UNITED STATES ARMY MARKSMANSHIP UNIT HEADQUARTERS COMPLEX

Environmental Assessment

August 2018

Directorate of Public Works
Environmental Management Division
Fort Benning, Georgia

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ENVIRONMENTAL ASSESSMENT

UNITED STATES ARMY MARKSMANSHIP UNIT HEADQUARTERS COMPLEX

FORT BENNING, GEORGIA

Prepared by:

Directorate of Public Works
Environmental Management Division
Fort Benning, Georgia

Approved by:

Date: 26 July 18

Clinton W. Cox
Colonel, U.S. Army
Garrison Commander

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SUMMARY

1 Introduction

Fort Benning has prepared this draft environmental assessment (EA) to examine the potential environmental effects associated with the construction, operation, and maintenance of a United States Army Marksmanship Unit (USAMU) Complex. This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969; the regulations of the President's Council on Environmental Quality (CEQ); United States (US) Department of the Army (Army) Regulation 200-1, and Army NEPA Regulation (32 Code of Federal Regulations (CFR) Part 651).

This EA is a public document that will be used to determine and evaluate the potential environmental consequences of the Proposed Action, identify possible/potential mitigation measures to lessen or eliminate adverse effects, and examine reasonable alternatives to the Proposed Action. The intended audience of the EA is Army decision-makers; interested government agencies; and non-governmental organizations, federally recognized Native American Tribes, and members of the public. The effects analyses in this EA are based on a variety of sources and the best available information at the time of preparation. The information contained in this EA will be reviewed and considered by the Army prior to a final decision on how to proceed with the implementation of the Proposed Action, if at all.

2 Background

The USAMU was originally established in 1956 at the direction of President Dwight D. Eisenhower to raise the standards of marksmanship throughout the US Army. The primary mission was almost exclusively of winning international shooting competitions, which at the time was dominated by the Soviet Union. The USAMU quickly established itself as a world power in shooting, and has represented the US during every Summer Olympics since 1960, earning 24 Olympic medals since that time. In addition, USAMU has won hundreds of individual and team championships in international rifle and pistol competitions since its founding. Over the years the mission of the USAMU has expanded beyond competitive shooting to include marksmanship training for Soldiers, facilitate Army recruiting, and became a leader in small-arms research and development to increase the Army's overall combat readiness.

The current USAMU Headquarters (HQ), Building 243, was originally constructed in 1932 and was initially used as barracks for the Woman's Army Corps before the building was converted to serve as the post morgue in 1952. In 1974, Building 243 was converted into the USAMU headquarters and operations facility. In its present state, the USAMU HQ currently houses the administrative functions of the unit, the Custom Firearms Shop, and the ceremonial Hall of Fame which showcases the USAMU as "The Home of Champions" in efforts of recruiting for the Army. Ancillary support buildings for the Custom Firearms Shop include hazardous materials storage (Building 232), and equipment and materials storage in Building 370, as well as a number of pre-fab storage sheds. The current USAMU HQ and Custom Firearms Shop support facilities are located adjacent to the Western Hemisphere Institute for Security Cooperation Campus, between Stonewall Road and Bergen Street north of Sacrifice Field on Main Post, which is approximately one mile away from the centralized USAMU Range Complex.

Due to the age, original building design and layout, Building 243 is failing in meeting USAMU's mission, and does not meet Army mandated requirements for sustainability and energy conservation. Currently there is adequate space for the administrative function of the USAMU HQ, but the distribution of the space is inadequate, while other support functions (e.g. library, supply and storage, etc.), are undersized. The building contains asbestos and lead based paint throughout, and does not have a dedicated heating, ventilation, and air conditioning (HVAC) system, instead resorting to a nearby central heating plant and window units that frequently require maintenance. The main HQ building has had various electrical, communications, and other systems improvements over the years, but many of them have detracted from the building's aesthetics and overall functionality, such as the entrance hall. The entrance hall which houses the ceremonial display area for USAMU's "Hall of Fame", does not effectively serve its intended purpose of being a recruiting tool, and does not present an appealing atmosphere to visiting dignitaries.

Furthermore, the current design and layout of Building 243 provides approximately 9,100 gross square feet to house the Custom Firearms Shop and arms vault, which is 38% of the required footprint per Army space requirements. Because of the inadequacy in size, the custom firearms shop lacks proper safety buffers around equipment and machinery. In addition, there are outdated exhaust, ventilation, fire suppression, and communications systems, and the facility lacks an adequate, serviceable loading dock for receiving and shipping of supplies, equipment, and large racks of weapons. This deficiency in space also makes it difficult to conduct tours for potential recruits, visiting dignitaries, and foreign military personnel to showcase the research and development advancements and capabilities of the Custom Firearms Shop.

3 Proposed Action

The Proposed Action is to construct a USAMU Complex consisting of a BNHQ with a ceremonial display area, library, classrooms, and administrative operations areas; a hazardous materials storage building; and a Custom Firearms Shop. Other facilities and infrastructure will involve secured organizational and personal vehicle parking, sidewalks, and utility services to include water, sewer, electric, natural gas, and stormwater drainage. The complex will also include a bus turn-out area to accommodate large groups of visitors.

4 Alternatives Screening Criteria

The Army used screening criteria to determine which Alternatives are reasonable. Satisfaction of these screening criteria would provide a location suited to meet the purpose of and need for the Proposed Action, while potentially minimizing adverse environmental and operational effects. Screening criteria include:

- **Location and Proximity**: The Proposed Action should centrally locate the USAMU BNHQ Complex and its operations in proximity to USAMU designated ranges to meet mission needs.

- **Training Compatibility**: The Proposed Action should be located in areas that do not conflict with or limit training, both during construction and operation. This includes

avoiding impacts to training ranges, and clear of live-fire surface danger zones and explosive safety distances.

- **Functionality and Sustainability**: The Proposed Action should provide facilities that comply with current Army design standards for Battalion Headquarters; provide adequate space to enhance the functionality of a custom firearms shop and its supporting elements; and provide facilities designed to meet current Army standards for energy efficiency, information systems, and anti-terrorism/force protection.

Each of the Alternatives considered were compared to the above screening criteria. The following section provides additional detail as to the decision to consider Alternatives as reasonable or unreasonable. Through this analysis, only two Action Alternatives, the Alternative 1 (Preferred Alternative), and Alternative 2 met all of the required screening criteria.

5 Alternatives Considered

Three Alternatives were carried forward for analysis in this EA. These Alternatives include the No Action Alternative, and two Action Alternatives. Project components for the two Action Alternatives considered would include all components listed under Proposed Action.

▪ No Action Alternative

Under the No Action Alternative, the proposed BNHQ Complex would not be constructed. The USAMU would continue to occupy Building 243 with outdated facilities lack functionality for administrative operations with sub-standard electrical, communications, lighting, and lack of heating and cooling systems that do not meet Army mandated requirements for sustainability and energy conservation, or Anti-terrorism/Force Protection standards. The Custom Firearms Shop would continue to operate in an undersized facility lacking current safety requirements, and no suitable loading dock for in and out movement of supplies and equipment. In addition, the ceremonial display area that houses the USAMU Hall of Fame will continue to be undersized and hinders recruitment efforts.

The No Action Alternative describes the status quo, but it does not meet the purpose and needs of the Proposed Action. CEQ and Army NEPA regulations require a No Action Alternative for comparison of potential environmental impacts with the Action Alternatives.

▪ Alternative 1 - Preferred Alternative

Under Alternative 1, the USAMU BNHQ Complex would be constructed along Alamo Road and 500 feet north of Parks and Hook Ranges. Approximately ten acres of vegetation removal and land disturbances are expected for the construction of the complex, and approximately three acres to accommodate stormwater control features, lines, and drains conveyances as well as utility tie-ins. This Alternative location for the USAMU BNHQ Complex consists of predominantly brush and small trees surrounded by mature, hardwood forest. Utility tie-ins would be within current utility easements as much as possible as existing water, sewer, and natural gas lines occur parallel to Alamo Road. An overhead power line runs from north to south through the site, and would need to be relocated along Alamo Road where the USAMU Complex would receive its electrical services. There are no existing storm drainage facilities at this site, and will require the construction of new storm drain lines and drainage inlets would be required

to route storm runoff to the existing storm drainage system approximately 700 feet to the southeast.

- **Alternative 2**

Under Alternative 2, the USAMU BNHQ Complex would be constructed within the Main Post Cantonment Area directly across from Fire Station No. 3 on the south side of Dixie Road. The proposed location is on a site previously known as "Soldier's Plaza", approximately 600 feet north of Hibbs and Phillips Ranges. Soldier's Plaza previously consisted of 35 World War II wooden buildings that served as administrative offices for in-processing of Soldiers arriving for duty on Fort Benning. These buildings were demolished in 2015 as part of the Army's Infrastructure Footprint Reduction Program, and the site has remained vacant since, consisting of mostly open grassy areas with some concrete walkways and mature hardwoods dispersed throughout. Approximately ten acres of vegetation removal and land disturbances are expected for the construction of the complex, and approximately 1.5 acres to accommodate stormwater control features as well as utility tie-ins. As this site was previously developed, the utility infrastructure is distributed throughout the site, and should not require any additional construction beyond the site footprint for connectivity, but will require some minor demolition of the concrete walkways left behind.

6 Environmental Consequences

The analysis contained in this EA indicates that both Action Alternatives would have potential short-term, minor adverse impacts as a result of construction activities involving Hazardous Materials and Waste, Soils, and Water Resources. Valued environmental components or VECs with negligible effects under the Action Alternatives includes Air Quality and Biological Resources. A summation of environmental consequences of the VECs fully analyzed are summarized in Table S.1 below.

As detailed in Section 4 this EA, these negligible effects to minor adverse direct/indirect impacts do not result in significant adverse cumulative effects when considering other past, present, and reasonably foreseeable future activities at Fort Benning. Adherence to federal and state laws and regulations, as well as Installation management plans, and Army Regulations would minimize impacts of demolition and disposal activities to Air Quality, Biological Resources, Hazardous Materials and Waste, Soils, and Water resources; additional mitigation is not needed.

7 Conclusions

Implementation of either Action Alternative or the No Action Alternative would have no significant impact on the quality of human life or the natural environment. Alternative 1 is, however, preferred in comparison due to its more centralized location and aesthetic setting. A Finding of No Significant Impact is warranted for this Proposed Action, and the Proposed Action does not require the preparation of an Environmental Impact Statement.

Table S.1: Summary of Direct and Indirect Environmental Consequences for Alternatives

VEC	No Action	Action Alternatives
Air Quality	**No impacts**	**Negligible effects** from fugitive dust emissions during construction.
Biological Resources	**No impacts**	**Negligible effects** as a result of potential soil disturbances, removal of vegetation and possible habitat, vehicle traffic, etc.
Hazardous Materials and Waste	**No impacts**	**Short-term, minor adverse impacts** from an increase in Hazardous Materials and Waste disposal.
Soils	**No impacts**	**Short-term, minor adverse impacts** as a result of ground disturbances.
Water Resources	**No impacts**	**Short-term, minor adverse impacts** as a result of ground disturbances or potential spills.

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1 PURPOSE, NEED, AND SCOPE

1.1 Introduction

Fort Benning has prepared this draft environmental assessment (EA) to examine the potential environmental effects associated with the construction, operation, and maintenance of a United States Army Marksmanship Unit (USAMU) Complex. This EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA); the regulations of the President's Council on Environmental Quality (CEQ); United States (US) Department of the Army (Army) Regulation 200-1, and Army NEPA Regulation (32 Code of Federal Regulations (CFR) Part 651).

This USAMU Complex would consist of a Battalion Headquarters (BNHQ) building with classrooms and administrative operations areas, a hazardous materials storage building, and a Custom Fire Arms Shop. The Custom Firearms Shop itself will include a machine/gun shop, a welding shop, a bluing shop, a magna flux room, an arms vault with ready issues and repair storage, steel and supply storage, support areas for classrooms and administrative duties, and a loading dock. The complex will also include a bus turn-out area to accommodate large groups of visitors. This EA does not address any marksmanship training or competition events that the USAMU conducts on a regular basis, as these activities have already been analyzed through the NEPA process in previous documents.

This EA is a public document that will be used to determine and evaluate the potential environmental consequences of the Proposed Action, identify possible/potential mitigation measures to lessen or eliminate adverse effects, and examine reasonable alternatives to the Proposed Action. The intended audience of the EA is Army decision-makers; interested government agencies; and non-governmental organizations, federally recognized Native American Tribes, and members of the public. The effects analyses in this EA are based on a variety of sources and the best available information at the time of preparation. The information contained in this EA will be reviewed and considered by the Army prior to a final decision on how to proceed with the implementation of the Proposed Action, if at all.

1.2 Background

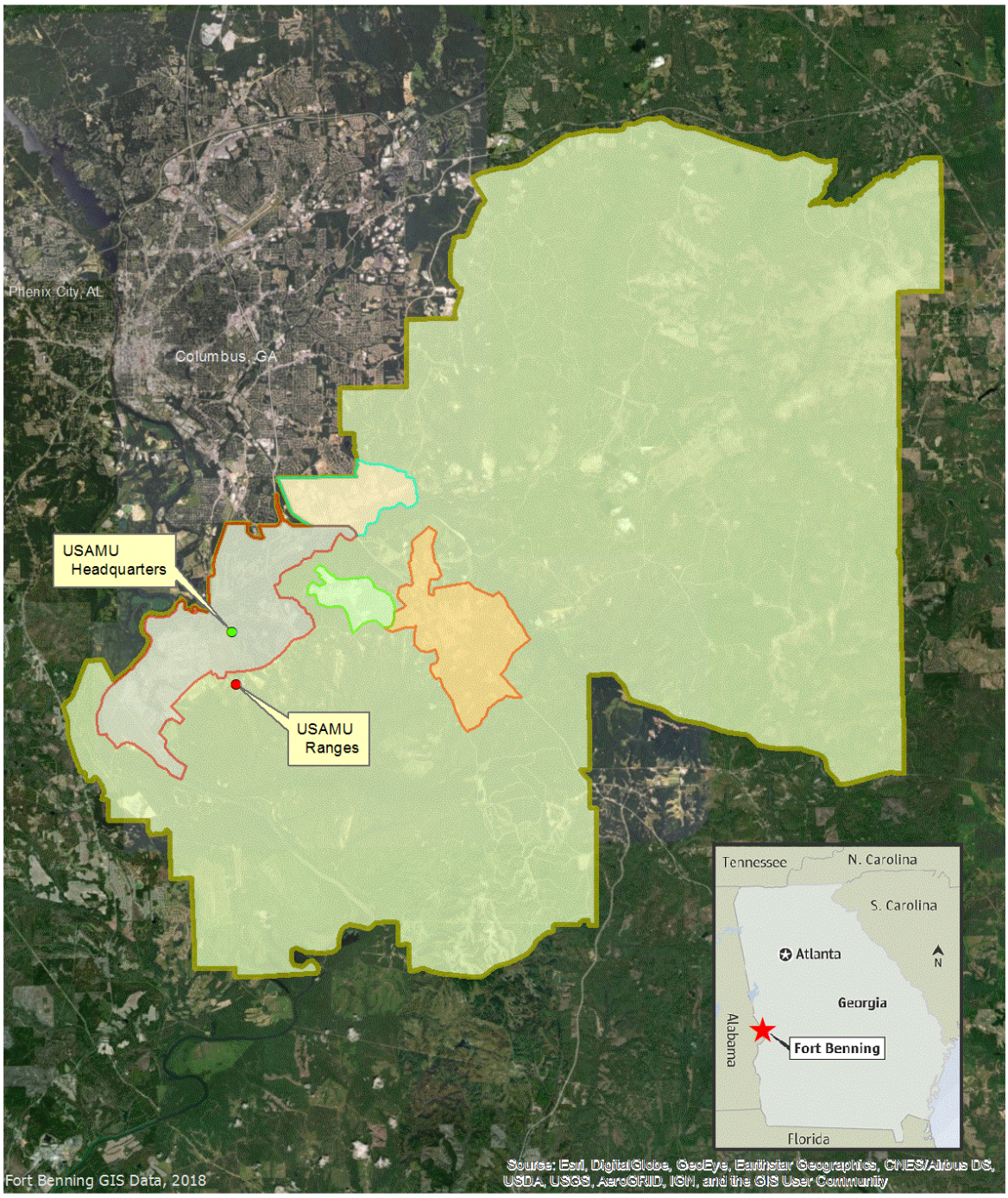
Fort Benning is an Army Installation that was founded in 1918 and is located on approximately 182,000 acres in southwest Georgia (GA) in Chattahoochee and Muscogee counties, and in Russell County, Alabama (AL) (Figure 1.1). As the home of the Maneuver Center of Excellence (MCoE), Fort Benning plays a significant role in supporting the Army's mission and is an invaluable military readiness training platform by developing the capabilities of the maneuver force and individual Soldier. The Army's mission is to fight and win the nation's wars, respond to national security threats, and promote peace. The MCoE does this by providing trained, agile, and adaptive Soldiers and leaders ready to operate across the range of military operations from peacekeeping and security operations to high intensity military conflicts. To support the Army's mission, Fort Benning must possess the infrastructure and facilities necessary to support the military training occurring there and support the quality of life of the Soldiers and their Families.

The USAMU was originally established in 1956 at the direction of President Dwight D. Eisenhower to raise the standards of marksmanship throughout the US Army. The primary mission was almost exclusively of winning international shooting competitions, which at the time was dominated by the Soviet Union. The USAMU quickly established itself as a world power in shooting, and has represented the US during every Summer Olympics since 1960, earning 24 Olympic medals since that time. In addition, USAMU has won hundreds of individual and team championships in international rifle and pistol competitions since its founding. Over the years the mission of the USAMU has expanded beyond competitive shooting to include marksmanship training for Soldiers, facilitate Army recruiting, and became a leader in small-arms research and development to increase the Army's overall combat readiness.

The USAMU is composed of eight sections that include a Support Staff, a Custom Firearms Shop, and six competitive shooting sections, or "teams" as they are often called. The competitive shooting sections include Service Rifle, Action/Combat Shooting, International Rifle, Cross Functional Team Pistol, International Shotgun (which includes Trap, Double Trap and Skeet), and the Paralympic team. In supporting the US Army with World Class Marksmanship Training, the Instructor Training Group was formed to provide the Army with the best Marksmanship Training available. In addition, USAMU builds and customizes small arms and ammunitions through the Custom Firearms Shop, which includes a staff of gunsmiths, machinists, range technicians, and ammunitions loaders. It is here that the M-21 and M-24 Sniper Systems, Special Purpose Rifles, and Squad Designated Marksman Riles were developed and tested. The research and development efforts of the custom firearms shop have enhanced the accuracy and reliability of the Army's weapon systems, and have advanced the combat effectiveness of the Army.

In total, USAMU operations are currently carried out in 17 different facilities across Fort Benning, including permanent buildings, to prefabricated structures, metal sheds, and various live-fire ranges. The USAMU has nine assigned ranges that operate over 300 days annually with live-fire events. These ranges are located adjacent to one another south of the Main Post Cantonment Area and consist of: Shelton, McAndrews, Easley, Hibbs, Phillips, Parks, Hook, Pool, and Wagner Ranges from east to west along Dixie Road as illustrated in Figure 1.2. These USAMU ranges are all state-of-the art facilities that not only support training and testing of small arms weapon systems, but host numerous national and international shooting competitions, and play a critical role in promoting the US Army, and the USAMU mission in recruiting. In contrast, the facilities that support the USAMU Headquarters (HQ) and Custom Firearms Shop are outdated, inefficient (both mechanically and operationally), and grossly undersized to accommodate the research and development capabilities for small arms.

The current USAMU Headquarters (HQ), Building 243, was originally constructed in 1932 and was initially used as barracks for the Woman's Army Corps before the building was converted to serve as the post morgue in 1952. In 1974, Building 243 was converted into the USAMU headquarters and operations facility. In its present state, the USAMU HQ currently houses the administrative functions of the unit, the Custom Firearms Shop, and the ceremonial Hall of Fame which showcases the USAMU as "The Home of Champions" in efforts of recruiting for the Army. Ancillary support buildings for the Custom Firearms Shop include hazardous materials storage (Building 232), and equipment and materials storage in Building 370, as well as a number of pre-fab storage sheds.



Army Installation Fort Benning

Figure 1.1
Fort Benning, GA

The current USAMU HQ and Custom Firearms Shop support facilities are located adjacent to the Western Hemisphere Institute for Security Cooperation Campus, between Stonewall Road and Bergen Street north of Sacrifice Field on Main Post, which is approximately 1.2 miles away from the centralized USAMU Range Complex as illustrated in Figure 1.2.

As the current USAMU HQ building acts as the "Command and Control" center of the unit, the geographic separation between the HQ and Custom Firearms Shop, and the USAMU range complex can be disruptive to the unit's missions. Due to the research and development nature of this unit, interaction between the Chain of Command, Custom Firearms Shop, supply operations, live-fire range operations, and administrative actions that need Soldiers input is a constant process. Additionally, classes that are given by USAMU instructors at Building 243 need to be co-located with the USAMU designated ranges to reduce the constant travel between from administrative and operations facilities.

Due to the age, original building design and layout, Building 243 is failing in meeting USAMU's mission, and do not meet Army mandated requirements for sustainability and energy conservation. Currently there is adequate space for the administrative function of the USAMU HQ, but the distribution of the space is inadequate, while other support functions (e.g. library, supply and storage, etc.), are undersized. The building contains asbestos and lead based paint throughout, and does not have a dedicated heating, ventilation, and air conditioning (HVAC) system, instead resorting to a nearby central heating plant and window units that frequently requires maintenance. The main HQ building has had various electrical, communications, and other systems improvements over the years, but many of them have detracted from the building's aesthetics and overall functionality, such as the entrance hall. The entrance hall which houses the ceremonial display area for USAMU's "Hall of Fame", does not effectively serve its intended purpose of being a recruiting tool, and does not present an appealing atmosphere to visiting dignitaries.

Furthermore, the current design and layout of Building 243 provides approximately 9,100 gross square feet (GSF) to house the Custom Firearms Shop and arms vault, which is 38% of the required footprint per Army space requirements. Because of the inadequacy in size, the custom firearms shop lacks proper safety buffers around equipment and machinery. In addition, there are outdated exhaust, ventilation, fire suppression, and communications systems, and the facility lacks an adequate, serviceable loading dock for receiving and shipping of supplies, equipment, and large racks of weapons. This deficiency in space also makes it difficult to conduct tours for potential recruits, visiting dignitaries, and foreign military personnel to showcase the research and development advancements and capabilities of the Custom Firearms Shop.

1.3 Purpose and Need

The Proposed Action (as described below) is necessary to provide adequate facilities at Fort Benning to accommodate the missions of the USAMU, and to centralize the location of the "Command and Control" with the range complex to better facilitate training, research and development of small arms, and recruitment. The use of multiple facilities at various sites results in an inefficient operation which degrades command and control. Centrally locating the USAMU BNHQ Complex with USAMU designated ranges would reduce the time and expense of moving military equipment and Soldiers for training and shooting competitions.

USAMU Headquarters & Ranges

Figure 1.2
Fort Benning, GA

If this project is not provided, the USAMU will be forced to continue to occupy substandard facilities. Soldiers assigned to the unit will continue to be subjected to poor environmental conditions. This unit serves as one of the Army's primary recruiting tools, but the facilities currently occupied do not project an atmosphere commensurate with the mission. This not only negatively affects troop morale but, moreover, has a negative effect on the recruiting mission of the unit. In order to meet recruiting goals, the Army must provide a facility that impresses those who visit, dignitaries and trainees from foreign militaries, and competitors for national and international competitions.

This project would provide a consolidated USAMU BNHQ Complex constructed in accordance with present day standards and space criteria. The BNHQ Complex would provide first class facilities to accommodate the unit, fully meet mission requirements and present an aesthetically pleasing appearance. The upgrades and expansion of the Custom Firearms Shop would enhance the research and development efforts of the USAMU, and strengthen the combat effectiveness of the entire Army through improvements to the accuracy and reliability of small arms weapon systems.

1.4 Decision to Be Made

The Army decision to be made is whether the Proposed Action would result in a Finding of No Significant Impact (FNSI) and which action alternative and mitigation to implement, if any. There are two Action Alternatives proposed to improve the facilities that support the mission of the USAMU. Improvements include new construction of a USAMU BNHQ Complex that would consist of a BNHQ building with classrooms and administrative operations areas, a hazardous materials storage building, and a Custom Fire Arms Shop with a loading dock. The complex will also include a bus turn-out area to accommodate large groups of visitors. Chapter 2 discusses the Action Alternatives in detail, as well as the No Action Alternative. The final decision of which alternative to implement may be documented in either a FNSI if no significant environmental impacts are expected, or a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) if significant impacts are expected to occur as a result of the Alternatives. A FNSI will identify the Army’s selected Alternative and identify mitigation measures that are essential to the reduction of identified impacts. In making the decision, the Army will select among the three Alternatives described in Chapter 2.

1.5 Scope of the Environmental Analysis

This EA identifies, documents, and evaluates the potential environmental effects of Proposed Action at Fort Benning in accordance with NEPA implementing regulations issued by the CEQ (40 CFR Parts 1500–1508) and the Army’s NEPA Regulation (32 CFR Part 651). The future use of Building 243 is unknown at this time; therefore, reuse is beyond the scope of this EA. Appropriate NEPA analysis will be conducted as details for Building 243 are available.

The purpose of this EA is to inform decision-makers and the public of the potential environmental consequences of the Proposed Action along with associated mitigation. The EA qualitatively and quantitatively evaluates the environmental and socioeconomic impacts of the Proposed Action and the Alternatives considered. Under NEPA, the analysis of environmental and socioeconomic conditions only addresses those areas, or region of influence (ROI), and

environmental resources with the potential to be affected by the Proposed Action. Locations and resources with no potential to be affected are not analyzed. The ROI, which includes all areas that might be affected, may vary by resource.

The Army's NEPA regulation calls for the environmental analysis to be proportionate to the nature and scope of the action; the complexity and level of anticipated effects on important resources; and the capacity of Army decisions to influence those effects in a productive, meaningful way from the standpoint of environmental quality. Project footprints, construction activities and time frames, and training descriptions for each of the proposed alternatives have been identified to the fullest extent possible at this time. In the absence of specific information, the analysis conservatively estimated the environmental impacts of the Proposed Action and addresses potential broad-level environmental impacts.

1.6 Public Involvement

Fort Benning invites public participation in their federal decision-making through the NEPA process as required by CEQ and Army NEPA Regulations. All agencies, organizations, and members of the public with a potential interest in the Proposed Action are urged to participate in the decision-making process. The EA and Draft FNSI were distributed to individuals and organizations on the distribution list in Chapter 8.0 for a 30-day review and comment period. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making in consideration of public concerns. Based on the results of the EA analyses, and with consideration given to public and agency comments, the Army will make a determination as to whether implementation of the Proposed Action would have significant effects on the environment. If it is determined that the Proposed Action would have significant, adverse effects, the Army will issue an NOI to prepare an EIS. If it is determined that the Proposed Action would not have significant adverse effects, the Army will select the Proposed Action for implementation.

A Notice of Availability (NOA) was distributed to individuals and organizations on the distribution list and posted in the Columbus Ledger-Enquirer, The Journal, and Benning News (online) on August 2, 2018. Copies of the EA and Draft FNSI were made available for public review at four libraries in the region: Columbus Public Library, Cusseta-Chattahoochee Public Library, Sayers Memorial Library, and the Phenix City-Russell County Public Library. Electronic versions of the EA and Draft FNSI were also posted on the Fort Benning website (http://www.benning.army.mil/garrison/DPW/EMD/legal.htm). The public comment period for the EA and Draft FNSI will last 30 days, ending on August 31, 2018. Written and electronic comments must be received by September 4, 2018 to ensure consideration prior to reaching any decisions. Written comments should be forwarded to:

Fort Benning Environmental Management Division
IMBE-PWE-P
C/O NEPA Program Manager
6650 Meloy Drive
Building 6, Room 309
Fort Benning, GA 31905-5122

Electronic comments should be submitted to the NEPA Program Manager: Mr. John Brown (john.e.brown12.civ@mail.mil).

2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

This section describes the Proposed Action, the Alternatives Screening Criteria, and proposed Alternatives used in the development of the EA. The No Action Alternative, as required by NEPA (40 CFR 1502.14[d]), is described to provide a benchmark for comparison of the potential environmental impacts of other alternatives.

2.2 Proposed Action

The Proposed Action is to construct a USAMU Complex consisting of a BNHQ with a ceremonial display area, library, classrooms, and administrative operations areas; a hazardous materials storage building; and a Custom Firearms Shop. The Custom Firearms Shop itself will include a machine/gun shop, a welding shop, a bluing shop, a magna flux room, an arms vault with ready issues and repair storage, steel and supply storage, parts room, support areas for classrooms and administrative duties, and a loading dock. Other facilities and infrastructure will involve secured organizational and personal vehicle parking, sidewalks, and utility services to include water, sewer, electric, natural gas, and stormwater drainage. The complex will also include a bus turn-out area to accommodate large groups of visitors.

2.3 Alternatives Screening Criteria

The Army used screening criteria to determine which Alternatives are reasonable. Satisfaction of these screening criteria would provide a location suited to meet the purpose of and need for the Proposed Action, while potentially minimizing adverse environmental and operational effects. Screening criteria include:

- Location and Proximity: The Proposed Action should centrally locate the USAMU BNHQ Complex and its operations in proximity to USAMU designated ranges to meet mission needs.

- Training Compatibility: The Proposed Action should be located in areas that do not conflict with or limit training, both during construction and operation. This includes avoiding impacts to training ranges, and clear of live-fire surface danger zones and explosive safety distances.

- Functionality and Sustainability: The Proposed Action should provide facilities that comply with current Army design standards for Battalion Headquarters; provide adequate space to enhance the functionality of a custom firearms shop and its supporting elements; and provide facilities designed to meet current Army standards for energy efficiency, information systems, and anti-terrorism/force protection.

Each of the Alternatives considered were compared to the above screening criteria. Section 2.4 provides additional detail as to the decision to consider Alternatives as reasonable or

unreasonable. Through this analysis, only two Action Alternatives, the Alternative 1 (Preferred Alternative), and Alternative 2 met all of the required screening criteria.

2.4 Alternatives Considered

Three Alternatives were carried forward for analysis in this EA. These Alternatives include the No Action Alternative, and two Action Alternatives. Project components for the two Action Alternatives considered would include all those listed in Section 2.2.

2.4.1 No Action Alternative

The No Action Alternative describes the status quo, but it does not meet the purpose and needs of the Proposed Action. CEQ and Army NEPA regulations require a No Action Alternative for comparison of potential environmental impacts with the Action Alternatives. Under the No Action Alternative, the proposed USAMU BNHQ Complex would not be constructed. The USAMU would continue to occupy Building 243 with outdated facilities that lack functionality for administrative operations and sub-standard electrical, communications, lighting, and heating and cooling systems that do not meet Army mandated requirements for sustainability and energy conservation, or Anti-terrorism/Force Protection standards. The Custom Firearms Shop would continue to operate in an undersized facility lacking current safety requirements, and no suitable loading dock for in and out movement of supplies and equipment. In addition, the ceremonial display area that houses the USAMU Hall of Fame will continue to be undersized and hinder recruitment efforts the USAMU.

2.4.2 Alternative 1: Preferred Alternative

Under Alternative 1, the USAMU BNHQ Complex would be constructed along Alamo Road and 500 feet north of the entrances to Parks and Hook Ranges. Approximately ten acres of vegetation removal and land disturbances are expected for the construction of the complex, and approximately three acres to accommodate stormwater control features, lines, and drains conveyances as well as utility tie-ins. This Alternative location for the USAMU BNHQ Complex consists of predominantly brush and small trees surrounded by mature, hardwood forest. Utility tie-ins would be within current utility easements as much as possible as existing water, sewer, and natural gas lines occur parallel to Alamo Road. An overhead power line runs from north to south through the site, and would be relocated along Alamo Road where the USAMU Complex would receive its electrical services. There are no existing storm drainage facilities at this site, and will require the construction of new storm drain lines and drainage inlets would be required to route storm runoff to the existing storm drainage system approximately 700 feet to the southeast. Any eligible or potentially eligible historic properties and cultural resources will be avoided.

At this site, the USAMU BNHQ Complex would be over 650 feet from the nearest range surface danger zone, and 490 feet from the ammunition storage facility located at Parks Range in Building 1613. Based on the “Net Explosive Weight” (NEW) of the munitions approved to be stored in building 1613, and criteria established in Department of the Army Pamphlet (DA PAM) 385-64 (Ammunition and Explosives Safety Standards), the Department of Defense Explosive Safety Board has verified that this proposed location in beyond approved explosive safety distances.

2.4.3 Alternative 2

Under Alternative 2, the USAMU BNHQ Complex would be constructed within the Main Post Cantonment Area directly across from Fire Station No. 3 on the south side of Dixie Road. The proposed location is on a site previously known as "Soldier's Plaza", and would be approximately 600 feet north of the entrances to Hibbs and Phillips Ranges. Soldier's Plaza previously consisted of 35 World War II wooden buildings that served as administrative offices for in-processing of Soldiers arriving for duty on Fort Benning. These buildings were demolished in 2015 as part of the Army's Infrastructure Footprint Reduction Program, and the site has remained vacant since, consisting of mostly open grassy areas with some concrete walkways and mature hardwoods dispersed throughout. Approximately ten acres of vegetation removal and land disturbances are expected for the construction of the complex, and approximately 1.5 acres would be used to accommodate stormwater control features as well as utility tie-ins. As this site was previously developed, the utility infrastructure is distributed throughout the site, and should not require any additional construction beyond the site footprint for connectivity, but will require some minor demolition of the concrete walkways left behind. Any eligible or potentially eligible historic properties and cultural resources will be avoided.

At this site, the USAMU BNHQ Complex would be approximately 90 feet from the nearest range surface danger zone, and 700 feet from the ammunition storage facility located at Parks Range in Building 1613. As with Alternative 1, this proposed location for the USAMU BNHQ Complex is beyond approved explosive safety distances per the NEW of munitions stored in building 1613, and the criteria established in DA PAM 385-64.

2.5 Alternatives Considered but Eliminated from Consideration

The following alternatives were considered but eliminated from further analysis since none meet the Purpose and Need for the Proposed Action or the screening criteria proposed to determine reasonable Alternatives.

2.5.1 Renovation of Building 243

Fort Benning had considered renovation of Building 243 to reconfigure administrative spaces to provide adequately sized areas for the USAMU Hall of Fame, briefing and classrooms, etc., and expand the Custom Firearms Shop and arms vault by an additional 14,790 GSF to accommodate space requirements. However, due to the historic nature of Building 243, site constraints such as topography, anti-terrorism/force protection standoffs, and lack of space for construction of a serviceable loading dock, renovation of Building 243 was eliminated from further consideration, and not carried further for analysis.

2.5.2 Renovation of Building 243 and New Construction of Custom Firearms Shop

For this Alternative, Fort Benning had considered renovation of Building 243 to reconfigure administrative spaces to provide adequately sized areas for the USAMU Hall of Fame, briefing and classrooms, etc., but would construct a new building near the USAMU Range Complex to achieve the requirements of a properly sized Custom Firearms Shop, with a serviceable loading dock. However, this Alternative would only further diminish the effectiveness of "Command and

Control" administrative functions in concert with the research, development, and equipment testing that is essential to the Custom Firearms Shop and USAMU live-fire ranges. This Alternative was considered to be more of an obstacle to the USAMU's mission, and was eliminated from further consideration.

Action Alternatives

Figure 2.1
Fort Benning, GA

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

Chapter 3 describes the affected environment and the potential environmental consequences as a result of implementing the Proposed Action. The affected environment portrays the current environmental setting at Fort Benning and forms a reference for analyzing and understanding the intensity of potential environmental impacts for each alternative.

Environmental consequences are characterized by their duration (i.e., short-term or long-term) and by the nature of their effects as being direct, indirect, and/or cumulative. The CEQ defines direct effects as those that are caused by the Proposed Action and occur at the same time and place. Indirect effects are caused later in time or farther removed in distance but still reasonably foreseeable. Cumulative effects are incremental impacts of the Alternatives when considering other past, present, and reasonably foreseeable future actions (40 CFR Part 1508.7-8).

The affected environment and environmental consequences are described in each section as it applies to valued environmental components (VECs). VECs are fundamental elements of the physical, biological, or economic environment, and include air, water, soil, terrain, vegetation, wildlife, fish, birds, and land use that may be affected by a proposed project. Each VEC also has a defined ROI to describe the geographic extent or area that potential impacts could occur as a result of the Proposed Action.

Based on the results of the environmental analyses, this EA identifies whether a particular potential effect would be adverse or beneficial and to what extent. The following terms are used throughout this EA as a convention to indicate the relative degree of severity of potential impacts:

- **Beneficial**: A positive environmental impact.
- **Adverse**: A negative environmental impact.
- **Negligible**: An environmental impact that could occur but the effects would be less than minor and possibly imperceptible.
- **Minor**: An environmental impact that clearly would not be significant.
- **Moderate**: An environmental impact that is not significant but is readily apparent. Instances include actions where the potential consequences of the Proposed Action requires additional precautionary measures in following standard procedures to minimize adverse effects.
- **Significant**: An environmental impact which violates or exceeds regulatory or policy standards or exceeds the identified threshold. A significant impact may, however, be mitigated to less than significant.

Significance thresholds are also described for each resource at the beginning of each environmental consequences discussion. A significance threshold is the stated level at which an impact is determined to become significant. Quantitative and qualitative analyses have been used in determining whether a threshold would be exceeded. Significance thresholds are also

described for each VEC in the discussions regarding environmental consequences. Thresholds have been developed in consideration of CEQ's guidance for determining significance (40 CFR Part 1508.27).

Impacts are also are characterized as short-term or long-term. Short-term effects typically are those that would be temporary and associated with the construction phase of a project or maintenance activities, but would no longer be perceptible once construction and/or maintenance is completed. Long-term effects are those that would be permanent or would persist for the operational life of the implemented project.

3.2 VECs

The US Army Environmental Command (USAEC) NEPA Analysis Guidance Manual (USAEC, 2007) provides information on identifying VECs, which are those resources that are considered to be important by society and potentially at risk from human activities or natural hazards. There are 14 VECs recommended for consideration by the AEC Army NEPA Analysis Guidance Manual. For the purposes of this EA, some resources areas identified in the AEC manual have been combined with similar resource topics to focus and consolidate the discussion on potential impacts. The VECs presented in this EA are listed below:

- Air Quality
- Airspace
- Biological Resources
- Cultural Resources
- Facilities, Energy and Utilities
- Hazardous and Toxic Materials and Waste
- Land Use
- Noise
- Geology and Soils
- Socioeconomics, Environmental Justice and Protection of Children
- Traffic and Transportation
- Water Resources

3.2.1 VECs Not Carried Forward for Analysis

In an effort to focus on relevant environmental analysis and issues, the CEQ encourages concentrating on relevant environmental analysis in EA. Similarly, CFR 200-1 §651.14 promotes minimizing unnecessary analysis and discussion of minor issues that have little or no measurable environmental effect. Outlined below is the rationale for exclusion of those VECs that would involve no or negligible impacts, or involve no important issues of concern resulting from the implementation of the Proposed Action. Accordingly, this section briefly describes those VECs that are not carried forward for further study.

- **Airspace**

Airspace will continue to be regulated by the Federal Aviation Administration (FAA) and Fort Benning will continue to manage the airspace in accordance with applicable regulations. As there

are no changes to airspace classifications, no changes to training operations, and no changes in airspace management protocols or regulations proposed, airspace is not analyzed further in this EA.

- **Cultural Resources**

Within the "Area of Potential Effect" (APE) of the Alternatives there are cultural resources present. Adjacent to the site for Alternative 1 (the Preferred Alternative), there exists "Old Landfill Number 4" (9Ce1580) which was a "trench and fill" style landfill that was closed sometime prior to 1975. Map evidence and surface inspection show that this was an extensive landfill that was used by the Army prior to the Cold War era (Elliot, et.al. 1999). It may contain important information on military lifeways at Fort Benning during its early history as it contains artifacts that are more than 50 years old. As such, this site is deemed potentially eligible for listing in the National Register of Historic Places (NRHP), and will be protected until its NRHP status can be fully assessed. Land disturbing activities for construction of the USAMU Complex and utility tie-ins will avoid this area.

Approximately 250 feet to the south of the site for Alternative 2 is the historical Shack Cemetery (CEM67). The cemetery was discovered 1982 with the accidental unearthing of a coffin during land disturbing activities associated with upgrades to Phillips Range. A subsequent investigation of the site revealed no evidence of additional graves and a fence was erected to prevent any further disturbances at the site. Land disturbing activities for construction of the USAMU Complex and utility tie-ins will avoid this area.

The Proposed Action would not involve the disturbance of any historic properties eligible for listing on the NRHP per the National Historic Preservation Act. Additionally, there would be no disturbance of any cultural items as defined in the Native American Graves and Protections and Repatriation Act; and full access to any sacred sites as defined in the American Indian Religious Freedom Act per Executive Order (EO) 13007 would continue per consultation agreements with the Native American Tribes that have a historical affiliation with the Fort Benning area. Therefore, impacts to cultural resources are not discussed further in this EA.

- **Facilities, Energy and Utilities**

Columbus Water Works, Liberty Utilities, and Flint Energies own and manage the water and sewer, gas, and electric utilities, respectively, on Fort Benning. The sanitary sewage collection system connects to a Columbus Water Works operated treatment plant. Under the Proposed Action, utility systems (electric, water, sewer, and natural gas) would be connected to the facilities of the USAMU BNHQ Complex. Detailed engineering designs for these utilities have not been performed, nor have specific demands been determined at this time. The expansion in building footprints would increase the demand for additional electricity, gas, and water and sewer services. However, the facilities proposed for the USAMU BNHQ Complex would be required to adhere to the Army mandate to follow the guidelines for energy efficiency per the US Green Building council's Leadership in Energy and Environmental Design (LEED). In addition, as there will be no increase to the current daily operations of USAMU, any changes to utilities and/or energy demands would be negligible. Therefore, energy and utilities are not analyzed further in this EA.

- **Land Use**

Land use includes the utilization of land for industrial, residential, recreational, training, or other purposes. Land use within the Cantonment areas is planned in accordance with the Fort Benning Real Property Master Plan which guides the systematic development of the Installation. The Proposed Action does not involve a change in land use category codes, nor would cause a significant change in current training operations. Therefore, land use is not analyzed further in this EA.

- **Noise**

Fort Benning Operational Noise Contours are generated primarily by military aircraft and live-fire exercises of various weapons systems. Noise producing activities within the Main Post Cantonment Area would be typical of any residential community (e.g., vehicular traffic, children playing, mowing grass, etc.), and would not change from current levels. Under the Proposed Action, noise resulting from the use of vehicles and heavy equipment for construction the USAMU BNHQ Complex would be short-term and localized resulting in negligible noise effects. There would be no increase in potential impacts to sensitive receptors (e.g. housing, schools, churches, etc.), within the Main Post Cantonment Area from the Proposed Action. Temporary increased levels of noise would terminate upon completion of construction, and the noise environment would return to pre-construction conditions. Additionally, the USAMU BNHQ Complex for both Alternatives are within the "Land Use Planning Zone" for large caliber weapons noise, and Zone III for small caliber weapons. As the proposed USAMU BNHQ Complex would not be considered in the category of a sensitive noise receptor, potential noise impacts from nearby small arms ranges would be negligible. Therefore, noise is not analyzed further in this EA.

- **Socioeconomics, Environmental Justice and Protection of Children**

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations." As the Proposed Action is limited to Fort Benning, there would be no effects to minority or low-income populations. Therefore, there are no effects to environmental justice issues and are not further discussed in this EA.

Children may suffer disproportionately, more so than adults, due to physiological and behavioral differences from environmental health risks and safety risks. EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, requires federal agencies to identify disproportionately high and adverse impacts to children. The intent of EO 13045 was to prioritize the identification and assessment of environmental health and safety risks that may affect children, and to ensure that federal agencies' policies, programs, activities, and standards address these environmental and safety risks to children. The potential of the Proposed Action to cause environmental and safety risks to children is negligible. All construction activities areas would be carefully monitored and controlled for only authorized access, (e.g., construction workers, project managers, mitigation monitors, etc.); therefore, no effects to children would occur.

The Proposed Action may have a short-term, beneficial effect on the local economy during construction activities. This includes the potential for additional jobs and subsequent increased local spending by the workforce. None of the Action Alternatives would induce long-term population growth within the Installation or the surrounding communities. Therefore, the socioeconomic effects from the Proposed Action would be negligible, and will not be analyzed further in this EA.

- **Traffic and Transportation**

Traffic and transportation includes the roadway system and traffic conditions for the roadway network serving Fort Benning. Fort Benning's on-Post road network is comprised of primary, secondary, and tertiary roadways. The Proposed Action does not include new road construction, nor an increase of personal or military vehicles, but could potentially cause a short-term, localized minor to negligible effect to traffic due to vehicular traffic from heavy equipment and work vehicles during construction activities. However, the primary access road to the Action Alternatives' sites is Dixie Road, a four-lane divided highway, which can easily accommodate the potential temporary increase in traffic flow. Therefore, traffic and transportation will not be analyzed further in this EA.

3.2.2 VECs Carried Forward for Analysis

After consideration of the anticipated impacts associated with the Alternatives, five VECs were selected and analyzed in detail in the following sections of this EA. These include Air Quality, Biological Resources, Hazardous and Toxic Materials and Waste, Soils, and Water Resources.

3.3 Air Quality

The quality of air in a given location is generally described by the concentrations of various pollutants in the atmosphere. The Clean Air Act (CAA) (42 US Code 7401–7671q), as amended, gives the US Environmental Protection Agency (EPA) the responsibility to establish acceptable Air Quality standards to protect public health and welfare, including the National Ambient Air Quality Standards (NAAQS) that determine acceptable concentration levels for six criteria pollutants. These pollutants include: carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10} or $PM_{2.5}$), ozone (O_3), nitrogen dioxide (NO_2) and lead (Pb). A region with Air Quality better than the NAAQS is designated as being in attainment; areas with substandard Air Quality are classified as nonattainment areas. A nonattainment designation generally is given to a region if the primary NAAQS for any criteria pollutant are exceeded at any point in the region for more than three days during a three year period.

3.3.1 Affected Environment

The ROI for Air Quality encompasses Fort Benning and the multi-county region including Muscogee, Chattahoochee, Harris, Talbot, and Marion Counties of GA and Russell and Lee Counties of AL. The EPA Region 4, the AL Department of Environmental Management, and the GA Department of Natural Resources regulate Air Quality within this airshed and on Fort Benning. This region has been classified by the EPA as an attainment area for all criteria pollutants; therefore, general conformity Air Quality regulations do not apply to federal actions within this region and is not discussed further in this EA.

Title V Permit

Fort Benning is designated as a major stationary source of air pollutants and operates under a CAA Title V Operating Permit (No. 9711-215-0021-V-03-0). The latest Title V permit was issued in March 2014 and is in effect for five years. The permit includes a list of emission sources, applicable regulations, emissions limits, and monitoring and record-keeping requirements. The permit is modified on a routine basis to account for the addition or removal of stationary and area pollutant sources.

Fort Benning currently has 11 boilers firing natural gas or liquefied petroleum gas that are greater than 10 million British thermal units per hour, and hundreds of smaller boilers or heaters. Once the new construction is completed and operational, Fort Benning would be required to include the estimated annual emissions from all stationary sources (e.g., boilers, HVAC, etc.), in the Installation's Title V permit.

Fugitive Dust

Fugitive dust refers to particulate matter suspended in the air from any source other than a stack, vent, or chimney. Common sources capable of generating fugitive dust include earth-moving activities, construction activities, disturbed surface areas, and vehicular movement. The State of GA requires compliance with its Fugitive Dust Rule (Rule 391-3-1-.02[n]), which stipulates the use of reasonable precautions (e.g., application of water, paving roads, covering truck beds transporting dusty materials, etc.) to prevent fugitive dust from becoming airborne and that fugitive dust opacity remain below 20 percent during construction.

Prescribed Fire

Fort Benning also generates emissions from prescribed fire activities as part of its ongoing ecosystem management program, as the area is historically a fire-based ecosystem. Prescribed burning is the largest single source of criteria pollutant emissions on the Installation (US Army, 2013). It is also a critical management tool for fire-dependent natural communities, Red-cockaded Woodpecker (RCW) habitat, and training area management.

The GA and AL Forestry Commissions administer each state's Smoke Management Plan, which details the basic framework of procedures and requirements for managing smoke from prescribed fires. The goal of each Smoke Management Plan is to minimize the public health and environmental impacts of smoke intrusion into populated areas from fires, avoid significant deterioration of Air Quality and potential CAA violations, and avoid visibility impacts in Class I prevention of significant deterioration (PSD) areas (US Army, 2013). The closest PSD Class I areas are the Sipsey Wilderness Area, AL, as well as Cohotta, Wolf Island, and Okefenokee Wilderness Areas, GA. All of these Class I areas are located more than 200 miles away, and unlikely to be affected by emissions generated at Fort Benning. Therefore, PSD is not further considered in this EA.

Greenhouse Gases

Routine societal and developmental activities such as fuel combustion, deforestation, and other changes in Land Use, have the potential to result in the accumulation of trace greenhouse gases (GHGs), in the atmosphere. GHGs include water vapor, carbon dioxide (CO_2), methane, nitrous oxide, O_3, and several hydrocarbons and chlorofluorocarbons. An increase in GHG emissions is

said to result in an increase in the earth's average surface temperature, which is commonly referred to as global warming. Global warming is expected, in turn, to affect weather patterns, the average sea level, ocean acidification, chemical reaction rates, and precipitation rates, all of which is commonly referred to as climate change.

Each GHG has an estimated global warming potential, which is a function of its atmospheric lifetime and its ability to absorb and radiate infrared energy emitted from the earth's surface. A gas's global warming potential provides a relative basis for calculating its carbon dioxide equivalent (CO_2e), which is a metric measure used to compare the emissions from various GHGs based on their global warming potential. CO_2 has a global warming potential of 1 and is therefore the standard to which all other GHGs are measured.

Water vapor is a naturally occurring GHG and accounts for the largest percentage of the greenhouse effect. Next to water vapor, CO_2 is the second-most abundant GHG. Uncontrolled CO_2 emissions from power plants, heating sources, and mobile sources are a function of the power rating of each source, the feedstock (fuel) consumed, and the source's net efficiency at converting the energy in the feedstock into other useful forms of energy (e.g., electricity, heat, etc.). Because CO_2 and the other GHGs are relatively stable and essentially uniformly mixed throughout atmosphere, the climatic impact of these emissions does not depend on the source location on the earth (i.e., regional climatic impacts/changes will be a function of global emissions).

Overall, federal agencies address emissions of GHGs by reporting and meeting reductions mandated in laws, EOs, and policies. The more recent include EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, of October 2009 and EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 2007, which introduced GHG emissions management and improvements that address waste reduction and efficiency for the federal government. These EOs were revoked in March 2015 with the publication of EO 13693, *Planning for Federal Sustainability in the Next Decade*, which retained the goal to maintain federal leadership in sustainability and GHG emissions.

EO 13783 of March 2017, *Promoting Energy Independence and Economic Growth* ordered the rescission of the August 2016 CEQ directive; *Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. As a result, the requirement for analyzing the effects of GHGs resulting from a proposed action was eliminated. Nevertheless, EO 13783 did not remove the requirement for assessing a proposed action's potential impact to Air Quality; which includes GHGs as required under NEPA. Therefore, the effects of climate change are to be included and addressed to document that an informed decision-making process was followed. GHG emission sources at Fort Benning include vehicle use, boilers, chillers, water heaters, and emergency generators.

3.3.2 Environmental Consequences

Any impacts to Air Quality in attainment areas would be considered significant if pollutant emissions associated with the Proposed Action would cause a violation of the CAA and/or cause an exceedance of an established Air Quality Standard.

3.3.2.1 No Action Alternative

Under the No Action Alternative, the construction of a USAMU BNHQ Complex would not occur and USAMU would continue to occupy their current decentralized arrangement of substandard facilities. The older and less efficient buildings and HVAC systems would require more energy usage and result in additional emissions when compared with newer more efficient ancillary amenities. Nevertheless, the potential effects to Air Quality would be considered negligible. Overall, existing conditions within the ROI concerning Air Quality would remain unchanged under the No Action Alternative; therefore, no impacts are anticipated.

3.3.2.2 Action Alternatives

The Proposed Action would result in increases in air emissions during construction activities from work and vehicles onsite. All applicable federal and state Air Quality protection requirements would be implemented to mitigate any generation of fugitive dust due to minor earth disturbances. DoD construction guidance requires that new construction be designed and built to adhere to *American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 189.1* and at a minimum meet Leadership in Energy and Environmental Design (LEED) Silver standards. As a result, operation of a newly constructed facility would produce slightly fewer emissions.

Adherence to existing requirements and GA Air Quality Rules to minimize effects to air quality, such as immediately dampening disturbed soils with water and covering truck beds transporting dust generating materials, will reduce fugitive dust emissions. Construction would require permits, stipulating air best management practices (BMPs) and other mitigation measures essential for the project to minimize potential impacts. Therefore, implementation of Alternative 1 or Alternative 2 would result in negligible effects to Air Quality.

3.3.3 Mitigation

No mitigation measures other than following applicable laws and regulations are warranted for Air Quality.

3.4 Biological Resources

Biological Resources include native or naturalized plants and animals and the habitats in which they occur. The dominant plant species make up plant communities, which in turn define the vegetation of an area. Habitat is known as the area or environment where resources and conditions are present that allow a plant or animal to survive.

3.4.1 Affected Environment

The ROI for Biological Resources is the area within the boundaries of Fort Benning. Fort Benning manages and conserves its Biological Resources through its Integrated Natural Resources Management Plan (INRMP). All proposed actions on the Installation are considered for their potential effects through the NEPA process, and in accordance with various EOs, US Fish and Wildlife Service (USFWS) Biological Opinions, Memorandums of Understanding, and State and Federal Endangered Species Acts. Biological Resources discussed in this EA include Vegetation, Fish and Wildlife, Migratory Birds, and Threatened and Endangered Species, which

could potentially be affected by construction or operational activities associated with the Alternatives.

Vegetation

According to Fort Benning's INRMP, there are more than 1,275 species of plants on Fort Benning located within approximately 29,000 acres of unforested areas and 150,000 acres of woodland. Loblolly and longleaf pine are the predominant conifers within the Installation, comprising approximately 80,000 acres of the woodland; the remaining 70,000 acres of woodland consist of approximately 15,000 acres of forested restricted access areas and 55,000 acres of hardwood forest (Fort Benning, 2015).

Fort Benning is located within the Longleaf Pine Ecosystem with vegetative cover distributed along two broadly defined ecological units or subsections; the Sand Hills and Upper Loam Hills. The northern portion of the Installation is part of the Sand Hills subsection characterized by well-drained soils and Longleaf pines (*Pinus palustris*). The Upper Loam Hills cover most of the southwestern area of Fort Benning and is characterized by heavier soils containing higher amounts of organic matter and increased water holding capacities. Natural vegetation is characterized as an Oak-hickory forest (e.g., Post Oak [*Quercus stellate*], White Oak [*Quercus alba*], Pignut Hickory [*Carya glabra*], Mockernut Hickory [*Carya tomentosa*]) (Fort Benning, 2015).

The undeveloped areas of Fort Benning generally consists of hardwood and pine trees, and are heavily wooded. The more developed cantonment areas consists primarily of hardwood tree species, decorative shrubs around buildings, and open grassed areas for green space and training facilities. The cantonment areas contain mature sycamore, oak, and other tree species lining many of the Installation's main streets and historic districts. The developed areas generally do not provide good habitat for wildlife. Development and human activity have forced native animal populations to less disturbed and less active areas of the Installation, such as training areas.

Wildlife

Fort Benning is inhabited by more than 350 species of fish and wildlife, including 154 species of birds, 47 species of mammals, 48 species of reptiles, 25 species of amphibians, 67 species of fish, and nine species of mussels, as well as numerous insect and other invertebrate species (Fort Benning, 2015). Commonly encountered animals include American alligators, turtles, water snakes, wading birds, migratory waterfowl, American beaver, white-tailed deer (*Odocoileus virginiana*), feral swine (*Sus scrofa*), eastern wild turkey (*Meleagris gallopavo*), eastern gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), rabbits (*Sylvilagus spp.*), other small mammals, and a wide variety of songbirds. Reptiles and amphibians found on the Installation includes eastern coachwhip (*Masticophis flagellum flagellum*), eastern diamondback rattlesnake (*Crotalus adamanteus*) Florida pinesnake (*Pituophis melanoleucus mugitus*), southern hognose snake (*Heterodon simus*), eastern tiger salamander (*Ambystoma tigrinum*), and other species of the Longleaf Pine Ecosystem (Fort Benning, 2015).

Fort Benning supports a high diversity of native freshwater fishes, including both game and non-game species. Native non-game fishes include many species of shiners, darters, shad, and minnows, as well as the southern brook lamprey (*Ichthyomyzon gagei*). Popular game fish

species include: largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), redear or shellcracker (*Lepomis microlophis*), black crappie (*Pomoxis nigromaculatus*), channel catfish (*Ictalurus punctatus*), white bass (*Morone chrysops*), and hybrid white bass (*Morone chrysops saxatilis*) (Fort Benning 2014).

The Fort Benning region is rich in invertebrate biodiversity. Common insects in stream systems include larval and adult stages of stoneflies, mayflies, midges, and caddis flies. As well, a wide variety of crustaceans such as crayfish, mussels, isopods, snails, and amphipods occur within the regional habitat. Mussels in particular are sensitive indicators of water quality and ecological integrity. At least four mussel species of conservation concern occur within Uchee Creek in AL (Fort Benning 2014). Water bodies on Fort Benning commonly containing mussels include the Chattahoochee River, Victory Pond and Uchee, Cox, Shell, and Oswichee Creeks (Fort Benning, 2015).

Some of the species discussed herein provide outdoor recreational value in the form of hunting, fishing, and wildlife viewing. Management of these species includes ensuring adequate enforcement of hunting and fishing regulations. During training exercises, Fort Benning limits access for hunting and fishing inside the boundaries of the Installation because of safety and security concerns.

Migratory Birds

According to Fort Benning's INRMP there are approximately 150 species of birds protected under the Migratory Bird Treaty Act that may occur on Fort Benning either seasonally or year round. Most of these species are breeding residents or neotropical migrants for which the typical breeding season is spring through summer.

Section 315 of the 2003 National Defense Authorization Act provided that the Secretary of the Interior prescribe regulations to exempt the Armed Forces from the incidental taking of migratory birds during military readiness activities. Military readiness activity includes all training and operations of the Armed Forces that relate to combat. In accordance with 50 CFR 21.15 (Authorization Of Take Incidental To Military Readiness Activities), the regulation does not allow an installation to take migratory birds indiscriminately during readiness activities but requires that installations consider the protection of migratory birds when planning and executing military readiness activities. In addition, Fort Benning manages and conserves migratory bird species through its INRMP and considers effects to migratory birds in any proposed action via the NEPA process.

The Migratory Bird Treaty Act grants the Secretary of the Interior the authority to establish hunting seasons for species the USFWS has determined that hunting is appropriate; species for which there is a long tradition of hunting; and species for which hunting is consistent with their population status and long-term conservation. Two species of resident game birds at Fort Benning include the northern bobwhite quail (*Colinus virginianus*) and eastern wild turkey. Nineteen species of migratory game birds (at least 16 of which are waterfowl) include the mourning dove, common snipe (*Gallinago gallinago*), American woodcock (*Scolopax minor*), Canada goose (*Branta canadensis*), mallard duck (*Anas platyrhynchos*), wood duck (*Aix sponsa*), ring-necked duck (*Aythya collaris*), gadwall (*Anas strepaera*), American wigeon (*Anas*

americana), northern pintail (*Anas acuta*), American black duck (*Anas rubripes*), green-winged teal (*Anas crecca*), blue-winged teal (*Anas discors*), canvasback (*Aythya valisineria*), redhead (*Aythya americana*), bufflehead (*Bucephala albeola*), hooded merganser (*Lophodytes cucullatus*), northern shoveler (*Anas clypeata*), and lesser scaup (*Aythya affinins*) (Fort Benning, 2015).

Invasive Species

In 1999, EO 13112 began requiring federal agencies to prevent the introduction of invasive species; to provide for their control; and to minimize the economic, ecological, and human health impacts that invasive species cause.

Common invasive plant species identified on Fort Benning include the tree species of Chinese Tallowtree (*Triadica sebifera*) and Mimosa (*Albizia julibrissin*), and shrubs such as Chinese Privet (*Ligustrum sinense*) and Multiflora Rose (*Rosa multiflora*). Invasive vine species include Kudzu (*Pueraria montana var. lobata*) and English Ivy (*Hedera helix*). Invasive grasses include Cogongrass (*Imperata cylindrical*) and Japanese Knotweed (*Fallopia japonica*). All are extremely aggressive invaders with the capability of forming dense assemblages and/or extensive root systems that displaces native vegetation.

Fort Benning utilizes an integrated pest management approach to control invasive plant species. Integrated pest management involves using targeted, sustainable control methods that can include a variety of measures, such as habitat modification, biological control, mechanical control, physical control and the judicious use of pesticides. Specific procedures related to the control of invasive plant species are outlined in Fort Benning's Integrated Pest Management Plan (Fort Benning, 2013). The means used for the maintenance of the urbanized areas are largely effective in managing invasive species as well. Accordingly, invasive plants will not be discussed further in this EA.

Feral swine are widespread across the Installation and considered a pest species for many reasons. The primary concern is the extensive damage to vegetation and soil surfaces that occurs due to their characteristic "rooting" habits, which jeopardizes the establishment of ground cover and native vegetation. Other impacts of feral swine include direct mortality of pine and hardwood trees, competition with native wildlife species, habitat disturbance, and direct mortality of threatened and endangered species. Additionally, feral swine can also uproot and damage cables, wiring, targetry, bivouac sites, and other military assets. Fort Benning's management of this species focuses on controlling the population by establishing liberal hunting regulations such as no bag limits and expanded season lengths. In addition, trapping is conducted at specific locations to minimize damage to military assets and sensitive plants (US Army Corps of Engineers [USACE], 2009). Specific procedures related to the control of feral swine are outlined in Fort Benning's Integrated Pest Management Plan (Fort Benning, 2013). The presence of urban areas, communities, and control methods for feral swine are effective in maintaining and managing populations within and near Fort Benning's cantonment areas. The Proposed Action would only occur in urbanized areas and would little effect on feral swine. Therefore, feral swine will not be discussed further in this EA.

Endangered, Threatened, and Rare Species

As described in the INRMP, there are 96 species (four amphibians, eight birds, seven fishes, four mammals, four mussels, nine reptiles, and 60 plants) of conservation concern found on Fort Benning. Plant and animal species listed as threatened, endangered, or proposed as such by the USFWS, the State of GA or the State of AL are recognized as special-status species. The Endangered Species Act (ESA) only protects federally listed species. State listed species are protected in the State of GA by the GA Wildflower Preservation Act or GA's Endangered Wildlife Act. The State of AL likewise protects a number of species through the Nongame Species Regulation (AL Administrative Code 220-2-.92). Although state listed species are not protected by the ESA, they may be considered for federal listing in the future and may be afforded special management attention by Fort Benning.

AR 200-1 (Environmental Protection and Enhancement) guides Army compliance with the ESA. The regulation requires ESMCs for listed and proposed species and critical habitat, a 100 percent inventory of suitable habitat for listed and proposed species that may occur on the Installation, and an initial thorough inventory of plants, fish, wildlife, and habitats on the Installation lands. Five federally listed or candidate species occur on Fort Benning. These are the Red-cockaded Woodpecker (*Picoides borealis*) (Endangered), American Alligator (*Alligator mississippiensis*) (Threatened for similarity in appearance), Wood Stork (*Mycterian Americana*) (Endangered), Relict Trillium (*Trillium reliquum*) (Endangered), Georgia Rockcress (*Arabis Georgiana*) (Candidate), and Gopher Tortoise (*Gopherus polyphemus*) (Candidate). The Bald Eagle (*Haliaeetus leucocephalus*) has been delisted but remains protected under the Bald and Golden Eagle Protection Act (Fort Benning, 2014).

Unique Ecological Areas (UEAs)

Fort Benning has identified several areas that have unique or rare ecological characteristics or that represent the best example of a particular habitat or plant community type. UEAs were chosen based on characteristics of their soil type, topography, slope, aspect, elevation, hydrology, flora, fauna, and other biotic and abiotic features. Many areas apparently contain remnant native plant communities that have experienced minimal disturbance relative to other similar communities. To conserve the ecological integrity of these areas, Fort Benning will use their designation as UEAs to ensure that current and future land-use planning and training activities take into consideration their presence and their preservation. The Proposed Action and Alternatives would not occur within or have any effects on UEAs. Therefore, UEAs are not discussed further in this EA.

Habitat Conservation Outside of Fort Benning

The Sikes Act authorizes the DoD to partner with non-federal governments or private organizations to establish buffers around military installations. The Army implements this authority through the Army Compatible Use Buffer (ACUB) program, which provides funding for the Army to work with state and local governments, non-governmental organizations, and willing land owners to help prevent encroachment of training areas and promote regional conservation efforts.

Through Fort Benning's partnership with The Nature Conservancy, off-Post conservation measures both buffer the Installation boundary from land uses incompatible with military training and promotes land management to protect and restore habitat for listed, imperiled, or at-

risk species that impact Fort Benning's mission. The Proposed Action would not occur within or have any effects on Fort Benning's ACUB Plan. Therefore, these areas are not discussed further in this EA.

3.4.2 Environmental Consequences

Impacts would be considered significant if one of more of the following conditions would result:

- Substantial loss or degradation of habitat or ecosystem functions (natural features and processes) essential to the persistence of native plant and animal populations;
- Substantial loss or degradation of a sensitive habitat, including surface waters and UEAs that support high concentrations of special status species or migratory birds;
- Disruption of a federally listed species, its normal behavior patterns, or its habitat that substantially impedes the Installation's ability to either avoid jeopardy or conserve and recover the species; or
- Substantial loss of population or habitat for a state-protected species increasing the likelihood of federal listing action to protect the species in the future.

3.4.2.1 No Action Alternative

Under the No Action Alternative, construction of a new USAMU BNHQ Complex would not occur. No impacts to Biological Resources would be expected as a result of the No Action Alternative.

3.4.2.2 Action Alternatives

Although construction activity has the potential to affect terrestrial wildlife through nominal displacement as a result of the removal of vegetation and possible habitat, soil disturbance, vehicle traffic, and incidental human activity, both Action Alternatives would be limited to individual project areas and adhere to applicable federal and state laws, regulations, and permit requirements. The acreages proposed represent the maximum limits of disturbance to accommodate for the facility footprint, utility tie-ins, and anti-terrorism/force protection requirements. Additionally, these areas do not contain unique habitat supporting concentrations of special status species or migratory birds. As a result, negligible effects to Biological Resources are anticipated under the Action Alternatives.

3.4.3 Mitigation

Adherence to federal and state laws and Army regulations, as well as Installation management plans, would preclude potential impacts due construction and operations activities in the short- and long-term. Additionally, all proposed construction and maintenance activities will be required to be analyzed through Fort Benning's NEPA review process. A Request for Environmental Analysis through the submittal of an FB-144R form detailing the scope of the action or activity will be reviewed prior to implementation of the Proposed Action to ensure that the potential impacts fall within the analysis presented in this EA. No additional mitigation measures are warranted.

3.5 Hazardous Materials and Waste

Hazardous materials are comprised of any material or agent (biological, chemical, physical) that has the potential to cause harm to humans, animals, or the environment, either on its own or through interaction with other factors. Waste may be classified as hazardous due to its toxicity, reactivity, ignitibility, or corrosivity. Hazardous materials and waste are identified and regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Occupational Safety and Health Act; the Resource Conservation and Recovery Act (RCRA); the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); and the Emergency Planning and Community Right-to-Know Act. The Clean Water Act also addresses hazardous materials and waste through Spill Prevention, Control, and Countermeasure (SPCC) and National Pollutant Discharge Elimination System (NPDES) requirements. This section evaluates the use, handling and storage, transport, and disposal of Hazardous Materials and Waste at Fort Benning as a result of the Proposed Action.

3.5.1 Affected Environment

The ROI for Hazardous Materials and Waste includes the entirety of Fort Benning. Programs have been established at Fort Benning to:

- Control the entry of hazardous substances to the Installation;
- Safely manage hazardous waste and material handling and transportation within the Installation;
- Inform military and civilian employees of Hazardous Materials and Waste dangers;
- Minimize the risk of human exposure and release into the environment associated with these substances;
- Dispose of these substances in an environmentally sound manner when they are no longer useful.

Hazardous Materials Use and Handling

AR 200-1 requires Army installations to minimize the use of hazardous materials, as well as establish management procedures to ensure proper handling throughout their life cycle including procurement, storage, use, and disposal. In addition, installations are required to implement a Hazardous Waste Management Plan to ensure that hazardous waste is managed in compliance with applicable laws and regulations. AR 200-1 also includes requirements for the management of toxic substances in a manner that minimizes human exposure and environmental risk.

Routine operations on Fort Benning require the use of a variety of hazardous materials, including petroleum products, solvents, cleaning agents, paints, adhesives, and other products necessary to perform vehicle and equipment maintenance, military training activities, and training area upkeep. Batteries, petroleum, oil, and lubricants (POL) are used to power both military and civilian equipment and vehicles, and pesticides are used to control plant and animal pests throughout the Installation. When not in use, these materials are generally stored at maintenance facilities in a cantonment area.

Solid Waste Management

Solid waste (that is not hazardous or toxic) at the Installation includes waste generated from Family housing, administrative areas, troop units, and contractors. Two separate solid waste haulers operate under contract on Fort Benning. All of Fort Benning's solid waste goes to a transfer station and then to permitted sanitary landfills located in Phenix City or Tallassee, AL. Both landfills have projected current and future capacity of more than 30 years (Fort Benning, 2017, Advanced Disposal, 2018).

Fort Benning's policy on recycling is governed by the October 2007, Policy Memorandum No. 200-1-8, entitled "Qualified Recycling Program." Under this policy, Army personnel and contractors are required to actively participate in the recycling program, and all of the proceeds from the program are retained by the Installation. One recycling center processes recyclable items from industrial work areas, barracks, and Family housing areas. Administration area waste, which generally consists of office paper products, food wastes (from mess halls and restaurants), and cardboard and cans from receiving, mess halls, motor pools, etc., is delivered to the Fort Benning Material Recovery Facility to be packaged and sold. Yard waste material consists of leaves, limbs, grass clippings, etc., and is composted, mulched, and recycled as possible. Contractors and other users do not have permission to dispose of waste on Fort Benning. All construction and demolition wastes are taken off-Post by the contractor to a permitted recycling or disposal facility (Fort Benning, 2017).

Toxic Substances Management

Toxic substances that commonly occur on Army installations include asbestos-containing materials, lead-based paint, and polychlorinated biphenyls. These substances are almost exclusively affiliated and common with older construction and insulating materials and are not anticipated to be encounter with implementation of the Proposed Action. Therefore, toxic substance and their management are not discussed further in this EA.

Radon

Radon is a naturally occurring, colorless, odorless, radioactive gas produced by the decay of uranium in rock and soil. Radon is a known carcinogen, capable of causing direct damage to lung tissues and increasing the risk of lung cancer when inhaled. If present, radon gas will typically concentrate in airtight buildings and particularly in basements. The Army Policy for Radon as outlined in AR 200-1, Radon Policy Reduction Program, requires measurement of radon in newly constructed Army facilities and use of USACE design criteria for radon reduction in new construction. Radon information provided by EPA, Region IV, and statistics maintained by the GA Environmental Protection Division suggest that radon is not an issue of concern in the region (USACE, 2009). The Proposed Action is not anticipated to be affected by radon or its management; therefore, radon is not studied further.

Contaminated Sites

Past resource and waste management practices at DoD facilities have resulted in the presence of toxic and hazardous waste contamination at some installations, including Fort Benning. In response, Fort Benning has undertaken mitigation and cleanup activities under its Installation Restoration Program to manage these sites, which are referred to as Solid Waste Management Units (SWMUs) (Fort Benning, 2005a and b). The Fort Benning Environmental Management

Division actively manages programs for addressing contaminated sites in compliance with RCRA and the National Oil and Hazardous Substances Pollution Contingency Plan.

Consistent with DoD policy, it is Fort Benning's policy to identify any known or potentially contaminated sites that may be affected by proposed construction to prevent the spread of any contamination and to ensure that construction workers and personnel who use the project areas are not exposed to unsafe conditions. SMWUs that need corrective action have been identified, surveyed, and are reviewed by Fort Benning, prior to any proposed construction projects. Those sites requiring corrective action may have recorded Land Use controls that allow the project planners and engineers to evaluate the nature of the contamination and take proper action to prevent the spread of contaminants to the environment or expose personnel as a result of proposed construction. The nature of exposure protection includes the potential for subsurface vapor intrusion below buildings. For locations where contamination has occurred in the past but a determination of No Further Action has been made, this determination is based upon the documentation that all contaminant exposure avenues have been identified and that all exposure levels of any contaminants are below all EPA and GA Environmental Protection Division screening levels, and no protective measures or additional clean-up or Land Use controls are necessary.

As illustrated in Figure 3.1, four identified SWMUs exist within 0.5 miles of the Action Alternatives. These include Old Landfill No. 4 (FTBN-004), also identified as Cultural Site 9CE1580, Old Landfill No. 16 (FTBN-016), former vehicle washrack (FTBN-016) and sludge application site (FTBN-033H). All of the SWMUs mentioned have been granted a No Further Action (NFA) status by the GA Environmental Protection Division (EPD).

Pesticides

Army installations have managed pests for decades using pesticides. The FIFRA mandates that the EPA regulates the use and sale of pesticides. Some of these chemicals historically used were banned under the FIFRA in the 1970s and 1980s; however, pesticide compounds often still endure within the environment today. Some of the most long-lasting and frequently used pesticides in the US that are now banned include organochlorinated insecticides more commonly known or branded as DDT (dichloro-diphenyl-trichloroethane), heptachlor, endosulfan, chlordane, aldrin, dieldrin, and endrin.

3.5.2 Environmental Consequences

Potential impacts of the No Action Alternative and the Action Alternatives have been assessed with regard to changes in the volume of Hazardous Materials and Waste managed by the Installation. An Alternative would be considered to have a significant adverse impact if:

- It resulted in noncompliance with applicable local, state, and federal regulations;
- Increased the amount of hazardous waste generated or procured beyond the waste management capacity of the Installation;
- Contaminated sites are disturbed causing adverse effects on ecological and human health by creating exposure pathways; or if

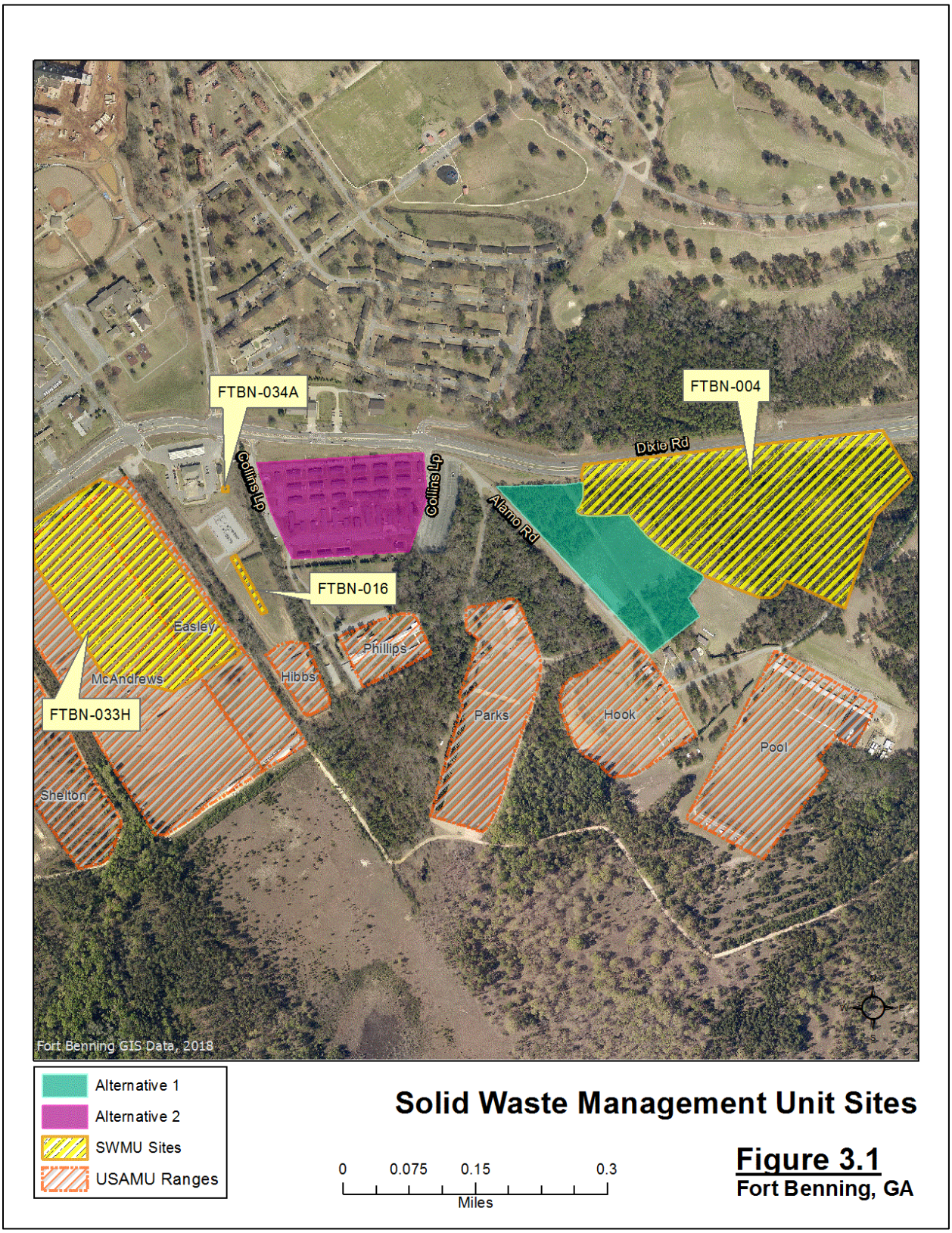
- Established management policies, procedures, and handling capacities for fuel management could not accommodate the activities associated with the Proposed Action.

3.5.2.1 No Action Alternative

The No Action Alternative would not change the baseline conditions for management of hazardous materials, toxic substances, hazardous waste, or contaminated sites at Fort Benning. Fort Benning would continue to minimize any adverse impacts resulting from hazardous materials by following all applicable laws, regulations, and Fort Benning plans. Therefore, negligible impacts are anticipated.

3.5.2.2 Action Alternatives

Under the Action Alternatives, the quantity of hazardous materials such as petroleum, oil, and lubricants would increase in support of constructing a new USAMU BNHQ Complex. The demand would primarily be related to and required by heavy equipment use and ended with the completion of the construction phase. Over the long-term, facility and operational needs would involve the storage and use of hazardous materials such as cleaning agents, paints, adhesives, and other products for household and facility maintenance. Conversely, this will be offset by facility reductions at the current USAMU locations.


FTBN-034A
FTBN-004
Dixie Rd
Collins Lp
Collins Lp
Alamo Rd
FTBN-016
Easley
McAndrews
Phillips
Hibbs
FTBN-033H
Parks
Hook
Pool
Shelton
Fort Benning GIS Data, 2018
Alternative 1
Alternative 2
SWMU Sites
USAMU Ranges
0
0.075
0.15
0.3
Miles
Solid Waste Management Unit Sites
Figure 3.1
Fort Benning, GA

The risk of uncontrolled release of hazardous substances during construction and long-term operation would be minimized by avoiding construction activities beyond the Alternatives' footprints and following applicable federal and state laws and regulations and Army policy for storage of hazardous materials. Adherence to existing material and waste management plans and procedures for handling, storage, and disposal of these substances would preclude any long-term, adverse impacts under the Action Alternatives. At worst, the Action Alternatives would result in minor, short-term impacts during construction activities. No long-term effects from operation are anticipated to result from hazardous material storage and handling.

3.5.3 Mitigation

Adherence to applicable federal, state, Army laws and regulation, and Fort Benning plans mentioned in this section would minimize impacts due to construction and maintenance operations activities. No additional mitigation measures are warranted.

3.6 Soils

Soils are most often described in terms of their type, slope, physical characteristics, and relative compatibility or limitations with regard to particular activities. Two basic soil provinces make up Fort Benning: the GA Sand Hills and the Southern Coastal Plains. Based on the US Department of Agriculture, Natural Resource Conservation Service's soil survey "K factor," most of the soils found at Fort Benning, with the exception of southern portions of the Installation, are identified as low to moderately erodible when undisturbed. The degree of erodibility is determined by physical factors such as drainage, permeability, texture, structure, and percent slope. The rate of erodibility is based on the amount of vegetative cover, climate, precipitation, proximity to water bodies, and Land Use. Soil disturbing activities accelerate the erosion process by exposing soils to precipitation and surface runoff. Activities that disturb or remove vegetation are likely to increase the erosion hazard, particularly on slopes.

Prime farmland soils, protected under the Farmland Protection Policy Act (FPPA) (7 USC 4201; FPPA of 1981, as amended) are not discussed in this EA, as no lands within Fort Benning have been classified as prime farmland. Therefore, there is no further discussion of prime farmland in this EA.

To prevent soil erosion during construction, consequent damage to endangered species habitat, or sedimentation of streams and wetland areas, the Army employs NPDES BMPs as defined by the GA Department Natural Resources (DNR), and GA Soil and Water Conservation Commission for all construction projects. Pursuant to that requirement, state and county regulations require construction projects involving one acre of land disturbance or more—including smaller sites that are part of a larger common plan of development that collectively disturbs one acre or more—to obtain an approved Erosion Sedimentation Pollution Control Plan (ESPCP), fee submittal for the disturbed acreage, and Notice of Intent (NOI) to meet the requirements of the federal NPDES construction permit program and GA Erosion and Sedimentation Control Act. The ESPCP prescribes activities to limit erosion and sedimentation from the site and includes a site description, list of BMPs to be used, BMP inspection procedures to be performed by qualified personnel, procedures for timely BMP maintenance, requirements for sampling of

discharges or receiving streams for turbidity, and reporting requirements to the GA DNR Environmental Protection Division (EPD).

3.6.1 Affected Environment

The ROI for soils includes the Alternative's proposed construction footprints and areas immediately adjacent that could be directly and/or indirectly impacted by soil erosion and sedimentation from the Proposed Action.

Common soil types found within and nearby the cantonment areas consists of the Nankin, Troup, Bibb, Lucy, Fuquay, Orangeburg, Uchee, Troup, Ruston, Norfolk, Udorthents, Lakeland, and the Cowarts-Ailey series. Generally, soils on Fort Benning are highly susceptible to erosion if vegetation is removed, especially on steep slopes. The establishment and maintenance of appropriate vegetation and proper drainage systems is the fundamental means of addressing and avoiding extensive erosion of soils.

Minor earth disturbances are expected from construction activities. The acreages for the limits of disturbance for each Alternative represent the maximum, worst-case scenario based on property and project boundaries. The actual disturbance for the proposed construction will be determined prior to final site design and contingent upon topographical features, utility tie-ins, and the final architectural and engineering facility design for each project site.

3.6.2 Environmental Consequences

Impacts would be considered significant if they would:

- Violate applicable federal or state laws and regulations, and/or fail to receive applicable state permits (e.g., NPDES construction permit) prior to initiating the Proposed Action;
- Substantially degrade soils, soil fertility, or soil productivity;
- Have substantial, highly noticeable influences on the rate of soil erosion or the ability of the soil to support vegetation expected to be present in the area.

3.6.2.1 No Action Alternative

No effect on soils would be expected under the No Action Alternative. Under the No Action Alternative, no new USAMU BNHQ Complex would be constructed and no ground disturbance would occur, and therefore no soils would be disturbed or changed.

3.6.2.2 Action Alternatives

Under the Action Alternatives, soil erosion and sedimentation controls will be put in place, per the Clean Water Act (CWA) and the GA Erosion and Sedimentation Control Act, and appropriate NPDES permits will be obtained in prior to any land disturbing activities. Short-term, minor adverse impacts to soils within the ROI may occur during construction; however, no long-term effects to soils would be anticipated as all ground disturbances at the proposed sites, would be re-vegetated and stabilized.

3.6.3 Mitigation

For either Action Alternative, mitigation measures would be implemented as part of federal and state permitting requirements to minimize the effects to soil resources during construction activities. Application of federal and state erosion control measures and NPDES permitting requirements to include preparation of an Erosion, Sedimentation and Pollution Control Plan (ESPCP) detailing erosion and sedimentation control BMPs, and a minimum 25-foot surface water setback to minimize soil impacts during construction are required prior to land disturbing activities. Additionally, adherence to federal and state laws and regulations would minimize impacts due to operations and maintenance activities in the long-term. Therefore, no additional mitigation measures are warranted.

3.7 Water Resources

Water resources include surface water and floodplains, groundwater and aquifers, and wetland resources. Activities that affects water quality, quantity, or rate of movement at one location within a watershed has the potential to affect the characteristics of water resources. The CWA of 1972 is the primary federal law that protects the nation's waters. The CWA prohibits the discharge of any pollutant to waters of the US unless the discharge is authorized by a NPDES permit.

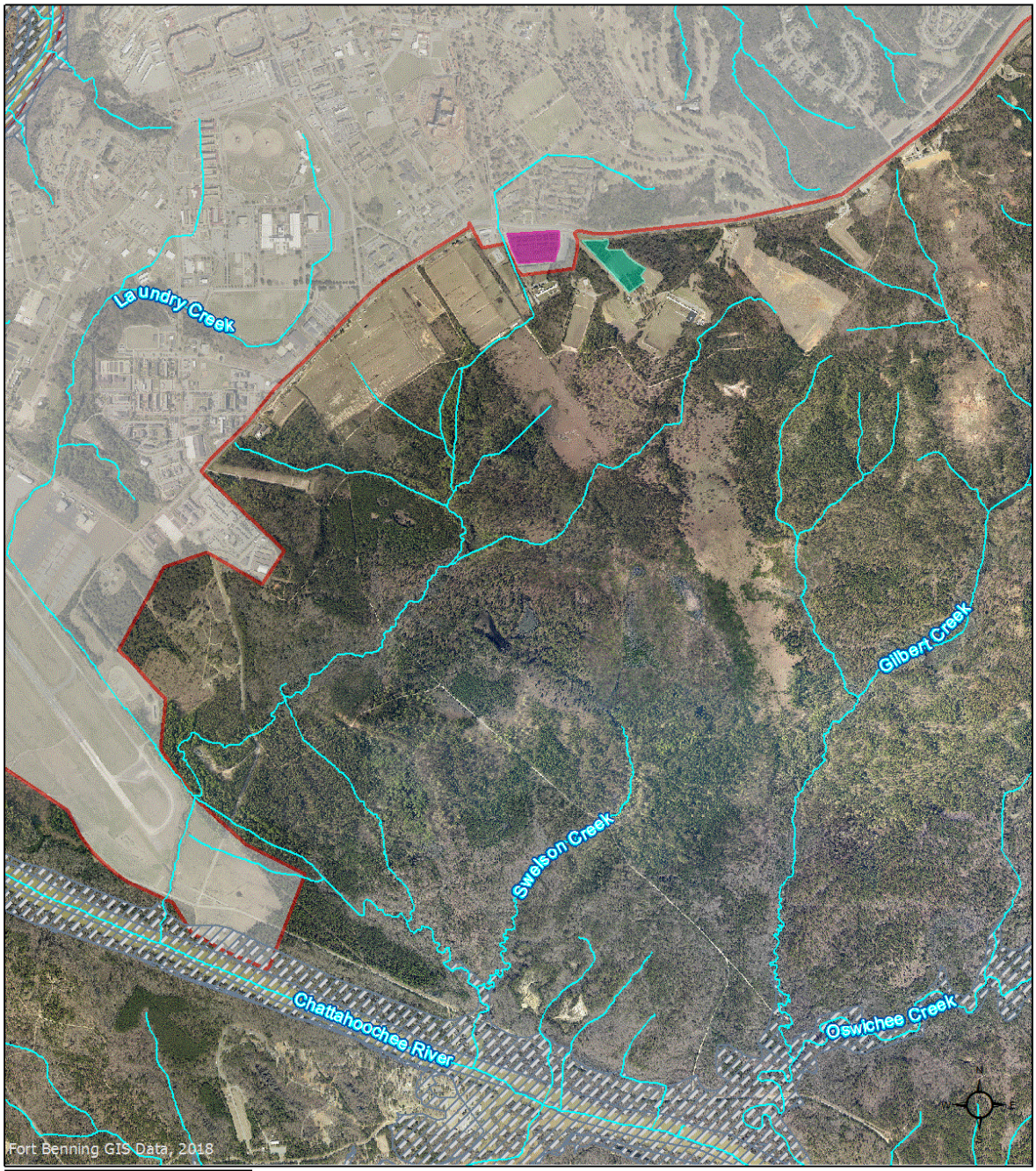
The ROI for water resources includes the southwestern half of Main Post Cantonment Area and associated drainage basins that could be directly and/or indirectly impacted by the Proposed Action (Figure 3.2). The primary water quality concerns at Fort Benning are sedimentation from highly erodible soils, fecal coliform bacteria, storm water runoff from impervious areas, and loss of wetlands (USACE, 2007).

3.7.1 Affected Environment

Surface Water

Surface water systems are typically defined in terms of watersheds. Watersheds are delineated into hydrologic units by the US Geological Survey using a nationwide system based on surface hydrologic features. Each hydrologic unit is identified by a unique hydrologic unit code (HUC).

The Chattahoochee River arises as a cold-water mountain stream in the Blue Ridge Province. Fort Benning is located within the Chattahoochee River basin (HUC 03130003), and the river flows adjacent and through approximately 15 miles of the Installation on its southwestern side, close to the cantonment areas. All surface waters within the ROI drain toward the Chattahoochee River, which includes five streams and their tributaries. These include Laundry, Swelson, Gilbert, and Oswichee Creek. Gilbert Creek drain into Oswichee Creek before flowing into the Chattahoochee River. Laundry and Swelson Creek drains south directly into the Chattahoochee River.


La Undry Creek
Gilbert Creek
Swelson Creek
Chattahoochee River
Oswichee Creek
Fort Benning GIS Data, 2018
N
W
E
Surface Water & Streams
100 Year Flood Zone
Main Post Cantonment
Alternative 1
Alternative 2
0
0.25
0.5
1
Miles
Surface Waters
Figure 3.2
Fort Benning, GA

3.7.1.2 Stormwater

Stormwater on the Installation drains via culverts, ditches, swales, and natural seepage and overland flow. Many of the soils at Fort Benning are characterized as susceptible to erosion, and many of the water quality issues for the streams in and around Fort Benning are related to high levels of sedimentation, particularly after storm events.

3.7.1.3 Wetlands

Wetlands constitute approximately 17,000 acres of the Installation's 182,000 acres (Fort Benning 2015). Wetlands are considered transitional areas between aquatic and terrestrial environments where the recurring presence of water, at or near the soil surface, drives the natural system; which includes the soils that form and wildlife communities that use these areas. Jurisdictional wetlands, which the USACE regulates, are defined under the CWA as areas that are saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, etc. (EPA, 2018). Wetlands within the ROI are almost exclusively riparian and associated with the stream systems. Preliminary site planning information, (i.e., the National Wetlands Inventory, previously delineated wetlands) did not identify any known wetlands or streams within 50 feet of Proposed Action Alternative sites. The Proposed Action would have no effect upon wetlands or surface waters; therefore, such resources are not discussed further.

3.7.1.4 Groundwater

Fort Benning is located within the Coastal Plain hydrogeologic province of GA and AL. The principal groundwater source for Fort Benning is the Cretaceous Aquifer System. The regional groundwater flow in the area is from north to south, and the aquifers in the Coastal Plain consist of porous sands and carbonates and include alternating units of sand, clay, sandstone, dolomite, and limestone that dip gently and thicken to the southeast. The Proposed Action would not affect groundwater resources; therefore, groundwater resources are not discussed further.

3.7.1.5 Floodplains

A floodplain is an area of land adjacent to a stream or river that experiences flooding during periods of high water flows, usually a result of rain events. EO 11988, Floodplain Management, instructs federal agencies to consider the risks, danger, and potential impacts of locating projects within floodplains, and requires agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the modification of floodplains whenever there is a practicable alternative. The Federal Emergency Management Agency (FEMA) is the federal agency having lead responsibility for flood hazard assessment and mitigation. FEMA has adopted the 100-year floodplain as the base flood standard for areas subject to a one percent or greater chance of flooding in any given year.

The Chattahoochee River floodplain, and its associated blackwater and tupelo swamps, is located in the southwestern portion of the Installation, adjacent west of Fort Benning's Main Post Cantonment Area as illustrated in Figure 3-4. As well, Figure 3-4 illustrates the 100-year floodplain associated with Upatoi, Ochillee, Harps, Mill, and Oswichee Creek (FEMA, 2017,

Fort Benning Geographic Information Systems [GIS], 2018). The Proposed Action Alternatives are located beyond the flood zones and would have no effect upon areas considered to have a one percent or greater annual chance of flooding. Therefore, such resources are not discussed further.

3.7.2 Environmental Consequences

A significant adverse impact would occur to water resources if implementation of the Proposed Action resulted in unpermitted adverse impacts to surface waters.

Surface water resources within Fort Benning could be adversely impacted from contamination from fuel/oil spills, pesticide residue, fired munitions residue, and untreated sewage bypass. These potential contamination sources are controlled and minimized by the implementation of Fort Benning Spill, Prevention, Control, and Countermeasure Plan, Fort Benning Installation Spill Contingency Plan, Storage Tank Management Plan, Stormwater Pollution Prevention Plan, and the NPDES permit requirements to prevent sewage bypasses. Nonpoint sources, more specifically sedimentation are the primary pollutant sources of concern for surface water resources at Fort Benning. Consequently, much of the Installation's water resources management is closely related to minimizing and repairing erosion caused primarily by ground disturbing activities.

3.7.2.1 No Action Alternative

No effect on Water Resources would be expected under the No Action Alternative. A new USAMU BNHQ Complex would not be constructed and no adverse impacts to the watershed, surface, waters, and associated floodplains or groundwater would occur.

3.7.2.2 Action Alternatives

Under the Action Alternatives, short-term, minor adverse effects to surface water resources are possible during construction activities as a result of ground disturbances. No long-term effects to water resources would be anticipated as the sites would be re-vegetated, where possible, and stabilized upon completion of construction activities. Potential impacts to water resources as a result of POL spills from vehicle and equipment failures would be precluded by compliance with applicable regulations to minimize the risks of minor spills occurring. In the event of an accidental POL spill, Fort Benning personnel will follow spill response procedures and an accident response team would be available immediately to minimize any adverse effects.

3.7.3 Mitigation

Adherence to regulatory requirements by implementation of the Proposed Action would avoid or minimize adverse impacts to water resources. A GA NPDES Construction Permit would be required prior to construction that involves more than one acre of land disturbing activity. Furthermore, Fort Benning requires vegetative and structural BMPs for all construction associated land disturbances, and additionally an ESPCP for projects that disturb 0.1 acre or greater to ensure smaller land disturbances do not negatively impact water resources.

Adherence to federal and state requirements and NPDES permitting requirements to include preparation of an ESPCP detailing erosion and sedimentation control BMPs for implementation

would minimize any potential effects to water resources. Consequently, no additional mitigation measures are warranted.

3.8 Environmental Impact Summary

A summation of the direct and indirect impacts to the VECs carried forward for analysis are presented in Table 3.1 below.

Table 3.1: Summary of Direct and Indirect Environmental Consequences for Alternatives

VEC	No Action	Action Alternatives
Air Quality	**No impacts**	**Negligible effects** from fugitive dust emissions during construction.
Biological Resources	**No impacts**	**Negligible effects** as a result of potential soil disturbances, removal of vegetation and possible habitat, vehicle traffic, etc.
Hazardous Materials and Waste	**No impacts**	**Short-term, minor adverse impacts** from an increase in Hazardous Materials and Waste disposal.
Soils	**No impacts**	**Short-term, minor adverse impacts** as a result of ground disturbances.
Water Resources	**No impacts**	**Short-term, minor adverse impacts** as a result of ground disturbances or potential spills.

4 CUMULATIVE IMPACTS

4.1 Introduction

In addition to identifying the direct and indirect environmental impacts of their actions, the CEQ's NEPA regulations require federal agencies to address cumulative impacts related to their proposals. A cumulative impact is defined in the CEQ Cumulative Impact regulations as: "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR §1508.7)." This section describes the process used to identify potential cumulative impacts related to the Proposed Action at Fort Benning and discusses those impacts for each of the resources addressed in Chapter 3.

4.1.1 Identifying Cumulative Impacts

Guidance for assessing cumulative impacts has been provided by CEQ in *Considering Cumulative Effects under the National Environmental Policy Act* (CEQ, 1997b). The process involves identifying significant cumulative effects issues; establishing the relevant geographic and temporal extent (time frame) of the cumulative effects analysis; identifying other actions affecting the resources of concern; establishing the cause-and-effect relationship between the Proposed Action and the cumulative impacts; determining the magnitude and significance of the cumulative effects; and identifying ways in which the agency's proposal might be modified to avoid, minimize, or mitigate adverse, cumulative impacts.

CEQ regulations specify that cumulative impacts analyses encompass past, present, and reasonably foreseeable future actions. Past actions are generally included in the baseline described in the affected environment and No Action Alternative in Chapter 3; therefore, past actions that are part of the baseline are not included. Only in unique circumstances are past actions not included in the baseline and addressed in the cumulative impacts analysis. As appropriate and feasible, Chapter 3 notes past activities that may have contributed to the current affected environment and baseline conditions.

Projects to be addressed in this cumulative impacts analysis correspond to resources that the alternatives have potential to affect. The Action Alternatives would have negligible impacts to Air Quality and Biological Resources and would have no potential for incremental impacts considering other actions in the ROI. Therefore, these VECs are not carried forward for cumulative impacts analysis.

An ROI was defined for each VEC in Chapter 3 under its Affected Environment. The ROI or geographic extent of the cumulative impacts analysis generally coincides with the ROI of each VEC and is described in Section 4.3. In addition, significance thresholds defined for each resource in Chapter 3 also apply to the assessment of cumulative impacts.

4.1.2 Past, Present and Reasonably Foreseeable Actions

This section identifies past, present, and reasonably foreseeable future actions considered. The analysis considers present and reasonably foreseeable future actions as those actions that are currently under way, approved, and/or have identified funding. Actions beyond that become increasingly speculative and difficult to assess. The cumulative projects numbered below correspond with Figure 4.1 and illustrate their location on Fort Benning.

1) **Army 2020 Force Structure Realignment (FY13 – FY2020)**: In 2013, the Army prepared a Programmatic EA to analyze the potential environmental and socioeconomic impacts associated with a proposed action consisting of a reduction in active Army end-strength from 562,000 to 490,000. Since the 2013 Programmatic EA was completed, DoD fiscal guidance has continued to change, and the future end-strength of the Army must be reduced even further than the 490,000 considered in the 2013 Programmatic EA. This resulted primarily as the second part of the 2011 Budget Control Act, commonly referred to as sequestration, came into effect. Army Force Structure Realignment decision for Fort Benning included the inactivation of the 3rd Armored Brigade Combat Team (a loss of approximately 3,400 Soldiers), and the activation of the 1-28th Infantry Brigade Task Force that consists of approximately 1,080 Soldiers. Although a task force is usually considered a temporary organization, the Infantry Brigade Task Force proposed for conversion at Fort Benning is actually a permanent part of Army force structure. In 2016, a Record of Environmental Consideration was completed in consideration of the environmental effects and consequences of the realignment specific to Fort Benning. Accordingly, no significant environmental impacts were anticipated to occur. Note that Army 2020 Force Structure Realignment is not identified in Figure 4.1 due to its post-wide implications.

2) **Infrastructure Footprint Reduction Program (FY19-24)**: Implementation of Fort Benning's FY19-24 Facility Reduction Program would select, demolish, and dispose of buildings and other structures considered obsolete/outdated, cost prohibitive to sustain, in excess of Army utilization needs, and in some cases contain potential human health and safety concerns. The FRP could remove from Real Property inventories approximately 150 buildings and structures equaling more than two million square feet. This tentative goal would occur over the next five years. The Infrastructure Footprint Reduction Program is not identified in Figure 4.1 due to its numerous site locations across Fort Benning's cantonment areas.

3) **Artillery Firing Points Expansion and Maintenance of the Open Field Training Environment (FY16–18)**: Improvements and long-term maintenance activities to existing training assets needed to support the missions of the Airborne and Ranger Training Brigade, 75th Rangers, and the Field Artillery units of the Infantry School and the 1-28th Infantry Battalion Task Force, as well as other tenant and/or visiting units' training requirements. These assets include Drop Zones, Helicopter Landing Zones/Pick-up Zones, and Firing Points for Mortars and Howitzer guns, and are generally referred to as "open field training environments". Fort Benning expects to complete an EA by summer of 2018.

4) **Naval Operation Support Center (FY16–18)**: Construction on approximately six acres on Main Post, south of Custer Road. The facility will consist of an administration building and a parking lot for up to 140 Navy drill Reservists and support staff.

5) **Benning Technology Park and Custer Road Improvements (FY15–18)**: The GA Department of Transportation is implementing road improvements project of US Route 27 (Victory Drive) and Custer Road in Muscogee County. Following completion, the project will improve the existing security checkpoint interchange system in the Sand Hill Cantonment Area by providing civilians access to a proposed commercial development off the Installation without having to pass through the Fort Benning security checkpoint. The commercial development, to be known as Benning Technology Park, borders Fort Benning directly west of the Patton Place military housing area. Benning Technology Park, a private/public joint venture between Columbus State University, Flournoy Development Company, and the Development Authority of Columbus, will include offices, retail services, and educational facilities.

6) **Implementation of a 30-Megawatt (MW) Photovoltaic (PV) Solar Facility (FY15) and Additional 15MW Capacity (FY18)**: In 2014, Fort Benning prepared an EA for the construction, operation, and maintenance of a 30-MW PV solar system on approximately 250 acres of land on Fort Benning located at the Dove Field near the western boundary of Fort Benning within Russell County, AL. Final design of the PV system did not require use of the entire 250 acre parcel, and approximately 80 acres of the originally evaluated site are being considered for the construction, operation, and maintenance of an addition to the existing solar array to produce an supplementary 15-MW of renewable energy for the Installation to contribute to compliance with the Energy Policy Act of 2005.

7) **Fielding of the Enhanced Performance Round (FY15 and beyond)**: A DoD initiative to improve munitions performance, as well as satisfy a component of the Army's "Green Ammunition" program to create environmentally friendly, small arms ammunition to reduce lead accumulation at training ranges. The current lead-core 5.56mm and 7.62mm ball ammunition will be replaced with a copper-core, which has fewer adverse environmental impacts and concurrently provides better shooting accuracy, consistency, and increased penetrating capability. Note that Fielding of the Enhanced Performance Round is not identified in Figure 4.1 due to its post-wide implications.

8) **Tactical Unmanned Aerial Vehicle Hanger (FY17)**: To support the 75th Ranger Regiment's Tactical Unmanned Aerial Vehicle Platoon, this 10,340 square foot facility would consists of maintenance bays, classrooms, storage, and administrative areas. Other ancillary support facilities will include hazardous materials storage, a Tactical Unmanned Aerial Vehicle Hanger runway, and personnel parking. This facility is to be constructed alongside other support facilities currently used for operations at Lawson Army Airfield.

9) **Bridge 27 Replacement (FY15)**: Approximately four acres of disturbance connecting the Sand Hill Cantonment Area to First Division Road, including demolition of the existing bridge.

Past, present and reasonably foreseeable actions that range beyond Fort Benning include:

- **Tri-State Water Wars (ongoing)**: Legal challenge by the states of Florida and AL against GA and the USACE that contests the reallocation of water supply from the Chattahoochee River to support population growth in Atlanta, GA, and surrounding suburban areas. This lawsuit filed in 1990 argues that the USACE dam construction favors the interests of GA over environmental impacts to endangered aquatic species downstream due to decreased water levels and flow rates, as well as affecting freshwater input to the eastern Gulf of Mexico, which increases salinity levels that impact marine life.

4.2 Cumulative Impacts by Resource

Table 3.1 provides a summary of direct and indirect environmental consequences for each Alternative as a result of the Proposed Action. As presented in the analysis below, the adverse impacts do not result in significant adverse cumulative effects when considering all other past, present, and reasonably foreseeable future construction and/or maintenance activities at Fort Benning.

Air Quality and Biological Resources as analyzed in Chapter 3, would not be affected by the Action Alternatives. Therefore, these VECs are not discussed further in Chapter 4 as there were no anticipated adverse impacts and contributions to cumulative impacts would be considered unattainable.

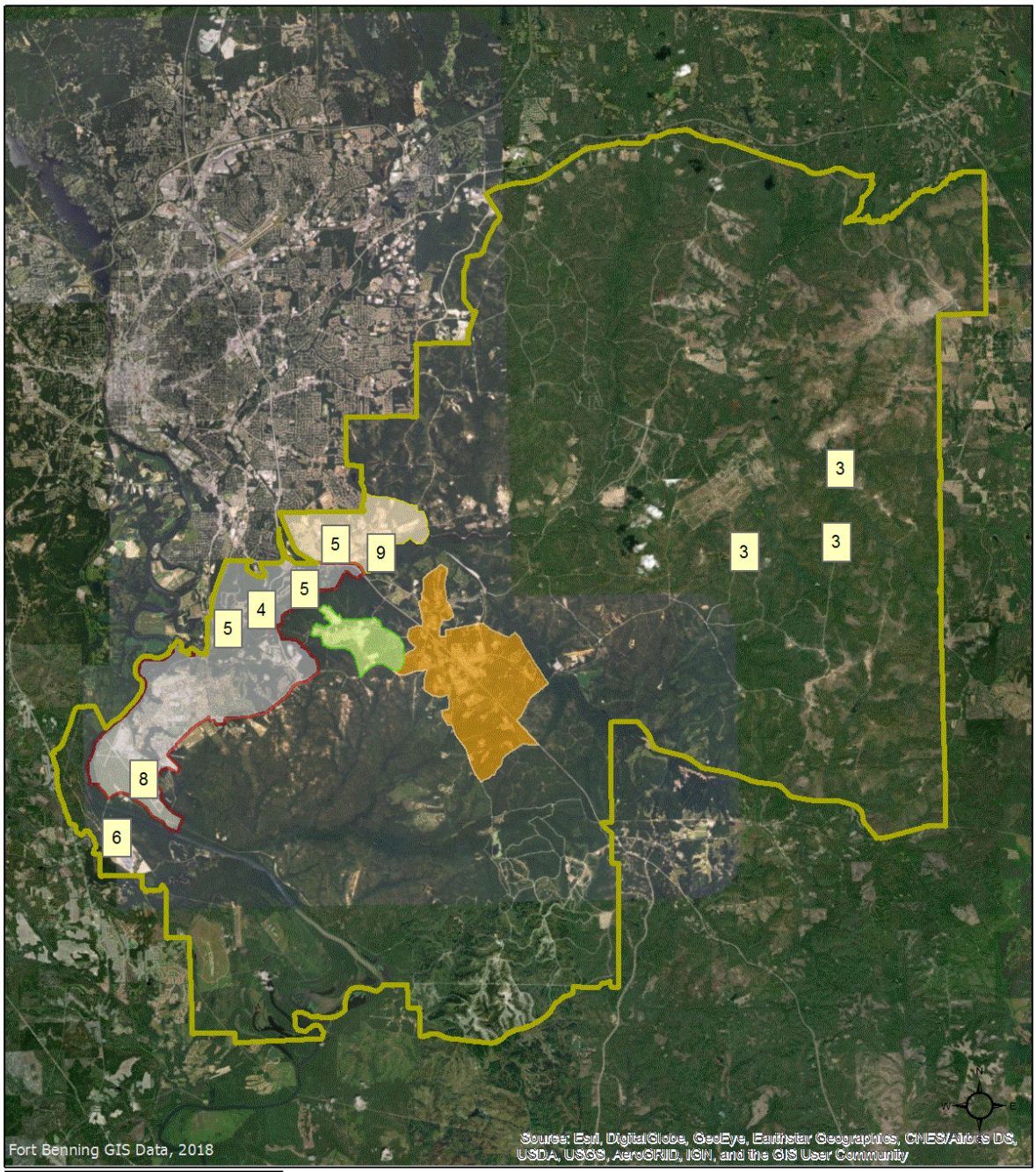
4.2.1 Hazardous Materials and Waste

Present and reasonably foreseeable future cumulative projects that could adversely affect Hazardous Materials and Waste include those listed in Section 4.1.2 that will occur within the boundary of Fort Benning. Minor increases in the use, handling, and storage of Hazardous Materials and Waste are associated with construction activities.

There would be short-term, minor adverse impacts resulting from demolition and disposal activities associated with the Action Alternatives. This temporary increase in Hazardous Materials and Waste would not lead to a cumulative increase in hazardous waste generation beyond the capacity of local or regional disposal facilities, even in combination with other projects. All future operations and maintenance, and construction and renovation projects would follow all applicable regulatory requirements for the use, storage, and handling of hazardous material and waste. Therefore, when considering the past, present, and reasonably foreseeable projects listed, short-term, minor cumulative effects could be anticipated due to an increase of Hazardous Materials and Waste generated.

4.2.2 Soils

Cumulative projects that could adversely affect vegetation and soils include those listed in Section 4.1.2. These projects would affect soils through disturbance, compaction, creation of impervious surfaces, and possible removal of impervious surfaces during the construction period. Under the Action Alternatives, training and other construction activities across the Installation would continue to affect soils.



Cumulative Project Locations

Figure 4.1
Fort Benning, GA

The USAMU BNHQ Complex proposed for construction would be located in previously disturbed and developed areas would result in negligible cumulative impacts to soils. The Alternatives and cumulative projects listed on Fort Benning lands would be required to follow applicable federal, state and local laws and regulations, including NPDES requirements that mitigate adverse impacts to soils.

4.2.3 Water Resources

Cumulative projects that could affect Water Resources include all the Fort Benning projects that occur within or nearby the cantonment areas. This would exclude the Artillery Firing Points Expansion and Maintenance of the Open Field Training Environment project and Tri-State Water Wars. The remaining projects have the potential to result in adverse effects to water resources (including water quality).

The Action Alternatives and cumulative projects listed would contribute to soil erosion, runoff, and surface contamination from pollutants such as hazardous materials and/or waste. Impacts to water are most likely to occur during rain events on an active construction site. Proactive mitigation measures either already in place or incorporated through construction design would ensure cumulative impacts would be negligible; no significant cumulative impacts to Water Resources would be anticipated.

5 CONCLUSIONS

The Action Alternatives would meet the Purpose and Needs (Section 1.3) of the Proposed Action and provide adequate facilities at Fort Benning to accommodate the missions of the USAMU. Of the VECs analyzed in this EA, the Action Alternatives would have negligible effects to Air Quality and Biological Resources. As a result of construction activities, both Action Alternatives would have potential short-term, minor adverse impacts to Hazardous Materials and Waste, Soils, and Water Resources. Additionally, no impacts would be expected under the No Action Alternative. The direct and indirect impacts as a result of the Proposed Action are summarized in Table 3.1.

As discussed in Section 4, these negligible to short-term minor adverse impacts would result in only negligible cumulative effects when considering all other past, present, and reasonably foreseeable future activities. Adherence to applicable federal and state laws and regulations would minimize potential adverse impacts of construction activities associated with the Proposed Action.

Implementation of either Action Alternative or the No Action Alternative would have no significant impacts on the quality of human life or the natural environment. Alternative 1 is, however, more desirable in comparison due to its preferred location. A FNSI is warranted for this Proposed Action (both Alterntative 1 and 2), and the Proposed Action does not require the preparation of an EIS.

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7 ACRONYMS AND ABBREVIATIONS

ACUB	Army Compatible Use Buffer
AL	Alabama
AR	Army Regulation
Army	U.S. Department of the Army
BMP	Best Management Practice
BNHQ	Battalion Headquarters
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CWA	Clean Water Act
DA PAM	Department of the Army Pamphlet
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESPCP	Erosion Sedimentation Pollution Control Plan
FEMA	Federal Emergency Management Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FNSI	Finding of No Significant Impact
FY	Fiscal Year
GA	Georgia
GHG	Greenhouse Gas
GSF	Gross Square Feet
HABS	Historic American Building Survey
HPC	Historical Properties Component
HQ	Headquarters
HVAC	Heating, ventilation, and air conditioning
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources Management Plan
MCoE	Maneuver Center of Excellence
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NEW	Net Explosive Weight
NO_2	Nitrogen Dioxide
NOA	Notice of Availability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	Ozone

Pb	Lead
$PM_{2.5}$	Particulate Matter with a Diameter Less Than or Equal to 2.5 Micrometers
PM_{10}	Particulate Matter with a Diameter Less Than or Equal to 10 Micrometers
POL	Petroleum, oil, and lubricants
PSD	Prevention of Significant Deterioration
PV	Photovoltaic
RCRA	Resource Conservation and Recovery Act
RCW	Red-cockaded Woodpecker
ROI	Region of Influence
SO_2	Sulfur Dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SWMU	Solid Waste Management Unit
UEA	Unique Ecological Area
US/U.S.	United States
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Command
USAMU	U.S. Army Marksmanship Unit
USFWS	U.S. Fish and Wildlife Service
VEC	Valued Environmental Component

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9 DISTRIBUTON LIST

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Rep. Mike Rogers 324 Cannon HOB Washington, DC 20515	Office of the Governor 206 Washington Street 111 State Capitol Atlanta, GA 30334	Office of the Governor 600 Dexter Avenue Montgomery, AL 36130

Local and Regional Administrators, Federal Agencies, or Commissions with Regulatory Interest in Fort Benning

U.S. Fish & Wildlife Service West Georgia Office P.O. Box 52560 Fort Benning, GA 31905	USFWS, Regional RCW Recovery & Longleaf Pine Coordinator Mississippi Field Office 6578 Dogwood View Pkwy Jackson, MS 39213	GSWCC, Region 5 4310 Lexington Rd Athens, GA 30605
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USEPA Region IV Regional Administrator 61 Forsyth St SW Atlanta, GA 30303	ADEM Office of the Director P.O. Box 301463 Montgomery, AL 36130	Georgia Wildlife Federation 11600 Hazelbrand Rd, NE Covington, GA 30014
The Nature Conservancy Chattahoochee Fall Line Office P.O. Box 52452 Columbus, GA 31905	The Georgia Conservancy 817 West Peachtree St, Suite 200 Atlanta, GA 30308	The Valley Partnership P.O. Box 1200 Columbus, GA 31902
Columbus Chamber of Commerce 1200 6th Ave Columbus, GA 31902	Defenders of Wildlife National HQ 1130 17th St NW Washington, DC 20036	Chamber of Commerce Phenix City-Russell County 1107 Broad St Phenix City, AL 36867

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APPENDIX A

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1 Introduction

Fort Benning prepared a draft environmental assessment (EA) to examine the potential environmental effects associated with the construction, operation and maintenance of a new United States Army Marksmanship Unit (USAMU) Complex. The EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA); the regulations of the President's Council on Environmental Quality (CEQ); United States (US) Department of the Army (Army) Regulation 200-1, and the Army NEPA Regulation (32 Code of Federal Regulations [CFR] Part 651).

The EA evaluated the potential environmental effects of the Proposed Action, identified possible/potential mitigation measures to lessen or eliminate adverse effects, and examined reasonable alternatives for the Proposed Action. The intended audience of the EA is Army decision-makers, interested government agencies, federally recognized Native American Tribes, and non-governmental organizations, and members of the public. The information contained in the EA was reviewed and considered by the Army prior to the final decision on how to implement the Proposed Action, if at all.

2 Background

The USAMU was originally established in 1956 at the direction of President Dwight D. Eisenhower to raise the standards of marksmanship throughout the U.S. Army. Over the years the mission of the USAMU has expanded beyond competitive shooting to include marksmanship training for Soldiers, facilitate Army recruiting, and became a leader in small-arms research and development to increase the Army's overall combat readiness.

The current USAMU Headquarters (HQ), Building 243, was originally constructed in 1932 and was converted into the USAMU headquarters and operations facility in 1974.. In its present state, the USAMU HQ currently houses the administrative functions of the unit, the Custom Firearms Shop, and the ceremonial Hall of Fame which showcases the USAMU as "The Home of Champions" in efforts of recruiting for the Army. Ancillary support buildings for the Custom Firearms Shop include hazardous materials storage (Building 232), and equipment and materials storage in Building 370, as well as a number of pre-fab storage sheds. The current USAMU HQ and Custom Firearms Shop support facilities are located adjacent to the Western Hemisphere Institute for Security Cooperation Campus, between Stonewall Road and Bergen Street north of Sacrifice Field on Main Post, which is approximately one mile away from the centralized USAMU Range Complex.

Due to the age, original building design and layout, Building 243 is failing in meeting USAMU's mission, and does not meet Army mandated requirements for sustainability and energy conservation. Currently there is adequate space for the administrative function of the USAMU HQ, but the distribution of the space is inadequate, while other support functions (e.g. library, supply and storage, etc.), are undersized. The building contains asbestos and lead based paint throughout, and does not have a dedicated heating, ventilation, and air conditioning system, instead resorting to a nearby central heating plant and window units that frequently requires

maintenance. The main HQ building has had various electrical, communications, and other systems improvements over the years, but many of them have detracted from the building's aesthetics and overall functionality, such as the entrance hall. The entrance hall which houses the ceremonial display area for USAMU's "Hall of Fame", does not effectively serve its intended purpose of being a recruiting tool, and does not present an appealing atmosphere to visiting dignitaries.

Furthermore, the current design and layout of Building 243 provides approximately 9,100 gross square feet to house the Custom Firearms Shop and arms vault, which is 38% of the required footprint per Army space requirements. Because of the inadequacy in size, the custom firearms shop lacks proper safety buffers around equipment and machinery. In addition, there are outdated exhaust, ventilation, fire suppression, and communications systems, and the facility lacks an adequate, serviceable loading dock for receiving and shipping of supplies, equipment, and large racks of weapons. This deficiency in space also difficult to conduct tours for potential recruits, visiting dignitaries, and foreign military personnel to showcase the research and development advancements and capabilities of the Custom Firearms Shop.

3 Purpose and Need

The Proposed Action (as described below) is necessary to provide adequate facilities at Fort Benning to accommodate the missions of the USAMU, and to centralize the location of the "Command and Control" with the range complex to better facilitate training, research and development of small arms, and recruitment. The use of multiple facilities at various sites results in an inefficient operation which degrades command and control. Centrally locating the USAMU BNHQ Complex with USAMU designated ranges would reduce the time and expense of moving military equipment and Soldiers for training and shooting competitions.

This project would provide a consolidated USAMU BNHQ Complex constructed in accordance with present day standards and space criteria. The BNHQ Complex would provide first class facilities to accommodate the unit, fully meet mission requirements and present an aesthetically pleasing appearance. The upgrades and expansion of the Custom Firearms Shop would enhance the research and development efforts of the USAMU, and strengthen the combat effectiveness of the entire Army through improvements to the accuracy and reliability of small arms weapon systems.

4 Description of the Proposed Action

The Proposed Action is to construct a USAMU Complex consisting of a Battalion Headquarters (BNHQ) with a ceremonial display area, library, classrooms, and administrative operations areas; a hazardous materials storage building; and a Custom Firearms Shop. Other facilities and infrastructure will involve secured organizational and personal vehicle parking, sidewalks, and utility services to include water, sewer, electric, natural gas, and stormwater drainage. The complex will also include a bus turn-out area to accommodate large groups of visitors.

5 Description of the Alternatives

The Army used screening criteria to determine which Alternatives are reasonable. Satisfaction of these screening criteria would provide a location suited to meet the purpose of and need for the Proposed Action, while potentially minimizing adverse environmental and operational effects. Screening criteria include:

- **Location and Proximity**: The Proposed Action should centrally locate the USAMU BNHQ Complex and its operations in proximity to USAMU designated ranges to meet mission needs.

- **Training Compatibility**: The Proposed Action should be located in areas that do not conflict with or limit training, both during construction and operation. This includes avoiding impacts to training ranges, and clear of live-fire surface danger zones and explosive safety distances.

- **Functionality and Sustainability**: The Proposed Action should provide facilities that comply with current Army design standards for Battalion Headquarters; provide adequate space to enhance the functionality of a custom firearms shop and its supporting elements; and provide facilities designed to meet current Army standards for energy efficiency, information systems, and anti-terrorism/force protection.

Through this analysis, only two Action Alternatives, the Alternative 1 (Preferred Alternative), and Alternative 2 met all of the required screening criteria. Alternatives carried forward for analysis in this EA include:

- **No Action Alternative**

The No Action Alternative describes the status quo, but it does not meet the purpose and needs of the Proposed Action. CEQ and Army NEPA regulations require a No Action Alternative for comparison of potential environmental impacts with the Action Alternatives. Under the No Action Alternative, the proposed USAMU BNHQ Complex would not be constructed. The USAMU would continue to occupy Building 243 with outdated facilities lack functionality for administrative operations with sub-standard electrical, communications, lighting, and lack of heating and cooling systems that do not meet Army mandated requirements for sustainability and energy conservation, or Anti-terrorism/Force Protection standards. The Custom Firearms Shop would continue to operate in an undersized facility lacking current safety requirements, and no suitable loading dock for in and out movement of supplies and equipment. In addition, the ceremonial display area that houses the USAMU Hall of Fame will continue to be undersized and hinders recruitment efforts.

- **Alternative 1 - Preferred Alternative**

Under Alternative 1, the USAMU BNHQ Complex would be constructed along Alamo Road near the entrances to Parks and Hook Ranges. Approximately ten acres of vegetation removal and land disturbances are expected for the construction of the complex, and approximately three acres to accommodate stormwater control features, lines, and drains conveyances as well as utility tie-ins. This Alternative location for the USAMU BNHQ Complex consists of

predominantly brush and small trees surrounded by mature, hardwood forest. Utility tie-ins would be within current utility easements as much as possible as existing water, sewer, and natural gas lines occur parallel to Alamo Road. An overhead power line runs from north to south through the site, and will need to be relocated along Alamo Road where the USAMU Complex will receive its electrical services. There are no existing storm drainage facilities at this site, and will require the construction of new storm drain lines and drainage inlets to route storm runoff to the existing storm drainage system approximately 700 feet to the southeast.

- **Alternative 2**

Under Alternative 2, the USAMU BNHQ Complex would be constructed within the Main Post Cantonment Area directly across from Fire Station No. 3 on the south side of Dixie Road. The proposed location is on a site previously known as "Soldier's Plaza", and would be near the entrances to Hibbs and Phillips Ranges of the USAMU Range Complex. Soldier's Plaza previously consisted of 35 World War II wooden buildings that served as administrative offices for in-processing of Soldiers arriving for duty on Fort Benning. These buildings were demolished in 2015 as part of the Army's Infrastructure Footprint Reduction Program, and the site has remained vacant since, consisting of mostly open grassy areas with some concrete walkways and mature hardwoods dispersed throughout. Approximately ten acres of vegetation removal and land disturbances are expected for the construction of the complex, and approximately 1.5 acres to accommodate stormwater control features as well as utility tie-ins. As this site was previously developed, the utility infrastructure is distributed throughout the site, and should not require any additional construction beyond the site footprint for connectivity, but will require some minor demolition of the concrete walkways left behind.

6 Anticipated Environmental Effects

The analysis contained in the EA illustrates that the Proposed Action would have potential short-term, minor adverse impacts as a result of construction activities to Hazardous Materials and Waste, Soils, and Water Resources. Valued environmental components (VECs) with negligible effects under the Action Alternatives includes Air Quality and Biological Resources.

As discussed in Section 4 of the EA, negligible to minor adverse direct/indirect impacts result in negligible to minor adverse cumulative effects when considering other past, present, and reasonably foreseeable future activities at Fort Benning. Adherence to federal and state laws and regulations, would minimize impacts of demolition and disposal activities to Air Quality, Biological Resources, Hazardous Materials and Waste, Soils, and Water resources.

7 Mitigation Measures

No mitigation measures, beyond compliance with applicable laws and regulations and associated required Fort Benning Plans, are required to avoid significant impacts under any of the Proposed Action Alternatives.

8 Public Availability

The Final EA and Draft Finding of No Significant Impact (FNSI) were made available to the public for a 30-day public comment period from August 2 – August 31, 2018. An announcement

that these documents are available was published via a Notice of Availability (NOA) in The Columbus Ledger-Enquirer, The Journal, and Benning News (online) in accordance with the Army NEPA Regulation. These documents are also available at several local libraries and are posted on the Fort Benning website at http://www.benning.army.mil/Garrison/DPW/EMD/Legal.html.

The NOA of the Final EA and Draft FNSI has been mailed to all agencies, individuals, and organizations on the Fort Benning NEPA distribution (mailing) list for the Proposed Action. As part of Fort Benning's on-going, established process and dialogue with the federally recognized Native American Tribes affiliated with the Fort Benning area, the Army has provided each Tribe with a copy of these documents for consultation via review and comment.

9 Conclusions

In consideration of the analysis in the EA, I have decided to implement the Preferred Alternative (Alternative 1). Implementation of either Action Alternative or the No Action would not have a significant impact on the quality of human life or natural environment. Alternative 1 is, however, preferred in comparison due to its more centralized location and aesthetic setting.

A FNSI is warranted for this Proposed Action and does not require the preparation of an Environmental Impact Statement (EIS). This analysis fulfills the requirements of the NEPA of 1969, as implemented by the Council on Environmental Quality regulations (40 CFR 1500–1508), as well as the requirements of the Environmental Analysis of Army Actions (32 CFR 651).

FINDING OF NO SIGNIFICANT IMPACT REVIEWED AND APPROVED BY:

26 July 18
Date

Clinton W. Cox
Colonel, U.S. Army
Garrison Commander

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