource production. However, if the community determines that land in Noise Zone II (attributable to small arms or aviation) areas must be used for residential purposes, then noise level reduction (NLR) features of 25 to 30 decibels should be incorporated into the design and construction of new buildings to mitigate noise levels. For large caliber weapons, NLR features cannot adequately mitigate the low-frequency component of large caliber weapons noise.

c. The Noise Zone I includes all areas around a noise source in which the sound level is less than 87 PK15(met) for small arms weapons. This area is usually acceptable for all types of land use activities.

d. See Table C for land use guidelines.

TABLE C. LAND USE PLANNING GUIDELINES.

Noise Zones	Small Arms dB PK15(met)
LUPZ	n/a
I	<87
II	87-104
III	>104

APPENDIX D
SMALL CALIBER RANGE UTILIZATION

TABLE D-1. EXISTING SMALL CALIBER RANGE UTILIZATION.

	PISTOL, 9 MM, LIVE	PISTOL, .45 CAL, LIVE	TRAINER AT4, 9MM TPT	RIFLE, 5.56 MM, LIVE	RIFLE, 5.56 MM, LIVE	RIFLE, .30 CAL, LIVE	MACHINE GUN, 7.62 MM, LIVE	MACHINE GUN, 7.62 MM, LIVE	MACHINE GUN, .50 CAL, LIVE	SHOTGUN, .12 GAUGE	SNIPER RIFLE, .50 CAL, LIVE
CONVOY LIFE FIRE2	X		X			X	X				
CONVOY LIFE FIRE1	X		X			X	X	X			
RANGE 1 CPCQ	X		X							X	
RANGE 2 CPQC	X		X							X	
RANGE 3 MPMG	X		X		X	X		X			
RANGE 4 ZERO		X	X	X		X				X	
RANGE 5 MG ZERO						X	X	X	X		
RANGE 7	X		X								
RANGE 8 AFF	X		X							X	
RANGE 9 ZERO	X		X							X	
RANGE 10 KD			X			X	X	X	X	X	
RANGE 10A KD	X		X			X				X	
RANGE 14 ZERO	X		X								
RANGE 18 FM	X		X	X		X	X			X	
RANGE 19 MP			X	X		X		X			
RANGE 21 MP	X		X			X		X			
RANGE 23 ZERO	X		X			X				X	
RANGE 24			X	X	X	X	X	X			
RANGE 25			X	X		X	X	X			
RANGE 26 IPBC	X		X	X		X	X	X			
RANGE 27 IPBC			X			X		X			
RANGE 28 IPBC			X			X		X			
RANGE 29			X	X		X	X				
RANGE 32 ARF			X	X		X	X				
RANGE 33	X		X	X		X	X	X		X	X
RANGE 34 ARF			X				X			X	
RANGE 35 ZERO	X		X	X		X				X	
RANGE 37 AFF	X		X			X					
RANGE 38			X								
OP2			X	X		X	X	X			
FP1	X		X			X		X			

*BLANK: any cartridge containing propellant but no bullet.

TABLE D-3. CUMULATIVE PROJECTED SMALL CALIBER RANGE UTILIZATION.

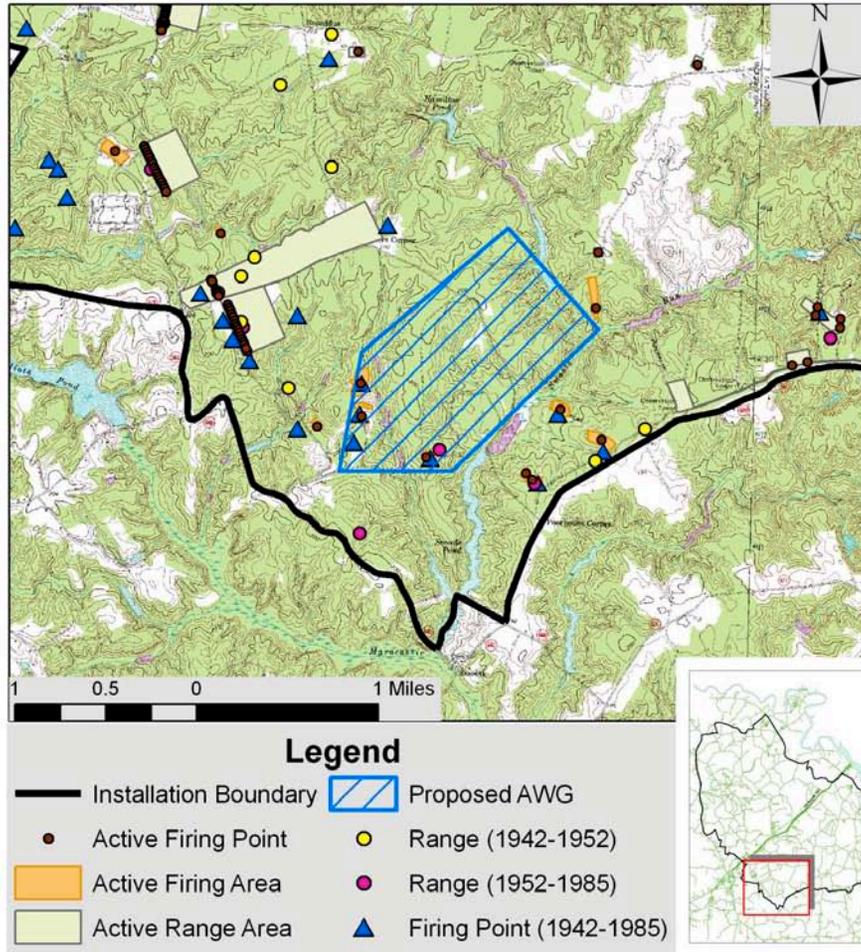
	PISTOL, 9 MM, LIVE	PISTOL, .45 CAL, LIVE	TRAINER AT4, 9MM TPT	RIFLE, 5.56 MM, LIVE	RIFLE, 5.56 MM, LIVE	RIFLE, .30 CAL, BLANK*	MACHINE GUN, LIVE	MACHINE GUN, 7.62 MM, LIVE	MACHINE GUN, 7.62 MM, BLANK	SHOTGUN, .50 CAL, LIVE	SNIPER RIFLE, .50 CAL, BLANK
CONVOY LIFE FIRE2	X		X			X	X				
CONVOY LIFE FIRE1	X		X			X	X	X			
RANGE 1 CPCQ	X		X							X	
RANGE 2 CPQC	X		X							X	
RANGE 3 MPMG	X		X		X	X		X			
RANGE 4 ZERO		X	X	X		X				X	
RANGE 5 MG ZERO						X	X	X	X		
RANGE 7	X		X								
RANGE 8 AFF	X		X							X	
RANGE 9 ZERO	X		X							X	
RANGE 10 KD			X			X	X	X	X	X	
RANGE 10A KD	X		X			X				X	
RANGE 14 ZERO	X		X								
RANGE 18 FM	X		X	X		X	X			X	
RANGE 19 MP			X	X		X		X			
RANGE 21 MP	X		X			X		X			
RANGE 23 ZERO	X		X			X				X	
RANGE 24			X	X	X	X	X	X			
RANGE 25			X	X		X	X	X			
RANGE 26 IPBC	X		X	X		X	X	X			
RANGE 27 IPBC			X			X		X			
RANGE 28 IPBC			X			X		X			
RANGE 32 ARF			X	X		X	X				
RANGE 33	X		X	X		X	X	X		X	X
RANGE 34 ARF			X				X			X	
RANGE 35 ZERO	X		X	X		X				X	
RANGE 37 AFF	X		X			X					
RANGE 38			X								
OP2			X	X		X	X	X			
FUTURE IPBC RANGE 29			X			X	X	X			
AWG TRAINING RANGE SITE	X		X			X	X	X			X

*BLANK: any cartridge containing propellant but no bullet.

APPENDIX D
FORT A.P. HILL DATA

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HISTORIC AND CURRENT MUNITIONS USE AT AWG RANGE AREA



HISTORIC

Firing Points (1942-1985)

- 105MM & 155MM Howitzers
- 155MM Guns
- 4.2-inch Mortar

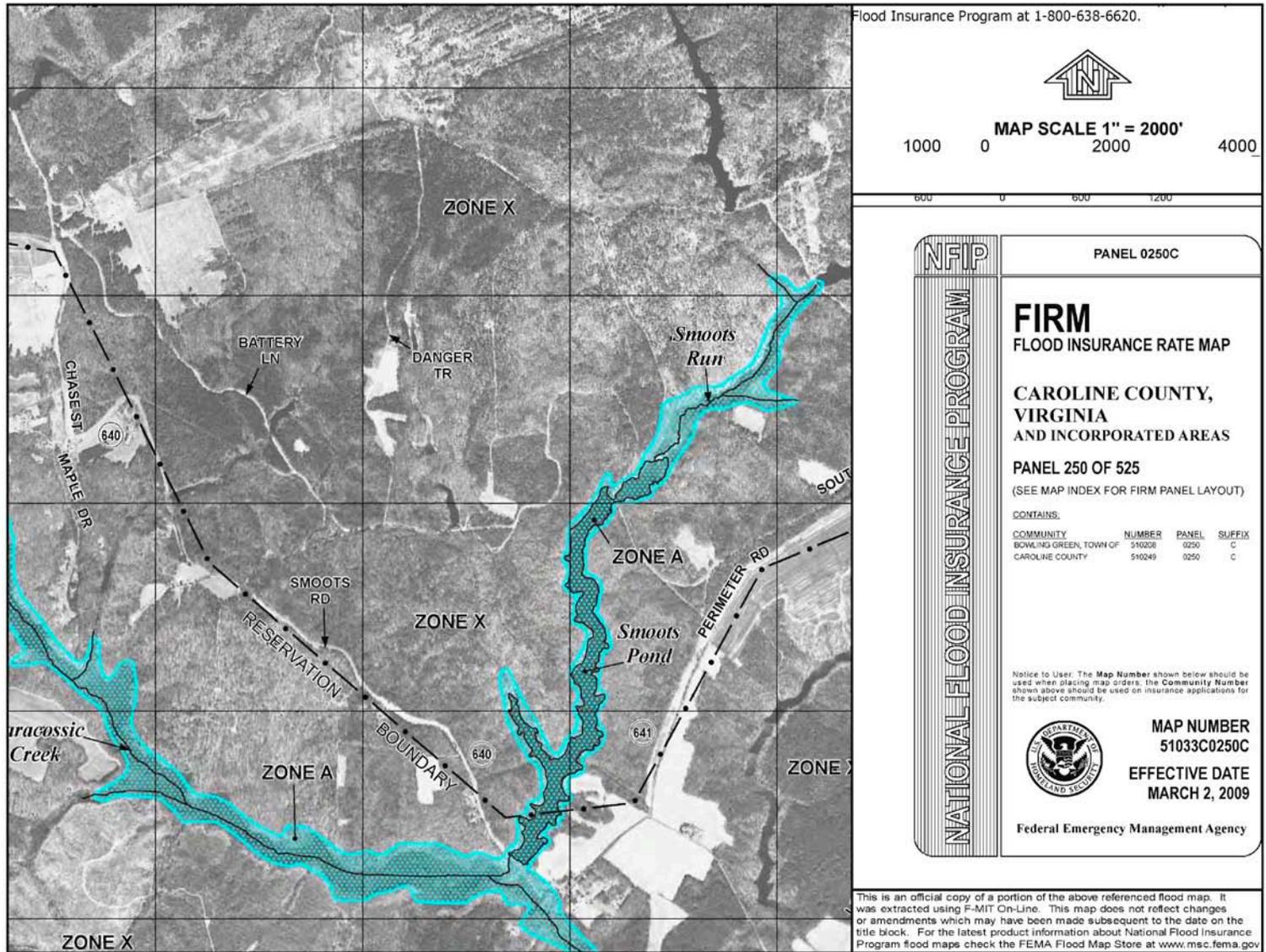
Live Fire Ranges (1942-1985)

- Small Arms (.223 cal through .50 cal)
- 60MM & 81MM Mortars
- 57MM, 75MM, 76MM, 105MM, 106MM & 165MM Guns
- Rocket Launchers – M1, M2, & M9
- High Explosive Anti-Tank (HEAT) Munitions
- Tanks and Combat Engineer Vehicles
- Explosives (TNT and composites)
- Rifle Grenades
- Flame Throwers

CURRENT

Typical Munitions (1985-present)

- Small Arms (.223 cal through .50 cal & shotgun)
- 60MM, 81MM & 120MM Mortars
- 105MM & 155MM Howitzers
- 40MM & 75MM Guns
- Anti-Tank High Explosives (landmine)
- Explosives (detonating cord, demolition charges)



APPENDIX E
LIST OF RECIPIENTS

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List of Recipients

Last Name	First Name	Salutation	Affiliation
Acors	Wayne	The Honorable	Madison District, Caroline County Board of Supervisors
Acors	Wayne	The Honorable	Madison District, Caroline County Board of Supervisors
Ashcraft	Percy	Mr.	County Administrator, Caroline County
Bacon	Dan	Mr.	Virginia Marine Resources Commission
Barnes	C. Douglas	Mr.	Spotsylvania County Administrator
Beacham	Deanna	Ms.	Virginia Council on Indians
Beck	David & Linda	Mr.	Portobago Bay Home Owners Association
Betchy	Harry	Mr.	Portobago Bay Home Owners Association
Blackwell	Thomas	Mr.	Essex County Commissioner of Revenue
Blevins	Edward & Margaret	Mr.	Portobago Bay Home Owners Association
Bodner	Jeff	Mr.	Portobago Bay Home Owners Association
Bohlmann	Mildred	Ms.	
Bohlmann	Michael		Portobago Bay Home Owners Association
Bowling Green Library			
Bronson	Regena	Ms.	U.S. Army Corps of Engineers
Brooks, Jr.	Cedell	Mr.	King George Board of Supervisors
Byrnes	Kevin	Mr.	George Washington Regional Commission
Cameron	Beverly	Mr.	Fredericksburg City Manager
Cannon	Bonnie	Ms.	
Caroline Library, Inc.			Port Royal Branch
Carpenter	William & Phyllis	Mr.	Edmont of Port Royal Bed & Breakfast
Carter	Sharon	Ms.	Caroline County Commissioner of Revenue
Central Rappahannock Regional Library			Headquarters
Chenhault	Monica	The Honorable	Councilmember, Town of Port Royal
Coleman	Mary Frances	The Honorable	Bowling Green Town Council
Coleman	Cleopatra	Ms.	Historic Port Royal, Inc.
Coleman	Mary Frances	The Honorable	Bowling Green Town Council
Cope	Richard	Mr.	
Cottrell	Richard	Mr.	Portobago Bay Home Owners Association
Cox	Tim	Mr.	The Caroline Progress
Dagular	Allison	Ms.	Portobago Bay Home Owners Association
Davis	Jean	The Honorable	Bowling Green Town Council
Davis	Carolyn & John	Ms.	
Davis	Jean	The Honorable	Bowling Green Town Council
Davis, Jr.	Walter A. "Pete"	Mr.	Chairman, Caroline County Planning Commission
Day	James	Captain (Retired)	President, Rappahannock Chapter Association of the United States Army
Day	James	Captain (Retired)	Co-Chair, Fort A.P. Hill Installation Community Council
Dean	Tylan	Mr.	US Fish and Wildlife Service
Donalson	E.L.		Portobago Bay Home Owners Association
Dorsey	Spencer		
Dorsey	Mary	Ms.	Portobago Bay Home Owners Association
Dressler	Shirl	Ms.	Virginia Department of Game and Inland Fisheries
Editor			Caroline Progress
Ervin	Larry & Carolyn		
Essex Public Library			
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Fearnow	Scott	Mr.	Portobago Bay Home Owners Association

List of Recipients

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Finchum	Mike	Mr.	Caroline Co Dept of Planning & Community Development
Fortune	Oliver	The Honorable	Councilmember, Town of Port Royal
Fulks	Judith	Ms.	Belvedere Plantation, Nottingham Fairways
George	Jacqueline & George	The Honorable	Portobago Bay Home Owners Association
Gladding	Roy	The Honorable	Mayor, Town of Tappahannock
Gladding	Roy	The Honorable	Mayor, Town of Tappahannock
Hall	Mr. & Mrs.		
Harrison	Terri	Ms.	Town Clerk, Port Royal
Heimbach	James	Dr.	Port Royal Town Council
Holma	Marc	Mr.	Virginia Department of Historic Resources
Humes	Pete	Mr.	Chairman, Fredericksburg Regional Chamber of Commerce Military Affairs Council
Hypes	Rene	Ms.	Virginia Department of Conservation and Recreation - Division of Natural Heritage
Irons	Ellie	Ms.	Department of Environmental Quality
James	Kevin	Reverend	Pastor, Salem Baptist Church
Jenewein	Harald	Mr.	Portobago Bay Home Owners Association
Johnson	Caren	Ms.	Portobago Bay Home Owners Association
Killough	Gregory	Dr.	Superintendent, Caroline County Public Schools
Killough	Gregory	Dr.	Superintendent, Caroline County Public Schools
Kline	Gary	Mr.	
Lampmann	John	Mr.	President, Portobago Bay Home Owners Association
Lanford	Glen	The Honorable	Bowling Green Town Council
Lanford	J.G. Glen	The Honorable	Bowling Green Town Council
Linne von Berg	Helmut	Mr.	Portobago Bay Home Owners Association
Lippa	Tony	Sheriff	Sheriff, Caroline County
Locklerr	Tamatha	Ms.	
Long	Nancy	The Honorable	Mayor, Town of Port Royal
Long	Nancy	The Honorable	Mayor, Port Royal
Lumpkin	Linda	Ms.	Essex County Assistant County Administrator
Mahon	B. Walton		
Manster	Stephen	Mr.	Town of Bowling Green
Manster	Stephen	Mr.	Town Manager, Town of Bowling Green
Matern	Cindy	Ms.	President, Caroline County Chamber of Commerce
Mattox, Jr.	Guy	Mr.	
Maxwell	Merry	Ms.	US Fish and Wildlife Service
McDearmon	Glen	The Honorable	Vice Mayor, Town of Bowling Green
McDearmon	Glenn	The Honorable	Vice Mayor, Town of Bowling Green
McDonald	Tana	Ms.	President, Caroline County Chamber of Commerce
McDonald	Vivian	Ms.	
Meehan	Steve	Mr.	Portobago Bay Home Owners Association
Mills	Della	Ms.	Port Royal Town Council
Muir	W. Angus	Dr.	President, Caroline County Countryside Alliance
Nelson Craig	Sharon	Ms.	Holland & Knight LLP
Newman	Michael & Marilyn		Portobago Bay Home Owners Association
Pannell	Fred & Crystal		Portobago Bay Home Owners Association
Parker	Joe	Mr.	Photography by Joe Parker
Partin	Alan	Mr.	Interim Caroline County Adimistrator
Paylor	David	Mr.	Virginia Department of Environmental Quality

List of Recipients

Last Name	First Name	Salutation	Affiliation
Pickrel	Glen & Jennifer		Portobago Bay Home Owners Association
Pogue	Kenneth	Mr.	
Popowicz	Robert	The Honorable	Caroline Co Board of Supervisors – Port Royal District
Popowicz	Bobby	The Honorable	Port Royal District, Caroline County Board of Supervisors
Posner	Patricia	Ms.	
Quesenberry	Travis	Mr.	King George County Administrator
Richardson	Anne	Ms.	Chief, Rappahannock Tribe Cultural Center
Richardson	David	Mr.	Portobago Bay Home Owners Association
Roberts	Margaret	Ms.	
Robinson	Jane	Ms.	
Rodriguez	Rudy	Mr.	
Rozell	David "Maxie"	The Honorable	Chairman, Caroline County Board of Supervisors
Rozell	David "Maxie"	The Honorable	Chairman, Caroline County Board of Supervisors
Runstmann	Clarence	Mr.	Portobago Bay Home Owners Association
Rutherford	Hart	Mr.	Chairman, Fredericksburg Regional Chamber of Commerce Military Affairs Council
Satterwhite	Jason	The Honorable	Bowling Green Town Council
Satterwhite	Jason	The Honorable	Bowling Green Town Council
Scott	Stan	Mr.	Virginia National Defense Industrial Authority
Sellers	John and Sylvia		Portobago Bay Home Owners Association
Sili	Jeff	The Honorable	Bowling Green District, Caroline County Board of Supervisors
Sili	Jeff	The Honorable	Caroline Co Board of Supervisors – Bowling Green District
Simmons	Robert	Mr.	Portobago Bay Home Owners Association
Sisson, Jr.	Dale	The Honorable	Chairman, King George County Board of Supervisors
Sisson, Jr.	Dale	The Honorable	Chairman, King George County Board of Supervisors
Skinner	Gary	Mr.	Chairman, Spotsylvania County Board of Supervisors
Skinner	Gary	The Honorable	Chairman, Spotsylvania County Board of Supervisors
Smith	Edwin E. "Bud"	The Honorable	Chairman, Essex County Board of Supervisors
Smith III	William	Mr.	Portobago Bay Home Owners Association
Smith, Jr.	Edwin E. "Bud"	The Honorable	Chairman, Essex County Board of Supervisors
Spears	Susan	Ms.	President, Fredericksburg Regional Chamber of Commerce
Spears	Susan	Ms.	President, Fredericksburg Regional Chamber of Commerce
Stapp	Charles	Mr.	Portobago Bay Home Owners Association
Storke	David	The Honorable	Mayor, Town of Bowling Green
Storke	David	The Honorable	Mayor, Town of Bowling Green
Thacker	Sandra	Colonel	Peumansend Creek Regional Jail
Thomas	Floyd	The Honorable	Chairman, Caroline County Board of Supervisors
Thomas	Floyd	The Honorable	Mattaponi District, Caroline County Board of Supervisors
Tomzak	Thomas	The Honorable	Mayor, City of Fredericksburg
Tomzak	Thomas	The Honorable	Mayor, City of Fredericksburg
Underwood	Reggie	The Honorable	Reedy Church District, Caroline Co. Board of Supervisors
Upshaw	Rosie	The Honorable	Councilmember, Town of Port Royal
Webb	Daniel	The Honorable	Bowling Green Town Council
Webb	Daniel	The Honorable	Bowling Green Town Council
Whitlow	David	Mr.	Essex County County Administrator
Wick	Bill	The Honorable	Councilmember, Town of Port Royal
Wightman	Kevin	Mr.	
Wilson	Robert	Mr.	George Washington Regional Commisssion
Wisdom	Boyd		Portobago Bay Home Owners Association

List of Recipients

Last Name	First Name	Salutation	Affiliation
Wisdom, Jr.	C.B.		
Womble	Chuck	Mr.	President, Sparta Ruritan Club
Wright	Otis	The Honorable	Bowling Green Town Council
Wright	Dorothy	Ms.	
Wright	Otis	The Honorable	Bowling Green Town Council
Virginia Department of Agriculture and Consumer Services			
Virginia Department of Environmental Quality Office of Air Data Analysis			
Virginia Department of Environmental Quality Waste Management Division			
Virginia Department of Environmental Quality Water Division			
Virginia Department of Forestry			
Virginia Department of Health			
Virginia Department of Mines, Minerals, and Energy			
Virginia Department of Transportation			