PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

TO

IMPLEMENT

MISSION and TRAINING ACTIVITIES ON

FORT STEWART AND

HUNTER ARMY AIRFIELD, GEORGIA

April 8, 2025

CEQ Unique ID Number: PEAX-007-21-001-1733411105

In compliance with the National Environmental Policy Act of 1969

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

TO

IMPLEMENT MISSION AND TRAINING ACTIVITIES ON

FORT STEWART and HUNTER ARMY AIRFIELD, GEORGIA

Environmental Review:

Thomas C. Fry

Date: 04/24/2025

THOMAS C. FRY
Chief, Environmental Division
Directorate of Public Works

Reviewed by:

Date: 04/30/2025

JAMES L. HEIDLE
Director, Public Works

Approval:

Date: 5 MAY 25

MARC J. AUSTIN
Colonel, U.S. Army
Commanding

EXECUTIVE SUMMARY

Fort Stewart (FSGA), Georgia, is located adjacent to the city of Hinesville in portions of Bryan, Evans, Liberty, Long, and Tattnall counties in southeast Georgia. It is home to the 3rd Infantry Division (3ID), a combined arms and infantry division and direct subordinate unit of the XVII Airborne Corps. Hunter Army Airfield (HAAF), located seven miles to the east of FSGA (boundary-to-boundary), adjacent to the city of Savannah in Chatham County. It is home to the 3rd Combat Aviation Brigade, the aviation component of the 3ID, and hosts several tenant units such as the 75th Ranger Regiment and the U.S. Coast Guard Station Savannah. Collectively, FSGA/HAAF is host to several resident and tenant units who reside and/or train on a permanent or temporary basis on the installation, as well as a variety of visiting units who benefit from the abundance of training opportunities offered on the installation's range and training areas.

Routine and ongoing operations include a variety of activities that are vital to the implementation of the mission, and are defined in detail in installation management plans, including the Real Property Master Plan, Integrated Cultural Resources Management Plan, Integrated Pest Management Plan, and others. The management of training resources is specifically identified within the Range Complex Master Plan and Post Range Guide. This Programmatic Environmental Assessment (PEA) was prepared to analyze the potential impacts of implementing these mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF, Georgia.

This proposed action is needed to ensure mission and training requirements are fully met on the installation. The proposed action is needed to maintain operational readiness, quality facilities, and viable infrastructure, while sustaining an environment in which to live, train, and sustain the installation mission. Two alternatives are analyzed in this PEA, the No Action/Status Quo (Alternative I) (Environmentally Preferred), under which the installation would not implement the Range Complex Master Plan (RCMP) and Post Range Guide, and Alternative II (Installation Preferred), under which the installation will implement the RCMP and Post Range Guide. No significant impacts are anticipated under either alternative, and all potential environmental impacts associated with each alternative are summarized in PEA Table 6.

This programmatic document, and its analysis, will assist the Army decision-maker in determining the potential direct, indirect, and cumulative impacts to the human and/or natural environment as a result of implementation of the proposed action. The analysis was completed via a programmatic approach to allow for early planning, coordination, and flexibility in program management and to allow for an early identification of potential environmental impacts. This programmatic analysis will also serve as the basis for future, tiered, National Environmental Policy Act analysis as details and design for construction identified within the RCMP are developed.

TABLE OF CONTENTS

List of Figures

List of Tables

Appendices

1.0 INTRODUCTION

Fort Stewart is a 279,806-acre installation located adjacent to the city of Hinesville in portions of Bryan, Evans, Liberty, Long, and Tattnall counties in southeast Georgia. It is home to the 3rd Infantry Division (3ID), a combined arms and infantry division and direct subordinate unit of the XVIII Airborne Corps. Hunter Army Airfield is a 5,600-acre subordinate installation located seven miles to the east of FSGA (boundary-to-boundary), adjacent to the city of Savannah in Chatham County (Figure 1). It is home to the 3rd Combat Aviation Brigade (3CAB), the aviation component of the 3ID, and hosts several tenant units such as the 75th Ranger Regiment and the U.S. Coast Guard Station Savannah. The installation is collectively host to several resident and tenant units who reside and/or train on a permanent or temporary basis on the installation (Appendix A, Units on FSGA/HAAF). Visiting units also benefit from the abundance of training opportunities offered on FSGA/HAAF's range and training areas (TAs).

Routine and ongoing operations include a variety of activities that are vital to the implementation of the mission, and are defined in detail in installation management plans, including the Real Property Master Plan (RPMP) Integrated Cultural Resources Management Plan (ICRMP), Integrated Pest Management Plan (IPMP), Integrated Natural Resources Management Plan (INRMP), Installation Energy and Water Plan (IEWP), Range Complex Master Plan (RCMP) and Post Range Guide. This Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing these mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF, Georgia (GA).

1.1 INSTALLATION BACKGROUND

In 1733, James Oglethorpe established a colony in the name of Great Britain that would become the City of Savannah. This outpost, called Georgia, would create a buffer between the Carolinas, of British interest, and Florida, of Spanish interest. Oglethorpe also established a Ranger Outpost in what is now the FSGA area, called Fort Argyle, which is located on the west bank of the Ogeechee River. There was also at least one colonial settlement at HAAF on the Little Ogeechee River. In 1775, Great Britain's North American colonies revolted against English rule and won independence in the Revolutionary War. One of these heroes of the new United States of America included General Daniel Stewart, a Liberty County native for whom FSGA was later named.

After the war, more roads developed through the area, connecting the older coastal Georgia farms and towns to the new land opening up in the interior for settlement. The push west necessitated the creation of more counties, such as Bryan County in 1793 and Tattnall County in 1801. The forested portions of their lands provided livestock ranges and timber sources, and rice cultivation continued to be an important activity in areas conducive to such agriculture. No major military actions occurred in the FSGA/HAAF area during the Civil War (1861 - 1865), but the struggle greatly disrupted the economic and social life of residents of the region. Sherman's troops marched through the Bryan County area of the FSGA tract in 1864 meeting little resistance from local Confederate forces, apart from a small skirmish across the Canoochee River at Harper's Bridge. During this time, the HAAF tract supported rice and cotton plantations with absentee

landlords and farms, and its far western tip was the extreme left flank of the Confederate lines during Sherman's December 1864 siege of Savannah.

Reconstruction following the Civil War was a time of great social and economic adjustment for the region, including an increase in the exploitation of local forest resources. New communities sprang up, and by the 1880s, the timber and turpentine industries were firmly established as the economic foundations of the area. To support this industry, railroads and small tram lines began serving the area, such as the Savannah and Southern Railroad which stretched across the region and joined the Seaboard Coast Line Railroad running north to the Glennville and Register Railroad at Glennville, GA. Various tram lines occurred on the installation and are often collectively known as the Dunlevie Tramlines.

In 1929 the city of Savannah constructed the Savannah Municipal Airport on what is now HAAF, ushering in the aviation age and a flurry of commercial and industrial development in Savannah and its surrounding smaller communities. The Army acquired the land comprising FSGA in 1940-41 to establish Camp Stewart as an anti-aircraft artillery training base, and several small arms and artillery ranges were constructed. The military also stationed Women Air Service Pilots at a former Civilian air facility, Liberty Field (now Wright Army Airfield) on FSGA, where they towed targets or operated remote control drones for anti-aircraft gunnery practice. In Savannah, the Army Air Corps acquired the Savannah Airport (renamed Hunter Field in 1940) developing it into a training and staging base for light and medium bombers. After the war, it reverted to the Savannah Airport.

The Korean War (1950-1953) led to Camp Stewart's designation as the Third Army Antiaircraft Artillery Training Camp. In late 1953, the Army authorized construction of tank firing ranges and maneuver areas and the following year the base was renamed Camp Stewart Antiaircraft Artillery and Tank Training Center. In 1956 the Army officially designated the base as Fort Stewart, a permanent Installation. In 1950 HAAF became an Air Force Strategic Air Command supporting B-47 jet bombers armed with nuclear and thermonuclear weapons.

In 1966 FSGA became the Advanced Flight Training Center, part of the Army's Aviation School, and HAAF was acquired and designated by the Army in 1967. Many of the smaller cantonment areas on FSGA originate from this time, including Evans Army Airfield and Wright Army Airfield. Fort Stewart was utilized as needs evolved for the Cuban Missile Crisis, Vietnam War, Desert Storm, and Operation Enduring Freedom. In 1974, FSGA became home to the 24th Infantry Division (reflagged in 1996 as the Third Infantry Division (Mechanized), with a permanent combat division, training areas and ranges greatly expanded in the 1970s and 1980s, along with massive building programs constructing permanent barracks, motorpools, family housing, community, and recreation facilities.

1.2 DECISION MAKING

This PEA serves to inform the Army decision maker and the public of the potential environmental consequences of implementing the Proposed Action and its Alternatives. If the analysis in the PEA indicates this will result in significant adverse environmental

impacts, the decision maker will publish a Notice of Intent to prepare an Environmental Impact Statement. If the analysis indicates that the impacts will be less than significant, the decision maker will publish a Finding of No Significant Impact (FONSI). The NEPA process will then be concluded, and the proposed action may proceed, with the decision documented in the FONSI. The Army decision maker for this PEA is the Garrison Commander of FSGA/HAAF, GA.

National Environmental Policy Act (NEPA) regulations allow for programmatic environmental assessments that cover an entire program or policy for activities which are similar in nature and/or have similar impacts, such as the activities implemented in support of the mission on FSGA/HAAF. This allows for an efficient and cohesive review and analysis of future decisions, tiering from a single programmatic NEPA document (32 Code of Federal Regulations [C.F.R.] 651.27). If additional analysis is required for an action preliminarily addressed in this PEA/FONSI, the installation will prepare a Supplemental EA, citing this PEA/FONSI as the initial analysis, to ensure all requirements are fully met. This allows the installation to adapt to evolving mission requirements while ensuring that a thorough NEPA analysis is conducted, as well as providing a detailed evaluation of its past, present, and foreseeable future actions (cumulative effects). This PEA is prepared in accordance with NEPA (Title 42 of United States Code [U.S.C.] Section [§] 4321), the Army's NEPA implementing regulation (32 C.F.R. Part 651, *Environmental Analysis of Army Actions*), and Army Regulation 200-1 (*Environmental Protection and Enhancement*).

The Council on Environmental Quality (CEQ) has issued specific guidance, and the Army will comply, to include the following explanation in all forms of environmental impact statements, environmental assessments, and records of environmental consideration: "The Army is aware of the November 12, 2024, decision in Marin Audubon Society v. Federal Aviation Administration, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the CEQ regulations implementing NEPA are not judicially enforceable or binding on this agency action, the Army has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500–1508, in addition to the Army's procedures/regulations implementing NEPA at 32 C.F.R. Part 651, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq."

1.3 PURPOSE AND NEED

The U.S. Army proposes to implement mission and training activities on FSGA/HAAF, GA. The purpose of the proposed action is to ensure mission and training requirements are fully met on the installation. The proposed action is needed to maintain operational readiness, quality facilities, and viable infrastructure, while sustaining an environment in which to live, train, and sustain the installation mission.

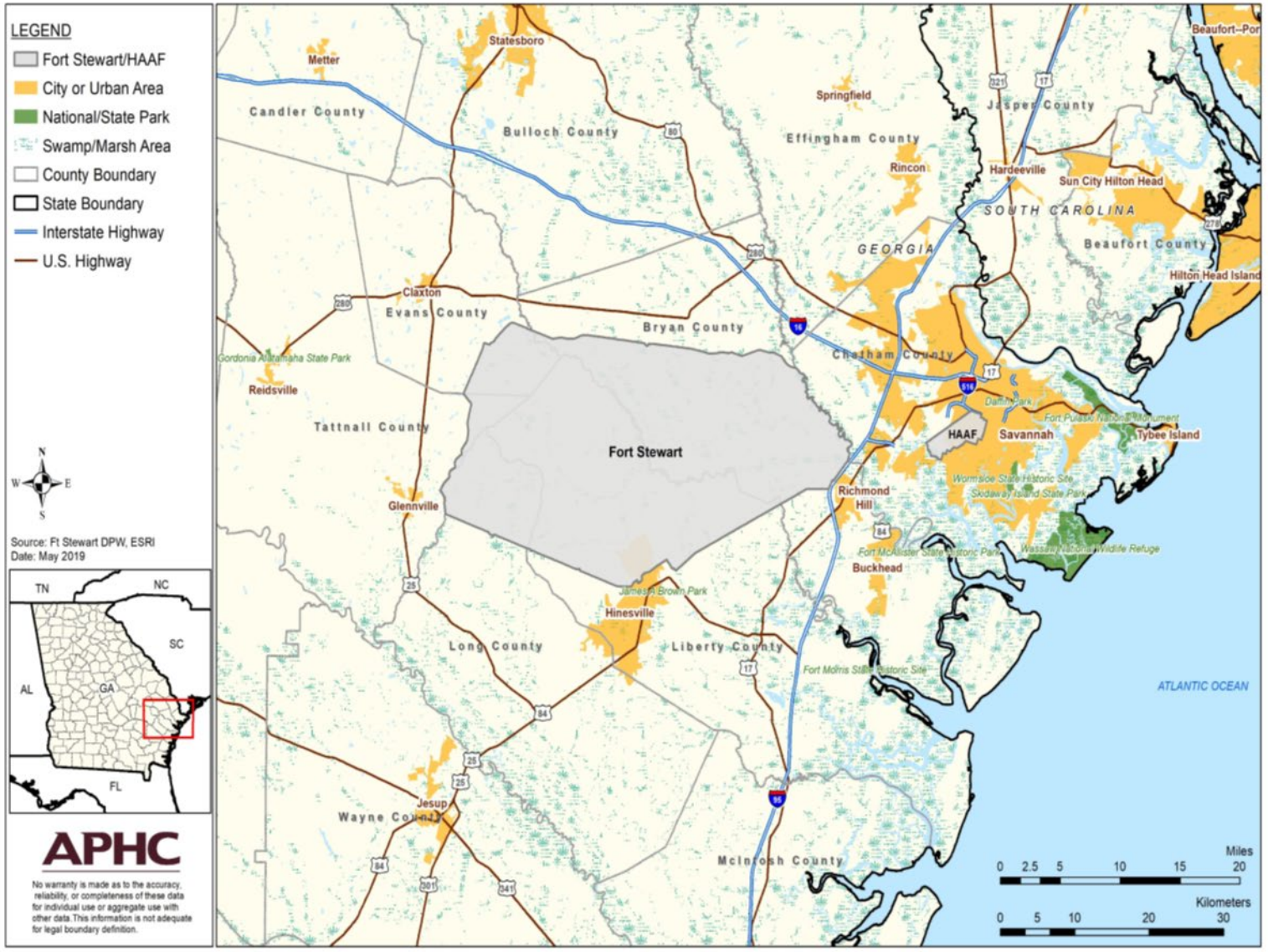


Figure 1: FSGA/HAAF Location Map.

1.4 PUBLIC and AGENCY COORDINATION

1.4.1 Public and Agency Coordination

The PEA/draft FONSI was available for a 30-day public review and comment period (February 7 - March 5, 2025). A Notice of Availability (NOA) of the draft documents was published in the *Savannah Morning News,* the *Coastal Courier,* and the *Marne Messenger*, which collectively cover the Savannah/HAAF/Hinesville/FSGA/HAAF geographic area. A public meeting was not required. Notification of the PEA/draft FONSI's availability was mailed to the members of the regulatory community and joint land use partners with whom the Installation consults and who have jurisdiction that could be affected by the Proposed Action. FSGA/HAAF also made the documents available in the local libraries on FSGA, Hinesville, and Savannah, and on the FSGA/HAAF NEPA webpage: (https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa). Two comments were received during the public review period: one from the U.S. Fish and Wildlife Service's (USFWS) Georgia Ecological Services Field Office, and one from the GA Department of Natural Resources, and they have been incorporated into the final PEA/FONSI. No other response is required. Affidavits of publication of the NOA, communications received from the regulatory community, and copies of letters sent to the regulatory community are provided at Appendix B of this final PEA.

1.4.2 Government to Government Consultations

Executive Order (EO) 13175, Consultation and Coordination with Indian Tribal Governments (6 November 2000), directs federal agencies to coordinate and consult with Native American tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. An analysis of the alternatives in this PEA determined that the implementation of the proposed action will not result in significant impacts to any properties on the Installation identified as sacred or otherwise of importance to the federally Recognized Tribal Governments. As specific projects identified in the RCMP are funded and designed, FSGA/HAAF will send notification letters to the federally Recognized Tribal Governments, in accordance with federal law (Appendix C, Record of Tribal Notification), and FSGA/HAAF will consider and incorporate in its final decision, as appropriate, the responses received from the federally Recognized Tribal Governments.

1.4.3 Cooperating Agency Status

Fort Stewart/HAAF has not requested any agency to serve as an official Cooperating Agency, nor has it been determined necessary or pertinent to make such a request.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The proposed action is to implement mission and training activities on FSGA/HAAF, GA.

2.1.1 Routine and Ongoing Operations

Routine and ongoing operations on FSGA and HAAF include, but are not limited to:

- Public Works: routine maintenance of roads/trails, bridges, culverts, landscaped areas/grounds, improved, semi-improved, and un-improved lands, and buildings.
- Real Estate Transactions: licenses, leases, easements to the City of Hinesville/City of Savannah, licenses to private organizations such as the Red Cross, and easements to local/state utility companies.
- Recreation: routine operations, repair, and maintenance of pools, play areas, camping areas, fishing ponds, and annual events.
- Airfield Operations: routine use, repair, and maintenance of paved and unpaved areas (runways, landing pads, taxiways, aprons), debris removal, and maintenance or fire protection systems.
- Fuel and Petroleum Product Operations: use, receipt, and storage of Class III fuels, fueling and defueling equipment, and maintenance of fuel storage tanks.
- Vehicle Maintenance and Repair: welding support activities, vehicular fluid changes, and vehicular exterior repairs.
- Training Activities: Military units train to standard on mission essential task lists (METL) utilizing unit equipment (Weapons, Vehicles, Ammunition, and other Equipment) on existing FSGA/HAAF training facilities within the cantonment area, on existing ranges, and on installation training lands.
- Range Operations and Maintenance Activities: ongoing day-to-day operations and actions, including as-needed repair and maintenance of facilities.
- Integrated Training Area Management (ITAM) Program Operations: day-to-day operations and actions of the ITAM Program as identified in the ITAM Master Plan.

The NEPA analysis is complete for many of the routine and ongoing actions on FSGA/HAAF, as well as the management plans they fall under. This includes the RPMP, Integrated Cultural Resources Management Plan, IEWP, and others; however, NEPA analysis is not complete for the FSGA/HAAF RCMP and Post Range Guide. Accordingly, those plans and the actions within them were the focus of this PEA/FONSI. Impacts associated with the implementation of all other installation management activities and plans were referenced throughout the PEA/FONSI where applicable.

2.1.2 Range Complex Master Plan and Post Range Guide

The Sustainable Range Program (SRP) is the Army's overall approach for improving how it designs, manages, and uses its ranges and training lands to ensure their long-term sustainability (Figures 2-3, FSGA and HAAF Training Resources). It is defined by its core programs, the Range Program and the ITAM Program. The SRP planning process integrates mission support, environmental stewardship, and economic feasibility and defines procedures for determining the installation range projects and training land requirements to support live-fire and maneuver training. This planning process is documented as the RCMP, and the RCMP therefore serves as the Installation's primary planning tool for developing and modernizing its range complex. It also provides guidance for the range complex's orderly development over time. The RCMP is a component of the Installation's RPMP and shares its overall vision; however, its primary objective is focused on meeting the training component of the mission. The RCMP is updated annually, which ensures it is synchronized with the Garrison Commander's military construction priority list, meets the commander's intent, and that troops are trained to standard and proficient in their designated capabilities or assigned mission, in accordance with Field Manual 7-0, *Training the Force*.

The RCMP helps to identify issues that impact the use of the range complex and ensure training ranges and lands are capable, available, and accessible to support command training requirements. It is designed to be a road map for the future development of the range complex to ensure the installation can meet current and future training missions. The training requirements that the installation needs to provide are documented in the Army Range Requirements Model (ARRM), which provides a capability to calculate doctrinal requirements and determine live training throughput capacities and requirements based on units that train on FSGA/HAAF, and the facilities needed to support that training. An analysis of the goals and objectives in the RCMP, the needs and shortages identified in the ARRM, and the deficiencies identified in the Installation Status Reports from facilities assigned to the Range Division are utilized by the installation to identify the projects that will be required to fully meet current and future training missions on the installation (i.e., the RCMP Project List).

The Army trains to fight and win and this is accomplished through challenging, relevant, and realistic training performed to the highest standards, and units can train to their METL/standards on FSGA/HAAF utilizing existing training assets with minimal workarounds. In their role as a provider of training support in the live domain, the FSGA/HAAF Directorate of Planning, Training Mobilization and Security (DPTMS) Range Branch provides training assistance by managing, scheduling, maintaining and operating ranges, training areas, and special use training facilities, as well as scheduling and monitoring aviation activities within the Special Use Airspace. The Range Branch ensures the capability, availability, and accessibility of its ranges and training lands through day-to-day operations, repair, maintenance, reconfiguration, and construction projects. Training areas, land maintenance, and ITAM project construction is managed through the ITAM Program; range maintenance, development, and construction is managed through the Range and Training Land Program; maintenance of existing facilities is accomplished by Range Branch and Directorate of Public Works (DPW) and coordinated in advance with the Environmental Division. These measures ensure the safe and efficient utilization of the training environment on the installation.

The FSGA/HAAF Post Range Guide provides policy and guidance regarding the installation's range, training, and environmental requirements, the location of training resources, the hours of operation of training resources, installation policies and protocols, and what is and is not permitted on the installation's training resources. Accordingly, it is therefore a valuable tool to both trainer and trainee, and is provided to Divisional, tenant and non-tenant units training on FSGA/HAAF. Its procedures, responsibilities, and guidance are applicable to all assigned members of Range Control, 3ID units, non-tenant units, Civilian customers, commanders, and staff conducting training within the FSGA/HAAF training complex. It is produced by the FSGA/HAAF DPTMS, and is updated annually, including coordination with the Installation Environmental Division. It is written in accordance with procedures outlined in AR 350-1 (Army Training and Leader Development), AR 350-19 (The Sustainable Range Program), and AR 385-63 (Range Safety), and the FORSCOM, XVIII Corps, and 3rd ID Commander's Training Guidance. There are no specific projects and/or construction actions identified for implementation in the Post Range Guide, but it defines the policies, procedures, and safety requirements that must be fully met to ensure the safe and efficient operation and utilization of facilities and training areas on FSGA and HAAF.

Redacted for OPSEC

Figure 2: Training Resources on Fort Stewart, Georgia.

Redacted for OPSEC

Figure 3: Training Resources on Hunter Army Airfield, Georgia.

2.2 Development of Screening Criteria

An Interdisciplinary (ID) Team of members of the FSGA/HAAF DPTMS and the DPW developed screening criteria (SC) for the proposed action. This was accomplished by reviewing installation mission, training, and resource management plans. For an alternative to be carried forward it must meet all of the SC, which consist of the following:

- Maximize the capability, availability, and accessibility of ranges and training lands to support Army doctrinal requirements, mobilization, and deployments under normal and surge conditions.
- Meet the goals and objectives of promoting and achieving the safe and effective operation and utilization of the training facilities and training lands on the installation.
- Avoid and/or minimize adverse environmental impacts or allow for acceptable mitigation.

2.3 ALTERNATIVES CONSIDERED

2.3.1 ALTERNATIVE I: NO ACTION

Under this alternative, this installation will implement only the routine and ongoing installation activities identified in Section 2.1.1, and will not implement actions identified in the RCMP and Post Range Guide. This alternative does not meet the purpose and need for the proposed action; however, it is included as prescribed by NEPA and 32 CFR Part 651.34 as a benchmark against which all federal actions are evaluated.

2.3.2 ALTERNATIVE II: IMPLEMENT MISSION AND TRAINING ACTIVITIES (PREFERRED)

Under this alternative, the installation will implement all routine and ongoing installation activities identified in Section 2.1.1 and all actions identified in the RCMP and the Post Range Guide. This includes four construction projects identified in the RCMP, which are detailed below. Once funded, the design for each project will be coordinated by the FSGA/HAAF Master Planning Branch and FSGA/HAAF DPTMS Range Division. Implementation of this alternative meets the purpose and need of the proposed action, and all SC are fully met.

2.3.2.1 Construct Convoy Live Fire Range (CLFR) with Entry Control Point (ECP) (PN 67036) (Figure 4)

The U.S. Army (Army) proposes to construct an additional CLFR on FSGA. In accordance with Training Circular (TC) 25-8, the existing CLFR is deficient because (a) it is missing the standard range operations and control area (ROCA) components, (b) does not have the ECP Engagement Area, and (c) does not provide dual flank engagement areas. To remedy these deficiencies, FSGA proposes to construct a new CLFR with ECP in TA C-5, C-6, C-7. The existing CLFR is in TAs C-9, C-11, and C-12 and will remain in use during and after construction of the new CLFR.

Construction of the new CLFR will provide Soldiers, crews, and convoy escort teams the ability to train in accordance with current doctrine, providing comprehensive realistic live-fire training to detect, identify, engage, and defeat stationary and moving vehicles and infantry targets from moving vehicles, using all assigned weapons and weapon systems. The new range includes: a ROCA, five stationary armor targets, four moving armor target, 43 stationary infantry targets, three moving infantry targets, six facades, one ECP, and one course road. All targets and facades are reconfigurable and fully automated, are contained in either single or dual flank engagement boxes, and utilize event-specific, computer-driven target scenarios and scoring. Targets on this range will receive and transmit digital data from/to the range operations center.

In addition to the ROCA building, the CLFR requires an air-vaulted latrine facility, an ammo breakdown area, dedicated security features, parking, and supporting utilities. An unexploded ordnance (UXO) survey will be conducted prior to range construction. The footprint of this range is approximately 30 acres of total ground disturbance, which will be site-adjusted to fit the specific environment on FSGA once the project is funded and design is initiated. Construction at this location will ensure no conflict with operational requirements of adjacent ranges (see discussion at Section 2.5.1).

2.3.2.2 Construct an Automated Multi-Purpose Training Range (AMPTR) on FSGA (Figure 5)

The Army proposes to construct an additional AMPTR on FSGA. The ARRM calculations determined that FSGA is deficient by one AMPTR (PN 96109). This deficit impacts throughput requirements on other crew qualification ranges, and construction of an additional AMPTR will remedy this situation.

The new range will be constructed atop the existing Red Cloud – Hotel (RC-H), and will include 35 stationary armor targets, four moving armor targets, 154 stationary infantry targets (SITs), one lane, two facades, and eight battle positions. All targets are fully automated, using event-specific, computer-driven target scenarios and scoring. The new AMPTR requires one ROCA building, one storage building, one after-action review facility, an air-vaulted latrine facility, an ammo breakdown area, an ammo loading dock, a bivouac area, a surfaced unit staging area, security, and parking spaces, as well as supporting utilities. A UXO survey will be conducted prior to range construction. The footprint of this range is approximately 20 acres of total ground disturbance, which will be site-adjusted to fit the specific environment on FSGA once the project is funded and design is initiated. As this range will be constructed atop the existing RC-H Range, the actual ground disturbance may be less. Construction at this location is preferred to ensure no conflict with operational requirements of adjacent ranges (see discussion at Section 2.5.1).

2.3.2.3 Construct Range Support Building on FSGA

Currently, range control activities are carried out in several facilities across the FSGA cantonment area. Consolidation of these functions into one facility will maximize communications, efficiency, and effectiveness of the mission by consolidating all range control functions currently occurring on FSGA into one location. The anticipated ground disturbance for this new facility and its supporting parking, utilities, and other

miscellaneous support requirements is approximately five (5) acres. This project has not had a siting analysis (no figures), but it will be constructed within the existing FSGA cantonment area. Upon completion of the new building, the spaces formerly utilized by DPTMS will be returned to the oversight of the installation for reuse and assignment.

2.3.2.4 Repurpose Automated Multi-Purpose Machine Gun (MPMG) Range (Figure 6)

In accordance with Army Modernization initiatives, the Army is fielding the next generation squad weapon (NGSW), and the MPMG Range must be reconfigured to meet the standards required to train and qualify Soldiers on these new systems as they are developed, tested, and fielded to the installation. Accordingly, FSGA proposes to modify the existing MPMG Range from its current configuration to consist of a 16-lane, 600-meter Army Record Fire Range, which will mitigate the ARRM delta and support the Army's NGSW. Work will include groundwork to establish target pits for 96 additional moving infantry targets and 64 additional SITs, data, power, and any additional work necessary to ensure full functionality. This will require approximately 10 acres of ground disturbance, and all ground disturbance will occur within the existing range footprint or immediately adjacent. The design for this proposed action is pending.

2.4 ALTERNATIVES DISMISSED FROM FURTHER REVIEW

2.4.1 IMPLEMENT RCMP CONSTRUCTION AT ALTERNATIVE OR EXPANDED LOCATIONS

Installation stakeholders identified other siting options for the construction of the CLFR and AMPTR; however, analysis determined that at some sites the safety danger zones (SDZs) of these new ranges would overlap the SDZs of existing installation ranges while in use. This would require the new ranges to be closed while the other ranges were operational, and vice versa. This would not meet the SC to maximize the capability, availability, and accessibility of ranges and training lands to support Army doctrinal requirements. The DPTMS personnel accordingly looked for locations where the new ranges and existing ranges could all operate at the same time, with no restrictions. This is only possible at the locations identified and discussed in PEA Section 2.3.2 and Figures 4-5; accordingly, FSGA proposes to construct the CLFR and AMPTR only at those locations.

Construction of the new Range Control Building is most efficient within the FSGA cantonment area, as this is the central hub of the installation, and locations within the range and training lands or on HAAF do not meet the SC. The MPMGR (Figure 6) will be reconfigured at its existing location and will not require expansion beyond its existing footprint to meet the requirements for its reconfiguration. Due to similar operational constraints discussed with the CLFR and AMPTR, relocation of the MPMGR is not feasible. Accordingly, alternative locations did not meet the purpose and need of the proposed action or the SC and was not carried forward for further analysis.

2.4.2 CONDUCT TRAINING AT OTHER INSTALLATIONS

One alternative to constructing an additional AMPTR on FSGA is to transport units requiring this training to other installations that have an AMPTR. The closest installations

with an AMPTR are Fort Benning, GA (490 miles roundtrip), Fort Campbell, KY (1,094 miles roundtrip miles) and/or Fort Knox, KY (1,258 miles roundtrip). However, this requires a substantial additional expenditure of funds and time to transport the Soldiers and their equipment to an off-site installation, time and funds better spent at home station accomplishing this required collective training task. Accordingly, this alternative did not meet the purpose and need of the proposed action or the SC and was not carried forward for further analysis.

Redacted for OPSEC

Figure 4: Construct Convoy Live Fire Range, FSGA.

Redacted for OPSEC

Figure 5: Construct AMPTR (with Scout/RECCE Collective Tasks), FSGA.

Redacted for OPSEC

Figure 6: Reconfigure Multi-Purpose Machine Gun Range, FSGA.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter focuses on those components of the natural and human environment potentially impacted by the proposed action and its alternatives. Potential direct, indirect, and cumulative impacts to the affected environment are discussed as they relate to each alternative. Direct impacts are those caused specifically by each alternative and that occur at the same time and place. Indirect impacts are also caused by each alternative, but later in time or farther in distance. Cumulative impacts "result 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 what person undertakes such other actions" (Canter et. al, 2007). Thresholds levels of significance are defined for each resource area and aid in the discussion of the extent to which that resource is impacted by the proposed action and its alternatives.

The levels of intensity of potential impacts are described as follows:

- *Adverse*. A negative net impact.
- *Beneficial*. A positive net impact.
- *Negligible*. Impacts are so low that they are not perceptible or measurable.
- *Minor*. Short-term but measurable impacts are expected. The resource would recover in a relatively short period of time (days to months).
- *Moderate*. Measurable and long-term impacts that may not remain localized but are considered less than significant. Recovery may require several years or decades.
- *Significant*. Based on context and intensity, impacts would result in substantial change or loss of a resource. This applies to both beneficial and adverse impacts.
- *Direct.* Impacts of an action that are caused by the action and that occur at the same time and place.
- *Indirect*. Impacts of an action that are caused by the action but occur later in time and/or farther removed in distance but are still reasonably foreseeable.
- *Short Term*. Effects of the proposed action that last only as long as the action is being implemented. For example, the short-term effects of a construction project would be expected to cease once construction has ceased.
- *Long Term*. Effects of the proposed action that last beyond the implementation phase. For example, conversion of a wooded area to impervious ground would affect habitat availability well after construction has ceased.
- *Cumulative*. The impact on the environment that 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 defined period of time.

3.1 STUDY AREA AND REGION OF INFLUENCE (ROI)

The scope of the affected environment includes both the geographic extent of the effect (*where it occurs*) and the time in which the effect may occur (*when it occurs*). The environmental consequences analysis for this proposed action, in which direct and indirect impacts may be felt, is primarily confined to the lands lying within the physical boundaries of FSGA and HAAF and those lands directly adjacent, referred to in this document as the Study Area (Figures 8, 9). In some cases, the study area is larger, and the reason for this is explained in that section.

Reasonably foreseeable future (cumulative) impacts are also analyzed in this section and these impacts may be felt on a broader scale in location and/or time within a specific region of influence (ROI). The ROI for each resource area will vary and is defined in each section.

3.2 PAST AND PRESENT ACTIONS

Initial development in the Study Area converted the land from a forested environment to an agricultural, farmed community, requiring timber harvest and the planting of crops. Residential, commercial, and industrial land uses followed, resulting in the development of the FSGA and HAAF military installation and the communities that thrive in the Study Area today. An emphasis is placed on sound, ecological management, especially in areas where military training occurs, including the placement of hardened stream crossings in the training areas to minimize potential future damage to soils and water sources in these locations. This trend in land rehabilitation is highly effective and major efforts are underway to restore the longleaf-wiregrass ecosystem, to include wiregrass restoration projects along the runways at Wright Army Airfield and within the training areas. FSGA/HAAF also works with the local communities and private/public landholders to manage adjacent lands via the Readiness and Environmental protection Integration (REPI) Program (formerly the ACUB) on FSGA (FSGA/HAAF, 2019c)."

FSGA is located within the Coastal Plain Province in southeastern Georgia, one of the fastest growing regions in the state and an area attempting to balance the need for growth with maintaining the integrity of its natural and Cultural Resources Commission (CRC, 2012). The Regional Plan of Coastal Georgia was finalized in 2010 and amended in 2012 and 2017 to provide developmental guidance to regional and business leaders, local government, state and federal agencies, and citizens (CRC, 2017). Primary conservation areas are considered an equally important regional planning aspect, alongside infrastructure and economic development actions. These areas include wetlands, floodplains, streams, endangered species and critical habitat, and prime agricultural lands (CRC, 2017). Figure 7 depicts the regional future development map where conservation areas are expected to be preserved in order to protect important resources and environmentally sensitive areas, including those associated with FSGA/HAAF.

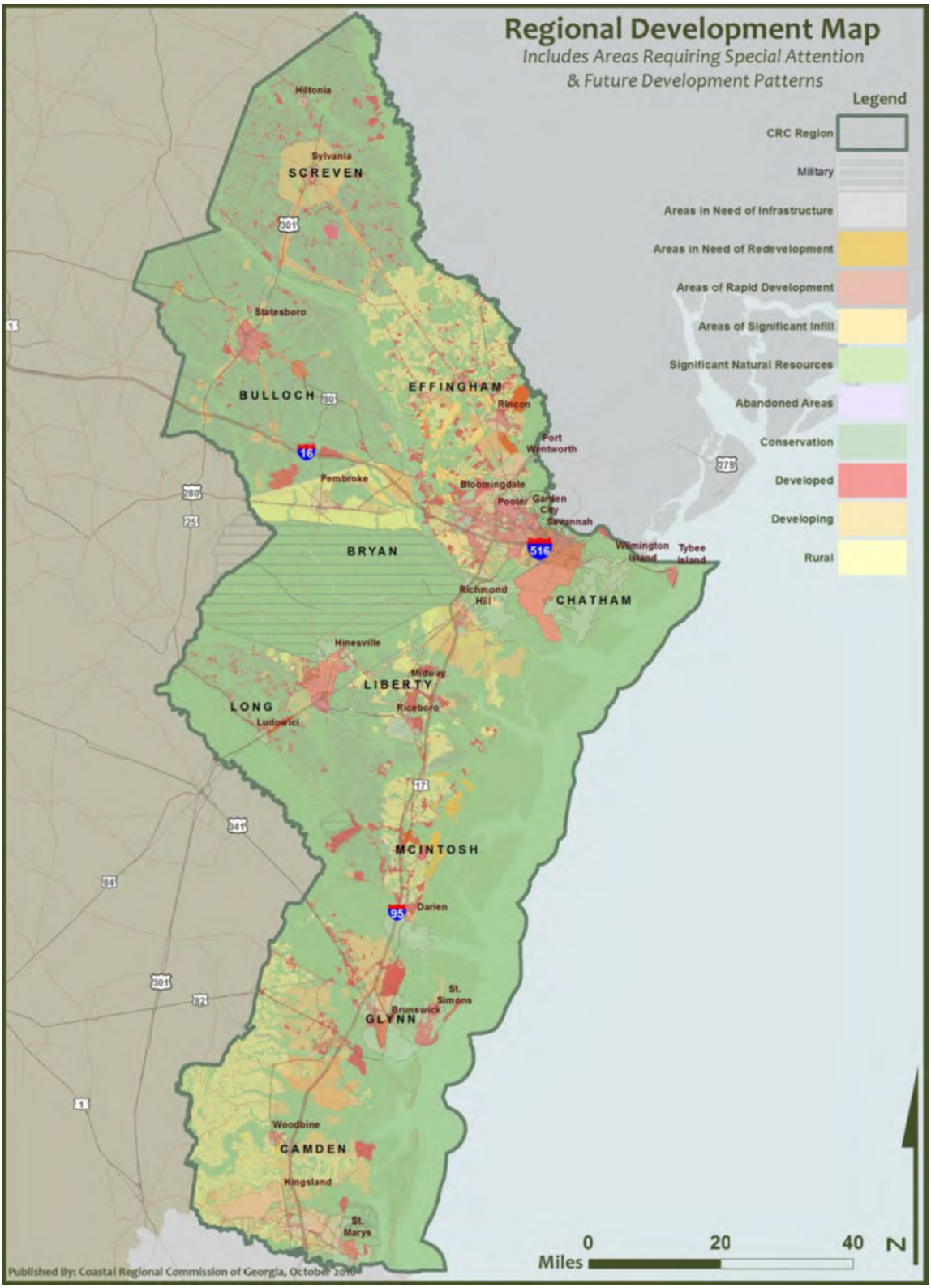


Figure 7. Coastal Georgia Regional Future Development Map (CRC, 2017).

The CRC utilizes a Quality Growth Effectiveness (QGE) Assessment Survey as an Evaluation and Monitoring tool to measure performance standards as they relate to ongoing implementation of the Regional Plan. The QGE survey compiles a "State of the Region" through responses from local jurisdictions regarding consistency with the Regional Plan of Coastal Georgia. These answers determine the Plan's effectiveness, identifies implementation barriers, areas of best practices and most importantly areas of the Regional Plan that may require modification moving forward. The Regional Future Development Map (Figure 7) reflects the most recent trends and projected land use patterns from local Comprehensive Plans and the most recent comprehensive inventory of the Region's natural and cultural resources. As local comprehensive plans are amended and updated, local development trends inherently evolve. The CRC continues to update the Future Development Map as necessary to reflect the most responsible, appropriate and desired, long range development patterns for the Coastal Region of Georgia. Factors affecting future amendments to the Future Development Map may include changes to regional transportation plans, strategic plans and other applicable studies, many of which are referenced further in this PEA.

3.3 REASONABLY FORESEEABLE FUTURE ACTIONS

Reasonably foreseeable future actions with the potential to result in incremental impacts when considered in association with the proposed action and its alternatives are discussed in this section (also see Table 1 and Appendix D). These actions were identified by researching installation, county, and region planning documents in the ROI and during discussions with the FSGA/HAAF Master Planning Branch. These actions are at a level of planning sufficient to be ripe for analysis (funded for design and/or anticipated to occur in the same region and over the same period of time, within the next 10 years).

- Implement Borrow Pit Management Program (BPMP) on FSGA/HAAF. The Army will excavate 14 new borrow pits and expand 36 existing borrow pits on FSGA, resulting in approximately 150 acres of total ground disturbance within the range and training lands to ensure a steady flow of suitable fill materials for mission activities. The borrow pits are strategically located across the installation to be convenient for use and many are in the vicinity of existing ranges (see map at Appendix D for locations of ranges and borrow pits). The fill from the on-post borrow pits is utilized for routine maintenance on these ranges and will likewise be used for the same purpose on the new ranges, as well as for the construction/upgrades proposed in the RCMP. Accordingly, this has the potential to result in cumulative impacts when considered with those of the proposed action. No new/expanded borrow pit work is proposed on HAAF. The PEA/FONSI/Finding of No Practicable Alternative for this action is complete, and the Final FONSI and a map indicating the locations of existing, proposed new, and proposed expanded borrow pits is provided in Appendix D.
- Army Modernization Strategy (AMS) (*no figures, construction requirements pending*). In 2019, the U.S. Army issued the AMS to describe how it will transform

into a multi-domain force by 2035. The primary end state is a modernized Army capable of conducting Multi-Domain Operations (MDO) as part of an integrated Joint Force by 2028 and ready to conduct MDO across an array of scenarios in multiple theaters by 2035. Those with a known potential to be enacted at FSGA are identified at Appendix D and are the subject of PEAs being prepared by Army Environmental Command (AEC). No facilities have been sited at this time, but new construction, if required, would occur within the existing cantonment area at FSGA and/or HAAF and is anticipated to be no more than 160 acres total. Currently, 19.6% of the existing FSGA/HAAF cantonment area is developable with no restraints, 1% is developable with some restraints, 23.8% is developable with extreme effort, and 55.6% is non-developable (MBI, 2022); therefore, the installation will first prioritize renovation, repair, and upgrade of existing facilities to meet these needs if FSGA/HAAF is selected for AMS actions. No range construction is anticipated on FSGA or HAAF at this time, as known and currently projected requirements indicate all training requirements with existing training resources on FSGA and HAAF.

3.4 RESOURCES ANALYZED

The NEPA analysis is complete for routine and ongoing mission activities identified in Section 2.4.2 of this EA and impacts were determined to short-term and negligible, mostly due to the installation's adherence to established processes identified in its management plans, and includes compliance with all federal, state, and local laws and regulations. These analyses are incorporated by reference in the remaining sections of the PEA. Any actions not specifically identified and/or analyzed in these plans that arise during the year, such as emerging requirements or shifting priorities, receive individual review via the NEPA portal and applicable requirements are provided to the project Point of Contact (POC.

Accordingly, the focus of the analysis is on the potential impacts associated with the implementation of the proposed action, as well as the No Action Alternative. This review determined that implementing the alternatives may impact Air Quality, Greenhouse Gasses/Climate Change/Extreme Weather, Biological Resources, Cultural Resources, Water Quality, Hazardous Materials and Wastes/Restoration, and Noise; accordingly, these potential impacts are discussed in this chapter, as well as potential avoidance, minimization, and mitigation measures where impacts are unavoidable. Review determined there will be no anticipated impact to Transportation, Utilities, Socioeconomic Resources, Land Use, and Safety, and these resources are instead briefly discussed in Appendix E.

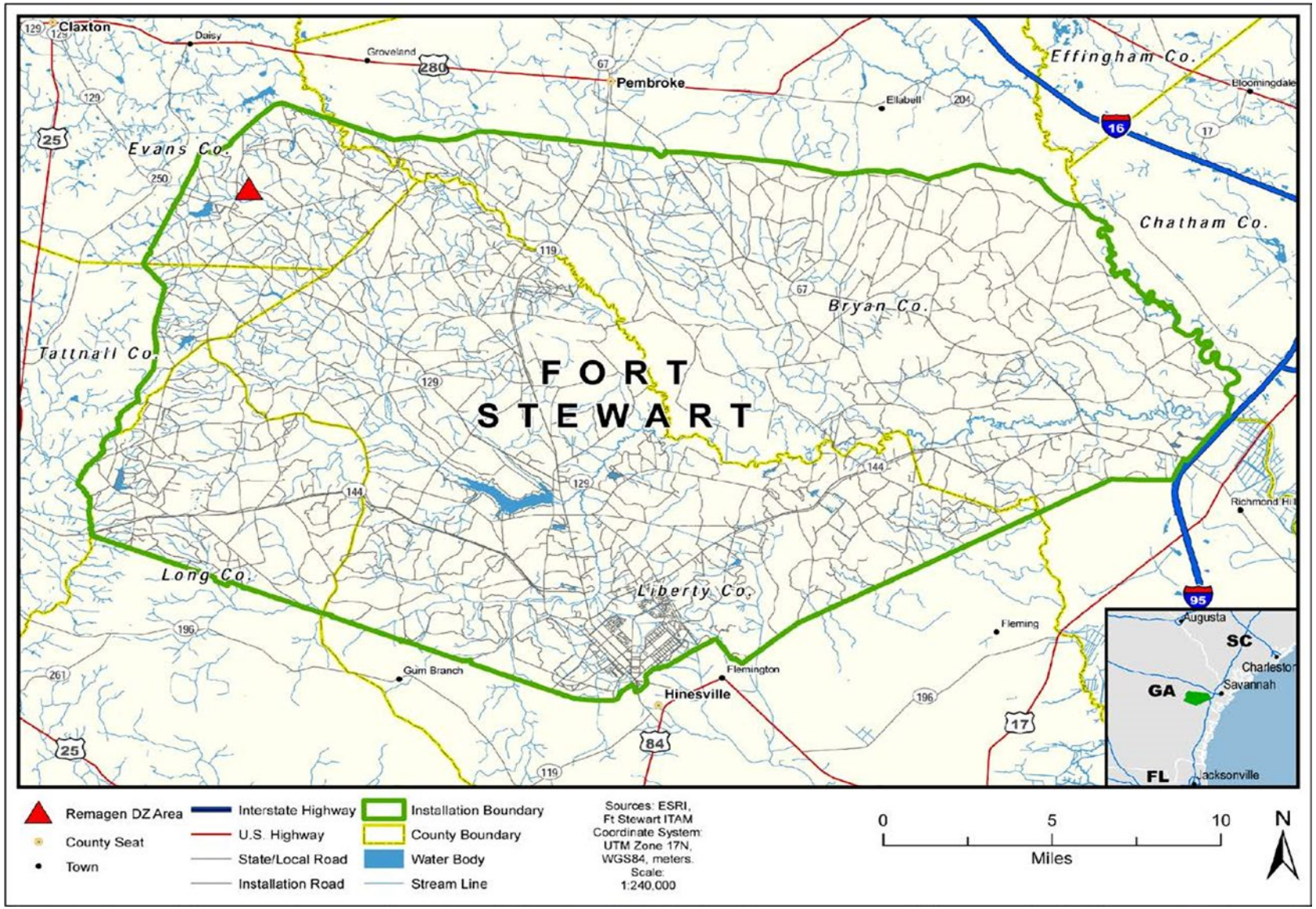


Figure 8: Fort Stewart Study Area.

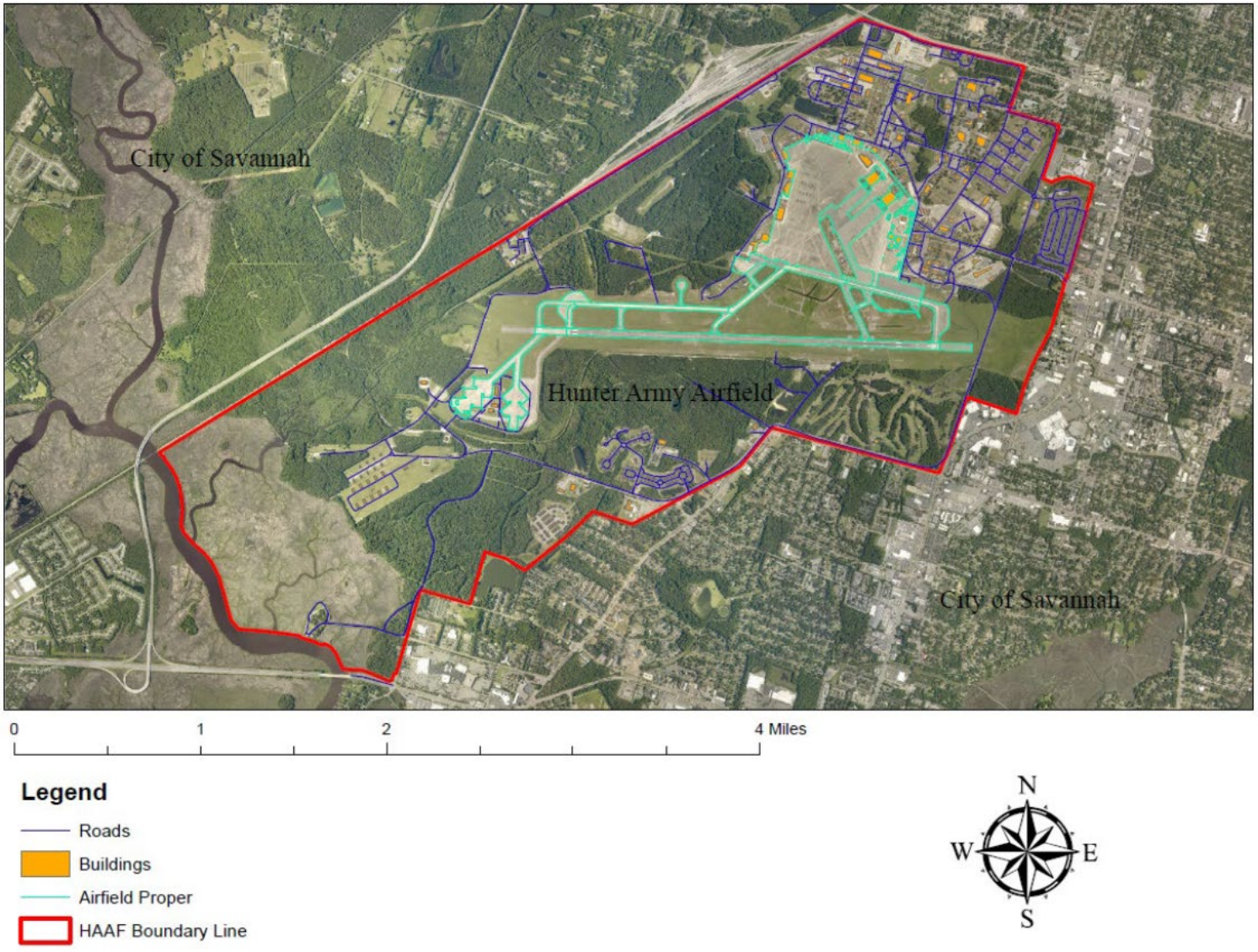


Figure 9: Hunter Army Airfield Study Area.

Table 1. Proposed Actions Identified for Analysis in the PEA.

Action	NEPA Analysis Covered in Existing Management Plan/Other Documents?	Analyzed in Detail in Remainer of This PEA?
Public Works: Examples include routine maintenance of trails, roads, bridges, culverts, landscaped areas/grounds, and buildings, all in accordance with installation plans (see final bullet, below).	Yes	No, but referenced where applicable.
Real Estate Transactions: Examples include property leases to the City of Hinesville/City of Savannah, licenses to groups such as the Red Cross, and easements to local/state utility companies.	Yes	No, but referenced where applicable.
Recreation: Examples include routine use, repair, and maintenance of pools, play areas, camping areas, fishing ponds, and annual events.	Yes	No, but referenced where applicable.
Airfield Operations: Examples include routine use, repair, and maintenance of paved areas (runways, taxiways, aprons), debris removal, and maintenance or fire protection systems.	Yes	No, but referenced where applicable.
Fuel and Petroleum Product Operations: Examples include use, receipt, and storage of Class III fuels, fueling and defueling equipment, and maintenance of fuel storage tanks.	Yes	No, but referenced where applicable.
Vehicle Maintenance and Repair: Examples include welding support activities, vehicular fluid changes, and vehicular exterior repairs.	Yes	No, but referenced where applicable.

Action	NEPA Analysis Covered in Existing Management Plan/Other Documents?	Analyzed in Detail in Remainer of This PEA?
Training Activities: Examples include local unit training activities within the cantonment area and training within existing areas for which environmental conditions are known, such as existing position artillery areas, firing points, and observation points.	Yes	No, but referenced where applicable.
ITAM Operations: Examples include routine repair and maintenance actions on FSGA/HAAF training resources, to include tank trails, ranges, PAAs, and other training resources.	Yes	No, but referenced where applicable.
RCMP	No	Yes
Post Range Guide	No	Yes

Table 2: Reasonably Foreseeable Future Actions in the Study Area/Region of Influence.

Reasonably Foreseeable Future Actions in the ROI				
Project Title	**Location**	**Project Description**	**Area Potentially Impacted**	**Timeframe**
Implement Borrow Pit Management Program Actions.	FSGA	Excavate 14 new borrow pits and expand 36 existing borrow pits on FSGA.	Approximately 150 acres within the range and training lands on FSGA; no acreage impacted by new/expanded borrow pits on HAAF.	2024-2024
Army Modernization Strategy and Realignment Actions.	FSGA	Actions proposed to transform the Army into a multi-domain force by 2035. Actions include stationing, realignment, construction, and increased training.	Up to 160 acres within the FSGA cantonment area, range, and training lands. No acreage impacted on HAAF.	2024-2034
			Totals: 250 acres on FSGA (+65 acres construction from RCMP) (none anticipated on HAAF portion of ROI)	

3.4.1 AIR QUALITY

3.4.1.1 AFFECTED ENVIRONMENT

Air quality is described by the concentration of various pollutants in the atmosphere. A region's air quality is influenced by many factors including the type and number of pollutants emitted into the atmosphere, the size and topography of the air basin in which it is located, and its prevailing meteorological conditions. The significance of the pollutant concentration is determined by comparing it to those of the federal and state ambient air quality standards. FSGA and HAAF are both located within the Savannah Beaufort Air Quality Control Region (SB AQCR), as defined in Section 302(f) of the Clean Air Act (CAA), consisting of Bryan, Chandler, Chatham, Effingham, Evans, Liberty, and Tattnall counties in GA, and Beaufort, Coleton, Hampton, and Jasper counties in South Carolina, and this AQCR is in attainment. *Note: Climate Change and Extreme Weather, although connected to Air Quality, are not solely associated with this resource area alone and are accordingly discussed separately in each section that follows*.

CAA Permitting. FSGA and HAAF each operate in accordance with a CAA Title V Permit, one specific to each location. In an attainment area, a facility is considered a major source for criteria pollutants if its emissions of criteria pollutants exceed 100 tons per year (tpy). A facility can also be a major source of hazardous air pollutants (HAPs) if potential emissions of any individual regulated HAP exceed 10 tpy or potential emissions of all HAPs combined exceed 25 tpy. As FSGA/HAAF meets this criterion, it is classified as a major source for criteria pollutants and for HAPs.

Stationary emission sources consist primarily of heating units, stationary combustion engines, fueling operations, spray painting booths, and storage tanks. The installation maintains compliance with its Title V permit via periodic inspections, monthly monitoring, and semiannual and annual reporting procedures for its significant sources of emissions. Mobile source emissions on-post include aircraft operations, military vehicle engines, and weapons fired during military training exercises. Stationary emission sources on the installation consist primarily of boilers for comfort heating, organic liquid storage tanks, vehicle fueling stations, solvent usage, surface coating operations, stack releases from the Central Energy Plant (CEP), wastewater treatment, and other miscellaneous general process operations.

The GA Environmental Protection Division (EPD) does not regulate the mobile sources on FSGA/HAAF because these emissions are regulated at the manufacturers level (for example, the car manufacturer meets the emission limits) and they are not factored into the inventories maintained on the installation. The FSGA/HAAF Prescribed Burn Program emissions are also not factored into these inventories, as prescribed burning is an exempt activity under the GA Rule for Air Quality Control (391-3-1-.03(10)(g)). Emissions from training events on the installation are categorized as fugitive emissions and are also not factored into the installation's permitting processes, per guidance from the GA EPD.

The installation tracks potential emissions associated with construction on the installation via the Minor Source Pre-Construction Permitting process, including Notice of Construction, Approval to Operate, Permit to Operate, etc. This covers a series of exempted sources, such as temporary sources that will be on-site less than 90 days (construction equipment), small boilers or furnaces (residential vs commercial size), and ventilation systems. These actions are tracked by the installation Air Quality Program Manager via the NEPA project review process.

Prevention of Significant Deterioration (PSD). The CAA includes the Prevention of Significant Deterioration (PSD) program, which imposes permitting requirements for the construction of new major stationary source facilities and "major modifications" at existing facilities in attainment areas. A new source is classified as a major stationary source if it has the potential to emit any regulated pollutant in amounts equal to or exceeding specified major source thresholds, which are predicated on the source's industrial category. A major modification is a physical change or change in the method of operation at an existing major stationary source that causes a significant "net emissions increase" at the source of any regulated pollutant. The purpose of the program is to prevent the degradation of ambient air quality in attainment areas and to address ambient air quality concerns associated with other non-criteria pollutants, while still allowing for industrial and commercial growth. FSGA/HAAF has not been required to conduct PSD permitting by operational limits to stay under the permitting thresholds.

As part of the PSD program, mandatory Class I status was assigned by Congress to all national parks, national wilderness areas, memorial parks greater than 5,000 acres, and national parks greater than 6,000 acres. In Class I areas, visibility impairment is defined as a reduction in visual range and atmospheric discoloration. Stationary sources, such as industrial complexes, are typically an issue for visibility within a Class I PSD area. For new sources that may impair visibility or degrade air quality, applicants may be required to analyze potential impacts to Class I areas within 100 kilometers (62 miles) of the source. There is only one PSD Class 1 area/protected vista within a 100-kilometer (standard review distance) radius of FSGA, and that is Wolf Island Wilderness in Georgia, located 38 miles away from FSGA and 51 miles from HAAF.

National Ambient Air Quality Standards (NAAQS). The CAA and its subsequent amendments established the National Ambient Air Quality Standards (NAAQS) for six "criteria" pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), particulate matter (PM), and lead. These standards represent the maximum allowable atmospheric concentrations that may occur while ensuring protection of public health and welfare, within a reasonable margin of safety. Short-term standards (1-, 8-, and 24-hour periods) are established for pollutants contributing to acute health effects, while long-term standards (quarterly and annual averages) are established for pollutants contributing to chronic health effects. The NAAQS are used to determine if an area is in attainment. The CAA requires each state to develop a State Implementation Plan (SIP) that serves as its primary mechanism for ensuring that the NAAQS are achieved and

maintained within that state. According to plans outlined in the SIP, designated state and local agencies implement regulations to control sources of criteria pollutants. The CAA provides that federal actions in non-attainment and maintenance areas do not hinder future attainment with the NAAQS and conform to the applicable SIP.

The GA EPD adopted the NAAQS as the standards for the state of Georgia, and FSGA/HAAF's AQRC has proven consistently better than the NAAQS. Georgia has established a network of monitoring stations to consolidate ambient concentrations of criteria pollutants, and the EPA uses this monitoring data to determine each area's attainment status on a pollutant-by-pollutant basis. As part of its permitting process, FSGA/HAAF compiles an annual Air Emissions Inventory (AEI) that summarizes its criteria pollutant emissions (particulate matter, carbon monoxide, nitrogen oxides, and sulfur dioxide), HAP emissions, and Greenhouse Gas (GHGs) emissions on the installation.

Greenhouse Gas Emissions (GHGs). Both natural and human activities result in emissions of GHGs. As GHG emissions from human activities increase, they build up in the atmosphere and, as many of the major GHGs stay in the atmosphere for tens to hundreds of years after being released, their warming effects on the climate may persist over time (see Section 3.4.2, Climate Change/Extreme Weather, for additional discussion). To combat these potential impacts to air quality and address climate change, federal agencies are working to reduce their GHG emissions, as set forth in EO 13845, *Efficient Federal Operations* (2018). The Environmental Protection Agency (EPA) GHG Reporting Program collects GHG data from large emission sources and suppliers of products that could emit GHGs. Reports generated in this program include a total of 41 source categories, accounting for 85-90% of U.S. GHG emissions (EPA, 2022). Their annual "Inventory of U.S. GHG Emissions and Sinks" tracks total national emissions of GHGs since 1990.

Each year, FSGA/HAAF quantifies its emissions of GHGs as an addendum to its AEI (Oneida, 2024). Mobile sources (vehicles) are not included in the estimate, as discussed under CAA Permitting, nor are indirect sources of GHG emissions such as offsite energy production. The principal GHGs and their sources are:

- Carbon Dioxide (CO2): This enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees, and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). However, CO2 is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of biological carbon sequestration.
- Methane: This is emitted during the production, transport, and combustion of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- Nitrous Oxide: This is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- Fluorinated Gases: Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as High Global Warming Potential gases.

Carbon Dioxide is emitted during forest fires and FSGA/HAAF has an active prescribed burn program; however, the forests on the installation serve as a natural reservoir, or carbon sink, for GHGs and more CO2 is absorbed during forest fires than is emitted due to carbon sequestration. Carbon sinks may be biological, geological, or technological. Geological carbon sequestration is the process of storing carbon dioxide in underground geologic formations, or rocks. Scientists are also exploring utilizing machinery to directly capture CO2 from the air (direct capture) (U.C. Davis, 2022). As FSGA/HAAF does not utilize either of these practices they are not discussed further in this document. During biological carbon sequestration, CO2 is stored in aboveground and belowground vegetation, woody debris, and soil, as well as the ocean (GFC, 2022) and not released into the atmosphere. Studies indicate approximately 25 percent of global carbon emissions are captured by plant-rich landscapes in this manner (U.C. Davis, 2022).

Particulate Matter (PM). Fort Stewart uses prescribed burning operations on approximately 279,000 acres of forested/grass land to control undergrowth, to reduce forest fire fuel, to increase training maneuverability, and to create a healthy forest environment. The installation is on a 3-year burn cycle, mandated by the USFWS, and approximately one third of the total acreage is typically burned per year. Prescribed burning releases substantial quantities of fugitive emissions/particulate matter. During 2022, the installation-controlled litter accumulations using prescribed burning methods on 135,398 acres, including 45,512 acres of grassland, 33,228 acres of palmetto, and 37,810 acres of long needle pine. No prescribed burning occurs on HAAF due to its being surrounded by the City of Savannah and the placement of its runway at its center.

Due to differences between estimating emissions from the burning of grassland, palmetto, and long needle pine litter, these activities were separated into three distinct emission sources. The total acreage of each type of fuel burned was used to estimate emissions. The Georgia EPD has designated certain open burning activities as “insignificant” (Georgia Rule 391-3-1-.03(10)(g)). Since all prescribed burning at FSGA is fire set under controlled conditions to burn forest understory and used as a forest management practice by the owner or owner’s designee, all three prescribed burning emission sources are designated “insignificant” (Georgia Rule 391-3-1-.02(5)). Wildfires or other unplanned fires are considered one-time events that are not part of the installation’s normal business operations. Therefore, these fires are designated as trivial sources of air pollution and are not included in the AEI submitted to the GA EPD.

3.4.1.2 ENVIRONMENTAL CONSEQUENCES

The Threshold Level of Significance (TLS) for Air Quality Impacts would be reached if the proposed action would (a) result in a NAAQS attainment area becoming a nonattainment area, or (b) result in the violation of the installation's Title V Permits.

3.4.1.2.1 ALTERNATIVE I: NO ACTION/STATUS QUO

Under this alternative, the installation will implement routine and ongoing installation activities only, as defined in Section 2.2.1 of this PEA, all of which are anticipated to result in short-term, direct, minor, adverse impacts to Air Quality. The TLS for Air Quality impacts is not met under this alternative.

PSD. No impacts associated with PSD are anticipated under the No Action Alternative, as no construction of new major stationary sources and no major modifications to existing sources on FSGA/HAAF is proposed. This includes no emissions capable of impacting Air Quality at nearby Class I Sites such as Wolf Island National Refuge.

CAA Permitting. No impacts associated with permitting are anticipated under the No Action Alternative. Routine, ongoing actions occur in compliance with the installation's existing permits, including the CAA Title V Permits and no modifications are anticipated to those permits are anticipated under this alternative. Sources of existing emissions are managed by installation personnel familiar with established practices and protocols, thereby minimizing the potential for adverse effects. The installation is located within an attainment area and ensures all data associated with its activities are tracked, managed, and reported to the installation Air Quality Program Manager in accordance with permit management and reporting requirements.

NAAQs and GHGs and PM. Routine, ongoing activities under this alternative have the potential for short-term, direct, and negligible-to-minor impacts to Air Quality associated with NAAQs, GHGs, and PM. Data accumulated during preparation of the FSGA 2023 AEI (Table 3) indicates that the greatest source of emissions on FSGA is the combustion of wood at the CEP, followed by emissions from installation landfills, emergency diesel generators, and fuel oil boilers, all stationary, point sources on the installation. Mobile source emissions (cars, trucks, military vehicles) are not tracked on the EPA's Mandatory Reporting Rule, and are estimated to result in no more than short-term, direct, negligible, adverse impacts to air quality, because these emissions come from equipment that is maintained in proper working order, minimizing potential fuel and emission leaks that impact the environment, typically have a small footprint, and occur in association with events that are limited in duration. Minimization measures include the application of water for dust control in grading or clearing activities and keeping open bodied trucks covered when transporting materials.

Table 3: FSGA Total Facility Wide Emissions (Actual and Potential) For Calendar Year 2023 (Oneida, 2024).

Emission Type	CO	NOX	SO2	PM	PM-10	PM-2.5	VOC	HAP
Actual (lb./yr)[a]	75,278,268	1,316,075	970	10,814,077	8,561,985	8,561,949	1,407,085	37,518
***Actual (ton/yr)*[a]**	37,639.1	658.0	0.5	5,407.0	4,281.0	4,281.0	703.5	18.8
Actual (lb./yr)[b]	53,337	59,019	917	4,282	5,426	5,390	219,032	16,243
***Actual (ton/yr)*[b]**	26.7	29.5	0.5	2.1	2.7	2.7	109.5	8.1

* CO: Carbon Monoxide, NOX: Oxides of Nitrogen (used to represent NO2), SO2: Sulfur Dioxide, PM: Particulate Matter, PM-10: Particulate Matter less than 10 microns, PM-2.5: Particulate Matter less than 2.5 microns, VOC: Volatile Organic Compounds (precursor for ozone formation), HAP: Hazardous Air Pollutant, Lead emissions are included under the HAP category.

a. Total with Prescribed Burning and Ordnance Detonation.

b. Total without Prescribed Burning and Ordnance Detonation.

c. Totals do not include criteria pollutants from fugitive emission source categories- Prescribed Burning, Ordnance Detonation, Miscellaneous Product Usage, Wastewater Treatment, and Landfills without gas collection device(s). Emissions of criteria pollutants from these fugitive emission source categories are not included in installation-wide Title V potential-to-emit calculations. HAP emission totals reflect emissions from all source categories including the fugitive emission sources.

Table 4: HAAF Total Facility Wide Emissions (Actual and Potential) For Calendar Year 2023 (Oneida, 2024).

Emission Type	CO	NO_X	SO_2	PM	PM-10	PM-2.5	VOC	HAP
Actual (lb./yr)	**7,664.10**	**12,287.48**	**361.45**	**1,062.74**	**1,052.84**	**1,027.36**	**43,526.32**	**3,315.74**
Actual (t/yr)	**3.83**	**6.14**	**0.18**	**0.53**	**0.53**	**0.51**	**21.76**	**1.66**

Emissions from wildfires, prescribed burning operations, and ordnance detonations are classified as fugitive emissions (non-point sources) and are not included in FSGA/HAAF air permits because the GA EPD determined them to be insignificant sources of emissions. This is because prescribed burns are set under controlled conditions and used as a forest management practice by the owner or owner's designee (Georgia Rule 391-3-1-.02(5). Wildfires / other unplanned fires are considered one-time events that are not part of the installation's normal business operations and are for those reasons designated as trivial sources of air pollution. Ordnance detonation also occurs under controlled conditions. Prescribed fire and wildfires also have the potential to result in PM, but historical experience on post has shown that these impacts are localized, and the PM settles out of the air rapidly within its area of generation, rather than dispersing off the installation. The well-maintained system of firebreaks on the installation also assists in ensuring fires do not grow out of control and spread.

Although they are fugitive emissions sources, prescribed burning and ordnance detonation have the potential to impact FSGA's total annual emissions levels, even if the level of activity for all the other categories remains relatively consistent from year to year. As a result, for comparison purposes, the emission totals in the FSGA annual AEI are shown with and without prescribed burning and ordnance detonation (Table 3). If prescribed burning and ordnance detonation are not considered, the pollutant with the highest emission rate is volatile organic compounds (VOCs) at 109.5 tons per year (tpy), followed by nitrogen oxides (NOx) at 29.5tpy, and then carbon monoxide (CO) at 26.1tpy, with all other pollutants/pollutant categories emitting less than 10tpy. If prescribed burning and ordnance detonation are included, the highest emission rates are CO and PM exceeding 5,407tpy, followed by VOCs at 703.5.6 tpy, and NOx at 658 tpy.

The HAAF 2023 AEI (Table 4) indicates that the pollutant with the highest emission rate was VOC at 21.76tyr, and all other pollutants had emission rates less than 10tyr. Fueling operations are the main contributor to the actual VOC emissions. No prescribed burning or substantial detonation activities occur on HAAF, and this is accordingly not a factor in air emissions at this location. The greatest source of emissions on HAAF include Heating Units, Stationary Internal Combustion Engines, Engine Testing, Abrasive Blasting, Storage Tanks, Fueling Operations, Fuel Transfer System Equipment Leaks, Spray Painting Booths, Organic Solvent Cleaning Units, Fuel Cell Maintenance, Landfills, Water Treatment, Refrigerant Usage, and Wood Working.

The majority of the GHGs (fugitive and otherwise) emitted on FSGA and HAAF are biologically sequestered by the forest and soils on the installation and do not persist in the environment. Fort Stewart contains an estimated 240,000 acres of forest and HAAF contains an estimated 5,000 acres of forest, all actively managed and maintained. Using the EPA GHG Equivalencies Calculator (USEPA, 2022a), it is estimated that 0.84 metric tons (MT) CO2e is sequestered annually by one acre of an average forest. Accordingly, at **250,000 acres (FSGA+HAAF acreage) x 0.84 MT CO2e/acre/year**, approximately **210,000 MT CO2e is sequestered per year on FSGA/HAAF**. By subtracting the 2023

GHG emissions from this number, we see that more CO2e is sequestered per year than is emitted:

37,639 x 3.67 (conversion factor CO to CO2) =138,135tpy CO2 emitted FSGA x 0.84 = **116,033 CO2e/acre/year on FSGA.**

3.83 x 3.67 (conversion factor) = 14 CO2 emitted HAAF x 0.84 = **11 CO2e/acre/year on HAAF.**

210,000 acres sequestered – (116,033 + 11) = 93,956 MT CO2e sequestered per year.

Overall, this alternative is anticipated to result in short-term, indirect, negligible-to-minor adverse impacts to Air Quality. No mitigation is proposed or required.

3.4.1.2.2 ALTERNATIVE II: IMPLEMENT RCMP AND POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as continuing to implement routine and ongoing activities identified in Section 2.2.1. The TLS for Air Quality impacts is not met under this alternative.

PSD. No impacts associated with PSD are anticipated under this alternative. Although new construction is proposed, it is not construction of new major stationary sources with the potential to emit regulated pollutants in amounts equal to or exceeding specified major source thresholds, nor will this construction require major modifications to existing sources on FSGA/HAAF. The actions proposed under this alternative will also not result in emissions capable of impacting Air Quality at nearby Class I Sites such as Wolf Island National Refuge.

CAA Permitting. The construction proposed in the RCMP may include installation of new fuel storage tanks or backup generators, which may require modifications to the existing FSGA Title V permit. If so, this will be coordinated with the FSGA/HAAF Air Quality Program Manager during the design phase and all permitting will be completed prior to the start of construction. No construction is proposed on HAAF, and no permit modifications are required at that location. None of the other activities proposed in the RCMP or any of the activities proposed in the Post Range Guide are anticipated to require permitting or modification of existing permits on FSGA or HAAF.

As discussed under Alternative I, routine, ongoing activities will continue to occur in compliance with the installation's existing CAA Title V Permits and no modification to permits is anticipated associated with those actions. The installation is located within an attainment area and ensures all data associated with its activities are tracked, managed, and reported to the installation Air Quality Program Manager in accordance with permit management and reporting requirements. Accordingly, no more than short-term, direct, negligible adverse impacts are anticipated. Mitigation, if required, will be implemented in accordance with site-specific permits and identified during the design phase for those specific projects.

NAAQS and GHGs and PM. The construction proposed in the RCMP will result in new emissions of NAAQS, GHGs, and PM on FSGA, resulting in short-term and long-term, minor, adverse impacts to Air Quality under this alternative. Short-term impacts are primarily associated with the use of timber harvest and construction equipment, portable generators, asphalt/concrete batch plants, and traffic associated with personnel traveling to and from these locations. Long-term impacts are associated with tree removal, permanent generators (if part of each facility's design), and new/increasing traffic to that part of the installation and will be accounted for in the installation's AEI.

Impacts associated with tree removal are long-term, as their removal is permanent; however, no more than 65 acres of tree removal is anticipated to support the proposed construction. from actions proposed under this alternative. The removal of this acreage will not change the amount of carbon sequestered by the installation to a substantial degree. The AMPTR will be constructed mostly within an existing range footprint, with some target placement off the existing range footprint to achieve proper distances, and the MPMGR improvements and new Range Building construction occurring on previously disturbed ground. Only the CLFR will be constructed on undisturbed ground, although this area of the installation has been trained upon in the past. The GHG emission sources during construction include vehicles used in site clearance, transportation, and construction, as well as temporary power generators and paving of roads and hardstand. The EPA's GHG Emissions Calculator will be used for GHG emissions calculations for each project and site-specific minimization measures will be identified.

Fugitive dust and PM associated with vegetation clearing, grading, and other earth-moving activities may be minimized by wetting soils to prevent PM from leaving the construction site and using low-emission equipment during the tree clearing. The installation will utilize existing minimization measures, as well as applicable emissions reducing technology into the design of future projects. The work proposed is not anticipated to result in violations to the FSGA Title V permit. The Air Quality Program Manager reviews all projects on the installation and will ensure all federal, state, and local requirements are met. Mitigation, if required, will be implemented in accordance with site-specific permits.

As discussed under Alternative I, routine and ongoing activities, wildfires and the prescribed fire program have the potential to result in fugitive emissions and the deposition of PM, but these impacts remain localized. Impacts are also minimized to a level no more than minor because the forested lands on-Post provide a carbon sink that absorbs more GHGs than are emitted. None of the other activities proposed in the RCMP, such as training, or any of the activities proposed in the Post Range Guide are anticipated to result in impacts to air quality on FSGA or HAAF. Overall, short-term and long-term, minor, adverse impacts are anticipated to Air Quality under this alternative. Mitigation, if required, will be identified in the permit specific to each construction project.

3.4.1.3 CUMULATIVE IMPACTS

The ROI for Air Quality lies within FSGA and HAAF and the lands immediately adjacent, as shown in Figures 8 and 9. Past, present, and reasonably foreseeable future events with the potential to result in cumulative impacts to Air Quality are discussed in the analysis below.

3.4.1.3.1 ALTERNATIVE I: NO ACTION

Past actions of the ROI consist of the historical urban development of the major cities surrounding the installation. Development of the Hinesville-Savannah metropolitan region along with HAAF and FSGA required substantial amounts of infrastructure and transportation construction. This resulted in a loss of carbon sequestration potential due to the deforestation and land use changes associated with urban development. Therefore, the potential of the surrounding landscape to act as a valuable carbon sink has been diminished compared to historical potential. The past and current abundance of forested lands in the ROI provided a valuable carbon sink that absorbed more emissions than were released in the ROI and continue to do so today.

Currently, routine and ongoing actions within the ROI include actions with the potential to result in emissions, including maintenance and repair of buildings, grounds, roads, and trails, training within the range and training lands, and minor construction, all minimized through existing installation measures and best management practices (BMPs). Reasonably foreseeable future actions in the ROI include 150 acres of ground disturbance on FSGA associated with the excavation of 14 new borrow pits and the expansion of 36 existing borrow pits in the range and training lands on FSGA. There may be a temporary increase of GHGs, and PM associated with the excavation vehicles at each work site, but impacts are anticipated to be temporary, confined to each excavation site, and spread out across an approximately 10–15-year period. Similar impacts are anticipated from the development within the FSGA and/or HAAF cantonment area associated with the implementation of the AMS actions, adding required support personnel for an as-yet-undetermined number of new Soldiers, their Families, and support equipment within the ROI. There may also be a commensurate amount of construction in the neighboring communities to ensure their support. All of these actions may result in the emissions of GHGs and PM within the ROI.

Minimization of impacts may be achieved via implementation of existing BMPs, adherence to federal, state, and local permits, and applicable emissions-reducing technology, both on- and off-post. In addition, the local work pool consists of personnel familiar with these requirements. There will also be an increase in training-related activities on the FSGA and HAAF range and training lands to ensure the units' mission essential training requirements are met. Trainers on the ranges are familiar with local requirements and installation training equipment is well maintained to minimize the potential for GHG emissions associated with faulty equipment such as leaks.

Currently, FSGA/HAAF sequesters more CO2e than it releases into the atmosphere and carbon sequestration is also occurring on a large scale on the forested lands within the off-Post portion of the ROI. As shown on Figure 7, Regional Future Development Map, there is a strong regional focus on preserving and protecting the environmentally sensitive areas surrounding the installation, such as the forests that are shaded green on this map (CRC, 2017). This includes lands protected via the FSGA/HAAF REPI program. Currently, there are 49,636 acres protected under the FSGA/HAAF REPI, of which approximately 40,000 are forested and capable of sequestering up to an additional 33,600 MT CO2e. When combined with the 138,962 MT CO2e sequestered directly on FSGA/HAAF lands, the total FSGA/HAAF REPI carbon sequestration contributions in the ROI are approximately 170,562 MT CO2e. In addition, a 2019 study by the U. S. Forest Service estimates that more than 1.5 billion MT of CO2e is sequestered each year on Georgia timberlands (GFC, 2022). Cumulatively, there is a substantially valuable carbon sink within the Air Quality ROI sufficient to assist in the offset of emissions.

Accordingly, despite the potential for construction and ground disturbance in the ROI, no more than negligible adverse cumulative impacts to Air Quality are anticipated because the carbon sink provided by the on- and off- Post forested lands within the ROI sequester more CO2e than is emitted into the atmosphere. In addition, disturbed areas are stabilized and revegetated as much as possible at the conclusion of work, per adherence to existing state and federal laws and installation standard operating procedures (SOPs). No cumulative impacts are anticipated to PSD as no direct impacts are anticipated.

3.4.1.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Overall, minor adverse cumulative impacts to Air Quality are anticipated under this alternative. This alternative has the potential to remove an additional 65 acres of vegetation to support the construction identified in the RCMP. However, it is not enough to result in a substantially greater impact than what was identified under Alternative I when considering the overall forested acreage in the ROI (210,000 acres on FSGA and 4,551 on HAAF) and no more than minor adverse cumulative impacts are anticipated. As previously discussed, disturbed areas are stabilized and revegetated as much as possible at the conclusion of work, per adherence to existing state and federal laws and Installation SOPs. No cumulative impacts are anticipated to PSD as no direct impacts are anticipated.

3.4.2 CLIMATE CHANGE AND EXTREME WEATHER

3.4.2.1 AFFECTED ENVIRONMENT

Climate is defined as the long-term (30-year) average seasonal weather conditions typical of a given location, while weather refers to the day-to-day conditions at that location (Pinson et al, 2020). When energy from the sun reaches the Earth, the planet absorbs some of this energy and radiates the rest back to space as heat, and the Earth's surface temperature depends on this balance between incoming and outgoing energy. Conditions tend to remain stable, or balanced, unless the Earth experiences a force that

shifts this balance, causing changes in the Earth's average temperature to warmer or cooler, leading to correlating changes in the lower atmosphere, on land, and in the oceans.

Climate change represents a potentially irreversible threat to society and the planet, and many countries adopted the Paris Agreement in December 2015 with the aim of limiting global temperature rise to 1.5°C above preindustrial levels. Most climate hazards are not new, but climate change alters the frequency, intensity, and location of the hazards, contributing to vulnerability and compounding risks. Additionally, when climate change intersects with other forms of environmental degradation, such as deforestation and erosion, the impact can be magnified.

In the past 20 years, the eight southeastern coastal and Gulf Coast states experienced 28 named hurricanes, 16 of which were Category 2 or higher in strength (SMN, 2022). Fort Stewart/HAAF was impacted in 2016 and 2017 by back-to-back hurricanes and in 2024 by Tropical Storm Deby and Hurricane Helene. This impacts infrastructure, training, and readiness on military installations, and climate change and extreme weather (CC/EW) are now identified by the Army and Department of Defense (DoD) as a critical national security threat and threat multiplier (Pinson et al, 2020). In accordance with Army Directive 2020-08, *U.S. Army Policy to Address Threats Caused by Changing Climate and Extreme Weather* (2020), and DoD Directive 4715.21, *Climate Change Adaptation and Resilience* (2016), Army installations shall account for CC/EW in all future facility and infrastructure-related plans, policies, and procedures.

Weather observation in the FSGA area began in the early 1700s, including local resident Johann Bolzius, who kept a weather diary in the region from 1734-1756 (NWS, 2022). In the 1800s, the Smithsonian Institution recruited upwards of 600 local weather observers across the country to provide local and regional weather data, including several in Savannah. These efforts were interrupted by the outbreak of the Civil War but resumed in 1870 with the installation of a weather observing site in a commercial building at the corner of Bay and Drayton Streets in Savannah by the U.S. Army Signal Corps. The U.S. Congress transferred the meteorological duties of the Signal Corps to the newly created U.S. Weather Bureau in 1890, and these actions shifted to various locations over the next several decades, including facilities at the Savannah Post Office and the Savannah International Airfield.

On April 1, 1996, an Automated Surface Observing System (ASOS) was commissioned at the Savannah International Airport, with instruments to report temperature, dew point, sky condition, visibility, present weather, wind speed and direction, pressure and precipitation accumulation. Due to Modernization and Associated Restructuring, the ASOS in Savannah closed in 1996 and the Weather Forecast Office (WFO) in Charleston, SC, took over warning and forecast responsibilities for Savannah and the surrounding area; however, the ASOS remains functional and provides valuable data to the National Weather Service – Climate Prediction Center (NWS-CPC) in Charleston (NWS, 2022).

This NWS-CPC assesses past and current weather trends to aid in future impacts identification and the development of minimization measures for the region.

On July 2, 2024, representatives from the University of Georgia (UGA) and the U.S. Army signed a Regional Intergovernmental Service Agreement (RIGSA) at Fort Benning, GA, that will streamline collaboration on climate resilience between UGA and eight Army installations, including Fort Benning and Fort Stewart. The partnership could expand to encompass additional U.S. Installations based on available capacity, and Forts Eisenhower, Jackson, Bragg, Novosel, Johnson, and Redstone Arsenal also will benefit from the RIGSA. To date, the U.S. Army's Installation Management Command has saved over $90 million through the use of IGSA, and FSGA/HAAF utilizes six IGSAs with local municipalities, focusing on areas such as water storage and economic analysis. This UGA partnership, however, marks the installation's first involvement in a regional IGSA.

The Southeast's climate has been warming since the mid-20th century, and both average daily minimum temperatures and average daily maximum temperatures are increasing. While model outputs diverge across the emissions scenarios, all point to a generally warming climate in the Study Area (MBI, 2023). The FSGA region historically has a mild, subtropical climate, typified by warm, humid summers and short, mild winters. Yearly rainfall averages 50 inches, half of which falls during the thunderstorm season of June through September. The wettest month is July (normal rainfall 7.6 inches), and the driest is November (1.7 inches). Wind speeds in the region rarely exceed five knots, except during hurricanes or tropical storms, which generally occur between September and November.

The FSGA/HAAF Installation Climate Resilience Plan (ICRP) was completed in 2023 in accordance with the Army Climate Resilience Handbook, and incorporated a broad cross-section of stakeholders, including the U.S. Army Corps of Engineers, U.S. Army Installation Management Command, Office of Local Defense Community Cooperation, Pacific Northwest lab, Chatham County Emergency Management Agency, City of Hinesville, and University of Georgia. Climate impacts are not associated with GHG emissions only; however, they are a primary issue of concern, and the ICRP is a valuable tool for tracking the installation's goals and objectives, as well as the status of installation actions, over time. The ICR Plan determined the installation is at greatest risk from Heat, Severe Weather, and Flooding (See Appendix F, Supplementary Information from FSGA/HAAF ICR Plan) (MBI, 2023).

3.4.2.2 ENVIRONMENTAL CONSEQUENCES

The TLS for CC/EW has been established as actions contributing to the long-term temperature rise of 1.5° C above pre-industrial temperatures, which is projected to result in risks to natural and human systems, including more extreme weather events, sea level rises, risks to marine and terrestrial ecosystems, and risks to human health and wellbeing. Activities proposed for implementation in the RCMP and Post Range Guide are not anticipated to contribute to CC/EW as they occur over a relatively short timeframe (less

than 30 years); however, a discussion is provided in this section in as much detail as possible.

3.4.2.2.1 ALTERNATIVE I: NO ACTION

Under this alternative, the installation will continue to implement routine and ongoing installation activities, as previously defined in Section 2.2.1. The TLS for CC/EW impacts is not met under this alternative. Unless stated otherwise, information discussed below is taken from the FSGA/HAAF Installation Climate Resilience Plan (MBI, 2023).

Heat. Heat has the potential to contribute to long-term, direct, minor-to-moderate impacts to routine and ongoing activities on FSGA/HAAF. No mitigation is required or proposed; however, minimization measures are discussed below.

The U.S. Army's Training and Doctrine Command Regulation 350-29, *Prevention of Heat and Cold Casualties*, prescribes policy and provides guidance to commanders for preventing environmental (heat or cold) casualties. The exposure to high environmental temperature reduces the body's capacity to expel heat, and environmental conditions (i.e., air temperature, humidity, and air movement) influence the heat equilibrium of the body and its physiologic adjustments. Given the temperate environment/geographic location of FSGA/HAAF, heat is a regular, routine consideration, especially during the summer months, and is accordingly a long-term concern for the installation.

Outdoor work, training exercises, and other activities that involve physical exertion in extreme heat can put individuals at risk of major and/or minor heat illnesses. Heat related information is supplemented by U. S. Army Graphic Training Aid 05-08-012, *Individual Safety Card*, which includes information that can be provided to trainers and Soldiers, including Preventive Actions in Adverse Weather, Basic Heat Injury Prevention, Heat Cramps and Heat Exhaustion, Heat Stroke, Work, Rest, and Water Consumption. This risk can be exacerbated when Soldiers are wearing full uniforms and carrying heavy gear, and the installation minimizes potential adverse impacts by implementing controls such as adjusting the frequency and time of day for work and training activities. Army researchers are also investing time in wearable sensors that monitor conditions in real time and provide feedback to an algorithm programmed to spot changes in how they walk and move during training, such as the Heat Injury System (HIPS) (Nieberg, 2023). If it spots a troop's steps starting to drag, and the Soldier's core temperature is above 104 degrees Fahrenheit, it indicates they are at risk of a heat stroke. This and other tools are being explored by the Army to identify and minimize heat injury.

Installation stakeholders noted the number of months with Category 5 heat conditions appears to be increasing, which can result in interruptions to the training regime while temperatures cool down. If this trend continues, there will be more interruption in the training regiments, requiring training units to extend their on-range time to meet training requirements. As a result, training facilities/infrastructure will be used over longer periods of time with less time for required maintenance, resulting in long-term, direct, minor adverse effects to routine and ongoing activities on the installation. Likewise, increasing

heat conditions may result in longer periods of air conditioning of occupied buildings on post, resulting in higher utility expenditures to cool the same buildings compared to prior years. Proposed minimization measures include installing shade covers to provide relief during heat, utilizing cool or green roofing to reduce heat retention in buildings, requiring or encouraging the use of passive solar for winter heating on new and renovated facilities, installing shaded parking structures with rooftop solar generating capacity, and requiring heat reflecting paving for new construction and resurfacing (i.e. high solar reflectance).

Heat is also indicated as a contributor to wildfires in the Study Area. Rising temperatures can dry out fuels on the ground, increasing the potential for wildfires, especially when these fuels are impacted by sources of ignition, such as ordnance from training. However, site-specific computer modeling and historical data have determined this to not be a substantial issue of concern on FSGA/HAAF. Fire behavior on FSGA/HAAF was evaluated by simulating 36,000 wildfires using FARSITE5, the U.S. Forest Service fire simulator. Each of the wildfires simulated was allowed to spread for 24 hours. Subsequent analysis determined that the high level of fuels management occurring under the FSGA prescribed burn program, combined with relatively mild fire-weather conditions, is effectively mitigating much of the potential wildfire risk at FSGA, ensuring impacts remain no more than minor with regards to wildfires. The wildfires that do occur (simulated and historic) burn out quickly and the forest regenerates rapidly following the burn. The FSGA/HAAF Forestry Branch conducts more than 200 prescribed burns per year, treating one-third to one-half of the fuels on the installation annually and reducing fuel loads throughout much of the installation. This results in low probabilities of high intensity wildfire, and locations where high intensity wildfires were observed is mostly in locations where prescribed fire is not applied or is applied infrequently, such as the cantonment areas.

The simulation also showed wildfires were unlikely to spread off-Post due to the relatively small size of many of the wildfires, unless they are ignited near the installation boundary. The highest expected number of fires crossing the boundary was 0.325 fires per year, and the probability of a fire burning onto the installation from an off-Post location was much less likely, due to the lack of ignitions off-installation relative to on-installation. The highest expected fire frequency for fires crossing onto Fort Stewart was 0.9, roughly one fire every ten years. The highest risk areas found in the assessment were range infrastructure, mainly due to their location in areas with the highest likelihood of fire (the range and training lands); however, many of these buildings are within or near gravel and mowed lawns, which will not carry fire and unlikely to produce a fire considered threatening. In addition, the installation has a well-regulated system of firebreaks, which aid in minimizing the severity of wildfires, as they cannot easily jump from one location to the next.

In areas that cannot be prescribed burned, or are burned infrequently due to smoke impacts, such as cantonment areas, the Forestry Branch has developed the Cantonment Area Wildfire Protection Plan (CAWPP). It uses various strategies such as timber

thinning, mulching/mowing, harrowed firebreaks, and chemical treatments to maintain fuel (debris) at low levels, allowing potential wildfires to be quickly suppressed. Historical records from the WRA (2019) identified only one wildfire in the past 30 years that required full suppression efforts by the FSGA/HAAF Fire Department; a 3-acre wildfire fire on HAAF in 2021, started by children playing in the woods, which was successfully extinguished, and the area regenerated quickly. The incidents of wildfires on HAAF are reduced by maintaining a closed canopy hardwood forest. The closed canopy blocks sunlight from reaching the forest floor which allows the hardwood leaf litter to maintain a higher fuel moisture content. When this factor is combined with high RH values typically found in southeast Georgia and under closed canopy forests, the probability of a wildfire ignition on HAAF is substantially reduced.

Severe Weather. Severe Weather has the potential to contribute to short-term, direct, minor-to-moderate impacts to routine and ongoing activities on FSGA/HAAF. Impacts are short-term, lasting hours to days, depending on the weather event, but do not persist long-term. No mitigation is required or proposed; however, minimization measures are discussed below.

Severe weather encompasses a variety of meteorological events, but lightning, hurricanes, tornadoes, and winter weather result in the most adverse impacts to the mission on FSGA/HAAF. Examples of lightning strikes impacts include knocking out digital targetry on ranges, disrupting training events, and at wastewater lift stations, resulting in potential illicit discharges from the sanitary sewer system. The installation minimizes potential impacts associated with lightning by installing lightning protection/grounding systems and backup power generators, especially at locations with known specific hazards, such as ammunition supply points, ranges, hospitals, headquarters facilities, and potable water and wastewater facilities. The installation also maintains a good working relationship with its privatized utility system providers, ensuing disrupted utilities are quickly repaired and back in working order.

Hurricane season occurs between June and November, and the associated wind, storms, and tornadoes can adversely impact the installation mission in several ways. Hurricane evacuations on the installation are mandatory and accordingly impact the implementation of the training schedule. Also, hurricane force winds may result in substantial damage to property. For example, many of the hangars on HAAF are legacy construction and unable to withstand high winds; accordingly, most of the aircraft on HAAF must be flown inland to protect this valuable equipment. During Hurricane Matthew in 2016, more than 50% of HAAF's aircraft flown to military installations across the southeast. All non-essential personnel must be evacuated during a hurricane and are paid per diem for up to 10 days while evacuated, this adds up both in terms of money paid and personnel's duties not being performed during their evacuation. Minimizing adverse impacts includes replacing legacy hangars with new construction, providing a safer more storm-resilient infrastructure for these Army assets and the personnel who operate them. One new hangar is currently under construction, and several more are in the design phase, which

will result in long-term beneficial impacts once completed. The installation also ensures all hurricane preparedness plans are current and maintains a good working relationship with local emergency management organizations.

Hurricane and tornado watches and warnings are issued by the NWS-Charleston for FSGA/HAAF, and the surrounding areas. Tornado-strength winds adversely impact the installation mission by destroying property, uprooting trees, and hurling objects through the air like projectiles. A tornado that touched down on FSGA in February 2016 destroyed vehicles on the installation and displaced more than 50 Soldiers and Families from the installation's Family housing areas. Adverse impacts include disruption in power at installation ranges, utility systems, and family homes. Minimization measures include maintaining preparedness plans and a good relationship with utility system providers, ensuing disrupted utilities are quickly repaired and back in working order.

Due to its normally temperate environment/geographic location, the installation is not accustomed to freezing rain, snow, sleet, and ice and lacks the infrastructure to combat this type of extreme weather. Accordingly, winter weather can shut down or interrupt the training schedule on post, as Soldiers cannot negotiate dangerous road conditions or utilize frost-damaged targetry on post ranges. Winter weather can also impact transportation, including the ability for Soldiers, personnel, or their Families to travel safely, as persons in this region often do not have experience driving on icy roads, and the local communities do not have equipment to salt/sand their roads and render them safe for their citizens to travel on. Winter weather delays and closures can disrupt continuity of operations when access to transportation, schools, and childcare are limited both on-Installation and off-Installation. Road and facility closures can also limit access to food, medication and medical care, and other needed services. These occurrences of severe winter weather events do not last for long periods of time, often a few days to a week at a time; however, this has the potential to degrade mission capability and place Soldiers, Civilians, and Families at risk. Minimization measures include maintaining preparedness plans and a good relationship with utility system providers, ensuing disrupted utilities are quickly repaired and back in working order.

Flooding. Flooding has the potential to contribute to short-term, direct, moderate impacts to routine and ongoing activities on FSGA/HAAF. Impacts are short-term, lasting hours to days, depending on the weather event associated with the flooding, but do not persist long-term. No mitigation is required or proposed; however, minimization measures are discussed below.

In the Southeast, records indicate that extreme rainfall events are increasing at a historically high rate (e.g., the number of days with three or more inches of precipitation in the past 25 years), and are frequently associated with hurricane events, as precipitation that cannot percolate into the groundwater or be contained by the existing drainage systems results in flooding. Currently, 64.8% of FSGA and 44.1% of HAAF is inundated during the 100-year flood/hurricane events, and these inundation events are projected to increase, not decrease. Floodwaters can pose a significant life-safety and public health

risk, damage buildings and infrastructure, and spread pollutants and hazardous waste across the landscape during these flooding events.

Flooding negatively impacts ranges, training areas, and the roads and bridges that provide access to them, resulting in adverse impacts to the training mission. In addition, repeated flood events have the potential to damage existing vegetation, transport invasive plant species (further degrading training areas) and deteriorate the stormwater infrastructure. Floods can also re-route streams (significantly change their physical location), destabilize streambanks, move large amounts of sediments (which can also impact reservoirs and water supplies), cause erosion, and disrupt transportation access. In addition to posing safety concerns for motorists, ponding water may also provide a breeding ground for mosquitos and other disease vectors. Flooding in facilities responsible for the supply, distribution, and treatment of drinking water and for the pumping of wastewater can lead to power failure, triggering an adverse effect for the community and to water resources. Loss of power during storms can result in mandatory building closures in two hours or less, sewer backups or overflows in buildings due to inoperable lift stations, and immediate mandatory building closures as a result of unsanitary and unsafe working conditions, often regardless of building criticality (FSGA/HAAF, 2021).

The primary threat on FSGA/HAAF is riverine flooding, due to the extensive network of rivers and tributaries in the Study Area; however, coastal flooding is also a concern due to the low-lying elevation of the Study Area and its proximity to the Atlantic Ocean. Studies conducted by NOAA suggest that global sea level in the year 2100 may be at least 8 inches higher than current sea levels, with the potential to rise by up to 6.6 feet. Low-lying coastal areas, like Georgia's lower coastal plain, are at risk of more frequent closures of major highways due to tidal flooding, tidal backup of stormwater drainage systems and periodic saltwater flooding, as well as increased coastal erosion. While FSGA may not directly experience these impacts, coastal flooding will place the broader regional infrastructure systems upon which the installation relies at risk. The tide gate at HAAF was recently repaired (2022) but stakeholders noted that a permanent solution is required that raises the elevation of the gate. As sea level rises and coastal flooding increases, issues with the tide gate will persist. Stakeholders also noted flooding concerns at the Ammunition Supply Point (ASP) due to its proximity to the confluence of the Little Ogeechee River and Lamar Canal.

Minimization measures include ensuring proper maintenance of stormwater drainage structures and retention/detention ponds, thus ensuring a structured flow of flood waters away from critical portions of the installation; incorporating permeable pavement where suitable to improve stormwater management; diverting new construction outside of wetlands and the floodplain; and others as identified in the FSGA/HAAF IEWP. FSGA/HAAF has made identifying its Critical Facilities List a priority, ensuring they have adequate sources of power in the event of an emergency. The FSGA/HAAF IEWP also provides a roadmap for supporting increased energy resilience, readiness, and mission

assurance and has identified many measures under consideration include designing future facilities to withstand CC/EW conditions.

3.4.2.2.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as continuing to implement routine and ongoing activities identified in Section 2.2.1. The TLS for CC/EW impacts is not met under this alternative.

Heat. Heat has the potential to contribute to long-term, direct, minor-to-moderate impacts to actions proposed in the RCMP, Post Range Guide, and routine and ongoing activities. The installation will continue to promote safety measures when conducting outside activities, as discussed under Alternative I. These minimization measures are anticipated to ensure no more than moderate adverse impacts occur as a result of implementing activities proposed under the RCMP and Post Range Guide. The installation will implement the RCMP construction projects under this alternative, resulting in ground disturbance and tree clearing of no more than 65 acres. As applicable, this will include fire breaks, the application of the prescribed burn program, and other minimization measures shown to successfully reduce the amount of fuel available to result in wildfires. These measures also minimize the potential for wildfires to cross boundaries and spread. As discussed under Alternative I, the FSGA cantonment area is managed via the CAWPP to ensure minimization of potential impacts to adjacent communities (such as Hinesville). No prescribed burning is conducted at HAAF, but its canopy composition ensures low probabilities for wildfires at that location, as discussed earlier. The installation subject matter experts also provide valuable training to others on and off the installation regarding how to prevent wildfires and this is vital to reducing this potential hazard in the Study Area. Impacts associated with routine and ongoing activities are anticipated to be consistent with those discussed under Alternative I. All minimization measures are as identified under Alternative I and will ensure no more than minor adverse impacts in the Study Area. No mitigation is required or proposed.

Severe Weather. Severe Weather has the potential to contribute to short-term, direct, minor-to-moderate adverse impacts to actions proposed in the RCMP, Post Range Guide, and routine and ongoing activities. For the most part, impacts are anticipated to be the same as under Alternative I with regards to lightning, hurricanes, tornadoes, and winter weather. However, construction of the new range building would consolidate functions and personnel in a new modern building within the FSGA cantonment area and out of older, less sturdy buildings, resulting in long-term beneficial impacts. Impacts associated with routine and ongoing activities are anticipated to be consistent with those discussed under Alternative I. All minimization measures are as identified under Alternative I and will ensure no more than minor adverse impacts in the Study Area. No mitigation is required or proposed.

Flooding. Flooding has the potential to contribute to short-term, direct, moderate impacts to actions proposed in the RCMP, Post Range Guide, and routine and ongoing activities.

This alternative includes up to 65 acres of ground disturbance associated with RCMP construction. Excavation associated with construction will occur outside of wetlands and floodplains, and minimization measures include installing proper stormwater drainage structures and retention/detention ponds, ensuring existing systems are properly maintained and a structured flow of flood waters away from critical portions of the installation. The installation also incorporates permeable pavement where suitable to improve stormwater management, and others as identified in the IEWP. Impacts associated with routine and ongoing activities are anticipated to be consistent with those discussed under Alternative I. All minimization measures are as identified under Alternative I and will ensure no more than moderate adverse impacts in the Study Area. No mitigation is required or proposed.

3.4.2.3 CUMULATIVE IMPACTS

The CC/EW ROI consists of the Savannah Beaufort Air Quality Control Region, which contains both FSGA and HAAF. Past, present, and reasonably foreseeable future events with the potential to result in cumulative impacts to CC/EW are discussed in the analysis below. Army planners utilized current and projected climate impacts to weather events in 2050 and 2085 through the Army Climate Assessment Tool, and data sources included NOAA, National Integrated Drought Information System, Federal Emergency Management Agency (FEMA), U.S. Geological Survey (USGS), and the Fourth National Climate Assessment. The climate change impacts were analyzed in context of four scenarios, defined by a high or low emissions pathway and the time of indicator data. While drought was determined to be the dominant impact on FSGA/HAAF, all impacts are considered when considering planning for the future (Appendix F).

3.4.2.3.1 ALTERNATIVE I: NO ACTION

Past actions in the ROI consist of the historical development of the communities of Hinesville and FSGA, Savannah and HAAF, and the associated infrastructure and transportation network that supports them, all of which required substantial amounts of earth-moving and fill materials to be properly established. This included periodic iterations of timber harvest, site clearing/grading/stabilization, and construction, as well as the operations and activities that accompanied this development. Present actions in the ROI are commensurate with these past actions, as discussed under the assessment of direct and indirect impacts. Proposed future actions in the ROI include routine and ongoing activities, as well as approximately 180 acres of ground disturbance associated with new and expanded borrow pits, potential Army modernization actions, and Town Center District construction, demolition, and renovation activities.

The ICR Plan projections indicate that the FSGA/HAAF ROI will continue to experience warming temperatures throughout the year. Installation personnel will continue to work these advisories into daily activities and work plans; however, warmer summers may increase the frequency of heat-related training impacts and can adversely impact hangar

facilities and asphalt surfaces. Minimization measures, as previously discussed, will be enacted to combat rising temperatures during implementation of future actions in the ROI.

Tybee Island, Georgia is 20 miles east of HAAF and offers insight into the region's sea level concerns and associated flooding in the ROI. In 2016, Tybee Island adopted its Sea-Level Rise Adaptation Plan in response to increasing impacts and continued threats of sea level rise and resulting coastal flooding. Funded by NOAA, the plan is a collaboration between city government, researchers, and community stakeholders. The plan assessed both risks and potential actions to improve resilience. Recommended adaptation strategies included modifying portions of U.S. Highway 80, elevating and floodproofing well pump house facilities, and retrofitting stormwater systems. The process of planning for adaptation also created economic benefits by improving Tybee Island's Community Rating System under FEMA, from a class 7 to a class 5, which in turn saved property owners $3 million in flood insurance. Savannah, Georgia, just a few miles north of HAAF, is experiencing sea level rise faster than other coastal cities.

Sea levels at Fort Pulaski, located just outside of the City of Savannah and HAAF, have risen over nine inches since 1935 (MEGSG, 2022) and scientists expect coastal Georgia to experience at least six inches of sea level rise within the next 50 years as a result of the changing climate. Much of Georgia's shoreline lies just a few feet above sea level, putting barrier islands and coastal communities, such as Savannah and HAAF, at risk for more frequent flooding, intensified storm surges, and saltwater intrusion into low-lying areas. University of Georgia MEGSG are responding to this long-term hazard by working with coastal governments such as those in the ROI to assess their communities' vulnerabilities, assist long-term planning efforts and offer training based on the latest science. FSGA/HAAF actively participates in the metropolitan planning organizations in the ROI and provides input into these planning efforts, and energy resilience is considered when planning and developing infrastructure projects on the installation. Accordingly, CC/EW is anticipated to contribute to moderate adverse cumulative impacts on FSGA/HAAF under this alternative.

3.4.2.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Past, present, and future actions in the ROI are as discussed under Alternative I, except this alternative will include implementation of the BPMP. This will result in approximately 65 acres of additional tree clearance and ground disturbance, but it is not anticipated to result in a substantial difference in cumulative impacts associated with CC/EW in the ROI, as this is not a significant reduction in a forest of 280,000 total acres, even combined with the reduction anticipated from actions anticipated in the ROI (75 acres), totaling less than 1% of vegetation reduction in the ROI.

The installation will continue to work toward implementing its proposed resilience measures as identified in the FSGA/HAAF IEWP. Measures under consideration include designing future facilities to withstand extreme weather conditions such as hurricanes or tornadoes; installing lightning protection systems to protect against surge or other

damage at many locations on the installation; utilizing low impact development (LID) strategies for roadways and buildings to channel stormwater; installing electric vehicle charging stations to comply with DoD requirements; utilizing utility and cybersecurity redundancy in mission critical facilities (where possible) to mitigate for surges and losses in storm situations; enhancing natural gas regeneration and water reuse systems to withstand utility outages; and protecting mission activities and wildlife by having a robust fence line. Accordingly, CC/EW is anticipated to contribute to moderate adverse cumulative impacts on FSGA/HAAF under this alternative.

3.4.3 BIOLOGICAL RESOURCES

3.4.3.1 AFFECTED ENVIRONMENT

Biological resources include native and nonnative plants and animals and the habitats in which they occur. Habitat is defined as the area of environment where the resources and conditions are present that cause or allow a plant or animal to live there. Management of wildlife and wildlife habitat is conducted in accordance with the provisions of the FSGA/HAAF INRMP (FSGA, 2005; update in progress), providing a comprehensive overview of the status of biological resources throughout the installation. For purposes of this PEA, discussions of resources that would be affected by implementation of the proposed action at FSGA are provided below. The USFWS, provides technical advice to the installation for the management of its natural resources, particularly endangered species, in accordance with Army Regulation (AR) 200-3 and the Sikes Act, and the USFWS is a signatory cooperator in the implementation of the FSGA/HAAF INRMP. The GA Department of Natural Resources (DNR)-Wildlife Resources Division is the primary support division within DNR for implementation of the FSGA INRMP.

Note: Unless otherwise indicated, information in this section is taken from the FSGA/HAAF INRMP, Urban Tree Management Policy and Urban Tree Management Guide (FSGA/HAAF, 2018a, 2018b), and/or the FSGA/HAAF IPMP.

3.4.3.1.1 PROTECTED SPECIES

Protected species include those that are federally listed, or proposed for listing, as threatened or endangered under the Endangered Species Act (ESA, 16 USC Part 1531-1544) by the USFWS. Management and protection of listed species is given priority in natural resource management. In cases where endangered species management, in accordance with the appropriate guidance, would conflict with other mission and training activities, consultation with the USFWS is initiated to avoid jeopardizing any listed species or its critical habitat.

There are nine federally listed species known to historically occur in the Study Area of FSGA and HAAF (Table 5); the wood stork, red-cockaded woodpecker (RCW), eastern indigo snake, frosted flatwoods salamander, shortnose sturgeon, Atlantic sturgeon, bald eagle, west Indian manatee, and smooth coneflower. The installation has prepared Endangered Species Management Plans (ESMPs) for these species, which are reviewed

by the USFWS and the National Marine Fisheries Service (NMFS) and FSGA/HAAF consults for potential impacts to these species on the installation. See Appendix F for full discussion of these species.

Table 5: Protected Species on Fort Stewart, Georgia.

Species	Common Name	Federal Status	State (GA) Status
Birds			
Mycteria americana	Wood Stork	Threatened (T)	T
Dryobates borealis	Red-cockaded Woodpecker	T	Endangered (E)
Haliaeetus leucocephalus	Bald Eagle	Protected (P)	P
Reptiles			
Drymarchon couperi	Eastern Indigo Snake	T	T
Laterallus jamaicensis	Eastern Black Rail	T	T
Amphibian			
Ambystoma cingulatum	Frosted Flatwoods Salamander	T	T
Fish			
Acipenser brevirostrum	Shortnose Sturgeon	E	E
Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	E	E
Plant			
Echinacea laevigata	Smooth Coneflower	T	T
Mammal			
Trichechus manatus	West Indian Manatee	T	T

3.4.3.1.2 WILDLIFE AND MIGRATORY BIRDS

FSGA/HAAF supports at least 410 invertebrate, fish, and wildlife species. This includes white-tailed deer (Odocoileus virginianus), feral hog (Sus scrofa), fox (Vulpes and Urocyon spp.), bobcat (Lynx rufus), rabbit (Sylvilagus spp.), squirrel (Sciurus spp.), and other small mammals, in addition to a diverse assemblage of game birds such as eastern wild turkey (Meleagris gallopavo silvestris) and northern bobwhite quail (Colinus virginianus). Hunting and fishing are permitted on the installation, in accordance with FSGA Regulation 420-4, Hunting Fishing and Recreational Use, and fishing is authorized all year round. There are also approximately 170 species of birds protected under the Migratory Bird Treaty Act (MBTA) (1918) that are known to occur on the installation, either seasonally or year-round, and the installation complies with the MBTA by implementing Army Policy Guidance (17 August 2001) and EO 13186 (2001), *Responsibilities of Federal Agencies to Protect Migratory Birds*.

For wildlife species that cross the threshold into pest complaints, FSGA/HAAF has an IPMP in place to address these issues of concern (FSGA, 2019a). Most pest management activities involve areas in and around the cantonment area; however, pest management services are also provided to semi-improved and unimproved grounds on-Post, when requested, and in the case of nuisance species, such as wildlife, promotes the focus on surveillance, physical barriers, and more efficient operations to reduce reliance on conventional pesticides, reflecting current DoD/Army policies, procedures, and standards. These services do not occur on a regular basis and are generally unpredictable, depending upon mission activities at that location and changing conditions due to flooding, fire, insects, and other variables. These services, when required, are implemented in accordance with the FSGA/HAAF INRMP. The DNR-Coastal Resources Division (DNR-CRD) assist in the trapping and relocating of nuisance alligators, through a specified State-licensed trapper.

3.4.3.1.3 VEGETATION

FSGA/HAAF is located in the Atlantic Coastal Plain of southeastern Georgia. Its topography is at nearly sea level in the eastern portion of the installation, rising to approximately 183 feet along its western border, with most of the land less than 33 feet above sea level and with slopes less than 3 percent. These relatively small changes in elevation have defined the vegetation on FSGA, with wetlands and hardwood bottoms in the lower areas and upland pines and scattered hardwoods at the higher elevations. Vegetation includes mixed upland forests with a canopy dominated by loblolly pine, slash pine, water oak, pignut hickory, sweet-gum, southern magnolia, and black-gum. These forests are characterized by a sub-canopy, scrub-shrub, and herbaceous layer of sand laurel oak, water oak, sweet-gum, southern magnolia, cabbage palmetto, American holly, highbush blueberry, wax myrtle, muscadine, and bracken fern. Fort Stewart contains about 270,000 acres of forested lands and approximately 9,100 acres of developed lands, including the cantonment area. Hunter Army Airfield contains approximately 3,000 acres of forested lands and 2,000 acres of developed lands, including the cantonment area.

The Forest Management Plan for FSGA/HAAF establishes policies, objectives, guidelines, responsibility, resources, and timelines for the scientific management of forest resources to both enhance military training opportunities and ensure its compatibility with conservation objectives. The plan also has as its general goal providing an Army training environment that is compatible with conservation and utilization of standing timber. Forested areas are actively managed for timber production and forest management activities. Forest management activities consist primarily of timber thinning conducted in support of Army projects (including construction) or for control of southern pine beetle infestations/disease, the removal of which is coordinated through the IPMP.

Forests on-Post have issues with insects and diseases common to forests of the southeastern U.S. Annual losses to forest resources from insects and disease exceed those from wildfires. Brown spot needle blight particularly affects longleaf pine seedlings, and fusiform rust affects slash and loblolly pines. Brown spot needle blight infects longleaf seedlings, with all or partial denuding of needles, which can kill seedlings or keep them in the grass stage for years. Fusiform rust causes stem swellings in which a canker forms with a sunken area of rotten wood surrounded by a callus. This increases the chances of damage due to winds. This latter disease is especially prevalent in pine plantations. Longleaf pine, in general, is less susceptible to diseases and pests than are loblolly or slash pine. Loblolly pine is more susceptible to southern pine beetle than are slash or longleaf. As the installation approaches its objectives with regard to conversion of its upland forest to longleaf pine, there should be few southern pine beetle problems. Also, fusiform rust disease should decrease as thinning occurs in the forest.

The majority of FSGA/HAAF is forested, undeveloped, and consists of range and training lands; however, the southcentral portion of Fort Stewart and the central portion of Hunter Army Airfield is developed and unforested and consists of the cantonment area, including barracks, company operations facilities, installation support facilities, the Army Family Housing Areas, and numerous recreation facilities and resources. All developed areas maintain a good deal of vegetation and ground cover, and the installation ensures trees are removed only as needed and as required due to either disease or project-specific requirements.

All lands actively utilized for training purposes are actively managed via cooperative efforts between the FSGA/HAAF Forestry Branch and the FSGA/HAAF ITAM program, an Army-wide program that provides quality training environments to support the Army's military mission. Land Rehabilitation and Management (LRAM) is intended to involve repair of damaged lands and use of land construction technology to avoid future damage to training lands. It also uses technologies such as revegetation and erosion control techniques to prevent site degradation, soil erosion, and water/wetlands pollution. These efforts are specifically designed to maintain quality military training lands, minimize long-term costs associated with land rehabilitation or additional land purchase, ensure compliance with environmental laws and regulations, and reduce erosion associated with military training.

Timber Harvest. The FSGA/HAAF supports one of the largest forest resources programs in the DoD. In accordance with AR 405-90, para 6-7(e), installation commanders are delegated the authority to sell timber with an estimated value under $1,000, with all remaining timber sales coordinated and conducted by the United States Army Corps of Engineers (USACE). The primary purpose of the installation's forest program is to support the Army's training mission by sustaining the ecosystem through prescribed burning, timber thinning, and longleaf pine regeneration. Most timber harvesting consists of selective cutting (thinning), emphasizing retention of high-quality pines between 50 and 60 square feet of basal area per acre. Clear cutting is limited to clearing land for construction, wildland fire salvage operations, bark beetle salvage and suppression operations, or re-establishment of longleaf pine. The majority of timber harvested, is pine with hardwood, making up only a small and low-value component of timber sales. Pine timber products produced include poles, saw timber, and pulpwood. Aboveground portions of trees can also be chipped for use at the installation' CEP (INRMP, 2005; update in progress). The BMPs are included within Corps of Engineers contracts for forest harvest on-Post and include recommendations for streamside management zones, stream crossings, access roads, timber harvest, site preparation, reforestation, prescribed burning, wildfire suppression, chemical treatments, and forested wetland management.

Vegetation management efforts on HAAF are conducted under the provisions of the FSGA/HAAF Urban Tree Management Policy (2018a) and FSGA/HAAF Urban Tree Management Guide (2018b), both of which serve as planning tools and guides on the installation and require that Forestry be consulted prior to any tree removal or tree planting effort on HAAF. This coordination is to ensure optimal planting success as well as to ensure correct species and spacing for trees planted on the installation. These plans also provide useful definitions and guidance related to tree maintenance/management on the installation as a whole. Vegetation management efforts are assisted through implementation of the installation's IPMP on both its improved and unimproved grounds, as well as on some lands considered semi-improved.

Improved grounds include acreage on which intensive maintenance activities are planned and performed annually as a fixed requirement, such as the cantonment area. These "management" activities include mowing, irrigation, dust and erosion control, maintenance of drainage systems, landscaping, and other intensive practices. Semi-improved grounds include areas on which periodic maintenance is performed, but to a lesser extent than on improved grounds, and include ammunition storage areas, airfields, and heliports. Unimproved grounds include all acreages not classified in the two previous categories, such as the range and training lands. As previously discussed, pest management activities on unimproved grounds are an irregular requirement, depending upon mission activities and changing conditions at a specific location, but can be provided upon request. Collectively, this multi-component environmental management approach ensures the biological resources on the installation are effectively and efficiently managed to sustain both the mission and the environment.

Prescribed Burns. Prescribed burning is critical to management of the forest ecosystem on FSGA for several reasons. First, it promotes the growth of longleaf pine, which is a "fire climax" species that requires burning. Burning also reduces fuel loads, which helps to prevent wildfires, and it also creates more ideal conditions for military training by opening the forest understory. Finally, fire is very important to the maintenance of quality wildlife habitat, especially habitat used by the RCW and other wildlife species. Management for the RCW requires the conversion of upland forest to a longleaf pine-wiregrass ecosystem that can be maintained. This requires regular burning during the March-September growing season, maintenance of a basal area in the 50-80 range, and control of hardwood understory. The installation uses a three-year growing season burn cycle, as per Army Guidelines. However, there are also needs for winter burns, specifically in areas where growing season burns would significantly damage quality timber and threaten RCW management. Such areas are winter burned until fuels have been reduced to a level where growing season burns will not excessively damage resources. Burns are accomplished using a helicopter and aerial ignition devices (ping-pong balls with chemical mixtures.). Some hand ignition is often required, and the process is one of close air-ground coordination. Care is exercised to prevent too much fire from being set too fast, to enable control and conditions which do not unduly harm young or mature pines. The installation does not conduct prescribed burns on REPI lands.

As discussed earlier in this PEA, the FSGA Forestry Branch utilizes firebreaks, early detection, and fuel reduction to minimize wildfires. The firebreak system primarily parallels public roads and encompasses ranges, where fires often start. Most firebreaks are 6-8 feet wide, but in some cases, they are double wide, particularly along installation boundaries. Firebreaks paralleling public roads are generally about 100 yards from roads and act to keep smoke from obscuring driver vision during prescribed burning operations. In many cases tank trails along highways act as firebreaks. Reported fires are responded to in various ways from immediate suppression to allowing fires to burn out. As discussed earlier, Soldiers often put out small fires without Forestry assistance and after reporting the fires to Range Division.

3.4.3.2 ENVIRONMENTAL CONSEQUENCES

The TLS for Biological Resources would occur if the proposed action would (a) result in an unpermitted take of a federally protected species (e.g., under the ESA, MBTA, other), (b) result in local extirpation of a sensitive non-federally listed species, (c) result in a substantial detrimental effect on the amount or diversity of common native wildlife or plant communities, or (d) have a high probability of increasing the spread of nonnative or invasive species.

3.4.3.2.1 ALTERNATIVE I: NO ACTION

Under this alternative, the installation will continue to implement routine and ongoing installation activities, as previously defined in Section 2.2.1. The TLS for Biological Resources is not met under this alternative.

Protected Species. Routine and ongoing actions on the installation have the potential for long-term, direct, negligible, adverse impacts to Protected Species. Each of the identified species are managed in accordance with their species-specific ESMP, a component of the installation's INRMP, and no changes are proposed to the ESMP for any of these species are anticipated as a result of routine and ongoing actions on post, as all actions are conducted in compliance with federal, state, and local laws and regulations and include adherence to the ESA, ensuring no more than negligible adverse impacts to protected species at those locations. Impacts are anticipated to be long-term, as these are recurring events in these locations. All actions are conducted by personnel who are familiar with these requirements to ensure compliance with all applicable guidance. The FSGA/HAAF biologists conduct routine surveys for these species in accordance with the installation INRMP and manage accordingly based on the results of those surveys and federal and state laws and regulations. No mitigation is required or proposed.

Wildlife and Migratory Birds. Routine and ongoing actions have the potential for short-term, indirect, negligible adverse impacts to wildlife and migratory birds. Impacts are anticipated to be negligible and short-term, as these species will naturally flush from an area where activities are occurring, such as facility repair and maintenance and training, and then return once activities cease. These species are unlikely to be more than adversely impacted to more than an intermittent and negligible degree. No mitigation is required or proposed.

Vegetation. No impacts are anticipated to vegetation as a result of routine and ongoing actions. No excavation, tree clearance, or other associated actions are required for these actions, all of which are conducted in accordance with installation policies, procedures, and plans, and in compliance with federal and state laws and regulations and is conducted by the DPW and/or their contractors. No substantial increase in impervious surfaces is anticipated due to these routine operations, or due to routine repairs and maintenance acidities on-Post. No mitigation is required or proposed.

Prescribed Burns. No impacts are anticipated to the prescribed burn program, which is well integrated into the routine operations on the installation.

3.4.3.2.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as continuing to implement routine and ongoing activities identified in Section 2.2.1. The TLS for Biological Resources is not met under this alternative.

Protected Species. Activities proposed under the RCMP and Post Range Guide are anticipated to result in long-term, direct, minor, adverse impacts to protected species. Actions associated with the MPMGR and Range Building will occur within areas that are previously disturbed, and the AMPTR will be constructed mostly within an existing range footprint, although some target placement may be located outside of the existing range footprint in order to achieve proper distances. Only the CLFR will be constructed in an area not already disturbed by prior construction. The FSGA Fish & Wildlife Branch will complete a Biological Assessment (BA) for development of the CLFR and submit it to the USFWS for their review, comments, and approval process, and issuance of a Biological Opinion (BO) for this action. A full assessment of impacts cannot be determined prior to the completion of the BA/BO, but is anticipated to be long-term, direct, negligible-to-minor, and adverse. A BA/BO is not required for the other construction proposed under this alternative. Impacts associated with routing and ongoing activities are as discussed under Alternative I. No impacts to protected species are anticipated from actions identified in the Post Range Guice, and no impacts are anticipated on HAAF, as no construction is proposed at that location. No mitigation is required or proposed for the MPMGR, Range Building, or AMPTR; mitigation requirements for the CLFR will be identified in the BA/BO once the project is funded and designed.

Wildlife and Migratory Birds. Activities proposed under the RCMP and Post Range Guide are anticipated to contribute to short-term, indirect, negligible, adverse impacts to Wildlife and Migratory Birds. Impacts are primarily anticipated to be short term and indirect, as these species typically flush away from a disturbance in its initial phase, are rarely directly impacted by the machinery and equipment utilized in these activities and return to their place of original once activities cease. However, some long-term and direct impacts may also occur due to timber removal to facilitate construction, as that vegetation will not be replanted and available to these species once activity on-site stops. This will displace the wildlife and migratory birds, but sufficient habitat remains on FSGA and HAAF to ensure this remains at a minor adverse level and does not rise to a level of significance. No impacts to wildlife and migratory birds are anticipated due to ongoing, routine operations, maintenance, and repairs, as these typically occur in previously disturbed/established open areas, where these species are not typically present, or, if present, are there on a temporary basis. In addition, these actions are conducted in accordance with installation policies, procedures, and plans (to include the INRMP and IPMP) and in compliance with federal and state laws and regulations that minimize potential impacts to these species. No impacts to protected species are anticipated from actions identified in the Post Range Guice, and no impacts are anticipated on HAAF, as no construction is proposed at that location. No mitigation is required or proposed.

Vegetation. Activities proposed under the RCMP and Post Range Guide are anticipated to result in long-term, direct, minor, adverse impacts to Vegetation. If the construction identified in the RCMP is funded, Forestry will evaluate each project site on a case-by-case basis to determine if there is a potential for a merchantable timber harvest at those locations. New ranges, such as the CLFR, and associated surface danger zones may

require the installation of new firebreaks around the perimeter of range openings for wildfire suppression/prescribed burn operation efforts. These areas will need to be added to the annual dormant season prescribed burn list to reduce the risk of wildfires. All tree removal will be conducted by the FSGA/HAAF Forestry Branch, if there is sufficient acreage for a merchantable timber harvest, and all work will be conducted in accordance with Timber Harvest BMPs, the Erosion and Sedimentation Control Act (ESCA), and other applicable laws and regulations (see Section 3.4.5, Water Quality, for full process). Impacts associated with routing and ongoing activities are as discussed under Alternative I. Impacts are anticipated to be long-term, direct, negligible-to-minor, and adverse. No impacts to protected species are anticipated from actions identified in the Post Range Guide, and no impacts are anticipated on HAAF, as no construction is proposed at that location. No mitigation is required or proposed.

Prescribed Burns. Forestry recommends that targets, infrastructure, and any training aids on new live fire ranges be constructed of fireproof materials whenever possible. New live fire ranges located in areas that do not already contain metal contaminated timber will result in the higher likelihood of more timber in the SDZs being contaminated with metal from live fire exercises. Metal contaminated timber may be difficult or impossible to harvest in the future, if needed. Live fire operations will increase the potential for mortality in timber in the SDZs. All new construction will be integrated into the prescribed burn program, and their new footprints will aid in the compartmentalization of the areas in which they are located, creating additional firebreaks over which wildfires have difficulty crossing, and resulting in overall long-term beneficial impacts for the burn program. There are no anticipated impacts to this program as a result of standard daily operations, as discussed under Alternative I. No impacts are anticipated on HAAF, as no prescribed burning occurs on HAAF. No mitigation is required or proposed.

3.4.3.3 CUMULTATIVE IMPACTS

The ROI for Biological Resources lies within and immediately adjacent to the physical boundaries of FSGA and HAAF. Protected species, wildlife, and especially migratory birds can cross over the installation boundary and onto non-installation lands, and vegetation is not limited by the installation boundary either. However, the installation only manages these resources within the installation boundaries and impacts within and immediately adjacent to the boundary are therefore analyzed for cumulative impacts. Past, present, and reasonably foreseeable future actions with the potential to result in cumulative impacts to Biological Resources are discussed in the section below.

3.4.3.3.1 ALTERNATIVE I: NO ACTION

Past actions in the ROI consist of the historical development of the communities of Hinesville and FSGA, Savannah and HAAF, and the associated infrastructure and transportation network that supports them, all of which required substantial amounts of earth-moving and fill materials to be properly established. Over time, less and less land remained for these protected species, wildlife, and migratory birds to utilize as habitat,

and more vegetated land was transformed into development. Interruptions in the natural cycle of fire also occurred, all of which resulted in minor adverse cumulative impacts to Biological Resources in the ROI. Site stabilization measures, to include grass and tree planting, were implemented as part of the development process, minimizing some of the potential adverse impacts. Present actions in the ROI are commensurate with these past actions and include routine and ongoing activities, as discussed under the assessment of direct and indirect impacts. Present actions on FSGA/HAAF implement minimization measures, to include BMPs and prescribed burns, to ensure protected species, wildlife, migratory birds, and vegetation are impacted to as little a degree as possible, as previously discussed.

Reasonably foreseeable future actions in the ROI include 150 acres of tree removal and ground disturbance associated with the excavation of new and borrow pits in the range and training lands on FSGA and HAAF. This will be a long-term cumulative adverse impact to vegetation, as these trees will not be replanted, but only a short-term adverse cumulative impact to protected species, wildlife, and migratory, as any of these species that leave the location due to disturbance will return upon cessation of the activity. This work is also spread out across an approximately 10–15-year period, minimizing adverse impacts to at most minor. An increase in training-related activities on the FSGA and HAAF range and training lands is anticipated if any of the AMS actions are fielded to this ROI, to ensure the units' mission essential training requirements are met. However, installation trainers are familiar with local, state, and federal requirements and all Soldiers receive briefings on what is/is not permitted prior to beginning each training event, ensuring minimization measures and BMPs are employed. Overall minor adverse cumulative impacts are anticipated to Biological Resources in the ROI.

3.4.3.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Past, present, and future actions in the ROI are as discussed under Alternative I; however, under this alternative approximately 65 acres of additional tree clearance and ground disturbance is anticipated to account for the construction proposed in the RCMP. This is not anticipated to result in a substantial difference in cumulative impacts, as an additional 65 acres associated with the RCMP construction is not a significant reduction from the overall 210,000 acres of forest on FSGA. As previously discussed, personnel who work on the installation, and in the adjacent communities, are familiar with minimization measures and BMPs. Overall, minor adverse cumulative impacts are anticipated to Biological Resources.

3.4.4 CULTURAL RESOURCES MANAGEMENT

3.4.4.1 AFFECTED ENVIRONMENT

Note: unless otherwise indicated, information in this section is taken from the FSGA/HAAF ICRMP (FSGA/HAAF, 2023).

Cultural resources consist of prehistoric and historic districts, sites, structures, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. Cultural resources are divided into three major categories: archaeological resources (prehistoric and historic), architectural resources, and areas of Tribal interest. Historic districts may fall within all three of the categories, depending upon what they contain. *Note: due to site sensitivity, minimal figures are provided in this section of the PEA.*

The FSGA/HAAF ICRMP incorporates federal and Army cultural resources laws and regulations into an internal document outlining how Fort Stewart manages its cultural resources. Utilizing this guidance, the Installation and the GA State Historic Preservation Office (SHPO) has utilized a Programmatic Agreement (PA) that provides the installation with a flexible tool to manage its cultural resources, meeting the requirements of cultural resource review of undertakings with no effect or no adverse effect without waiting for the standard 30-day response from the SHPO on each installation action. In short, the PA is the Cultural Resource program's regulatory backbone, guiding and streamlining the program's compliance with the National Historic Preservation Act (NHPA), while providing a timely, effective method of managing the installation's cultural resources. Currently, the installation is revising its PA and operating under the standard Section 106 NHPA review process.

Under the NHPA, as amended, only historic properties warrant consideration of impacts from a proposed action and any associated proposed mitigation, and are defined by the NHPA as any districts, sites, buildings, structures, or objects included on or eligible for inclusion on the NRHP. To be considered significant, archaeological or architectural resources must meet one or more specific NHPA criteria, which include: association with events that have made a significant contribution to the broad patterns of history; association with the lives of persons significant to our past; embody a distinctive characteristic of a type, period, or method of construction; or that have yielded or may be likely to yield information important to history or prehistory.

In addition to consideration of impacts to historic properties in accordance with the NHPA, other cultural resource considerations are also considered and discussed in this PEA. These include, but are not limited to: impacts to Sacred Sites (i.e. properties or landscapes deemed sacred to the expression of religion by Native American Tribes); impacts to Native American burials and associated cultural items in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA, 25 U.S.C. Part 3001 et seq.); impacts to archaeological resources that are at least 100 years old and are of archaeological interest in accordance with the Archaeological Resources Protection Act (ARPA); and historical, scientific, or paleontological resources in accordance with the Archaeological and Historic Preservation Act (AHPA) and Archaeological Data Preservation Act. There are three known Native American burial mounds on the installation, and these are considered Sacred Sites, as well as historic properties.

Approximately 99% of the range and training lands have either been inventoried for archaeological resources or have been exempted from archaeological inventory due to safety concerns such as the elevated potential to encounter UXO. Generally, inventories within areas containing known UXO have concluded there are none-to-minimal cultural resource concerns, as continued weapons-firing (and associated UXO deposition) has rendered these areas too dangerous to conduct archaeological investigations and are generally considered ineligible for the NRHP due to the lack of the site's potential to provide historical or scientific data in a safe manner. The buildings and structures on the cantonment areas have likewise been extensively surveyed for their eligibility for the NRHP and all buildings and structures are re-inventoried as they approach 50 years of age. There are 64 known cemeteries on FSGA and HAAF and the Army proactively manages these historic sites on its lands. This includes prohibiting any ground disturbance or training within 200 feet of known/marked cemeteries. Over the course of each fiscal year, Cultural Resources Management (CRM) personnel establish a program for monitoring at least 80% of all cemeteries to inspect for vandalism, or general disturbance, in addition to conducting sign and paint maintenance at these sites each Fiscal Year.

As part of the ICRMP, CRM manages its day-to-day operations and long-term planning through the development of individual Cultural Resource Action Plans. These plans are revised and updated on a five-year cycle in a manner consistent with the installation's ICRMP and INRMP. Each plan outlines the current survey status, location and nature of cultural resources, and the activities that remain to be carried out by CRM staff within each area assessed. An action is subject to CRM review if it has the potential to impact historic properties, and this review of undertakings on the installation is accomplished in accordance with the installation's NEPA project review process.

3.4.4.2 ENVIRONMENTAL CONSEQUENCES

The TLS for Cultural Resources would occur if the proposed action would (a) result in NHPA-defined adverse effects, as defined by the NHPA, on a historic property listed or eligible for listing on the NRHP that are not resolved through a Memorandum of Agreement with the SHPO, and possibly with the ACHP, (b) create conditions that would stop the traditional use of sacred or ceremonial sites or resources by a Tribe or Tribes without discussions on a government-to-government level with the affected Tribe(s).

3.4.4.2.1 ALTERNATIVE I: NO ACTION

Under this alternative, the installation will continue to implement routine and ongoing installation activities, as previously defined in Section 2.2.1. The TLS for Cultural Resources is not met under this alternative.

Routine and ongoing actions on the installation have the potential for long-term, direct, negligible-to-minor, adverse impacts to Cultural Resources. Impacts are anticipated to be negligible-to-minor because the Environmental Division's internal analysis, monitoring, and inspections process for these routine actions has proven historically effective in

minimizing potential adverse impacts from current routine and ongoing activities. Impacts are anticipated to be long term and direct, as it is not a simple process to remedy an impact to a historic property once it has occurred, if it can be remedied at all. In some instances, ground disturbance within the cantonment area qualifies as an exclusion for archaeological inventory, as the cantonment is viewed as a previously disturbed area. Accordingly, with the exception of an accidental/inadvertent archaeological discovery, no impacts to archaeological resources that are eligible for listing on the NRHP are anticipated within the cantonment areas. However, all archaeological sites, regardless of their location, are protected from unauthorized disturbance, in accordance with ARPA.

In support of ARPA, CRM implements a monitoring program with emphasis on its eligible/potentially eligible archaeological sites. Reports of site damage are submitted to the Installation's Law Enforcement Division, DPW Environmental Division, and the GA SHPO. A report of the monitoring program is submitted to the GA SHPO and Tribes, as appropriate. When an archaeological site or historic property protected under NHPA, ARPA, NAGPRA or other applicable federal or state regulations has been disturbed or damaged as a result of noncompliance with the installation environmental review process, CRM follows procedures outlined in the ICRMP. For example, if potential historic properties/resources are encountered during projects on FSGA or HAAF, all work stops and the installation CRM POC is contacted to ensure these resources are protected while decisions are made regarding next necessary steps, to include consultation and coordination requirements with the regulatory community. If protection cannot be afforded because of mission essential requirements, such as those associated with training on range and training lands, then other treatments are devised to mitigate potential adverse impacts.

Depending on the frequency of an area's use, physical barriers may be installed around a resource, such as fencing around cemeteries and painting physical boundaries on trees forming the boundary of protected sites, as is the current protocol prior to ground disturbing activities in the proximity of sensitive CRM sites. However, not all sites are marked due to the potential for intentional looting, and installation personnel determine where high risk exists based upon installation activities and/or other mission requirements. The CRM coordinates with other on-Post Divisions and Directorates in protecting eligible sites through reviewing installation plans and work orders, reviewing installation training activities, and instructing unit Environmental Compliance Officer's on identifying and avoiding these sites.

The FSGA/HAAF ITAM/LRAM office also conducts routine inspections of range and training lands. Archaeological sites that have been determined eligible or potentially eligible for inclusion in the NRHP and that are located in an area with a high risk of unintentional damage caused by training or construction are marked minimally by the use of teal-colored boundary paint. When appropriate, additional markings are utilized such as orange reflective tape, Seibert stakes, and signage. CRM works to ensure these sites are undisturbed and that no remedial activities or follow up work is required. Collectively,

these measures ensure there are no more than negligible-to-minor adverse impacts to cultural resources on the installation. No mitigation is required or proposed.

3.4.4.2.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as continuing to implement routine and ongoing activities identified in Section 2.2.1. The TLS for Cultural Resources is not met under this alternative.

Excavation associated with the RCMP construction is anticipated to result in long-term, direct, minor-to-moderate, adverse impacts to cultural resources. New ground disturbance is not authorized prior to taking additional measures, such as additional survey, monitoring, etc. The FSGA/HAAF Cultural Resources Program will consult with the GA SHPO and Federally Recognized Indian Tribes to ensure all NHPA/other requirements are complete and the results of all consultation are considered during the development of each proposed action and its implementation, to include minimization and mitigation measures. The CRM will coordinate with the project POC, ensuring potential impacts are anticipated early and ensuring there is ample time to conduct required actions, to include additional surveys, consultation, and, if required, mitigation. Through this process, CRM will ensure eligible and potentially eligible cultural resources are not damaged or demolished prior to implementation of the proper NHPA Section 106 procedures, minimizing the potential for adverse impacts beyond minor-to-moderate impacts. No impacts are anticipated from actions identified in the Post Range Guide. No mitigation is proposed at this time; however, as each construction project in the RCMP is funded and designed, FSGA/HAAF CRM will review the designs via the installation NEPA process and conduct required consultations to determine what minimization and mitigation measures are required, if any, at that time.

3.4.4.3 CUMULATIVE IMPACTS

The ROI for Cultural Resources lies within the boundaries of FSGA and HAAF, as no actions on/within the City of Hinesville, City of Savannah, or the surrounding communities were deemed sufficiently proximate in time or location to the proposed action to result in potential cumulative impacts to cultural resources. Past, present, and reasonably foreseeable future events with the potential to result in cumulative impacts are considered in the analysis below.

3.4.4.3.1 ALTERNATIVE I: NO ACTION

Past actions in the ROI consist of the historical development of the communities of Hinesville and FSGA, Savannah and HAAF, and the associated infrastructure and transportation network that supports them, all of which required substantial amounts of earth-moving and fill materials to be properly established, and a great deal of which occurred prior to the institution of cultural resources laws and regulations. Accordingly, it is possible that cultural resources were lost, damaged, and/or destroyed during this time, resulting in potential adverse cumulative impacts to cultural resources. Present actions

in the ROI include routine and ongoing activities, as discussed under the assessment of direct and indirect impacts.

Reasonably foreseeable future actions in the ROI include 150 acres of tree removal and ground disturbance associated with the excavation of new and borrow pits in the range and training lands on FSGA. Preliminary review of these actions indicates no potential to adversely affect cultural resources; however, the CRM Section will conduct supplementary review of each project as it is funded and goes through the design process to be certain, ensuring no adverse impacts to historic properties in the ROI. There will also be an increase in training-related activities on the FSGA and HAAF range and training lands to ensure the units' mission essential training requirements are met; however, trainers on the ranges are familiar with local requirements and Soldiers training on the ranges or in the training areas receive briefings on what is/is not permitted prior to beginning each training event, ensuring minimization measures and BMPs are employed. If impacts are identified, consultation, mitigation, and monitoring, if required, will be implemented and continue until agreed upon by all parties involved.

Similarly, an additional 50 acres of ground disturbance may also occur in the FSGA cantonment area associated with the implementation of the AMS actions, adding required support personnel for an as-yet-undetermined number of new Soldiers, their Families, and required support equipment within the ROI. The CRM Section will review each NEPA document prepared by AEC for these actions via the FSGA/HAAF NEPA process and will consult with the GA SHPO once there is an actionable item, in the manner previously described. For all actions the CRM will conduct a Section 106 Review to ensure all NHPA/other requirements are complete. Overall, these efforts should ensure that no more than minor adverse cumulative impacts to cultural resources occur.

3.4.4.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, past, present, and reasonably foreseeable future actions within the ROI are as discussed under Alternative I. However, under this alternative, construction identified within the RCMP will also occur, resulting in an additional 65 acres of ground disturbance in the ROI. As discussed previously, CRM will review all projects as they are submitted and, if impacts are anticipated, will initiate the consultation, mitigation, and monitoring, process as required, which continue until agreed upon by all parties involved, to ensure all NHPA/other requirements are complete. Overall, these efforts should ensure that no more than moderate adverse cumulative impacts to cultural resources occur.

3.4.5 WATER QUALITY AND RESOURCES

3.4.5.1 AFFECTED ENVIRONMENT

Water resources on FSGA and HAAF include natural systems such as groundwater, streams, rivers, lakes, estuaries, wetlands, and the floodplain, in addition to the man-made stormwater drainage system. Water resources management requirements are

typically derived from the Clean Water Act (CWA), Safe Drinking Water Act, and water rights laws that vary from state to state. The ROI for water quality consists of the local watershed within and immediately adjacent to the physical boundaries of FSGA and HAAF.

Coastal Zone Management. The Coastal Zone Management Act (CZMA) was passed in 1972 and provides a formal structure to address the challenges of continued growth in coastal areas. The GA CZMA Program is authorized and administered by NOAA, GA DNR- CRD, and a network of other state agencies. There are 20 acres of CZMA on HAAF; however, there are no CZMAs on FSGA and CZMA requirements are not included in projects on that part of the installation. Accordingly, the Stormwater/E&S/Floodplains POC for the installation reviews all actions including ground disturbance implemented on HAAF and ensures compliance with the CZMA, CWA, Georgia Water Quality Act (GWQA), and GA Erosion and Sedimentation Control Act (GA ESCA). All active construction sites are periodically monitored to ensure sensitive resources in and near the action area are avoided. Deficiencies are corrected immediately, as is consultation with the GA DNR-CRD, as part of the NEPA process.

Groundwater. The groundwater resources of coastal Georgia are recognized as some of the most productive in North America. The Floridan is the principal artesian aquifer in the region and provides most of the fresh water for cities and communities throughout southeastern Georgia, to include FSGA and HAAF. There are three distinct aquifer systems in the Fort Stewart region. The principal artesian aquifer, the Floridan aquifer, is a deep sequence of limestone of Eocene to Oligocene age, the primary source of large groundwater withdrawals in the coastal area. This aquifer is generally 300 to 500 feet below the surface and is composed of two distinct layers. The upper layer is derived from the Oligocene Series of sandy, phosphatic limestone and is not generally used as a water source. It is underlain by the Ocala Limestone of Eocene age, which is the primary water supply source for much of the coastal plain.

The principal artesian aquifer is overlain by two shallow aquifer systems. A 394- to 492-foot-thick series of Miocene clays, sandy clays, and gravel lies directly above the principal artesian aquifer. Several industries in the coastal area have wells with yields greater than 200 gallons per minute from this aquifer. It is recharged largely by percolation from the surface aquifer, as well as some discharge from the principal artesian aquifer. The surface aquifer is composed of a relatively thin layer of sands, gravels, and clays extending to a depth of 82 feet near the coast. The surface aquifer is recharged directly from rainfall percolating through sediments. During dry months the base flow of streams and rivers of the coastal area is maintained by discharge from the surface aquifer. Water quality varies from very low total dissolved solids to slightly alkaline, moderately hard water. Appendix F, Supplementary Information, has additional information on Groundwater Resources on the installation.

Surface Water Resources (Figures 10 and 11). In the proposed action's natural, undisturbed environment, rainfall is quickly absorbed by trees, other vegetation, and the

ground. Most rainfall that is not intercepted by leaves infiltrates into the ground or is returned to the atmosphere by the process of evapotranspiration. Very little rainfall becomes stormwater runoff in permeable soil, and runoff generally only occurs with larger precipitation events, all of which is currently well handled by the installation's natural surface water and man-made stormwater drainage networks.

There are 265 miles of freshwater rivers and streams and 277 miles of brackish water rivers on FSGA, the majority of which are part of the Ogeechee River drainage system, which forms part of the eastern boundary of the installation (Figure 10). The Canoochee River is the main tributary of the Ogeechee and bisects FSGA, merging with the Ogeechee about 35 miles inland from Ossabaw Sound. Although most of the post is drained by the Canoochee, part of the northeast quadrant drains directly into the Ogeechee, and the southwestern quadrant is drained by the Altamaha River. While the Ogeechee generally carries a high silt load, the Canoochee does not, and therefore has not developed large natural levees. Organic matter content is generally high, derived from the Blackwater River and Swamp system. Fort Stewart also contains 14 man-made ponds totaling 101 acres and 10 natural ponds totaling 1,354 acres; this includes several old mill ponds present at the time of the Army's purchase of FSGA, including Glisson's Mill Pond, Strickland's Mill Pond, Pineview Lake (Pond #1), as well as mill ponds that are now designated as Pond #3, Pond #17, and Pond #28.

There are 12 miles of brackish-water streams and several natural ponds ranging in size from 4.3 to 9.7 acres on HAAF. The Little Ogeechee River forms the southwestern boundary of HAAF and drains most of the installation (Figure 11). Tides exert a great influence on the river and salt water is carried upstream for some distance. Fresh to brackish tidal marshes have developed along much of the shore and the river is not a significant source of drinking water for that reason. Due to the large area of impervious surface associated with the airfield and cantonment area, large volumes of runoff are directed to the Little Ogeechee salt marsh/river system to the south. Drainage from these areas flows west through a stormwater drain system including a series of ditches to the Lamar Canal, flowing southwest to the Little Ogeechee River.

The installation manages streams identified as impaired under the CWA Section 303(d). This includes the application of BMPs in accordance with GA DNR guidance throughout the installation to limit sedimentation into waterways. These practices include:

- Implementing an Erosion Sedimentation Pollution Control Plan (ESPCP) for land disturbing activities to meet the requirements of the GA ESCA.
- Using Georgia Forestry Commission BMPs for timber harvests.
- Adopting Natural Resources Conservation Service conservation practices.
- Adopting unpaved road maintenance practices, and;
- Repairing and preventing stream bank erosion due to increased stream flow velocities caused by urban runoff.

In all areas where vegetation has been wrested by normal stream flow, a 25-foot vegetative stream buffer must be maintained, to include surrounding surface water sources, wetlands, and natural or man-made stormwater drainage systems. Construction is generally not allowed within this buffer area; however, if construction requires intrusion into the buffer, a stream buffer variance (SBV) may be obtained from GA DNR.

The installation has a stormwater drainage system comprised of stormwater pipes, catch basins and inlets, concrete culverts, and grassed drainage ditches/swales. Stormwater is routed to drainage ditches and concrete culverts that eventually discharge to maintained grass drainage ditches/swales and trapezoidal-shaped drainage channels, primarily found in areas with impervious surfaces and development. In the less-developed areas on-Post, such as the range and training lands, stormwater drainage is primarily achieved via overland flow following the topography of the land. The extensive stormwater drainage system allows for infiltration and some treatment in retention and/or detention basins to meet regulatory requirements for post-construction runoff. Sedimentation ponds and/or basins are utilized during the construction phase of projects on post.

The installation adheres to the requirements of the Municipal Separate Storm Sewer System National Pollutant Discharge Elimination System (NPDES) Permit requirements, the GA Stormwater Management Manual/Coastal Stormwater Supplement, the Energy Independence and Security Act (EISA)-Section 438, the DPW Policy on Stormwater Management and Dry Detention/Extended Detention Basins, and all applicable EOs for all projects on the installation, as well as the U.F.C. "Design: Low Impact Development (LID) Manual", and the USACEs Public Works Technical Bulletin "LID for Sustainable installations: Stormwater Design Planning Guidance for Development within Army Training Areas." The Army utilizes Section 438 of the EISA, the goal of which is to replicate pre-development hydrology in the post-development environment, protecting and preserving water resources onsite and downstream. Fort Stewart/HAAF also requires implementation of Georgia's Coastal Stormwater Supplement (CSS), which reduces post-construction stormwater runoff rates and volumes through the use of LID practices. This also helps maintain pre-development site hydrology, prevents downstream water quality degradation, and helps prevent downstream flooding and erosion.

Installation sources of industrial stormwater pollution have been identified on the Stormwater Pollution Prevention Plan (SWPPP) at FSGA. The SWPPP is reviewed annually and updated as required per the installation's Georgia NPDES General Permit, depending upon the frequency of operational or equipment changes, or whenever there is a major change in design, construction, operation, and/or maintenance of defined industrial activities that may impact the potential discharge of stormwater pollutants. The SWPPP prescribes BMPs that shall be implemented to reduce the potential for stormwater pollution, to include good housekeeping measures, material storage and

management procedures, and preventive maintenance of equipment and facilities, to include underground storage tanks/aboveground storage tanks.

Wetlands (Figures 10 and 11). Wetlands are defined, per 33 CFR Part 328.3(b) of the CWA, as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Section 404 of the CWA regulates the discharge of dredge or fill material into waters of the United States, and the USACE holds the primary federal authority for regulation of these discharges. Wetland species on FSGA/HAAF include vegetative species such as pond cypress, bald cypress, black tupelo, swamp tupelo, sweetgum, pond pine, water oak, redbay, and fetterbush. According to the Geographic Information System (GIS) data, FSGA contains 85,785 acres of wetlands (Figure 10), and HAAF contains 1,639 acres of wetlands (Figure 11).

A Nationwide Permit is required for activities resulting in minimal individual and cumulative potential environmental impacts, and an Individual Permit is required for activities that do not qualify for the Nationwide Permit program. Section 401 of the CWA requires that the state in which the activity occurs issue a Water Quality Certification for any activity requiring a Federal permit that may result in a discharge to state waters. This certification states that applicable effluent limits and water quality standards will not be violated. EO 11990, Protection of Wetlands, requires federal agencies to avoid new construction in wetlands unless it finds that there is no practicable alternative to such construction, and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. Given their prevalence on the installation, the FSGA/HAAF environmental and master planning team members avoid wetland impacts during the design process and, where wetlands cannot be completely avoided, the impacts to these sensitive resources are minimized and the impacts remaining are mitigated. All vegetation within the wetland areas and their buffers are flagged prior to the start of any work to ensure the contractor(s) clearly understands the physical demarcation limits and utilizes appropriate equipment and techniques for felling and removing vegetation. The grubbing, grading, and discharge of dredged or fill material into streams and wetlands requires prior coordination with/permitting through the USACE-Regulatory Branch (Wetlands). Wetland impact minimization efforts are documented during the proposed action design phase to assist with completion of the Individual Permit application.

Floodplains (Figures 12 and 13). EO 11988, Floodplain Management (1977), and DoD Instruction 4715.03 (DoD 2011), require Federal agencies to avoid construction or management practices that will adversely affect floodplains unless (1) there is no practicable alternative and/or (2) the proposed action is designed to minimize harm to or within the floodplain. The USGS has mapped flood-prone areas and lands lying within the floodplain, indicating there are 176,420 acres lying within the floodplain on FSGA (Figure 12) and 1,413 acres lying within the floodplain on HAAF (Figure 13).

Redacted for OPSEC

Figure 10: Surface Waters and Wetlands on Fort Stewart, GA.

Redacted for OPSEC

Figure 11: Surface Waters and Wetlands on Hunter Army Airfield, GA.

Redacted for OPSEC

Figure 12: Floodplains on Fort Stewart, GA.

Redacted for OPSEC

Figure 13: Floodplains on Hunter Army Airfield, GA.

Floodplains are of great value due to their ability to link adjacent streams and rivers and they serve a multitude of functions, including water storage and conveyance, filtration of nutrients and other pollutants from runoff, erosion control, and groundwater recharge, as well as a valuable habitat for fish and wildlife. To the greatest extent possible, construction and other activities within these sensitive resources are avoided; however, in some cases, total avoidance is not feasible due to their preponderance on FSGA/HAAF. Where impacts are not practicable, the Army documents all steps taken to avoid adverse impacts, designs and/or modifies the actions it takes to minimize adverse impacts and explains why no practicable alternative to impacting the floodplain exists.

The Georgia Stormwater Management Manual/CSS requires: (a) the review of all construction projects within a floodplain and (b) compliance with the Energy Independence Security Act-Section 438. Floodway encroachment, including structures, fill placement, etc. is generally prohibited unless certification with supporting technical data is provided by a registered professional engineer demonstrating the encroachment will not result in any increase in flood elevations upstream or downstream. The BMPs chosen must be tailored to a specific project and its unique site characteristics, to best address runoff reduction and flood protection measures and help minimize potential flooding and stormwater concerns in the future. The contractor must also adhere to the standard BMPs provided in the NPDES and other required permits for the site, as well as the Federal and State of Georgia guidelines for the floodplain. A State of Georgia certified Professional Engineer must document all hydrological analyses when preparing the ESPCP and incorporate the selected BMPs, ensuring State and Federal requirements are met for floodplain encroachments and flood controls, including runoff reduction and water quality requirements. In addition, State of Georgia requirements must be met, such as elevating the structures a minimum of 1-3 feet above the base flood elevation of the floodplain.

3.4.5.2 ENVIRONMENTAL CONSEQUENCES

The TLS for Water Quality would occur if the proposed action would (a) an exceedance of a total maximum daily load, (b) cause a detrimental change in the impairment status of a surface water, (c) result in an unpermitted direct impact on a water of the United States, (d) unpermitted loss or destruction of more than 1 acre of jurisdictional wetlands, or (e) cause erosion and sedimentation that would violate water quality laws or the terms of a NPDES stormwater permit.

3.4.5.2.1 ALTERNATIVE I: NO ACTION

Under this alternative, the installation will continue to implement routine and ongoing installation activities, as previously defined in Section 2.2.1. The TLS for Cultural Resources is not met under this alternative.

CZMA. No impacts to CZMA are anticipated as a result of routine mission and training activities. No CZMAs exist on FSGA, and no construction is proposed within the CZMA on HAAF.

Groundwater. Routine and ongoing installation activities have the potential for short-term, indirect, negligible adverse impacts to groundwater. None of the routine and ongoing installation activities include excavation deep enough to directly impact/reach the Floridan aquifer; however, there is a potential for runoff carrying sediments and chemicals to percolate down and into groundwater resources, thereby resulting in indirect adverse effects to this resource. All proposed impacts are anticipated to be short-term, however, and negligible in scope. Adherence to installation BMPs, federal, state, and local laws and regulations, and standard operating protocols should minimize potential impacts and ensure they remain no more than negligible. Fort Stewart currently has an approximate 3.52 milligrams per day (mgd) of available potable water withdrawal capacity and HAAF currently has an approximate 0.41mgd of available potable water withdrawal capacity. Routine mission and training activities are not anticipated to impact this status or overburden the aquifer. No mitigation is required or proposed.

Surface Waters. Routine and ongoing installation activities have the potential for short-term, direct and indirect, negligible adverse impacts to surface waters. Some activities occur in the vicinity of streams and wetlands, due to their prevalence on the installation, and this overland flow enables sediments and/or contaminants to enter surface water sources. Leaks from equipment utilized in streams, such as from military vehicles conducting stream crossings or pond crossings by multi-role bridge companies, is a more direct impact. However, all impacts are anticipated to be short-term and no more than negligible in scope, as they are iterative and stop at the end of the event. Impacts are minimized via implementation of the installation's existing policies and protocols, Erosion & Sedimentation (E&S) BMPs, and adherence to associated permits, which have historically resulted in none to negligible adverse impacts to this resource. No mitigation is proposed.

Floodplains. Routine and ongoing installation activities have the potential for short-term, direct and indirect, negligible, adverse impacts to floodplains. The installation completed a Programmatic FONPA (PFONPA) to account for routine and ongoing actions that occur within wetlands and floodplains on the installation, based on historical knowledge of prior impacts to these resources. Actions assessed in this PFONPA include repairs and maintenance to buildings, grounds, roads, and bridges, repairs to existing culverts, implementation of installation plans and programs, routinely occurring training, and others (Appendix G, PFONPA). Direct impacts to floodplains are avoided where possible; however, it is difficult to conduct routine and ongoing activities outside of floodplains due to their preponderance on the installation. For example, direct impacts may occur during repairs/maintenance to roads or facilities lying directly within the floodplain, and indirect impacts may occur during overland flow percolating into the floodplain over time. However, these impacts are minimized via implementation of the installation's existing policies and protocols and E&S BMPs, measures historically shown to reduce impacts to floodplains on the installation to no more than short-term and negligible. No mitigation is required or proposed.

Wetlands. Routine and ongoing installation activities have the potential for short-term, direct and indirect, negligible, adverse impacts to wetlands. As discussed under Floodplains, the installation completed a PFONPA to account for routine and ongoing actions that occur within wetlands and floodplains on the installation (Appendix G, PFONPA). Indirect impacts may occur as a result of overland flow from activities occurring proximate to the wetland. Direct impacts to wetlands are avoided as a general rule on FSGA/HAAF; however, total avoidance is not possible due to the preponderance of wetlands on the installation, especially, for example, when roads and bridges running through wetlands require repair and maintenance. Based on historical knowledge, all impacts are minimized via implementation of the installation's existing policies and protocols, E&S BMPs, and adherence to permits, as applicable. No mitigation is proposed. No mitigation is required or proposed.

3.4.5.2.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as continuing to implement routine and ongoing activities identified in Section 2.2.1. The TLS for Water Quality is not met under this alternative.

CZMA. No impacts to CZMA on HAAF and FSGA, as discussed under Alternative I.

Groundwater. Implementation of the RCMP, Post Range Guide, and routine and ongoing installation activities, is anticipated to result in short-term, indirect, minor, adverse impacts to groundwater. Ground disturbance on FSGA to implement the RCMP construction will result in approximately 65 acres of timber harvest, site clearing, and other actions required to establish the CLFR, AMPTR, New Range Support Building, and Repurposed MPMG Range. Excavation will not occur at depths sufficient to directly impact the aquifer system; however, there is a potential for waterborne pollutants (e.g., sediment) resulting from excavation-related activities to be transported into the groundwater system via runoff and percolation from these sites. Following protocols outlined in the installation's SWPPP, installation spill prevention plan, and the specific Notice of Intent (NOI) for each project (if required), will help minimize these potential effects to no more than minor, and ensure they remain short-term and not persistent. The FSGA system currently has an approximate 3.52mgd of potable water withdrawal capacity and implementation of the proposed action will not adversely impact this status. No excavation is associated with implementation of the Post Range Guide on FSGA/HAAF, other than that associated with routine training activities. No ground disturbance associated with construction is anticipated on HAAF, although its potable water is drawn from the same aquifer (Floridan). As stated above, none of the activities proposed under this alternative is anticipated to adversely impact the aquafer or result in an exceedance of any of the installation's withdrawal permits. No mitigation is required or proposed.

Surface Waters. Implementation of the RCMP, Post Range Guide, and routine and ongoing installation activities, is anticipated to result in long-term, direct and indirect,

minor, adverse impacts to surface waters on FSGA under this alternative. Approximately 65 acres of vegetated/forested lands will be converted into cleared areas to implement the RCMP construction projects, creating the potential for direct impacts to any adjacent surface waters via overland runoff. Impacts may be minimized via adherence to site-specific permits, their requirements therein, and federal, state, and local laws and regulations. Impacts are anticipated to be long-term and direct, as the removal of trees and establishment of the construction will permanently alter the environment at each location and associated future runoff from infrastructure at each site (such as parking lots, sidewalks, etc.) may likewise continue over the long term into adjacent surface water systems at each location. This is primarily associated with the CLFR, new Range Building, and Repurposed MPMGR, as the AMPTR will be constructed atop an existing range footprint.

Site-specific permitting and the establishment of site-specific erosion control BMPs will be implemented as mitigation prior to any land disturbance, including timber harvest BMPs, and must be in accordance with the GWQA and GA ESCA. The BMPs will be identified in advance on an ESPCP developed by the contractor or other responsible entity for the proposed action. These BMPs must be utilized at all times and will be inspected by the Army periodically for adequacy. All deficiencies require correction. The ESPCP will also include requirements identified in the Manual for Erosion and Sedimentation Control for the State of Georgia, the CSS, EISA Section 438, and local stormwater control requirements, and will be coordinated through the Installation DPW Environmental Division Stormwater Program Manager.

Permitting also requires fees in the amount of $80.00/disturbed acre and must be paid to the Georgia EPD. The project's executing agency (U.S. Army), or contractor will provide a copy of the fee submission to the Installation Environmental Office along with a prepared and initialed NOI for coverage under the State's NPDES Permit. Land disturbance may not commence until 14 days from the date of certified mailing of the NOI packet to Georgia EPD. Excavation activities are primarily maintained a minimum of 25 feet from all surface water sources, to include wetlands; however, if site clearing or other construction-related activities require intrusion into the buffer area, the installation will apply for a SBV, and this helps ensure that runoff rates post-construction will be commensurate with those identified pre-construction.

During excavation activities, the State of Georgia requires an E&S certified individual be on the site during any land disturbance activity. The contractor is expected to comply with this requirement. In order for the Army to accept the project as complete, the site must be stabilized to prevent silts and sediments from leaving the construction site. The installation must agree that the project site meets necessary site stabilization parameters as required by the State of Georgia prior to project acceptance by the Army. All projects that propose soil disturbance and are in the vicinity of surface water sources must adhere to these requirements for the protection of water resources and the avoidance of adverse impacts. No excavation is associated with implementation of the Post Range Guide. No

ground disturbance associated with construction is anticipated on HAAF, and no associated impacts to surface waters on HAAF are anticipated. Mitigation requirements will be identified in permits specific to each RCMP construction project as it is funded and designed.

Floodplains. Excavation associated with construction identified in the RCMP is anticipated to result in long-term, direct and indirect, minor, adverse impacts to floodplains under this alternative. Construction associated with the RCMP projects will impact floodplains, although an exact acreage is not known at this time, as these projects have not entered the design phase. Once the design phase starts, the FSGA/HAAF Floodplains Program Manager will work with the DPTMS to minimize impacts to floodplains as much as possible, in accordance with EO 11988 and state and federal laws, and all actions taken will be documented in a site-specific FONPA for each project. However, even if all 65 acres of ground disturbance associated with the RCMP construction impacts floodplains, it would be no more than a minor adverse impact considering there are 176,420 total acres of floodplains on FSGA.

In accordance with EO 11988, all new construction is designed upfront to reduce the risk of flood loss and to minimize the impact of floods on human safety, health, and welfare, and the project POC for each action is responsible for the technical support documentation for each NOI. Potential impacts to floodplains are due to reducing the floodplain's capacity and can include the increased risk of flood damage to the surrounding landscape, such as nearby wetlands or human-occupied areas. Increasing disruption to the floodplain, such as decreasing floodplain space, may increase flood heights elsewhere, but this can be mitigated through landscape features that deal with larger stormwater events, such as placing dry detention basins, bio-retention cells and/or grassed channels near natural outfalls. Such features are designed to detain stormwater and gradually release it to reduce potential of downstream flooding and erosion. These measures are implemented for all construction implemented in floodplains and have been proven historically to result in no more than short-term and negligible adverse impacts. Fort Stewart shall minimize flooding, erosion and/or sedimentation on adjacent upstream or downstream properties. No excavation beyond that associated with routine training actions is proposed on HAAF. No excavation is associated with implementation of the Post Range Guide. No ground disturbance is anticipated on HAAF, and no impacts to surface waters on HAAF are anticipated. Mitigation requirements will be identified in permits specific to each RCMP construction project as it is funded and designed.

Wetlands. Excavation associated with construction identified in the RCMP is anticipated to result in long-term, direct and indirect, minor, adverse impacts to floodplains under this alternative. An exact acreage is not known at this time, as these projects have not entered the design phase. However, even if all 65 acres of ground disturbance associated with the RCMP construction proposed were wetlands, it would be no more than a minor adverse impact as more than 85,785 acres on FSGA consists of wetlands. If less than 0.5 acres of wetlands are impacted/unavoidable, a nationwide permit can be obtained to

cover all CWA requirements, which requires no public notice and/or other regulatory procedures and takes approximately 45 days to complete. If more than 0.5 acres are impacted/unavoidable, an individual permit (Section 404) is required, which requires public notice, and regulatory review through the U.S. Army Corps of Engineers (Wetlands Branch), taking approximately 120 days (this does not account for their workload or if additional information is needed). Compensatory mitigation (use of wetland credits) is also required for any impact in excess of 0.1 acres of wetland. All mitigation will be implemented in accordance with the site-specific permit for that site.

As discussed under Alternative I, implementation of BMPs and other measures that are routinely employed historically result in no more than short-term and negligible adverse impacts. Adherence to E&S BMPs, as previously discussed, minimizes and/or prevents potential impacts to adjacent wetlands from runoff. No excavation or other construction associated with the RCMP is proposed on HAAF and there are no impacts to wetlands anticipated at that location. No excavation beyond that associated with routine training actions is proposed on HAAF. No excavation is associated with implementation of the Post Range Guide. No ground disturbance is anticipated on HAAF, and no impacts to surface waters on HAAF are anticipated. Mitigation requirements will be identified in permits specific to each RCMP construction project as it is funded and designed.

3.4.5.3 CUMULATIVE IMPACTS

The ROI for Water Quality and Resources lies within and directly adjacent to the boundaries of FSGA and HAAF. Past, present, and reasonably foreseeable future actions with the potential to result in cumulative impacts to Water Quality and Resources are discussed in the section below.

3.4.5.3.1 ALTERNATIVE I: NO ACTION

Past actions in the ROI consist of the historical development of the communities of Hinesville and FSGA, Savannah and HAAF, and the associated infrastructure and transportation network that supports them, all of which required substantial amounts of earth-moving and fill materials to be properly established. These past actions impacted the topography and hydrology of the region over time, but efforts have been implemented to maintain the vital functions these systems serve for flood control and maintaining water quality standards, thereby minimizing adverse cumulative impacts to surface waters and floodplains. Site stabilization measures, to include grass and tree planting, were implemented as part of the development process, minimizing some of the potential adverse impacts. Present actions in the ROI include routine and ongoing activities, as discussed under the assessment of direct and indirect impacts.

Reasonably foreseeable future actions in the ROI include 150 acres of tree removal and ground disturbance associated with the excavation of new and expanded borrow pits in the range and training lands on FSGA. There may be a temporary increase of sedimentation associated with the excavation at each work site, but impacts are anticipated to be temporary, confined to each excavation site, and spread out across an

approximately 10–15-year period. Similar impacts are anticipated from additional 160 acres of ground disturbance in the FSGA and/or HAAF cantonment area associated with the implementation of the AMS actions, adding required support personnel for an as-yet-undetermined number of new Soldiers, their Families, and support equipment within the ROI. Minimization of impacts will be achieved as previously defined and as stipulated in required permits. The installation has an existing water quality testing regime in place and will continue to monitor each project through scheduled and unscheduled site inspections to determine what steps to take should turbidity or other issues become a concern.

There will also be an increase in training-related activities on the FSGA and HAAF range and training lands to ensure the units' mission essential training requirements are met. Trainers on the ranges are familiar with local requirements and installation training equipment is well maintained to minimize the potential for adverse impacts. Overall, these actions are anticipated to result in no more than minor adverse cumulative impacts to Water Quality and Resources.

3.4.5.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Past, present, and future actions in the ROI are as discussed under Alternative I; however, under this alternative additional acreage will be impacted associated with RCMP construction. This is not anticipated to result in a substantial difference in cumulative impacts, as an additional 65 acres is not a significant reduction in a forest of 280,000 totaling acres, totaling less than 1% of vegetation reduction and associated impacts to water resources in the ROI. As previously discussed, personnel who work on the installation, and in the adjacent communities, are familiar with minimization measures and BMPs and will adhere to all requirements established in the E&S plans, permits, and, on installation lands, with the applicable PFONPA. Overall, these actions are anticipated to result in moderate adverse cumulative impacts to Water Quality and Resources.

3.4.6 NOISE

Note: Unless otherwise indicated, information in this section is obtained from the FSGA Installation Compatible Use Zone (ICUZ) Study (2020).

3.4.6.1 AFFECTED ENVIRONMENT

Noise is often defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, diminishes the quality of the environment, or is otherwise annoying. Human response to noise varies by the type and characteristics of the noise source, distance from the source, receptor sensitivity, and time of day. Noise can be intermittent or continuous, steady or impulsive, and it may be generated by stationary or mobile sources. Sound levels are expressed in decibels (dB), usually weighted for human hearing; see Figure 14 for sound levels associated with commonly experienced actions. In the A-weighted system (dBA), the decibel values of sounds at low frequencies are reduced, as compared to unweighted decibels, in which

no correction is made. To describe “average” sounds on a 24-hour basis, the day-night sound level (DNL) metric is used, which provides a single measure of overall noise impact and is the accepted single measure for determining human annoyance.

The Army uses the DNL as a land-use planning tool for predicting areas of potential annoyance on and off the installation. The DNL describes the average daily acoustic energy over an entire year, meaning the whole spectrum of sound, from quiet to loud, is averaged across the year. The DNL metric also incorporates a “penalty” for nighttime noise (normally 10:00 p.m. to 7:00 a.m.), when loud sounds are more noticeable and annoying.

When measuring noise levels from small arms and large caliber sources, weighted noise metrics are used, as they screen out the very high and very low sound frequencies that cannot be heard by humans and noted as dBA or ADNL. The A-weighting is typically applied to measuring noise for small arms activities, such as ongoing training at the small arms (SA) ranges. For low-frequency sounds that can cause vibrations, a C-weighting metric is used, noted as dBC or CDNL. Many people find these lower frequency sounds, which include artillery fire, are more annoying than other noises and that is considered in this metric.

To assist local communities with adjacent land-use planning and zoning, the Army identifies planning zones where noise levels are separated into four categories associated with noise level contours: Land Use Planning Zone (LUPZ), Zone I, Zone II, and Zone III.

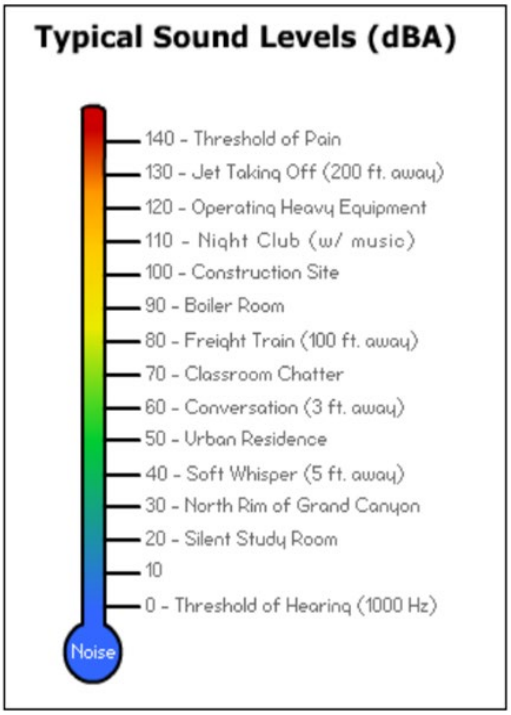


Figure 14: Typical Sound Levels (OSHA, 2019).

- The LUPZ is an area around a noise source with a DNL that is between 60-65 dBA or 57-62 dBC. These areas are a buffer within Zone I where the noise could reach Zone II levels during periods of increased operations. This zone is used to provide the community with additional information regarding land use decisions, and the LUPZ contours are generally shown on land use planning noise documents.
- Zone I includes all areas around a noise source in which DNL is less than 65 dBA or 62 dBC. This area is usually suitable for all types of land use activities.
- Zone II is an area where the DNL is between 65-75 dBA or 62-70 dBC. Exposure to noise within this area is normally incompatible with noise-sensitive land uses (residences, hospitals, churches, educational facilities), and use of the land should

normally be limited to activities such as industrial, manufacturing, transportation, and resource production (industrial parks, factories, and highways).

- Zone III is an area in which the DNL is greater than 75 dBA or 70 dBC. The noise level is considered incompatible with noise-sensitive land uses, such as churches, schools, parks, playgrounds, residences, and hospitals.

Per the FSGA/HAAF ICUZ, the primary source of noise concerns on the installation are associated with worker safety during routine operations, military training, and military aviation activities.

3.4.6.2 ENVIRONMENTAL CONSEQUENCES

Overall impacts from noise anticipated as a result of implementing the proposed action are discussed in this section. The threshold level of significance for noise is any action resulting in Noize Zone III contours impacting sensitive receptors.

3.4.6.2.1 ALTERNATIVE I: NO ACTION/STATUS QUO

Under this alternative, the installation will implement routine and ongoing activities, as identified in Section 2.2.1. Per the FSGA/HAAF ICUZ, the primary source of noise concerns on the installation are associated with worker safety during routine operations, military training, and military aviation activities. The TLS for noise is not met under this alternative. Overall, short-term, direct, minor, adverse impacts from noise are anticipated under this alternative.

Worker Safety. Short-term, direct, negligible adverse impacts are anticipated during routine and ongoing activities associated with worker safety. The installation maintains an exposure limit of 85 dBA as an eight-hour time-weighted average for personnel working on the installation and compliance with all local, state, federal laws and requirements is required. This includes the Occupational Safety and Health Administration (OSHA), DoD Instruction 6055.12, Hearing Conservation Program, and U.S. Department of the Army Pamphlet 40-501, Hearing Conservation Program. The Garrison Public Affairs Office (PAO) is responsible for all community and media relations and is the primary office, along with the Environmental Division, for addressing noise and vibration complaints received from military training operations. Anticipated impacts are short-term and direct, occurring during each worker's shift, and no more than negligible, due to compliance with all local, state, Army, and federal laws and regulations, including adherence to standard BMPs such as safety helmets and ear plugs. No deviations from these protocols are proposed. No mitigation is required or proposed.

Redacted for OPSEC

Figure 15: Noise Contours Fort Stewart, Georgia (Army Public Health Center [APHC], 2020).

Redacted for OPSEC

Figure 16: Noise Contours Hunter Army Airfield, Georgia (APHC, 2020).

Redacted for OPSEC

Figure 17: FSGA/HAAF Flight Corridors, Georgia (APHC, 2020).

Military Training. Short-term, direct, minor, adverse impacts are anticipated during routine and ongoing operations associated with military training. As defined per AR-200-1, the existing land uses surrounding FSGA/HAAF are compatible with its noise environment (Figures 15-17). Small arms live-fire operations on FSGA are concentrated primarily in the central and southwest portions of the installation, and the Noise Zones associated with firing activity are generally contained to range and impact areas. Zone II does extend beyond the installation boundary northeast from aerial gunnery operations and south of the Delta small arms complex; however, land use in these areas is primarily forest and agricultural lands, and noise impacts to sensitive land uses are limited to low-density residential uses just beyond the boundary. A large majority of the training areas on FSGA fire blank ammunition, and these operations occur far enough from the nearest sensitive uses that the noise generated would not produce adverse impacts. The majority of large caliber firing operations are concentrated in the central portion of the Fort, along with the Aerial Gunnery Ranges (AGRs) in the northeast, where the land uses are primarily forest, wetlands, and some agriculture. The FSGA NZ III contours extend beyond the boundary in several small areas to the northeast and one isolated area to the north; however, all of these extensions occur in association with nearby AGRs, and all exceedances occur only when those specific ranges are active.

Single event peak sound levels under unfavorable weather conditions show noise exposure is primarily concentrated north-northeast of the FSGA boundary and to a lesser degree southeast, particularly evident when Mine Clearing Line Charge (MICLIC) detonations occur. Land use in the peak sound level contours off post is once again primarily forest and agricultural pasture lands with low-density residential uses mixed in. On post, peak sound levels between 115 and 130 dB extend in the northern portion of the cantonment during MICLIC detonations, encompassing some Soldier and Family housing. Under neutral weather conditions, peak sound levels diminish considerably, particularly along the eastern and southern boundaries. Noise exposures remain greatest to the northeast, due to firing at the AGRs. The MICLIC operations in this scenario have no influence on overall noise impacts. The Peak sound level contours remain well outside the cantonment and any noise-sensitive land uses on post.

Small arms firing on HAAF with live ammunition is limited to the small arms range, in training area H-8. Noise impacts to sensitive land use occur north of the installation boundary, where Zone II extends into medium-density neighborhoods containing single-family homes. Zone II also extends east of the range into the cantonment on post; however, land use in this portion of the cantonment is primarily vehicle and aircraft maintenance shops and storage facilities. There are no noise-sensitive land uses contained within the Zone II or III on post. Large caliber and demolition operations at HAAF are limited to door breach detonation operations at the breach facility. These operations do not occur frequently enough to generate CDNL Noise Zones. However, given the location of the breach facility, single events may occasionally expose noise-sensitive land uses north of the boundary to Peak sound levels between 115-130 dB, which correlates to a moderate risk of complaints from these activities. The HAAF NZ III

contour extends in one location to the west; however, this extension occurs in association with nearby training ranges and all exceedances occur only when those specific ranges are active.

In the absence of regulatory noise exposure standards, complaints have become the effective or de facto standard. No state or federal regulatory authority has never come to the Army with a Notice of Violation for noise; however, there are many instances when Army commanders have voluntarily curtailed noisy activities to reduce complaints. On FSGA/HAAF advance notice is provided to the community when louder-than-normal training or unique training events will be held. No deviations from these protocols are proposed. No mitigation is required or proposed.

Military Aviation. No impacts are anticipated during routine and ongoing operations associated with military aviation. There are five aviation corridors providing transit between FSGA, HAAF, and Savannah. The number of aircraft entering and exiting the airspace is not anticipated to result in adverse noise impacts to persons utilizing aircraft or those at/on the airfield; however, as the aircraft do not always fly directly in the center of the corridor and may veer left/right over sensitive off-Post receptors, this may result in sufficient noise to register complaints.

Both helicopters and fixed-wing aircraft are a source of noise on FSGA and at HAAF, both of which operate 365 days per year supporting Army, Navy, Marine, Army Reserve, Air National Guard, Army National Guard, Air Force, and some commercial aviation. There are five aviation corridors that connect HAAF with FSGA's interior helicopter training routes, each of which is 0.5 miles wide with a 0.3-mile annoyance buffer (Figure 17). Helicopter and aircraft operations and maintenance activities dominate the existing noise environment on HAAF, ranging between 65 and 85 ADNL. Daily operation of motor vehicles in and around HAAF is also considered a minor source of noise and typically range from 50 dB (for light traffic) to 80 dB (for diesel trucks).

This is because the land surrounding the aviation corridor also includes the residential, recreational, and commercial parts of Savannah, Richmond Hill, Fleming, and Flemington in Chatham and Bryan counties; accordingly, there is the potential for additional annoyance and associated complaints. This includes reinforcing the use of the buffer to each side of the corridor to reduce possible annoyance to receptors (the public) along the route. HAAF has also adopted a "Fly Friendly Program," which works to reduce noise by training Army/other helicopter pilots on how to reduce noise complaints when flying in developed areas. The "Fly Friendly" noise abatement procedures at HAAF include:

- Restricting closed traffic operations on the south side of HAAF after 10:00 PM;
- Restricting flights over Savannah, Hinesville, Georgetown, and other populated areas to no lower than 1,000 feet;
- Establishing low level routes over unpopulated areas for transition of aircraft between HAAF and Fort Stewart; and;

- Developing a comprehensive process for receiving, investigating, and resolving noise complaints from the local community.

Through this "Fly Friendly Program," pilots get information on the ascent and descent angles, power settings, and turn radii most likely to generate high noise levels, allowing the impact of the noise from some operations and training at to be reduced, in its continuing effort to be a good neighbor. Standard noise abatement policies and procedures currently employed on the installation have been successful at ensuring no significant impacts occur and should continue to do so. Should additional minimization measures be required, they will be developed and implemented as each project is designed and implemented.

Overall, short-term, minor, direct adverse impacts are anticipated under this alternative, as noise events are iterative, associated with an individual working an 8-hour shift, participating in a training or flight event, and do not impact sensitive receptors on or off the installation on more than an occasional basis. No deviations from these protocols are proposed. No mitigation is required or proposed.

3.4.6.2.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as continuing to implement routine and ongoing activities identified in Section 2.2.1. The TLS for Noise is not met under this alternative.

Worker Safety. Short-term, negligible, minor, adverse impacts are anticipated under this alternative, as discussed under Alternative I. All employees on the installation will continue to adhere to existing local, state, federal, and Army laws and requirements, and no deviations from these protocols will be granted during implementation of the Post Range Guide, RCMP, or the construction proposed under the RCMP. Noise will occur as a result of site clearing/grading/stabilization and construction associated with the CLFR, AMPTR, Range Support Building, and the Repurposing of the Automated MPMGR on FSGA. The installation maintains adherence to an exposure limit of 85 dBA as an eight-hour time-weighted average for all working on the installation. Compliance with this and all OSHA regulations is required, at a minimum, as a measure to minimize the potential for hearing loss at all project sites, and impacts may be minimized via adherence to standard BMPs, such as safety helmets and ear plugs and modification of shifts. Impacts would occur during normal business hours, would vary based on the phase of the work occurring, would last only the time in which actual work would be occurring, and would be below the 85 dBA limit. No deviations from these protocols are proposed. No mitigation is required or proposed.

Military Training. Short-term, minor, direct adverse impacts are anticipated under this alternative. New noise contours will be developed for the CLFR, AMPTR, and MPMGR, once design is initiated by the APHC. Training on the new ranges, once constructed, are anticipated to increase low-frequency, C-weighted, dBC or CDNL, noise at the location of their construction; however, it is currently anticipated that these ranges' NZs III and II

contours will remain completely within the installation boundary and will not contribute to a change in the existing expansion of these NZs outside of the installation boundary. Once sufficient design and data is available, the Noise Modeling will be completed and its potential impacts on the noise environment will be assessed, to include supplemental NEPA analysis, if required. No new noise contours are required for construction of the new Range Building within the cantonment area.

All of proposed projects are within the appropriate Building Standard and are consistent with the existing and future land uses on the installation. Should re-siting be required in the future, the FSGA Regulating Plan would be consulted to ensure they are sited on lands compatible for their use. This minimizes the potential for noise to rise to such a level to be incompatible with adjacent land uses or increase the number of people annoyed by the heightened noise levels both on- and off-Post. It is possible, however, that local in the vicinity off post may result in annoyed-related complaints, which will be recorded by the Installation PAO and Environmental Division, although no direct impacts are anticipated to sensitive receptors. No deviations from these protocols are proposed. No mitigation is required or proposed.

Military Aviation. No impacts are anticipated under this alternative, as discussed under Alternative I. No new aviation corridors are proposed and none of the existing aviation corridors will be modified or deleted. The number of aircraft entering and exiting the airspace is not anticipated to change as a result of implementing the RCMP, the construction proposed in the RCMP, or the Post Range Guide. Accordingly, no impacts are anticipated, for the reasons discussed under Alternative I.

Overall, this alternative would result in short-term, indirect, minor, adverse impacts in the Noise environment. No mitigation is proposed; however, standard noise abatement policies and procedures currently employed on the installation have been successful at ensuring no significant impacts occur and should continue to do so. Should additional minimization measures be required, they will be developed and implemented as each project is designed and implemented. No deviations from these protocols are proposed. No mitigation is required or proposed.

3.4.6.3 CUMULATIVE IMPACTS

The ROI for Noise lies within and directly outside of the boundaries of FSGA/HAAF, as some of the NZ II and NZ III contours extend off installation boundaries. Past, present, and reasonably foreseeable future events with the potential to result in cumulative impacts are considered in the analysis below.

3.4.6.3.1 ALTERNATIVE I: NO ACTION/STATUS QUO

Past and present actions in the ROI consist of the historical development of the City of Hinesville and FSGA and the City of Savannah, and HAAF, as well the associated infrastructure and transportation network that supports them. Periodic iterations of timber harvest, site clearing/grading/stabilization, and construction/demolition in the ROI were

followed by periods of routine operations, maintenance and repair, as well as military training activity on HAAF, all which continue to varying degrees in the present, and all of which contributed to cumulative adverse impacts due to Noise in the ROI.

Currently, routine and ongoing actions within the ROI include actions with the potential to contribute to Noise in the ROI, including maintenance and repair of buildings, grounds, roads, and trails, training within the range and training lands, and minor construction, all minimized through existing installation measures and BMPs. Reasonably foreseeable future actions in the ROI include 150 acres of tree removal and ground disturbance associated with the excavation of new and expanded borrow pits in the range and training lands on FSGA. There may be a temporary increase of noise associated with the excavation at each work site, but impacts are anticipated to be temporary, confined to each excavation site, and spread out across an approximately 10–15-year period. Similar impacts are anticipated from additional 160 acres of ground disturbance and construction noise in the FSGA and/or HAAF cantonment area associated with the implementation of the AMS actions. There will also be an increase in training-related activities on the FSGA and HAAF range and training lands to ensure the units' mission essential training requirements are met. Trainers on the ranges are familiar with local requirements and installation training equipment is well maintained to minimize the potential for adverse impacts. Minimization of impacts may be achieved via adherence to local, state, Army, and federal laws and regulations. None of the proposed actions are anticipated to result in NZ II or III noise levels extending further off the installation than they currently are or in any other way result in adverse impacts to sensitive receptors on or off the installation. Overall, implementation of this alternative would result in minor adverse cumulative impacts due to the Noise in the ROI.

3.4.6.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Past, present, and future actions in the ROI are as discussed under Alternative I; however, under this alternative additional construction will occur associated with RCMP construction and implementation of the Post Range Guide. This is not anticipated to result in a substantial difference in cumulative impacts, as the RCMP construction is located sufficiently interior to the installation to not result in the extension of new NZ II or NZ II contours beyond the installation boundary, nor will it result in existing NZ II or NZ III contours extending further off the installation than they currently are, resulting in no adverse impacts to sensitive receptors. As discussed under Alternative I, the installation will adhere to standard installation protocols, which is anticipated to be sufficient to minimize potential adverse impacts to no more than minor. Overall, implementation of this alternative would result in minor adverse cumulative impacts due to the Noise in the ROI. No mitigation is proposed; however, standard noise abatement policies and procedures currently employed on the Installation will continue to be implemented.

3.4.7 HAZARDOUS MATERIALS/WASTE MANAGEMENT AND REMEDIATION

3.4.7.1 AFFECTED ENVIRONMENT

The FSGA/HAAF Environmental Division oversees the management of hazardous materials and wastes on behalf of the military units and activities on the installation, in accordance with 32 CFR 650, Environmental Protection and Enhancement, and other applicable federal, state, DoD, and local laws and regulations. The primary hazardous wastes generated are those associated with vehicle and aircraft maintenance, and the waste stream includes used lubricating oil, hydraulic fluid, degreasing solvent, scrap metal, wire, and waste asbestos. Other wastes generated on the installation includes waste acid, lead-based paint, waste paint, paint sludge, polychlorinated biphenyls (PCBs) in transformer oil, plastics, sanitary wastes, and construction debris. All hazardous wastes generated by Army activities are taken to the DPW Environmental Division's 90-day Treatment, Storage, and Disposal Facility for disposal. Construction wastes are not disposed of on FSGA or HAAF but are instead taken to off-Post sites approved for construction waste disposal.

Analysis determined there will be no change in existing installation policies and protocols associated with asbestos containing materials (ACM), lead based paint (LBP), PCBs, and storage tanks that may contain hazardous wastes as a result of the proposed action and its alternatives, and no impacts associated with the implementation of the proposed action and its alternatives. Accordingly, ACM, LBP, PCB, and aboveground/underground storage tanks are not discussed further in this section, and are instead addressed in Appendix E.

Installation Restoration Program (IRP). The FSGA/HAAF IRP is outlined in the Installation Action Plan (IAP), which identifies environmental cleanup requirements at each site, or area of concern, and proposes a comprehensive approach to conduct investigations and necessary remedial actions. Media of concern include soil, groundwater, surface water, and sediment. Fort Stewart filed a Resource Conservation and Recovery Act (RCRA) notification form with the Environmental Protection Agency (EPA) for FSGA and HAAF in July 1980, and a RCRA Part A permit application for interim status as a generator and storage facility was filed in November 1980. Subsequently, HAAF obtained a Part A permit and was under interim status as a hazardous waste generation and storage facility. In 1983, the EPA directed HAAF to file a RCRA Part B permit application and conducted a compliance inspection of HAAF. Following the compliance inspection, the EPA ruled that HAAF did not require a Part A or B permit because hazardous wastes generated at HAAF are transferred to the Defense Reutilization Marketing Office storage yard at FSGA and managed at that location. The Part B permit for FSGA was subsequently revised to include quantities of wastes generated at HAAF. Currently, HAAF does not have a RCRA permit from the State of Georgia, so sites on HAAF "from which hazardous constituents might migrate" are not known as solid waste management units (SWMUs).

Remediation. The Environmental Remediation Active (ERA) Program focuses on investigation and remediation of sites where past practices and activities conducted on the installation have resulted in contamination of soils and/or groundwater. There are five active ERA sites on HAAF (Figure F-1, Appendix F), all located within the HAAF cantonment area. Active ERA sites include one former Fire Training Area (HAA-01); Pump Houses #1, #2, and #6 (HAA-13); one Military Construction Army Barracks site (HAA-15); one Groundwater Contamination Site (HAAF-17). There is also one polyfluoroalkyl-substances (PFAS) Site (HAA-19) on HAAF. Four of the active sites (HAA-01; HAA-15; HAA-17 and HAA-19) are managed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), National Oil and Hazardous Substances Pollution Contingency Plans, and Army/DoD policy; the other active site (HAA-13) is managed by GA EPD under the Underground Storage Tank Program.

The age of the systems associated with each site and a lack of proper maintenance were determined to be primarily responsible for the releases of materials associated with these ERA sites. The primary contaminants of concern are benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons; however, sites HAA-01, HAAF-15, and HAAF-17 have chlorinated solvent contamination that resulted from improper maintenance practices prior to the 1970s. The remaining ERA site (HAA-19) includes 12 per- and PFAS sites, which have a Remedial Investigation underway and will be followed by a Feasibility Study to determine which of the individual release sites will require remediation activities (discussed below under PFAS/Perflurooctane Sulfate (PFOA)/Perfluorobunate sulfonic acid (PFBS).

There are 16 ERA sites on Fort Stewart (Appendix F, Figures F-2 and F-3). SWMUs 1, 2, 3, 8, 10, 11, 24B, and 26 were granted No Further Action (NFA) status by the GA EPD and no additional remedial action is required. SWMU 13 is under remediation for benzene, SWMU 39 is under remediation for trichloroethylene, and ERA site FST-40 is undergoing a Remedial Investigation and Feasibility Study for PFAS. These sites require Land Use Controls (LUCs), are inspected annually, and reports are submitted to the GA EPD to verify the LUCs are enforced. Five of the active ERA sites are Military Munitions Response Program (MMRP) sites (Appendix F, Figures F-2 and F-4). Two MMRP Sites (FTSW-002-R-001 and FTSW-009-R-01) were granted NFA status and no additional remedial actions are required. MMRP Site FTSW-010-R-01 has been recommended for surface removal of munitions debris; MMRP Site FTSW-011-R-01 has been recommended for surface and subsurface munitions debris, as well as removal of unexploded ordnance; and MMRP Site FTSW-006-R-01 has a RCRA Facility Investigation Addendum under review by GA EPD to determine the extent of munition removal and what LUCs will apply to the site.

Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), and Perfluorobutanesulfonic acid (PFBS). On September 4, 2018, the Army issued guidance for addressing releases of PFOS/PFAS on Army lands (DA, 2018) that applied

to Active Army Installations, Base Realignment and Closure Installations, Army National Guard facilities, and Army Reserve facilities. Currently, the Army is performing preliminary assessments (PAs) and site inspections (SIs) on the current or potential historical use of PFAS with a focus on PFOS, PFOA, and PFBS, at Army Installations (installations) nationwide. These PAs identify areas of potential interest (AOPIs) where PFAS-containing materials were used, stored, and/or disposed, or areas where known or suspected releases to the environment occurred. Each SI includes multi-media sampling at AOPIs to determine whether or not a release has occurred, and may conclude further investigation is warranted, a removal action is required to address immediate threats, or NFA is required. All PAs/SIs are completed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), National Oil and Hazardous Substances Pollution Contingency Plans, and Army/DoD policy and guidance.

The Fort Stewart PA identified 13 AOPIs for investigation during the SI phase (Appendix F, Figure F-4), the results of which were compared to risk-based screening levels calculated by the Office of the Secretary of Defense (ARCADIS, 2022b). The results on FSGA indicated the presence of PFOS, PFOA, and/or PFBS in soil and/or groundwater at 12 AOPIs, and that 9 of the 13 AOPIs had these contaminants present at concentrations greater than the risk-based screening levels. The HAAF PA identified 13 AOPIs during the SI Phase (Appendix F, Figure F-5), which also indicated that PFOS, PFOA, and/or PFBS were present in soil, groundwater, surface water and/or sediment at 13 AOPIs, and that 12 of the 13 AOPIs had PFOS, PFOA, and/or PFBS present at concentrations greater than the risk-based screening levels (ARCADIS, 2022a). Accordingly, it was determined that there is a need for further study in a CERCLA remedial investigation at these sites on FSGA and HAAF, the exact timing and details for which are currently pending.

3.4.7.2 ENVIRONMENTAL CONSEQUENCES

The TLS for Hazardous Materials and Waste Management would occur if the proposed action would (a) expose people, or substantially increase their risk of exposure, to hazardous substances, including explosives, without providing adequate protection, (b) substantially increase the risk of spills or releases of hazardous substances, (c) disturb restoration sites or the progress of cleanup activities at those sites so that adverse effects on human health or the environment could result, (d) conflict with established land-use controls, or (e) result in noncompliance with applicable federal, state, or local laws or regulations; or with permits related to hazardous materials and waste.

3.4.7.2.1 ALTERNATIVE I: NO ACTION

Under this alternative, the installation will implement routine and ongoing activities identified in Section 2.2.1. The TLS for Hazardous Materials/Waste Management will not be met under this alternative.

No impacts are anticipated due to implementing routine and ongoing operations on FSGA/HAAF. These actions are typically minimally intrusive, occur in coordination with

guidance provided by the Remediation Program Manager via the NEPA review process, and occur in accordance with all local, state, federal, and Army requirements. This includes routine training activities within the range and training lands. For example, all brass and ammunition resulting from training operations is appropriately collected and managed in accordance with Army, Installation, state, and federal regulations, SOPs, and laws, and all ground disturbance occurs within areas reviewed and cleared by Installation Remediation POCs as not having contamination soils. All personnel are familiar with installation protocols and implement these actions in accordance with applicable guidance.

Inadvertent discoveries of potentially contaminated soil are managed by the FSGA/HAAF Remediation Program Manager, and all follow-up actions are conducted based on the results of the site-specific sampling at the location of the discovery. Remediation actions are coordinated between the FSGA/HAAF Remediation Section and the GA EPD. Contaminated materials are handled by trained and certified personnel and sent to an approved off-Post disposal facility. No new ERA sites are anticipated to be created as a result of routine and ongoing actions, and no changes are proposed to existing LUCs and no conflicts with existing LUCs are anticipated. No mitigation beyond what is already prescribed in each site's existing specific remediation plan is proposed.

3.4.7.2.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Under this alternative, the installation will implement the RCMP and Post Range Guide, as well as routine and ongoing activities identified in Section 2.2.1. The TLS for Hazardous Materials/Waste Management will not be met under this alternative.

Short-term, direct, minor, adverse impacts to Hazardous Materials/Waste Management are anticipated under this alternative. No impacts are anticipated from general training and safety guidance contained within the RCMP and Post Range Guide; however, construction of the new Range Operations Building will occur within the FSGA cantonment area, where several of the ERA sites and AOPIs are located; however, the installation will utilize its master planning siting process to ensure this new construction will occur on a parcel with no known contamination, in accordance with Army guidance to provide clean sites for military construction. If an inadvertent discovery of potentially contaminated soil occurs during construction, the FSGA/HAAF Remediation Program Manager will be notified, and follow-up actions will be conducted based on the results of the site-specific soil and/or groundwater sampling at the location of the discovery. Contaminated materials are handled by trained and certified personnel and sent to an approved off-Post disposal facility. Impacts would cease once construction stops, resulting in short-term, direct impacts only, and are anticipated to be no more than negligible at this time. The remaining RCMP projects are not sited in the vicinity of the ERA Sites and AOPIs. No construction on HAAF is proposed under the RCMP and Post Range Guide.

As discussed under Alternative I, inadvertent discoveries of potentially contaminated soil is managed by FSGA/HAAF Remediation Program Manager, and follow-up actions are conducted based on the results of the site-specific sampling at the location of the discovery and coordination between the FSGA/HAAF Remediation Section and the GA EPD. Contaminated materials are handled by trained and certified personnel and sent to an approved off-Post disposal facility. As discussed under Alternative I, routine and ongoing operations in the range and training lands do not extend into any known contaminated sites. No impacts are anticipated from training, as all brass and ammunition resulting from training operations on post are appropriately collected and managed in accordance with Army, Installation, state, and federal regulations, SOPs, and laws. There will be no change in existing land use controls on existing AOPI, SWMU, or MMRP sites as a result of this alternative. All measures identified in each site's specific remediation plan will continue to be implemented. No mitigation beyond those measures, barring an inadvertent discovery and subsequent mitigation requirement, is required or proposed.

3.4.7.3 CUMULATIVE IMPACTS

The ROI for Hazardous Materials/Waste Management and Remediation lies within the boundaries of FSGA and HAAF, as none of the actions lie on/within the City of Hinesville or the City of Savannah or have the potential to impact off-Post locations. Past, present, and reasonably foreseeable future events with the potential to result in cumulative impacts are considered in the analysis below.

3.4.7.3.1 ALTERNATIVE I: NO ACTION/STATUS QUO

No cumulative impacts are anticipated under this alternative, as no direct or indirect impacts are anticipated.

3.4.7.3.2 ALTERNATIVE II: IMPLEMENT RCMP and POST RANGE GUIDE

Past and present actions in the ROI consist of the historical development of FSGA/HAAF and the associated infrastructure and transportation network. Development would have consisted of periodic iterations of timber harvest, site clearing/grading/stabilization, and construction/demolition in the ROI. This would have included the use of hazardous materials and their collection, the generation of hazardous wastes and their disposal, and the creation of contaminated sites within the ROI. Periods of development were followed by iterations of routine operations, repairs and maintenance, and military training, which did not significantly add to adverse impacts in the ROI. Over time, cleaner materials were developed and utilized on post, as well as improved methods of collecting and disposing of hazardous materials/wastes, minimizing some of these potential adverse impacts. Methods were also developed to remediate sites where contamination had occurred, resulting in beneficial impacts within the ROI. Present actions in the ROI consist of routine operations, repair and maintenance, and military training on FSGA/HAAF, which may also contribute to cumulative impacts in the ROI.

Reasonably foreseeable future actions in the ROI include 150 acres of tree removal and ground disturbance associated with the excavation of new and expanded borrow pits in the range and training lands on FSGA. Similar impacts are anticipated from additional 160 acres of ground disturbance in the FSGA and/or HAAF cantonment area associated with the implementation of the AMS actions, adding required support personnel for an as-yet-undetermined number of new Soldiers, their Families, and support equipment within the ROI. There will also be an increase in training-related activities on the FSGA and HAAF range and training lands to ensure the units' mission essential training requirements are met. Trainers on the ranges are familiar with local requirements and installation training equipment is well maintained to minimize the potential for adverse impacts. However, program involvement in project siting, implementation of known contaminant avoidance measures, early sampling and contaminant removal, and early integration of known minimization measures and BMPs will minimize adverse impacts to a less than significant level. Overall, implementation of this alternative has the potential to result in minor adverse cumulative impacts to Hazardous Materials/Waste Management and Remediation in the ROI.

4.0 CONCLUSIONS

This PEA considered the potential environmental impacts of implementing mission and training activities on FSGA and HAAF, GA, the purpose of which is to maintain operational readiness, quality facilities, and viable infrastructure, while sustaining an environment in which to live, train, and sustain the installation mission.

The analysis in this PEA was conducted in accordance with local, state, and federal laws utilizing a programmatic approach. This approach allows for early planning, coordination, and flexibility in program management, and allows for an early identification of potential environmental impacts. It also provides the decision maker a proposed action with the appropriate information required to make a thorough and informed decision. This programmatic analysis will serve as the basis for future, tiered, NEPA analyses as details and design for construction identified within the RCMP are developed.

Analysis in this PEA determined that a Finding of No Significant Impact is warranted, and an Environmental Impact Statement is not required. A summary of the potential environmental impacts is presented in Table 6 and was utilized by the decision maker to assist in the development of the findings for this action.

Table 6: Summary of Environmental Consequences.

Impact	Alternative I: No Action	Alternative II: Implement RCMP and Post Range Guide
Air Quality		
Direct / Indirect	PSD: No Impact CAA Permitting: No Impact NAAQs, GHGs, and PM: Short-term, Direct, Negligible, Adverse	PSD: No Impact CAA Permitting: No Impact NAAQs, GHGs, and PM: Short-term and long-term, Direct, Minor, Adverse
Cumulative	Negligible Adverse	Minor Adverse
Climate Change and Extreme Weather		
Direct/Indirect	Heat: Long-term, Direct, Minor-to-Moderate, Adverse Severe Weather: Short-term, Direct, Minor-to-Moderate, Adverse Flooding: Short-term, Direct, Moderate, Adverse	Heat: Long-term, Direct, Minor-to-Moderate, Adverse Severe Weather: Short-term, Direct, Minor-to-Moderate, Adverse Flooding: Short-term, Direct, Moderate, Adverse
Cumulative	Moderate Adverse	Moderate Adverse
Biological Resources		
Direct/Indirect	Protected Species: Long-term, Direct, Negligible Adverse Wildlife, Migratory Birds: Short-term, Indirect, Negligible, Adverse Vegetation: No Impact Prescribed Burns: No Impact	Protected Species: Long-term, Direct, Minor, Adverse Wildlife, Migratory Birds: Short-term, Indirect, Negligible, Adverse Vegetation: Long-term, Direct, Minor, Adverse Prescribed Burns: Long-term, Direct, Minor, Beneficial

Cumulative	Minor Adverse	Minor Adverse
Cultural Resources		
Direct/Indirect	Long-term, Direct, Negligible-to-Minor, Adverse	Long-term, Direct, Minor-to-Moderate, Adverse
Cumulative	Minor Adverse	Moderate Adverse
Water Quality and Resources		
Direct/Indirect	CZMA: No Impact Groundwater: Short-term, Indirect, Negligible, Adverse Surface: Short-term, Direct and Indirect, Negligible, Adverse Floodplains: Short-term, Direct and Indirect, Negligible, Adverse Wetlands: Short-term, Direct and Indirect, Negligible, Adverse	CZMA: No Impact Groundwater: Short-term, Indirect, Minor, Adverse Surface: Long-term, Direct and Indirect, Minor, Adverse Floodplains: Long-term, Direct and Indirect, Minor, Adverse Wetlands: Short-term, Direct and Indirect, Negligible, Adverse
Cumulative	Minor Adverse	Moderate Adverse
Noise		
Direct/Indirect	Worker Safety: Short-term, Direct, Negligible, Adverse Military Training: Short-term, Direct, Minor, Adverse Military Aviation: No Impacts	Worker Safety: Short-term, Direct, Negligible, Adverse Military Training: Short-term, Direct, Minor, Adverse Military Aviation: No Impacts
Cumulative	Minor Adverse	Minor Adverse

Hazardous Materials/Waste Management and Remediation		
Direct/Indirect	No Impact	Short-term, Direct, Minor, Adverse
Cumulative	No Impact	Minor Adverse

5.0 ABBREVIATIONS and ACRONYMS

AOPI	Area of Potential Interest
AQR	Air Quality Control Region
AR	Army Regulation
BA/BO	Biological Assessment/ Biological Opinion
BMP	Best Management Practice
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Acy
CFR	Code of Federal Regulation
CO2e	Carbon Dioxide Equivalent
CSS	Coastal Stormwater Supplement
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DA	Department of the Army
DNR	Department of Natural Resources
DPTMS	Directorate of Planning, Training, Mobilization and Security
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
EPD	Environmental Protection Division
ERA	Environmental Remediation Active
ESA	Endangered Species Act
ESCA	Erosion and Sedimentation Control Act
ESMP	Endangered Species Management Plan
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FONPA	Finding of No Practicable Alternative
GHG	Greenhouse Gas
GWQA	Georgia Water Quality Act
HAP	Hazardous Air Pollutant
HQDA	Headquarters, Department of the Army
ICRMP	Integrated Cultural Resource Management Plan
ICUZ	Installation Compatible Use Zone
IEWP	Installation Energy and Water Plan
INRMP	Integrated Natural Resources Management Plan
IRP	Installation Restoration Program

ITAM	Integrated Training Area Management
LID	Low Impact Development
LRAM	Land Rehabilitation and Management
LUC	Land use Control
MBTA	Migratory Bird Treaty Act
MMRP	Military Munitions Response Program
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWS-CPC	National Weather Service – Climate Prediction Center
PA	Programmatic Agreement
PEA	Programmatic Environmental Assessment
PFAS/PFOA	Perfluorooctane sulfonate and perflurooctanoic acid
PSD	Prevention of Significant Deterioration
RCMP	Range Complex Master Plan
RCRA	Resource Conservation Recovery Act
REC	Record of Environmental Consideration
ROI	Region of Influence
SC	Screening Criteria
SHPO	State Historic Preservation Office (and/or Officer)
SOP	Standard Operating Procedure
SWMU	Solid Waste Management Unit
UFC	Unified Facilities Criteria
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Services

6.0 GLOSSARY

Affected Environment / Area of Potential Effect (APE): The area potentially impacted by the proposed action that is under analysis. This includes both the physical environment (wetlands, wildlife, etc.) and the human or built environment (cultural resources, socioeconomics, utilities, etc.). This also includes adherence to all applicable laws, regulations, permits, and policies associated with potential impacts to the environment from that proposed action.

Best Management Practices (BMPs): Structural, nonstructural, and management techniques that are the most effective and practical means to control and/or minimize the entry of pollutants into the resource under discussion. BMPs can include maintenance procedures; treatment requirements; operating procedures; and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer Zone: An area adjacent to a sensitive resource that is left undisturbed. For example, 25-foot buffer zones are required adjacent to many wetlands to ensure ground disturbance near these resources does not result in soils entering these sensitive areas and causing adverse impacts.

Categorical Exclusion: A category of actions which do not individually or cumulatively have a significant effect on the natural, human, or social environment and for which, neither an environmental assessment (EA) nor an environmental impact statement (EIS) is required, in accordance with NEPA and Army Regulation 32 CFR part 651. At FSGA/HAAF, these actions are typically addressed in a REC.

Criteria Pollutant: An air pollutant that is regulated by National Ambient Air Quality Standards. The Environmental Protection Agency must describe the characteristics and potential health and welfare effects that form the basis for setting, or revising, the standard for each regulated pollutant. Criteria pollutants include sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and two size classes of particulate matter (PM), PM10 and PM2.5 new pollutants may be added to, or removed from, the list of criteria pollutants as more information becomes available.

Critical Habitat: The specific areas within a geographical area occupied by a species on which are found those physical or biological features essential to the conservation of that species and which may require special management considerations or protection.

Cultural Affiliation: A relationship of shared group identity which can be reasonably traced historically or prehistorically between a present-day Indian tribe or Native Hawaiian organization and an identifiable earlier group. Cultural affiliation is established when the preponderance of the evidence -based on geographical, kinship, biological, archaeological, linguistic, folklore, oral tradition, historical evidence, or other information or expert opinion -reasonably leads to such a conclusion.

Cultural Resources: Historic properties as defined by the National Historic Preservation Act, cultural items as defined by the Native American Graves Protection and Repatriation

Act, archaeological resources as defined by the Archaeological Resources Protection Act, sacred sites as defined in EO 13007 to which access is afforded under the American Indian Religious Freedom Act, and collections and associated records as defined in 36 CFR 79, Curation of Federally Owned and Administered Archaeological Collections.

Eligible property: Property that meets the criteria for inclusion in the National Register of Historic Places but is not formally listed.

Endangered species: Plants or animals that are in danger of extinction through all or a significant portion of their identified range and that have been listed as endangered by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service following the procedures outlined in the Endangered Species Act and its implementing regulations.

Erosion: The process in which a material is worn away by a stream of liquid (water) or air.

Executive Order: Official proclamation issued by the President that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs.

Floodplain: The lowlands and relatively flat areas adjoining inland and coastal waters and the flood-prone areas of offshore islands. Floodplains include, at a minimum, that area with at least a 1.0 percent chance of being inundated by a flood in any given year. The base floodplain is defined as the area, which has a 1.0 percent or greater chance of being flooded in any given year. Such a flood is known as a 100-year flood.

Groundwater: Water below the ground surface in a zone of saturation. This water is all water that exists in the interstices of soil, rocks, and sediment below the land surface, including soil moisture, capillary fringe water, and groundwater. That part of subsurface water in interstices completely saturated with water is called groundwater.

Habitat: The place where a population (e.g., human, animal, plant, microorganism) lives and its surroundings, both living and non-living.

Hard Look: In NEPA, the lead agency has the requirement of a substantial, good faith effort at studying, analyzing, and expressing the environmental issues in the NEPA document and decision-making process, and recognizing that a rule of reason must prevail. Legally, the courts determine if the lead agency has taken a “hard look” by checking the NEPA document for completeness of information and detail, soundness of analysis, thorough discussion of alternatives, and disclosure of sources. Conclusions are supported in a manner in a manner capable of judicial understanding. “More than a scintilla, less than a preponderance of evidence.”

Hazardous Air Pollutants (HAPs): Air pollutants not covered by ambient air quality standards, but which may present a threat of adverse human health effects or adverse environmental effects. Those specifically listed in 40 CFR 61.01 are asbestos, benzene, beryllium, coke oven emissions, inorganic arsenic, mercury, radionuclides, and vinyl

chloride. More broadly, HAPs are any of the 189 pollutants listed in or pursuant to section 112(b) of the Clean Air Act. Very generally, HAPs are any air pollutants that may realistically be expected to pose a threat to human health or welfare.

Historic Property: Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Land Disturbance: Exposed soil due to clearing, grading, or excavation activities. This is also commonly referred to as ground disturbing activities.

Land Use: General term used to describe how land is or may be utilized or developed, whether for industrial, commercial, residential, training, or other purposes. Land Use Plan: A plan which establishes strategies for the use of land to meet identified needs.

Metropolitan Planning Organization (MPO): 1) Regional policy body, required in urbanized areas with populations over 50,000, and designated by local officials and the governor of the state. Responsible in cooperation with the state and other transportation providers for carrying out the metropolitan transportation planning requirements of federal highway and transit legislation. 2) Formed in cooperation with the state, develops transportation plans and programs for the metropolitan area. For each urbanized area, a Metropolitan Planning Organization (MPO) must be designated by agreement between the Governor and local units of government representing 75% of the affected population (in the metropolitan area), including the central cities or cities as defined by the Bureau of the Census, or in accordance with procedures established by applicable state or local law (23 U.S.C. 134(b)(1)/Federal Transit Act of 1991 Sec. 8(b)(1)).

Mitigation: Planning actions taken to avoid an impact altogether, to minimize the degree or magnitude of the impact, reduce the impact over time, rectify the impact, or compensate for the impact.

National Ambient Air Quality Standards (NAAQS): Standards defining the highest allowable levels of certain pollutants in the ambient air (i.e., the outdoor air to which the public has access). Because the Environmental Protection Agency must establish the criteria for setting these standards, the regulated pollutants are called criteria pollutants. Criteria pollutants include sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and two size classes of particulate matter, less than 10 micrometers (0.0004 inch) in diameter, and less than 2.5 micrometers (0.0001 inch) in diameter. Primary standards are established to protect public health; secondary standards are established to protect public welfare (e.g., visibility, crops, animals, buildings).

National Emissions Standards for Hazardous Air Pollutants (NESHAPs): Emissions standards set by the Environmental Protection Agency for air pollutants which are not

covered by National Ambient Air Quality Standards (NAAQS), and which may, at sufficiently high levels, cause increased fatalities, irreversible health effects, or incapacitating illness. These standards are given in 40 CFR §61 & §63. NESHAPs are given for many specific categories of sources (e.g., equipment leaks, industrial process cooling towers, dry cleaning facilities, petroleum refineries).

National Register of Historic Places: The nation's inventory of known historic properties that have been formally listed by the National Park Service. The National Register of Historic Places is administered by the National Park Service on the behalf of the Secretary of the Interior. National Register listings include districts, landscapes, sites, buildings, structures, and objects that meet the set of criteria found in 36 CFR 60.4.

Native American: Of, or relating to, a tribe, people, or culture that is indigenous to the United States. [Title 25 U.S.C 3001(9)] of, or relating to, a tribe, people, or culture indigenous to the United States, including Alaska and Hawaii.

Natural Resources: The viable and/or renewable products of nature and their environments of soil, air, and water. Included are the plants and animals occurring on grasslands, rangelands, croplands, forests, lakes, and streams.

Non-Point Sources: Diffuse pollution sources (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common non-point sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.

Particulate Matter (PM): Any finely divided solid or liquid material, other than uncombined (i.e., pure) water. A subscript denotes the upper limit of the diameter of particles included. Thus, PM10 includes only those particles equal to or less than 10 micrometers (0.0004 inch) in diameter; PM2.5 includes only those particles equal to or less than 2.5 micrometers (0.0001 inch) in diameter.

Percolation: The downward movement of water through porous material such as soil or rock.

Programmatic Agreement: A document that records the terms and conditions agreed upon to resolve the potential adverse effects of a Federal agency program, complex undertaking or other situations in accordance with 36 CFR §800.14(b).

Sedimentation: The process by which particulates that are in suspension in a liquid settle out and are deposited on the solid surface over which the liquid flows.

Sensitive Species: A species identified by a State, federal, local agency; the state heritage program, or other organization, that is recognized to be in need of conservation management in order to maintain existing limited populations, distributions, or declining populations.

State Historic Preservation Officer (SHPO): Reflects the interests of the State and its citizens in the preservation of their cultural heritage. the SHPO advises and assists Federal agencies in carrying out their Section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taking into consideration at all levels of planning and development. See also Tribal Historic Preservation Officer.

Surface Water: All bodies of water on the surface of the earth and open to the atmosphere, such as rivers, lakes, reservoirs, ponds, seas, and estuaries.

Tribal Historic Preservation Officer: Section 101(d)(2) of the National Historic Preservation Act authorizes the Federally recognized tribes the responsibilities of the State Historic Preservation Officer (SHPO) for purposes of Section 106 compliance on their tribal lands. They have designated Tribal Historic Preservation Officers (THPOs) whom Federal agencies consult in lieu of the SHPO for undertakings occurring on, or affecting historic properties on, tribal lands.

Turbidity: Haziness in air caused by the presence of particles and pollutants. A cloudy condition in water due to suspended silt or organic matter. The number of solid particles that are suspended in water and that cause light rays shining through the water to scatter. Thus, turbidity makes the water cloudy or even opaque in extreme cases. Turbidity is measured in nephelometric turbidity units (NTU).

Watershed: The land area that drains water to a particular stream, river, or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Mississippi River basin contain thousands of smaller watersheds.

7.0 REFERENCES

32 Code of Federal Regulations (CFR), Part 651. Environmental Analysis of Army Actions. 2002. Washington: U.S. Government Printing Office.

29 CFR Part 1926 et seq. Occupational Safety and Health Act. 1979. Washington: U.S. Government Printing Office.

16 U.S. Code (USC) 470. National Historic Preservation Act. 1966 (Public Law 89-665), as amended through 1992.

16 USC 668–668d. Bald and Golden Eagle Protection Acts. 1940 (Public Laws 86-70, 87-884, 92-535, 95-616).

16 USC 703-711, §§ 703–712. Migratory Bird Treaty Act. 1918. (July 3, 1918, Ch. 128, § 2, 40 Stat. 755; June 20, 1936, Ch. 634, § 3, 49 Stat. 1556; Pub. L. 93–300, § 1, June 1, 1974, 88 Stat. 190; Pub. L. 101–233, § 15, Dec. 13, 1989, 103 Stat. 1977; Pub. L. 108–447, div. E, title I, § 143(b), Dec. 8, 2004, 118 Stat. 3071.).

16 USC 1451. Coastal Zone Management Act. 1972, (Public Law 92-583).

16 USC 1531–1544. Endangered Species Act. 1973. (Public Law 93-205).

25 USC 3001 et seq. Native American Graves Protection and Repatriation Act. 1990 (Public Law 101-601).

33 USC 1251. Clean Water Act. 1972 (Public Law 92-500).

42 USC 4321–4347. 1969. National Environmental Policy Act. (Public Law 91-190).

ARCADIS. 2022a. Final Preliminary Assessment and Site Inspection of Per- and Polyfluoroalkyl Substances, Hunter Army Airfield, Georgia.

ARCADIS. 2022b. Final Preliminary Assessment and Site Inspection of Per- and Polyfluoroalkyl Substances, Fort Stewart, Georgia.

Army Public Health Center, Environmental Noise Branch. 2020. FSGA/HAAF Installation Compatible Use Zone Study.

Center for Business Analytics and Economic Research (CBAER). 2021. Economic Impact and Contribution Analysis Fort Stewart – Hunter Army Airfield. Georgia Southern University, Georgia.

Chatham County-Savannah Comprehensive Plan 2040, Chatham County Transportation Management Plan, Coastal Region Metropolitan Planning Organization (MPO) FY2018-2021 Transportation Improvement Program (TIP), and HAAF Transportation Plan (2007).

Chatham Area Transit (CAT). (n.d.). Retrieved February 15, 2019. http://www.catchacat.org/.

Chatham County-Savannah Comprehensive Plan 2040, Chatham County Transportation Management Plan, Coastal Region MPO FY2018-2021 TIP, and HAAF Transportation Plan (2007).

Chatham-Savannah Authority for the Homeless. Retrieved November 2, 2022. https://www.guidestar.org/profile/58-1928701.

City of Hinesville (COH). 2014. COH Georgia Consolidated Plan. Community Development Department, City of Hinesville.

Cooke, Molly. 2024. Fort Stewart, UGA Partner to Enhance Environmental Services. *The Coastal Courier*.

COH. 2022. Homeless Client Services. https://www.cityofhinesville.org/521/Homeless-Client-Services. Retrieved November 2, 2022.

Coastal Regional Commission. 2012. The Regional Plan of Coastal Georgia. Brunswick, GA: Planning and Government Services Department, Planning Division.

Coastal Region Metropolitan Planning Organization (CORE). 2014. CORE MPO 2040 Metropolitan Transportation Plan and Total Mobility Plan. CORE MPO.

Compressive Plan 2040, Chatham County-Savannah, 2020 Update (CC-S). 2020. Metropolitan Planning Commission, Savannah, Georgia.

DataUSA (N.D.). 2019. Retrieved April 15, 2019. https://datausa.io/profile/geo/chatham-county-ga/.

Department of the Army (DA). 2021. Field Manual 7.0, Training the Force. Department of the Army. Washington, D.C.

DA. 2018. Army Guidance for Addressing Releases of Per- and Polyfluoroalkyl Substances. Colonel, Mary Williams-Lynch, Chief, Army Environmental Command.

DA. 2013. Army Regulation 385-10: The Army Safety Program. Department of the Army. Washington, D.C.

DA. 2012. 385-63, The Range Safety Program. Department of the Army. Washington, D.C.

DA. 2007. Army Regulation 200-1, Environmental Protection and Enhancement. Department of the Army. Washington, D.C.

DA. 2004b. Army Strategy for the Environment. Department of the Army. Washington, D.C. Department of the Army. 2002.

Executive Order (EO) 11988, Revised Guidelines for Implementing Floodplain Management. 2015. Washington: U.S. Government Printing Office.

EO 11990, Protection of Wetlands, 44 CFR Part 9. 1977. Washington: U.S. Government Printing Office.

EO 13186. Responsibilities of Federal Agencies to Migratory Bird Treaty Act, August 17, 2001. Washington: U.S. Government Printing Office.

Fort Stewart/Hunter Army Airfield (FSGA/HAAF). 2024. Integrated Cultural Resource Management Plan. Fort Stewart and Hunter Army Airfield, Georgia.

FSGA/HAAF. 2022. The Army's Home in Coastal Georgia. https://home.army.mil/stewart/application/files/3415/9863/3103/Fort_Stewart_Hunter_Army_Airfield.pdf. Accessed October 19, 2022.

FSGA/HAAF. Consolidated Strength Report. June 2022. Fort Stewart and Hunter Army Airfield, Georgia.

FSGA/HAAF. 2019a. FSGA/HAAF Integrated Pest Management Plan (IPMP). Fort Stewart and Hunter Army Airfield, Georgia.

FSGA/HAAF. 2023. Post Range Guide. Fort Stewart and Hunter Army Airfield, Georgia.

FSGA/HAAF. 2018a. FSGA/HAAF Urban Tree Management Plan. Fort Stewart and Hunter Army Airfield, Georgia.

FSGA/HAAF. 2018b. FSGA/HAAF Urban Tree Management Policy. Fort Stewart and Hunter Army Airfield, Georgia.

FSGA/HAAF. 2005. Integrated Natural Resource Management Plan. Fort Stewart and Hunter Army Airfield, Georgia.

University of Georgia (UGA). Georgia Data. https://georgiadata.org/topics/economics/poverty-rate. University of Georgia, Carl Vinson Institute of Government. Accessed October 24, 2022.

Hinesville Metropolitan Planning Organization (HAMPO) 2045 Plan. 2020. Liberty Consolidated Planning Commission. Liberty County, Georgia.

Marine Extension and Georgia Sea Grant, University of Georgia. 2022. Sea Level Rise. https://gacoast.uga.edu/research/major-projects/sea-level-rise/. Accessed October 19, 2022.

Michael Baker International. 2022. FSGA/HAAF Real Property Vision Plan. FSGA/HAAF.

Michael Baker International. 2023. FSGA/HAAF Installation Climate Resilience Plan. FSGA/HAAF.

National Oceanic and Atmospheric Administration (NOAA). America's Ocean and Coastal Agency. https://oceanservice.noaa.gov/about/welcome.html#cite. Accessed May 16, 2019.

Nieberg, Patty (July 17, 2023). *Army's Wearable Sensors Detect Early Signs of Severe Heat Injuries*. Task and Purpose. Retrieved August 15, 2024, from https://taskandpurpose.com/news/wearable-army-prevent-heat-injuries/.

Oneida LG2 Environmental Solutions. 24. 2023 Air Emissions Inventory for Hunter Army Airfield, Georgia.

Oneida LG2 Environmental Solutions. 24. 2023 Air Emissions Inventory for Fort Stewart, Georgia.

Savannah Morning News (SMN), 2022. Climate Change Offers Opportunity for Cooperation, Innovation, and Leadership in Coastal Georgia. https://www.savannahnow.com/story/news/2020/10/15/climate-change-offers-opportunity-for-cooperation-innovation-and-leadership-in-coastal-georgia/114925992/. Accessed October 19, 2022.

Sweet, W.V., B.D. Hamlington, R.E. Kopp, C.P. Weaver, P.L. Barnard, D. Bekaert, W. Brooks, M. Craghan, G. Dusek, T. Frederikse, G. Garner, A.S. Genz, J.P. Krasting, E. Larour, D. Marcy, J.J. Marra, J. Obeysekera, M. Osler, M. Pendleton, D. Roman, L. Schmied, W. Veatch, K.D. White, and C. Zuzak, 2022: Global and Regional Sea Level Rise Scenarios for the United States: Updated Mean Projections and Extreme Water Level Probabilities Along U.S. Coastlines. NOAA Technical Report NOS 01. National Oceanic and Atmospheric Administration, National Ocean Service, Silver Spring, MD,111 pp. https://oceanservice.noaa.gov/hazards/sealevelrise/noaa-nostechrpt01-global-regional-SLR-scenarios-US.pdf. Accessed October 24, 2022.

The Current. 2020. Savannah-Area Leaders Call for Climate Action. https://thecurrentga.org/2022/04/12/savannah-area-leaders-call-for-climate-action/. Accessed on October 19, 2022.

Training and Doctrine Command Regulation 350-29, Prevention of Heat and Cold Casualties. 2023. Washington, D.C. Department of the Army.

United States Census Bureau Decennial Census. (n.d.) American Community Survey, GA Governor's Office of Planning and Budget.

United States Environmental Protection Agency (USEPA). 2022a. EJ Screen.

United States Interagency Council on Homelessness (ISICH). (n.d.). https://www.usich.gov. Accessed July 11, 2022.

Wildland Fire Support Center (WFSC). 2019. Wildfire Risk Assessment for Fort Stewart. The Center for Environmental Management of Military Lands Colorado State University, Fort Collins, Colorado.

8.0 PERSONS AND AGENCIES CONSULTED

Brown, Drew. 2024. Integrated Training Area Management (ITAM) Specialist, Directorate of Planning, Training, Mobilization, and Security (DPTMS), FSGA/HAAF.

Butterbaugh, Timothy. 2024. Sustainability and Tanks Program Manager, Environmental Division, DPW. FSGA/HAAF.

Carlile, Larry. 2024. Chief, Fish and Wildlife Branch, Environmental Division, Directorate of Public Works (DPW). Fort Stewart, Hunter Army Airfield, Georgia (FSGA/HAAF).

Chafin, Justin. 2024. Supervisory Wildlife Biologist, Fish and Wildlife Branch, Environmental Division, DPW. FSGA/HAAF.

Christopher, Craig. 2024. Toxic Substances Control Act/Spill Program Manager, Environmental Division, DPW. FSGA/HAAF.

Crowley, Paul. 2024. Forestry Technician, Forestry Branch, Environmental Division, DPW. FSGA/HAAF.

Fields, Nolan. 2024. Qualified Recycling Program Manager, Environmental Division, DPW, FSGA/HAAF.

Frazier, Veronica. 2024. Infrastructure Section Leader, Environmental Division, DPW. FSGA/HAAF.

Frost, Emma. 2024. Community Planner, Master Planning Branch, DPW. FSGA/HAAF.

Fry, Thomas. 2024. Chief, Environmental Division, DPW. FSGA/HAAF.

Greer, Brian. 2024. Cultural Resources Program Manager, Environmental Division, DPW. FSGA/HAAF.

Griggs, Roy. 2024. Chief, Training Division, DPTMS, FSGA/HAAF.

Kendrick, Melissa. 2024. NEPA Project/Integrator, Environmental Division, DPW. FSGA/HAAF.

Kiefer, Dale. 2024. Consulting Engineer, Restoration Section, Prevention and Compliance Branch, Environmental Division, DPW. FSGA/HAAF.

McCormick, Amber. 2024. Acting Chief, Master Planning Branch, DPW. FSGA/HAAF.

Montano, Christian. 2024. Stormwater/Erosion and Sedimentation and Floodplains Program Manager, Environmental Division, DPW. FSGA/HAAF.

Moss, Ashley. 2024. Consulting Cultural Technician, Prevention and Compliance Branch, Environmental Division, DPW. FSGA/HAAF.

Montano, David. 2024. Air Quality Program Manager, Environmental Division, DPW. FSGA/HAAF.

Montano, Kevin. 2024. Wastewater, Borrow Pits, and Wetlands Program Manager, Environmental Division, DPW. FSGA/HAAF.

Quarles, T.J. 2024. Chief, Forestry Branch, Environmental Division, DPW. FSGA/HAAF.

Rutland Tressa. 2024. Chief, Prevention and Compliance Branch, Environmental Division, DPW. FSGA/HAAF.

Stewart, Robert. Water Project Manager, Prevention and Compliance Branch, Environmental Division, DPW. FSGA/HAAF.

Wade, Tavy. 2024. Restoration Program Manager, Environmental Division, DPW. FSGA/HAAF.

Walden, Chuck. 2024. Execution Section Lead, Prevention and Compliance Branch, Environmental Division, DPW. FSGA/HAAF.

Wheatley, John P. 2024. Supervisory Range Officer, ITAM, DPTMS, FSGA/HAAF.

APPENDIX A

Units on FSGA and HAAF, GA
and
Training They Routinely Conduct
on the Installation

FSGA/HAAF TENANT UNITS

1 ABCT

- 5-7 CAV
- 1-64 AR
- 3-69 AR
- 2-7 IN
- 1-41 FA
- 10 BEB
- 3 BSB

2 ABCT

- 6-8 CAV
- 3-67 AR
- 2-69 AR
- 3-15 IN
- 1-9 FA
- 9 BEB
- 703 BSB

48 IBCT

- 1-108 CAV
- 1-121 IN
- 2-121 IN
- 3-121 IN
- 1-118 FA
- 177 BEB
- 148 BSB

3 CAB

- 3-17 CAV
- 2-3 AVN
- 4-3 AVN
- 603 ASB
- E/3 AVN (Gray Eagle) UAS

DIVARTY

- DIV HHB
- 63 ESB
- 92 EN BN
  - 514 DET
  - 526 EN CO
  - 530 EN CO
  - 554 EN CO
  - FSC
- 83 CM BN
  - 92 CBRN CO
  - 25 CBRNE CO
  - 51 CBRN CO
  - 756 ORD (EOD) CO
  - 38 ORD (EOD) CO

3 SUST BDE

- 3SB STB
  - 24 FI
  - 258 MCT
  - 274 MCT
  - 414 SC
  - 473 QM
  - 90 HR MRC
- 87 CSSB
  - 135 QM
  - 226 QM
  - 233 TC
  - 24 OD
  - 396 TC
  - 495 MCT
  - 632 MC

TF 1-28

3 ID BAND

FSGA/HAAF TENANT UNITS

1-75
Ranger Regt.

3-160
SOAR

224 MI BN

385 MP BN
HHD Detachment
93RD MWD DET
139TH MP CO
197TH MP DET
293RD MP CO
546TH MP CO
549TH MP CO

188 IN
1-306 IN
1-346 ADA
2-306 FA
3-395 AR
4-306 BEB
5-306 BSB

15 Air Support Operations Squadron (ASOS)

GGTC & DET 1 CO B, 1/69 AVN

ARMY FLD SPT BN – Stewart

2nd Beach and Terminal Ops, 4th LSB (USMC Reserves)

3rd MPGP CID

632 MAINT CO (TMDE)

179 MP CO

2nd MOD BN, 122 REGT

6 BDE ROTC

FSGA/HAAF TENANT UNITS

MEDDAC

DENTAC

NCOA

USCGSAV

165 AW

AMCOM

902MI GRP, 308 FIELD OFFICE

NEC

AMERICAN RED CROSS

LRC

SPECIAL FORCES RECRUITMENT TEAM

904th MICC

MCRA

FS FOUNDRY, US ARMY INSCOM

DET 3, 18th Weather Squadron

As briefly discussed in Chapter 2.0 of the PEA, Fort Stewart/Hunter Army Airfield (FSGA/HAAF) ensures that its resident and tenant Soldiers meet all proficiency requirements and are able to conduct realistic maneuver exercises on its ranges and training lands. These resources are schedulable 24 hours a day, seven days a week, and are maintained by the Sustainable Range (SRP), Integrated Training Area Management (ITAM), and Directorate of Public Works (DPW) programs.

Summarily, FSGA/HAAF supports the following military training and activities within the Range/Training Area Complex:

- Support Dismounted Maneuver Training
- Support the Training Area Complex
- Support Aviation Training/Operations
- Support Fires Training
- Support Live Fire Training
- Support Combat Support Training
- Support Special Operations Warfare Training
- Support Combat Service Support Training
- Support Mounted Maneuver Training
- Support Airborne Training
- Support Mobilization of Reserve Component Units

This training is executed via the administration of the following programs and actions

- Administer the SRP to manage the compatibility, availability, and accessibility of the training complex
- Administer The ITAM Program to maintain and increase the availability and suitability of training lands
- Administer a Timber Harvest Program to ensure timber remains at an amount that is optimum habitat for the installation's protected species and is also the recognized suitable standard for military training.
- Administer a Prescribed Burn Program to maintain a clear understory and remove excess fuels with the goal to restore/mimic the ecosystem's natural fire regime.
- Administer a Fish and Wildlife Program to ensure protected species and wildlife concerns are minimized and populations are increased to recovery goals.
- Administer a Readiness Environmental Protection Integration (REPI) program.
- Administer an Installation Compatible Use Zone (ICUZ) study.
- Administer a DPW program to maintain infrastructure in the training lands.
- Administer a Pollution Prevention and Environmental Compliance Program that ensures compliance with Federal, state, and local regulations and statutes.
- Ensure units are using METT-TC (Mission, Enemy & Threat, Terrain & Weather, Troops, Time Available, and Civilians) to develop/plan/execute training exercises.

- Administer a Garrison Enterprise Management System for Goal Definition and Progress, and development of Long-, Short-, and Near-Term Objectives.

Design, usage, operation, access, and maintenance of training areas, range, and impact areas facilities are controlled by:

- Army Regulation (AR) 350-19, THE ARMY SUSTAINABLE RANGE PROGRAM
- AR 350-52, ARMY TRAINING SUPPORT SYSTEM
- AR 385-10, THE ARMY SAFETY AND OCCUPATIONAL HEALTH PROGRAM
- AR 385-63, RANGE SAFETY {MCO 3570.1C}
- Department of the Army Pamphlet (DA PAM) 385-63, RANGE SAFETY
- Training Circular (TC) 25-1, TRAINING LAND
- TC 25-8, TRAINING RANGES

These goals and objectives are further expounded upon at the installation level by the Installation's Post Range Guide. A discussion of these ranges, training lands, and impact areas are provided below.

Fort Stewart. There are 270,000 acres of training areas, range, and impact area lands on FSGA, supporting training ranging from individual and collective tasks up to large scale, non-live fire, force-on-force maneuvers, situational training exercises, individual and crew served weapons qualification and certification, up to large scale, live fire, force-on-force maneuvers and situational training exercises.

Training Aids and Devices, to include Multiple Integrated Laser Engagement Systems (MILES) and close combat missions capability kit (CCMCK), are utilized throughout the training complex. Units also conduct minor training activities within the cantonment area, although this is limited primarily to unit-sized physical training tasks, simulations, small unit tactics, and obstacle courses.

Live-fire training, to include laser systems, at FSGA can include individual and crew-served marksmanship, direct-fire gunnery (Tracked and Wheeled vehicles), indirect fire (Artillery and Mortar), collective fire, and aerial gunnery. Training for qualification on demolition, live hand grenades, and claymores also occurs on several special live-fire ranges. Dedicated live fire facilities and impact areas are separated by range or operation type and include the following:

- Red Cloud Range Complex: Multi-purpose range complexes and firing points for small and large caliber weapons, direct and indirect weapons systems, rocket, and missile systems. Engagements include ground-to-ground, ground-to-air, and air-to-ground.
- Aerial Gunnery Ranges and Luzon Range: Range Complexes for small and large caliber weapons, direct and indirect weapons systems, rocket, and missile systems. Engagements include ground-to-ground, ground-to-air, and air-to-ground.

- Combined Arms Life Fire Exercise (CALFEX) areas: Live-fire exercise areas for small and large caliber, direct and indirect weapons systems, rocket, and missile systems. Engagements include ground-to-ground, ground-to-air, and air-to-ground. Engagements include ground-to-ground, ground-to-air, and air-to-ground.
- Infantry Squad Battle Courses: Ranges utilized for collective Squad life fire and movement tasks.
- Infantry Platoon Battle Courses: Ranges utilized for collective Platoon and below life fire and movement tasks.
- Urban Training Sites and Shoothouses: Multiple training sites throughout the training complex which support life fire and non-life fire individual and collective training.
- Explosive Ordnance Detonation (EOD): Areas set aside for demolition device training.
- Engineer Qualification Area (EQA): Areas set aside for training on specific military engineering tasks.
- Delta Small Arms Range Complex: Set of ranges used to training for zero, qualification, and familiarization small arms tasks.
- Conner Small Arms Range Complex: Set of ranges used to train for zero, qualification, and familiarization small arms tasks.
- Convoy Life Fire training range: Live fire range used for training direct fire within a convoy operation.
- Artillery and Mortar Firing Points throughout the Training Complex.
- Impact Areas: Areas located throughout the training complex categorized as either Dedicated Impact Area, dudded High-hazard impact Area, or Impact area, non-dudded.
- Miscellaneous firing points and live fire ranges throughout the training complex for training small and large caliber weapons, direct and indirect weapons systems, rocket, and missile systems. Engagements include ground-to-ground, ground-to-air, and air-to-ground.
- Restricted Airspace: Areas above ground used to conduct fixed, rotor wing, and Unmanned Aerial Surveillance (UAS) live fire events.

Miscellaneous non-live training tasks are conducted at the following locations:

- Land Navigation Courses/Rappel Towers/Obstacle Courses.
- Tracked and Wheeled Driving Courses-all are night vision goggles capable.
- Within the Cantonment area.
- Various Drop Zones-Conducting personnel, heavy equipment and bundle drops
- Bridging Erection Sites at various ponds to practice the construction and breakdown of military bridges

There are 123 separate training areas on FSGA designated as Maneuver/Training Area, Heavy Forces and which are used for ground and air combat forces to practice movements and tactics as specified in the unit's Mission Essential Task List (METL). Different type units may work in support of one another (combined arms), or the unit may operate on its own to practice a specific set of METL tasks. The “heavy” designation refers to areas where maneuver is unrestricted and can consist of all types of vehicles and equipment, including tracked vehicles. “Heavy” maneuver/training areas can also be used by “light” forces, and this usage this usage may include bivouac sites, base camps, and other miscellaneous activities other than heavy. Areas are account for, managed, and scheduled by an alpha-numeric code through the garrison training or range control manager with a separate facility and individual real property record.

Primary airfield support on FSGA is provided by Wright Army Airfield/Midcoast Reginal Airport, which is also used as a joint military-civilian facility in partnership with the Liberty County Development Authority. The airport is located east of the cantonment area along FSGA’s southern boundary and is managed by a Joint Management Board consisting of the City of Hinesville, Liberty County, and the U.S. Army. Military operations at the airport include both rotary-and fixed-wing aircraft and UAS.

Aviation units, to include UAS, can train at all echelons and from all services on FSGA from individual through battalion/squadron/wing echelons utilizing Ground, Airspace and impact areas for flight, ground operations, and weapon delivery practice. Units conduct ground operations, take-off/landings, operate within the Airspace, and adjacent airspaces of Fort Stewart. There are rotary-wing tactical airstrips/Landing zones throughout the training complex including Camp Oliver, Evans, Fero, Bastogne, Taylors Creek, Burton, Taro, Remagen, Jaeck, Canoochee, and Cartwright. Fixed-wing aircraft also conduct training missions within the airspace using Drop Zones, field landing strips (Remagen)

Hunter Army Airfield.

There are 2,400 acres of training areas, range, which support training from individual and collective tasks up to small scale non-live fire force-on-force maneuvers and situational training exercises and individual weapons firing. Training Aids and Devices, to include MILES systems and CCMCK, are utilized throughout the training complex; however, there are no duded impact areas, artillery, gunnery, aircraft-to-ground-based training ranges on HAAF, due to its location within the City of Savannah. Units requiring those tasks are transported to FSGA. As on FSGA, units also conduct minor training activities within the cantonment area, although this is limited primarily to unit-sized physical training tasks, simulations, small unit tactics, and obstacle courses.

Live-fire training at HAAF can include individual weapons training, squad and platoon live fire training, and training for qualification on demolition, live hand grenades, and claymores also occurs on several special live-fire ranges. Dedicated live fire facilities are separated by range or operation type and include the following:

- Non-standard small arms ranges: used for live-fire weapons familiarization, qualification, and zero.
- Urban Training Sites and Shoothouses: Multiple training sites throughout the training complex which support life fire and non-life fire individual and collective training.
- Breach Facilities: used to practice detonation and clearing tasks.

Miscellaneous non-live training tasks are conducted at the:

- Land Navigation Courses/Rappel Towers/Obstacle Courses.
- Tracked and Wheeled Driving Courses, including night vision goggles capable.
- Training within the Cantonment area.
- Rock Drop Zone: Conducting personnel and bundle drops

There are 12 separate training areas designed on HAAF, eleven of which are designated Maneuver/Training Area, Light Forces and are used for ground and air combat forces to practice movements and tactics as specified in the unit's METL. Different type units may work in support of one another (combined arms), or a unit may operate on its own to practice a specific set of METL tasks. The “light” designation refers to areas where maneuver may be restricted for some reason to only small units or units having only wheeled vehicles. “Light” maneuver/training areas are not typically used by “heavy” forces other than assembly areas where movement is restricted to roads or trails. Included in this category are bivouac sites, base camps, and other miscellaneous training areas.

Areas are accounted for, managed, and scheduled by an alpha-numeric code through the garrison training or range control manager with a separate facility and individual real property record. One Training Area is designated Maneuver/Training Area, Amphibious, and it is used for ground and air combat forces to practice movements and tactics during amphibious (ship-to-shore) operations. Different type units may work in support of one another (combined arms), or the unit may operate on its own to practice a specific set of METL tasks. Tasks can include both combat and logistics (especially logistics over the shore). Included in these areas are bivouac sites, base camps, and other miscellaneous training areas. Area is accounted for, managed, and scheduled by an alpha-numeric code through the garrison training or range control manager with a separate facility and individual real property record.

Primary airfield support on HAAF is provided by the main runway, taxiway, and parking apron. Aviation units train at all echelons and from all services on HAAF from individual through battalion/squadron/wing echelons. Units conduct ground operations, operate within the Airspace, and adjacent airspaces of HAAF. Flight simulator training, aircraft touchdown/takeoff training, and FARP activities are conducted on the airfield proper, cantonment area, and on the Installation’s Helicopter Landing Zones (HLZs). The HAAF runway and apron, combined with the 72,000 square foot Arrival/Departure Airfield Control Group Facility and nearby railhead, allow the 3ID to deploy soldiers and

cargo worldwide. In addition to the army aviation units, HAAF is home to the U.S. Coast Guard Station, Savannah, the largest helicopter unit in the Coast Guard. The unit provides Savannah and the southeast United States with 24-hour search and rescue coverage of its coastal area.

Coordination of Training with the Environmental Office and Assessment of Impacts. During the training facility scheduling process, the Installation DPTMS Training Division POC coordinates each military unit training exercise proposal with the Installation DPW Environmental Division for an environmental impact evaluation. In compliance with NEPA and the Army's NEPA implementing regulation, Fort Stewart prepares the applicable level of NEPA documentation pertinent to the training event. Currently, all training events have been determined to result in no more than short-term, negligible-to-minor adverse impacts to natural and/or cultural resources on the installation and quality for a Record of Environmental Consideration (REC) or may tier from an existing Environmental Assessment (EA). Should a non-standard training event occur that does not qualify for a REC or existing EA, a supplemental or new NEPA document will be prepared.

Prior to entering the field, the unit receives a briefing the from Range Division POC to ensure all requirements and guidance on the training event's NEPA document is clearly understood. This includes not just adherence to avoidance signage (such as for cultural or natural resources no-dig signs to protect sensitive areas) but guidance for the proper usage of drip pans and grey water excavation. During the training exercise, random compliance inspections are conducted by both the Installation Training Division and the Installation Environmental Division to ensure compliance with this guidance. All noncompliance findings must be corrected upon notification to the unit. As training is completed, all affected areas must be restored to their original configuration with verification from the Installation Training Division POC.

APPENDIX B

Public and Agency Consultation

Email received from GA DNR POC Dewey Richardson; attachment to email, next page.

From: Richardson, Dewey
To: Kendrick, Melissa B CIV USARMY IMCOM (USA)
Cc: Hedeen, David
Subject: Ft Stewart/Hunter Army Airfield- 401 Water Quality Certification
Date: Tuesday, April 1, 2025 10:54:03 AM
Attachments: 1796_001.pdf

Ms. Kendrick,

EPD received the attached notice regarding the drafting of a PEA & FONSI associated with the US Army's proposal to implement mission and training activities on Ft. Stewart and Hunter Army Airfield. I wanted to reach out & let you know that I will be the point of contact regarding 401 Water Quality Certification if applicable. The request for a pre-filing meeting can be sent to me via email in pdf format. Thanks!

Dewey Richardson
Environmental Specialist
Wetlands Unit
Watershed Protection Branch
Email: dewey.richardson@dnr.ga.gov
Mobile: 478-283-8342

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Attachment to Richardson Email

Ms. Anna Truszczynski
Georgia Department of Natural Resources
Watershed Protection Branch
2 Martin Luther King Jr. Drive, SE
Suite 1054 East
Atlanta, GA 30334-9000

Dear Ms. Truszczynski:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

Thomas C. Fry

James L. Heidle
Director, Public Works

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Jeffrey W. Cown, Director

Land Protection Branch
2 Martin Luther King, Jr. Drive
Suite 1054, East Tower
Atlanta, Georgia 30334
404-657-8600

Letter received from GA DNR
POC Kim Hembree.

March 14, 2025

Mr. James L. Heidle, Public Works Director
Headquarters, 3D Infantry Division (Mechanized) and Fort Stewart
Directorate of Public Works, Building 1137
Environmental Branch (ATTN: Tavy Wade)
1550 Veterans Parkway
Fort Stewart, GA 31314-4927

RE: Programmatic Environmental Assessment to Implement Mission and Training Activities; Fort Stewart and Hunter Army Airfield, Georgia.

Dear Mr. Heidle:

The Land Protection Branch of the Georgia Environmental Protection Division (EPD) has reviewed the above referenced document dated February 7, 2025, and received February 20, 2025. From that review EPD has no comments. However, EPD recommends ensuring the document is reviewed by other areas of DNR (i.e., the Air Protection Branch, the Watershed Protection Branch, and the Wildlife Resources Division).

If you have any questions, please contact Mo Ghazi at 470-524-1626.

Sincerely,

Kim B. Hembree

Kim Hembree, Manager
Department of Defense Facilities Unit
Hazardous Waste Management Program

cc: Tressa Rutland, Fort Stewart (tressa.rutland@us.army.mil)
Melissa B. Kendrick Fort Stewart (melissa.b.kendrick.civ@army.mil)
Tavy J. Wade, Fort Stewart (tavy.j.wade.civ@army.mil)

File: Fort Stewart/Hunter

Email Received from USFWS POC Christopher Coppola.

From: Coppola, Christopher
To: Kendrick, Melissa B CIV USARMY IMCOM (USA)
Cc: Marion, Cathy A
Subject: FSGA/HAAF NEPA pEA comments from USFWS
Date: Thursday, March 6, 2025 1:09:14 PM

Ms Kendrick,

I reviewed the NEPA Programmatic Environmental Assessment to Implement Mission and Training Activities on Fort Stewart and Hunter Army Airfield, Georgia on behalf of the US Fish and Wildlife Service's Georgia Ecological Services Field Office. I have a couple of comments to correct factual errors regarding federally protected species and a comment concerning an invasive plant species.

1. Page 56; Section 3.4.3.1.1 Protected Species. Second Paragraph states, "*There are ten (10) federally listed species known to historically occur in the Study Area of FSGA and HAAF (Table 5); the wood stork, red-cockaded woodpecker, eastern indigo snake, gopher tortoise, frosted flatwoods salamander, shortnose sturgeon, Atlantic sturgeon, west Indian manatee, and smooth coneflower*."
    a. There are only nine species listed in this sentence.

    b. The gopher tortoise, included in this list of nine, is not a federally listed species in this part of the range. The USFWS determined that the population of the gopher tortoise found east of the Tombigbee River, Alabama does not warrant status as a federally threatened or endangered species.

2. Pages 56-57; Section 3.4.3.1.1 Protected Species. Table 5. Protected Species on Fort Stewart, Georgia:
    a. Dryobates borealis, Red-cockaded Woodpecker - Federal Status is incorrect.
        i. Species status has changed. Downlisted to threatened as of October 25, 2024: 89 FR 85294-85338.
        ii. Same comment on Appendix F.2 Protected Species on FSGA/HAAF
            1. Red-cockaded Woodpecker (RCW) section, first sentence states the species is federally listed as endangered. This should be corrected to "threatened".

    b. Laterallus jamaicensis jamaicensis, Eastern Black Rail.
        i. Species is incorrectly listed twice.
            1. First listing under Birds is correct.

a. Common Name is incorrectly spelled.
    i. change "Eastern Black Raily" to "Eastern Black Rail".
b. State (GA) Status is incorrect.
    i. Species status in Georgia is "threatened (T)" not "endangered (E)".
2. Second listing under Reptiles is incorrect.

c. Ambystoma cingulatum, Frosted Flatwoods Salamander.
    i. State (GA) Status is incorrect.
        1. Species status in Georgia is "threatened (T)" not "rare (R)".

3. Page 57-58; Section 3.4.3.1.2 Wildlife and Migratory Birds
    a. Last sentence of paragraph 1 states, "An area behind the Army Travel Camp at Holbrook Pond has been developed as a Food and Nesting Area for songbirds, and plantings in this area include autumn olive, persimmon, crabapple, dogwood, hazelnut, Chinese chestnut, sawtooth oak, and fringetree.
        i. Autumn olive (Elaeagnus umbellata) is a highly invasive exotic plant species. It should be eradicated rather than planted as a forage for songbirds. Each mature plant can produce >200,000 seeds that are dispersed as wildlife consumes the berries. The resulting plants grow quickly and outcompete native plant species for resources. The autumn olive also produces chemicals that suppress the growth of nearby plants further reducing competition and resulting in its dominance on the landscape. We recommend eradicating stands of autumn olive and planting native alternatives such as, downy serviceberry, American beautyberry, native hollies, native blueberries and viburnums.

Thank you for the opportunity to review and comment on the NEPA pEA document. If you have any questions about the comments above please let me know, I'll be happy to discuss this with you.

Chris

Chris Coppola
Biologist

US Fish and Wildlife Service
Georgia Ecological Services Office

4980 Wildlife Dr NE, Townsend, GA 31331

Mobile: 762-772-8308
Office: 706-535-2120
christopher_coppola@fws.gov (preferred contact)

Visit our office website - https://www.fws.gov/story/highlights-georgia-es-field-office

Affidavit of NOA printing - Coastal Courier

COASTAL COURIER

AFFIDAVIT OF PUBLICATION

STATE OF GEORGIA, COUNTY OF LIBERTY

Directorate of Public Works Fort Stewart
1550 Veterans Parkway
Fort Stewart GA 31315

Personally appeared before me, the undersigned Notary Public, Jan Melton, who after being duly sworn stated under oath that she is the Regional Sales Manager of the Coastal Courier, the official Legal Organ of Liberty County, newspaper published in the city of Hinesville, Georgia, and who further states under oath that the *Notice of Availability 50065*, advertisement attached hereto and made part of this affidavit appeared in the Coastal Courier on the following date(s):

Coastal Courier: 2/6/2025

Jan Melton

Sworn to and subscribed before me 2/6/2025

Pamela Pollard

Pamela Pollard
Notary Public
My commission expires 02/15/2027

PAMELA POLLARD NOTARY PUBLIC Comm. Exp. 02/15/27 BULLOCH COUNTY, GA

NOTICE OF AVAILABILITY
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT to
IMPLEMENT MISSION AND TRAINING ACTIVITIES on
FORT STEWART AND HUNTER ARMY AIRFIELD, GEORGIA

The U.S. Army seeks public comments on the Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FONSI) for Implementation of Mission and Training Activities on Fort Stewart-Hunter Army Airfield (FSGA-HAAF). The Army proposes to implement mission and training activities on FSGA-HAAF for the purpose of maintaining operational readiness, while promoting an environment in which to live, train, and sustain the installation mission. The National Environmental Policy Act (NEPA) analysis considered the potential impacts to the natural and human environment on FSGA-HAAF of implementing these activities and determined that no significant adverse impacts would occur on installation lands. Accordingly, a Draft FONSI was prepared.

A programmatic approach was chosen because it provides for early planning, coordination, and flexibility in program management, an early identification of potential environmental impacts, and serves as the basis for future, tiered, NEPA analyses as details and design for projects identified within the PEA are developed.

A copy of these documents can be accessed via the FSGA-HAAF NEPA webpage at: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. Hard copies or a CD copy of these documents are available by contacting Melissa B. Kendrick, FSGA-HAAF NEPA/Project Integrator, at Melissa.B.Kendrick.civ@army.mil. Please submit comments during the public comment period [February 7 - March 8, 2025] to the email address identified or by calling (571) 801-0206.

50065 2/6/25 RL

LOCALiQ
The Augusta Chronicle
Athens Banner-Herald
Savannah Morning News

PO Box 631697 Cincinnati, OH 45263-1697

AFFIDAVIT OF PUBLICATION

Tavy Wade
USAG Directorate of Public Works Env Prevention & Compliance
Branch NEPA Project Integrator
1550 Veterans PKWY # 1137
Fort Stewart GA 31314-5601

STATE OF GEORGIA, COUNTY OF CHATHAM

The Savannah Morning News, a daily newspaper published and of general circulation in Chatham County; and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issues dated or by publication on the newspaper's website, if authorized, on:

02/07/2025

and that the fees charged are legal.
Sworn to and subscribed before on 02/07/2025

Legal Clerk

Notary, State of WI, County of Brown

My commission expires 6/30/2025

Publication Cost:	$50.00	
Tax Amount:	$0.00	
Payment Cost:	$50.00	
Order No:	10982632	# of Copies:
Customer No:	957444	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

AMY KOKOTT
Notary Public
State of Wisconsin

NOTICE OF AVAILABILITY PROGRAMMATIC ENVIRONMENTAL ASSESSMENT to IMPLEMENT MISSION AND TRAINING ACTIVITIES on FORT STEWART AND HUNTER ARMY AIRFIELD, GEORGIA

The U.S. Army seeks public comments on the Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FONSI) for Implementation of Mission and Training Activities on Fort Stewart-Hunter Army Airfield (FSGA-HAAF). The Army proposes to implement mission and training activities on FSGA-HAAF for the purpose of maintaining operational readiness, while promoting an environment in which to live, train, and sustain the installation mission. The National Environmental Policy Act (NEPA) analysis considered the potential impacts to the natural and human environment on FSGA-HAAF of implementing these activities and determined that no significant adverse impacts would occur on installation lands. Accordingly, a Draft FONSI was prepared.
A programmatic approach was chosen because it provides for early planning, coordination, and flexibility in program management, an early identification of potential environmental impacts, and serves as the basis for future, tiered, NEPA analyses as details and design for projects identified within the PEA are developed.
A copy of these documents can be accessed via the FSGA-HAAF NEPA webpage at: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. Hard copies or a CD copy of these documents are available by contacting Melissa B. Kendrick, FSGA-HAAF NEPA/Project Integrator, at Melissa.B.Kendrick.civ@army.mil. Please submit comments during the public comment period [February 7 – March 8, 2025] to the email address identified or by calling (571) 801-0206.

Copy of Marne Message Publication - email - begins next page

From: Cooke, Molly Anne CIV USARMY ID-READINESS (USA)
Subject: MARNE MESSAGE: Feb. 21, 2025- CYS Hosts Parents Night Out & SAC After Dark; March EAP Civilian Workforce Training Announced; DPW Environmental issues Notice of Availability
Date: Friday, February 21, 2025 2:39:12 PM

PLEASE DISTRIBUTE TO YOUR WORKFORCE, AND SOLDIERS THROUGHOUT YOUR COMMAND. THE MARNE MESSAGE IS ALSO AVAILABLE ON THE TEAM STEWART WEBSITE, home.army.mil/stewart

HUNTER AAF ACCESS CONTROL POINT UPDATE

All HAAF gates (Montgomery, Rio and Wilson Gates) will be conducting 24-hour operations until further notice. Traffic data collected during this time will be used to influence future operational decisions.

(FEB 3-MAR 12) GATES CLOSE FOR FIELD DENSITY

The Directorate of Emergency Services will close gates 4B and 4C on fort Stewart from Feb. 3-Mar. 12 in support of 3rd Infantry Division's training density.

(FEB 12-27) ROAD CONSTRUCTION SLATED ON FORT STEWART

Starting on Wednesday Feb. 12, the road between Champagne Rd. and Warrior Rd. On Fort Stewart will be closed to through traffic until Feb. 27, to repair the median. There will be access to Popeyes drive through and to Garrison HQ from Champagne Rd. Traffic will exit to the left through the parking lot behind Popeyes. For more information, call Jim Wine at 571-801-0217 or email, james.a.wine3.civ@army.mil.

(FEB 16-23) ARMYIGNITED SYSTEM MAINTENANCE ALERT

The ArmyIgnitED system will be undergoing major maintenance Feb 16–23 and will be unavailable during this time. Full functionality is expected to resume on Feb. 24. For more information, call 571-801-8606.

(MAR 7, 21) EAP CIVILIAN WORKFORCE TRAINING

Register today to attend the upcoming EAP Civilian Workforce Trainings.

- March 7, 1:30-3 p.m.: Time Management
- March 21, 1:30-3 p.m.: Balancing Work and Family

All classes are presented virtually via Microsoft Teams 365. Preregistration is required for access. Classes are open to all DA civilians, family members, and retirees. For more information, call 571-801-0466 or 912-631-5140 or email Saundra.k.poole.civ@army.mil

Note: pages in between here and NOA starting on next page deleted due to size/number of pages of Marne Message.

Advocate 24/7 Hotline: FS 571-802- 7474 or HAAF 571-802-0110.

(24/7 ONLINE) ARMY FAMILY TEAM BUILDING – FS & HAAF

Army Family Team Building (AFTB) is a family training and readiness program that provides participants with a better understanding of Army culture, as well as the skills and resources needed to become resilient, self-sufficient, and self-reliant members of the military community. For AFTB registration or for more information, call FS 571-801-1687, HAAF 571-801-7494 or visit https://olms.armyfamilywebportal.com.

ACS EMPLOYMENT DEVELOPMENT CENTER – FS & HAAF

Weekly updates about upcoming job fairs, hiring events, and current job openings that available to the FS/HAAF community can be found by visiting the ACS Employment Development Center website at https://home.army.mil/stewart/about/Garrison/acs/EDC/EDC-Job-Hiring. For more information call the Employment Readiness Program (ERP) at FS 571-801-6954, HAAF 571-801-7494 or visit https://home.army.mil/stewart/about/Garrison/acs/employment-readiness.

NOTICE OF AVAILABILITY: PROGRAMMATIC ENVIRONMENTAL ASSESSMENT to IMPLEMENT MISSION AND TRAINING ACTIVITIES on FORT STEWART AND HUNTER ARMY AIRFIELD, GA

The U.S. Army seeks public comments on the Programmatic Environmental Assessment (PEA) and Draft Finding of No Significant Impact (FONSI) for Implementation of Mission and Training Activities on Fort Stewart-Hunter Army Airfield (FSGA-HAAF). The Army proposes to implement mission and training activities on FSGA-HAAF for the purpose of maintaining operational readiness, while promoting an environment in which to live, train, and sustain the installation mission. The National Environmental Policy Act (NEPA) analysis considered the potential impacts to the natural and human environment on FSGA-HAAF of implementing these activities and determined that no significant adverse impacts would occur on installation lands. Accordingly, a Draft FONSI was prepared. A programmatic approach was chosen because it provides for early planning, coordination, and flexibility in program management, an early identification of potential environmental impacts, and serves as the basis for future, tiered, NEPA analyses as details and design for projects identified within the PEA are developed. A copy of these documents can be accessed via the FSGA-HAAF NEPA webpage at: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. Hard copies or a CD copy of these documents are available

by contacting Melissa B. Kendrick, FSGA-HAAF NEPA/Project Integrator, at Melissa.B.Kendrick.civ@army.mil. Please submit comments during the public comment period [February 7 – March 8, 2025] to the email address identified or by calling (571) 801-0206.

DEATH NOTICES

Anyone with debts owed to or by the estate of SPC Jacob Mullen, contact 1LT Nathan Klick at nathan.e.klick.mil@army.mil, the Summary Court Officer for th Soldier. SPC Mullen passed away on Jan. 30, 2025.

Anyone with debts owed to or by the estate of SGT Ilya Belkin, must contact 1LT Brooke Tuttle, the Summary Court Martial Officer for the Soldier. Cell: 217-737-5412 or email: brooke.e.tuttle2.mil@army.mil

ONGOING MESSAGES:

CONTRIBUTE TO THE COMBINED FEDERAL CAMPAIGN

The Combined Federal Campaign (CFC) is now open, giving us the chance to unite and give back to the causes we care about. Whether it's supporting veterans, wildlife conservation, or advancing medical research, every dollar counts and can make a meaningful impact. The CFC is the only authorized charity fundraising campaign for federal employees and members of the military. This is your opportunity to pledge your support to the causes that matter most to you. For more information or assistance with your pledge, contact Mr. Cherry, Kurtis at (571)801-0475 or kurtis.k.cherry.civ@army.mil

How to Give:

- Visit the CFC online platform at https://cfcgiving.opm.gov
- Explore thousands of charitable organizations
- Make a one-time donation or set up a recurring payroll deduction

INSTALLATION SUSTAINABILITY POLICY: ROCK OF THE MARNE

Fort Stewart/Hunter Army Airfield has committed itself to ROCK: Conserve **R**esources (Natural and Financial), **O**ptimize the Mission, as well as the Environment and Soldier/Employee Quality of Life, Maintaining **C**ompliance with Federal, State and Local Laws, and to **K**eep Improving. This is the Installation's Sustainability Management System's (SMS) Policy. For more information on the SMS program's aspects and targets,

Note: remainder of Marne Message deleted due to size.

Letters sent from FSGA/HAAF to regulatory community, here and remainder of this appendix

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. George Bain
U.S. Forest Service
Chattahoochee-Oconee National Forest
755 Cleveland Highway
Gainesville, GA 30501

Dear Mr. Bain:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Joey Brown
Liberty County Development Authority
425 W. Oglethorpe Highway
Hinesville, GA 31313

Dear Mr. Brown:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Amin Mahbub
Georgia Department of Natural Resources
Risk Assessment Program
2 Martin Luther King Jr. Drive, SE
Suite 1054 East
Atlanta, GA 30334-9000

Dear Mr. Mahbub:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Ms. Anna Truszczynski
Georgia Department of Natural Resources
Watershed Protection Branch
2 Martin Luther King Jr. Drive, SE
Suite 1054 East
Atlanta, GA 30334-9000

Dear Ms. Truszczynski:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

The Honorable Carter Infinger
Chairman, Bryan County Board of Commissioners
51 North Courthouse Street
Pembroke, GA 31321

Dear Mr. Infinger:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

The Honorable Chester A. Ellis
Chairman, Chatham County Board of Commissioners
124 Bull Street, Suite 210
Savannah, GA 31401

Dear Mr. Ellis:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Christopher Roberts, Chief Ranger
Georgia Forestry Commission, Chatham County
615 Eldora Road
Ellabell, GA 31308

Dear Mr. Roberts:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. A hard copy or CD copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

The Honorable David Strickland
Chairman, Evans County Board of Commissioners
3 Freeman Street
Claxton, GA 30417

Dear Mr. Strickland:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Don Imm
U.S. Fish and Wildlife Service
R.G. Stephens, Jr. Federal Building
355 East Hancock Avenue, Room 320
Athens, GA 30606

Dear Mr. Imm:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

The Honorable Donald Lovette
Chairman, Liberty County Board of Commissioners
112 North Main Street
Hinesville, GA 31313

Dear Mr. Lovette:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Joseph A. Melder
City Manager, City of Savannah
2 East Bay Street
Savannah, GA 31402

Dear Mr. Melder:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Kenneth Howard
City Manager, City of Hinesville
115 East MLK Jr. Drive
Hinesville, GA 31313

Dear Mr. Howard:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Ntale Kajumba
U.S. Environmental Protection Agency / Region 4
NEPA Program Office
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Dear Mr. Kajumba:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

Thomas C. Fry

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER army AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Ross Sullivan
Savannah District Corps of Engineers
Wetland Regulatory Division
100 W. Oglethorpe Avenue
Savannah, GA 31401

Dear Mr. Sullivan:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. If preferred, a hard copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT STEWART / HUNTER ARMY AIRFIELD
DIRECTORATE OF PUBLIC WORKS
1587 VETERANS PARKWAY, BUILDING 1101
FORT STEWART, GEORGIA 31314-5602

February 7, 2025

Mr. Steven Campbell
Chief Ranger, Georgia Forestry Commission
Bryan/Liberty County Authority
1203 South Coastal Highway
Midway, GA 31320

Dear Mr. Campbell:

The U.S. Army proposes to implement mission and training activities on Fort Stewart/Hunter Army Airfield (FSGA/HAAF), Georgia. The proposed action is needed to maintain operational readiness while promoting an environment in which to live, train, and sustain the installation mission. In accordance with the National Environmental Policy Act (NEPA), a Programmatic Environmental Assessment (PEA) has been prepared to analyze the potential impacts of implementing mission and training activities on the natural, cultural, and socioeconomic environment at FSGA/HAAF. The PEA is supported by a draft Finding of No Significant Impact. The Army is utilizing a programmatic approach to allow for early planning, coordination, and flexibility in project implementation.

These documents are available on the FSGA/HAAF/NEPA webpage: https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-and-compliance/nepa. A hard copy or CD copy may be obtained by contacting Ms. Melissa B. Kendrick, FSGA/HAAF NEPA/Project Integrator, Melissa.B.Kendrick.civ@army.mil. Please submit comments during the 30-day public comment period (February 7 – March 8, 2025) to the email address identified or by calling (571) 801-0206.

Sincerely,

James L. Heidle
Director, Public Works

APPENDIX C

Record of Tribal Notification

(*not required for this PEA)*

APPENDIX D

Cumulative Impacts Data

UNITED STATES ARMY GARRISON
FORT STEWART/HUNTER ARMY AIRFIELD
FINDING OF NO SIGNIFICANT IMPACT FOR
IMPLEMENTATION OF A BORROW PIT MANAGEMENT PROGRAM ON
FORT STEWART AND HUNTER ARMY AIRFIELD, GEORGIA

1.0 Introduction

Fort Stewart/Hunter Army Airfield (FSGA/HAAF) collectively serves as a major power project platform and provides a full spectrum of individual and collective training for combat, combat service, and combat service support personnel. The installation also provides administrative, residential, recreational, and other valuable support services to the Soldiers, their Families, and the Civilian employees who work and/or reside on the installation. This includes repair and maintenance of existing facilities, roads, bridges, and grounds, as well as a variety of other support services, including some minor construction, renovation, and demolition activities. These actions are all vital to the support of the mission on the installation and many of these projects benefit from an ample supply of existing fill materials on-Post, obtained from the 74 on-Post borrow pits, which are operated, managed, and maintained by the FSGA/HAAF Directorate of Public Works. It has been almost 20 years since the excavation of new borrow pits on the installation, or the expansion of existing borrow pits, and the existing borrow pits are near the end of their useful life. Based on known future needs on the installation, it is prudent to implement these actions to ensure the Borrow Pit Management Program (BPMP) can fully support these requirements. If not, the installation may have to purchase fill materials off-Post once all existing pits are depleted.

This Programmatic Environmental Assessment (PEA) was prepared to analyze the potential impacts of implementing a BPMP on the natural, cultural, and Socioeconomic environment on FSGA/HAAF. This PEA has been completed in accordance with the National Environmental Policy Act of 1969 (NEPA) (Title 42 of the *United States Code* [U.S.C.] Section [§] 4321), the Council on Environmental Quality (CEQ) NEPA regulations (Title 40 of the *Code of Federal Regulations* [C.F.R.] Parts 1500–1508), and the Army's NEPA implementing regulation (32 C.F.R. Part 651), *Environmental Analysis of Army Actions*. Army proponents prepare many types of management plans that must include or be accompanied by appropriate NEPA analysis and many of these can be accomplished with a programmatic approach, creating an analysis that covers a number of smaller projects or activities or actions assembled within a plan.

The environmental analysis in this document will serve as a basis for subsequent analysis, if required, eliminating duplication. The document's programmatic approach allows for early planning, coordination, and flexibility in project implementation and the identification of potential environmental impacts and provides the decision maker with the appropriate information required to make an informed decision. Analysis in this PEA will be used to determine whether a Finding of No Significant Impact (FONSI) is warranted or whether the implementation of the BPMP will require an Environmental Impact Statement (EIS) due to significant environmental impacts.

2.0 Purpose and Need

The U.S. Army proposes to implement a BPMP on FSGA/HAAF, Georgia. The purpose of the proposed action is to ensure borrow pits and (the fill materials they contain) are managed in a programmatic nature, in accordance with defined standards and guidelines established by installation experts and stakeholders, and in accordance with local, state, and federal laws. The proposed action is needed to ensure land management actions are implemented in a manner that ensures compliance with laws and regulations while maintaining access for training, testing, and mission requirements.

These stewardship actions on Army lands can also help mitigate emerging threats such as climate change by safeguarding forests and other beneficial environments that are essential to carbon sequestration efforts alongside mission and training activities, while ensuring that suitable types and amounts of fill material are available to support actions implemented on installation lands.

3.0 Description of the Alternatives

An Interdisciplinary (ID) Team was developed to identify screening criteria (SC) for the management of borrow pits on the installation and consisted of the FSGA/HAAF Environmental Division, Planning and Engineering Division, Operations and Management Division, and Range Division. During their planning sessions, it was determined that the installation required (1) the excavation of new borrow pits to meet borrow material demands for current and future actions on the installation; (2) the expansion of existing borrow pits with highly prized soil types for current and future actions on the installation; and (3) the closure of existing borrow pits that had expended their useful life. The ID Team determined these requirements could be identified and established SC to ensure all locations reviewed for those purposes would be thoroughly, accurately, and adequately assessed as part of their inclusion.

Alternative I: No Action. Under this alternative, the U.S. Army will manage the 74 existing borrow pits in their existing configurations and will not implement any of the BPMP recommendations from the ID Team, to include excavation of new borrow pits or expansion of existing borrow pits. This will not support known and anticipated future actions on the installation, as the existing borrow pits will eventually run out of amounts and types of usable borrow materials and the installation will have to rely on off-Post sources for borrow material needs, potentially impacting mission readiness. However, all actions will occur in accordance with existing federal, state, and local laws and regulations. Although this alternative does not meet the purpose and need for the proposed action, its inclusion is prescribed by the CEQ regulations as the benchmark against which all federal actions are evaluated. Also under the No Action Alternative, the ongoing, routine, day-to-day actions that support the installation's mission and that rely on fill material from the existing borrow pits will continue in the cantonment and range and training lands. These activities are vital to the support of the mission on the installation, have been determined to result in no adverse impacts.

Alternative II Implement Borrow Pit Management Program (BPMP) and ID Team Recommendations. Under this alternative, the U.S. Army will implement a BPMP on

FSGA/HAAF and the recommendations of the ID Team. This will include excavation of 14 new borrow pits on FSGA, expansion of 36 existing borrow pits on FSGA, the closure of one borrow pit on FSGA, and the closure of one borrow pit on HAAF. Because of the high ground water table, water constantly fills most holes dug on FSGA and HAAF, including borrow pits. This water is either (a) pumped into an adjacent pond (often a closed or inactive borrow pit itself) or (b) discharged to wooded or forested areas outside the pit, contained with appropriate Best Management Practices (BMPs), and eventually filtered back into the ground, recharging the groundwater table. All borrow pit design, excavation, and expansion actions support the potential for the depleted borrow pits to remain containing water and become a fishing pond or man-made, created wetland, if soil conditions, location, and groundwater resources favor such development. Operators are required to grade all peaks, ridges, and valleys resulting from surface mining, and to backfill all pits and trenches in a manner to minimize effects adjacent to any trail or road. Installation staff mark the boundaries of the excavation area prior to use.

4.0 Environmental Analysis

Chapter 3 of the PEA focuses on the potential environmental consequences that may arise as a result of implementing the proposed action. A thorough discussion is provided in the PEA and a summary is provided below. Each new borrow pit excavation and existing borrow pit expansion will undergo supplemental review as it enters the design process and prior to any actual ground disturbance, to include all associated and required permitting.

The Preferred Alternative (Alternative II) is anticipated to result in negligible adverse impacts to Wildlife and Migratory Birds and Vegetation, Protected Species, and minor adverse impacts to Air Quality, Protected Species, Prescribed Burn Programming, Groundwater, Surface Water, Floodplains, and Wetlands. All coordination and consultation requirements for potential impacts to Protected Species are complete and are available for review in the PEA for this action. Minor-to-moderate adverse impacts are anticipated to Cultural Resources; however, the installation will consult with the Georgia State Historic Preservation Office (SHPO) on all borrow pits with the potential to impact cultural resources prior to any actions occurring in the field. This supplemental review process will ensure adherence to federal, state, and local laws and regulations requirements, as well as ensuring a site-specific means by which to minimize and /or mitigate potential adverse impacts.

Moderate beneficial impacts are anticipated to land use, as the two borrow pits proposed for closure will naturally attenuate over time into ponds, a valuable recreational resource on the installation. Moderate beneficial impacts are also anticipated to Socioeconomics, as new and expanded borrow pit activities will stimulate jobs in the study area. No impacts are anticipated to Environmental Justice.

The No Action Alternative (Alternative I) is anticipated to result in negligible adverse impacts to Air Quality, Protected Species, Wildlife and Migratory Birds, Groundwater, Surface Water, Floodplains, Wetlands, and negligible-to-minor adverse impacts to Cultural Resources. No SHPO or other consultation/coordination requirements are

identified under this alternative; however, all actions on the installation are conducted in accordance with federal, state, and local laws and regulations requirements. Minor beneficial impacts are also anticipated to Socioeconomics, as new and expanded borrow pit activities will stimulate jobs in the study area. No impacts are anticipated to Land Use or Environmental Justice.

5.0 Mitigation and Monitoring Measures

Implementation of the Preferred Alternative (Alternative I) will entail environmental mitigation and monitoring measures, typically associated with permitting and/or consultation requirements, as described in detail in the PEA Chapter 3.0 and as summarized below. For the resources not specifically discussed below, no specific mitigation or monitoring is proposed at this time, beyond standard, routine minimization measures and BMPs, to include adherence to federal, state, local, and installation laws, regulations, policies, and procedures, and they are accordingly not discussed in this section of the FONSI.

Water Resources. Impacts to surface waters, streambanks, associated wetlands, and the floodplain will be minimized via the implementation and adherence to permits associated with the Clean Water Act (CWA), Erosion Sedimentation Control Act, Georgia Water Quality Control Act, and Executive Orders (EOs) 11988 (Floodplains) and 11990 (Wetlands). Site-specific permitting and site-specific erosion and sedimentation (E&S) control BMPs will be implemented prior to any land disturbance, site preparation, timber harvest, and borrow pit preparation activities. BMPs are identified early, must be utilized continuously, and are routinely and consistently inspected by the FSGA/HAAF Stormwater/E&S, Wetlands, and Floodplains Program Managers (PMs) for adequacy. Notices of Intent for coverage under the State's National Pollutant Discharge Elimination System Permits are strictly adhered to and all requirements are inspected periodically by the Stormwater/E&S PM.

Due to the predominance of wetlands and floodplains on the installation, their avoidance is not always practicable. The establishment of a borrow pit, as well as expansion of an existing borrow pit, does not fall within the category of classic construction, and impacts are primarily anticipated from timber harvest of approximately 150 acres of land and excavation to establish the new or expanded borrow pits. The installation stakeholders conducted site surveys to locate potential borrow pits in non-floodplain areas; however, site surveys did not identify enough non-wetland and non-floodplain sites that were the right size and soil type sufficient to meet the needs of the installation. The locations identified will generate around 65,340 cubic yards (cy) during their useful life and all existing borrow pits proposed for expansion will generate an additional 9,680 cy of fill during their useful life; site surveys confirm they contain the required fill materials. Non-floodplain/non-wetland forested lands on post are also primarily reserved for training on the installation and not always available for development, which further restricts siting options. All identified locations are adjacent to the existing transportation network, and all were determined to have no significant adverse impacts to protected species, wetlands, or cultural resources, as verified by the FSGA/HAAF Environmental Division subject matter experts. Accordingly, it was determined that the there is no practicable

alternative to siting all new borrow pits and expanded borrow pits within the floodplain and wetlands on FSGA.

Fort Stewart shall minimize flooding, erosion and/or sedimentation on adjacent upstream or downstream properties. As this is not classic construction, and work at these sites cannot be elevated up and out of the floodplain. Instead, work will emphasize drainage and stormwater management practices that minimize impacts to floodplains, and each borrow pit user will prepare and adhere to required BMPs in the Notice of Intent (NOI) prepared for and associated with each individual project, all of which is coordinated through the installation Borrow Pit and Floodplains Point of Contact (POCs). These measures will minimize potential adverse impacts at these locations. No new borrow pit excavation or expansion of existing borrow pits is proposed on HAAF and there are no impacts to floodplains anticipated at that location.

The installation utilizes the National Wetlands Inventory as a planning tool to identify wetlands during the siting process; however, as each new or expanded borrow pit project develops, is funded and designed, a wetland site visit and field survey will determine actual versus estimated impacts, followed by the submittal of a Jurisdictional Determination Request to the U.S. Army Corps of Engineers-Savannah District. This occurs prior to any excavation activities on each site. A similar process is followed for floodplain analysis, with the installation Floodplains POC. Due to the association of location and implementation mechanisms for these projects (borrow pits), it was deemed advantageous to consolidate all into one Programmatic Finding of No Practicable Alternative (FONPA). All combine to minimize the availability of as many practicable siting alternatives that are not within or adjacent to floodplains and wetlands as possible and to minimize potential impacts associated with those that do remain within or proximate to these resources. The installation works diligently, however, during the siting and design phases to shift out of and away from wetlands and floodplains to the best of their ability. In accordance with the CWA and EOs 11990 and 11988, a FONPA has been prepared; see PEA Section 3.4, Water Quality, for additional details.

Air Quality. Implementation of standard air quality and installation BMPs during all ground-disturbing activities will be utilized to minimize the potential for adverse impacts resulting from airborne particulates and fugitive dust, as well as the greenhouse gases associated with site clearing and construction processes. These include watering of exposed surfaces and covering areas with exposed soils. Dust resulting from construction and maintenance traffic can also be minimized by limiting speed limits on unimproved roads, as well as by limiting vehicular access on these surfaces and/or times of usage on these unimproved vehicular networks. When there are periods of high wind during excavation and grading, temporary suspension of those activities would also reduce the volume of fugitive dust they emit. These minimization efforts will assist the installation in ensuring it does not fall out of attainment status, and all such actions will be tracked by the installation Air Quality Manager, none of which are anticipated to result in a non-attainment status. No modification to permits is required.

Cultural Resources. The Cultural Resources Management Program (CRM) will review individual borrow pit proposals as they are enacted. The FSGA/HAAF CRM PM will consult with the SHPO and Federally Recognized Indian Tribes to ensure all National

Historic Preservation Act/other requirements are complete and the results of all consultation are considered during the development of the proposed action and its implementation, to include minimization and mitigation measures. CRM will coordinate with the BPMP PM (if the new/expanded borrow pits are near cemeteries or historic properties), ensuring potential impacts are anticipated early and ensuring there is ample time to conduct required actions, to include additional surveys, consultation, and, if required, mitigation.

Protected Species. The FSGA completed a Biological Assessment (BA) for this action, which was approved by the U.S. Fish and Wildlife Service via a Biological Opinion for this action. Two of the proposed new borrow pits (D1.3, Landfill) did not require discussion in the BA, as they were not located within protected species habitat. Although the proposed action will remove some habitat from protected species on the installation, the BA determined there is no potential to adversely impact these species on FSGA/HAAF. The Fish and Wildlife Branch will review individual borrow pit proposals as they are enacted to ensure this determination stands and no conditions have changed warranting further review.

6.0 Public Review and Comments

In accordance with 32 CFR Part 651, the Notice of Availability (NOA) of the PEA/FONSI/FONPA for this action was published in the Savannah Morning News and the Coastal Courier during the public review period (June 22-July 21, 2023). Notification of the PEA/FONSI/FONPA's availability was mailed to the members of the regulatory/local community with whom the installation consults and who have jurisdiction that could be affected by the Proposed Action. A copy of the NOA and all letters mailed to the regulatory/local community are in Appendix A of the Final PEA.

One comment was received on the draft PEA during the public review period. The GA Environmental Protection Division (EPD)-Land Protection Branch (LPB) indicated that the PEA did not mention the remediation sites on FSGA that were in proximity to the proposed Borrow Pit activities. Since the GA EPD-LPB's Department of Defense Facilities Unit is responsible for overseeing the environmental corrective action measures at FSGA, it was recommended that a section be added to demonstrate that implementation of the proposed action would have no impact on active remedial activities or land use controls at those sites. Accordingly, Section 8.4.8, Hazardous Materials/Waste Management and Remediation, was created in the Final PEA. The GA EPD-LPB also recommended that the PEA be reviewed by the air and soils programs within the GA EPD. The main office of the GA EPD receives all EAs/EISs and disperses these documents to others in the GA EPD as they deem appropriate; however, the installation is willing to add these additional resource specific POCs at the GA EPD to the NEPA Mailing List for future coordination efforts. The comments from the GA EPD-LPB are in Appendix A of the Final PEA. No other comments were received. At this time, the PEA was also revised to meet new page limit requirements under Section 302 of the Fiscal Responsibility Act of 2023, i.e., "the Builder Act." To do so, portions of the existing environment under Section 3.4.2 Climate Change and Extreme Weather, Section 3.4.3 Protected Species, and Section 3.4.7 Socioeconomics and Environmental Justice, were removed from the main body of the PEA and placed in a new Appendix E,

Supplementary Resource Information. This ensured that the PEA met legal requirements, while still ensuring that all pertinent information utilized by the Decision Maker and made available to the public was still present.

7.0 Conclusions

Based on a careful review of the information and analysis presented in the PEA, which is incorporated by reference, I have determined that no significant direct, indirect, and cumulative impacts to the human and/or natural environment will occur as a result of implementation of the proposed action, *Implementation of a Borrow Pit Management Program on Fort Stewart/Hunter Army Airfield, Georgia*. The Army's review indicates that the PEA's analysis is adequate and its conclusion that there are no significant impacts from the alternatives analyzed is valid.

The Army concludes that the Proposed Action is not a major Federal action that would significantly affect the quality of the environment per Section 102(2)(c) of NEPA and an environmental impact statement is not required and will not be prepared. This decision meets the requirements of NEPA and its implementing regulations and has been made after taking into account all submitted information and considering a full range of reasonable alternatives and all environmental impacts.

JAN 2 2 2024

MARC J. AUSTIN
Colonel, U.S. Army
Commanding

Date

Redacted for OPSEC

[1] The Extended Range Cannon Artillery (ERCA) is the Army's next-generation 155-millimeter artillery system that would replace or supplement the Paladin self-propelled howitzer M109A6 and M109A7. It would increase the training range from 23 to approximately 43 miles, and long-range precision fires can hit essential targets while allowing forces to stay farther back from incoming enemy fire. An ERCA battalion requires approximately 550 personnel, which may be drawn from existing installation personnel or realigned onto the post. The ERCA requires one battalion headquarters (HQ), five battery/company operations facility (COF), one Tactical Equipment Maintenance Facility (TEMF) with equipment parking, simulator buildings, organizational classrooms, paved vehicle parking, unaccompanied personnel housing, dining facilities, storage buildings, loading/unloading docks and ramps, and ranges. These requirements may be met with existing facilities or new construction of up to 20 acres in the FSGA and/or HAAF cantonment area.

[2] High Power Directed Energy (HP-DE) comprise a 300-kilowatt high-energy laser (HEL) and the high-power microwave (HPM) for the Direct Energy Indirect Fire Protection Capability (DE IFPC) and a 50-kW laser for the Directed Energy Maneuver- Short Range Air Defense (DE M-SHORAD) system, collectively known as the HP-DE systems. The HEL and HPM would be fielded at IFPC battalions or batteries and the DE M-SHORAD would be fielded with M-SHORAD battalions (see IFPC and M-SHORAD descriptions below). All HP-DE weapon systems are expected to be fielded to existing units that already have buildings and maintenance facilities, minimizing the need for new construction. The HEL and HPM soldiers would transition from IFPC kinetic energy systems with no growth of the battalion or battery associated with fielding the HELs and HPMs and no new construction anticipated.

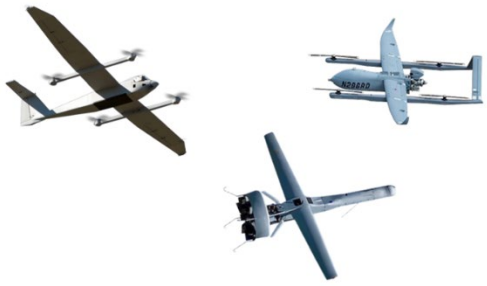
[3] Iron Dome Defense System-Army (IDDS-A) is a truck-towed, multi-mission mobile air defense system developed to counter very short-range rockets, artillery, and mortar threats. The battery organization would be similar to current Air Defense Artillery batteries, consisting of a small headquarters section, a launcher section, and a fire control/radar section. Each IDDS-A battery consists of new equipment and transport vehicles comprising standard Army Heavy Expanded Mobility Tactical

Truck. The IDDSA is expected to field as a battery with approximately 60 additional soldiers joining an existing unit, minimizing the need for new construction.

[4] Indirect Fire Protection Capability (IFPC) is a fixed-site or mobile, ground-based weapon system intended to defend fixed and semi-fixed sites, such as airfields and forward operating bases. The IFPC weapon system would provide a defensive opposition by intercepting cruise missiles, unmanned aircraft systems, and large-caliber rockets. The current requirements for facilities are subject to change based upon organizational structure, but include a HQ, COFs, tactical equipment maintenance facility, and storage spaces are a minimum makeup of an IFPC battalion and associated batteries. The total footprint space of these facilities at a minimum would be approximately 190,000 square feet. Approximately 735 personnel would be stationed with an IFPC 22 battalion. These requirements include new construction of up to 20 acres on the FSGA and/or HAAF cantonment area.

[5] Long Range Hypersonic Weapon (LRHW) and Army Missile Launcher Mid-Range Capability Weapon (MRC) consists of a maneuverable hypersonic warhead launched by missile from a truck transported launcher. Fielding both the LRHW and MRC at a single installation would comprise around 130-190 soldiers and approximately 96,000 square feet of land for the Forward Support Company, LRHW battery, and MRC battery footprints. Fielding the LRHW and MRC would also include access to established training lands necessary to support non-live-fire training and maneuver space. The equipment associated with LRHW and MRC batteries would include vehicles, launchers, various munitions, canisters, munitions trainers, and support vehicles. These requirements include acreage and new construction of up to 20 acres in the FSGA and/or HAAF cantonment area.

[6] The Multi-Domain Task Force (MDTF) is a new Army formation with the ability to execute multi-domain operations, designed to deliver long-range precision joint strike as well as integrate air and missile defense, electronic warfare, space, cyber, and information operations in both competition and conflict. The MDTF would integrate the IFPC, Precision Strike Missile, and LRHW/MRC capabilities into a brigade-sized unit. Implementation of the Full MDTF configuration requires up to approximately 93 acres of compatible facility capacity or space available for new construction. Different facilities required as part of the Full MDTF configuration include battalion HQs, COFs, TEMFs, and the addition of over 2,000 Soldiers and support personnel. The Base MDTF configuration includes all of the garrison support (cantonment support facilities, barracks, housing, and adequate space for storage and parking) infrastructure, but includes the additional of approximately Soldiers and support personnel. These requirements include acreage and new construction of up to 93 acres in the FSGA and/or HAAF cantonment area.



[7] Future Tactical Unmanned Aerial System (FTUAS) is a new unarmed Drone system that will replace the Army's 19 medium size drones such as the RQ-7 Shadow. This platform would enable multi- domain capabilities for brigade air-ground operations via significant improvements in operational capability, survivability, reliability, availability, maintainability and mobility. Since FTUAS is replacing an existing system no change in manning levels, number of vehicles, or new construction is anticipated.

[8] The Mobile Protected Fire (MPF)/Booker is an Armored Infantry Support Vehicle weighing approximately 42 tons (compared to the Army's M1 Abrams main battle tank at 70 tons). The Army currently plans to deliver 400-600 Bookers over a period of 7-10 years, fielding vehicles between FY2025 and 2035. The Booker would support the full range of military actions conducted by a BCT, and would provide long-range, protected, precision direct-fire capability to neutralize enemy-prepared positions and bunkers as well as defeat heavy machine guns and armored vehicle threats during offensive operations or when conducting defensive operations against attacking enemies. It is anticipated that existing support facilities may accommodate this system and no new construction is anticipated.

APPENDIX E

Resources Eliminated from Detailed Discussion

E.1 TRANSPORTATION

Commercial Port System. The Port of Savannah is located approximately 10 miles from HAAF and 41 miles from FSGA and is the largest port on the eastern seaboard and tenth largest port in the nation. Port facilities include container berths and container cranes capable of handling 45 containers per hour. The Port of Savannah also has gantry cranes with individual lift from 45 to 175 tons and tandem lifts to 275 tons. The Ocean Terminal features 10 berths totaling 5,988 linear feet and 83 acres of open storage space and about 37 acres of covered storage. Railcar switching services are provided by Norfolk Southern and CSX Transportation. Garden City and Ocean Terminals can accommodate lash mother ships and barge marshaling. Additional embarkation facilities including side, stern, and pivoting ramp roll-on/roll-off with crane and storage services are available at the Ports of Brunswick, Georgia, and Jacksonville, Florida, both of which are linked to railway service via CSX Transportation and Norfolk Southern. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Railways/Railroads. A main railway line connects the cantonment areas of FSGA and HAAF, which in turn connect to a railway system running along the entire eastern coast of the United States. This enables the movements of assets from FSGA to HAAF and/or directly dockside to the ports of Savannah (GA) to the east, Brunswick (GA) to the southwest, and Jacksonville (FL) to the south during military deployments and other required actions. Amtrak provides civilian passenger rail service at its Savannah station, which is served by the Palmetto, Silver Star, and Silver Meteor trains of Amtrak's Silver Service line, running from New York City to Miami, and stopping at nearly 50 cities in between. This integration of railway/railroad resource providers allows for a highly streamlined and efficient transportation process within the Study Area, all of which aid the local and regional economies. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Airspace and Airfields. The Federal Aviation Act (49 USC 40103) and the Federal Aviation Authority (FAA) regulate and manage the navigable airspace of the U.S., including military training routes (MTR), military operating airspace, and restricted airspace. FSGA/HAAF accommodates a broad spectrum of aviation activities for permanently stationed 3CAB and U.S. Coast Guard aircraft, as well as active Army, Army Reserve, National Guard, and U.S. Air Force/Air National Guard units. Regulated local airspace includes HAAF; WAAF/Midcoast Regional Airfield, a joint military-civilian operated airfield in the southeastern corner of FSGA; and the Savannah/Hilton Head International Airport, located approximately 40 miles to the northeast of FSGA. Each operates within FSGA Restricted Airspace Area R-3005, which is divided into five special use airspace areas (A, B, C, D, and E). There is a sixth restricted area designated as the Small Arms Range Safety Area, located along FSGA's northeastern boundary. No change to the installation's airspace is anticipated by implementing the proposed action or its alternatives.

HAAF has the U.S. Army's longest runway at 11,000 feet, able to accommodate any aircraft in the Air Force fleet, including the C-5A Galaxy. This capability is critical to

HAAF's role as a Power Projection Platform and the Installation is able to deploy forces such as the 75th Ranger Regiment or 3d Infantry Division (Mechanized) anywhere in the world with minimal notice (MARCOA, 1995). HAAF is not utilized as a general transportation resource within the Study Area, but as a military transportation resource only. No alterations to the Installation's existing airspace, airfields, or drop zones are proposed nor will they be altered or otherwise impacted by implementing the proposed action or its alternatives.

Public Transportation. Persons residing and/or working within the Study Area have access to several modes of public transportation (LTDP, 2018). In 2007, the 2007–2012 Hinesville Area Metropolitan Planning Organization (HAMPO) Transit Development Plan (TDP) was adopted, which provided capital and operational goals and financial plans for what would become the Liberty Transit System. The Liberty Transit System is a regional, urban, transportation service, operating three fixed routes via a fleet of nine buses, each equipped with ADA compliant wheelchair lifts and tie downs, as well as bicycle racks for multimodal passengers. Curb-to-curb service is available, including a limited number of stops on FSGA. On HAAF, similar services are provided by the Chatham County Area Transit System, which includes two express routes and a downtown circulator shuttle (GA DOT, 2014). The federal and state required Transit Development Plan (TDP), maintained by CAT, provides a 5-year/10-year guide and planning tools outlining the most effective and efficient transit services for residents. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Pedestrian Pathways and Bicycle Paths. FSGA and HAAF actively support the expansion of the bicycle and pedestrian network and are facilitating the use of funds for infrastructure investments. However, most sidewalks on the installation are located within the urban core of the study area, and along the main roads in the region, and not within the primary areas serviced by the INRMP. Biking lanes along the roadsides and sidewalks physically separated from the roadway are the preferred accommodation for bikers and pedestrians, as these resources provide safety, mobility, and healthier communities, per studies conducted by the Federal Highway Administration. In addition, military construction standard designs have begun incorporating bicycle racks, encouraging the benefits of cycling around the Installation versus driving from place to place, as well as focusing on the incorporation of pedestrian walking trails within Area Development Plans. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Roads and Trails. Fort Stewart is located primarily within Liberty and Bryan counties; however, portions of the Installation also lie within Evans, Long, and Tattnall counties, and Hunter Army Airfield is located within Chatham County, all of which are serviced by a vast federal, state, and local transportation network. Interstates I-95 and I-16 are the primary interstate systems in the Study Area, with I-95 located to the east of FSGA, running north-south from Miami, FL to the Canadian border in Maine, and I-16 running along the north of FSGA, originating in Savannah and terminating in Macon, GA. Other major transportation resources include U.S. Highway 17 to the east and U.S. Highway 84 to the south. Georgia State Road (SR) 119 bisects Fort Stewart north-south and SR

119 bisects FS east-west and have portions that are inaccessible because they traverse the access-controlled portions of Fort Stewart that are not open to the general public (HAMPO, 2020). Entry into FSGA is controlled via eight Access Control Points (ACPs). No highways run through HAAF, which is located within Savannah's city boundaries. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

E.2 UTILITIES

Energy. The Army Energy Program, with which FSGA/HAAF is fully compliant, set goals for all military Installations to make energy a consideration for all Army activities to reduce demand, increase efficiency, seek alternative sources, and create a culture of energy accountability while sustaining or enhancing operational capabilities. Army construction, operation, and maintenance must also be compliant with Leadership in Energy and Environmental Design and Low Impact Development (LID) protocols. FSGA has a diverse energy consumption profile, consisting of electric power, solar power, natural gas (both delivered by commercial utilities) and others. Fort Stewart is served by Georgia Power Company (GPC), and is also under a utilities privatization contract for their distribution systems with Canoochee Electric Membership Cooperative (EMC). Currently, GPC is planning to construct a battery facility adjacent to its 30MW PV Array, which will connect to it and the GPC Substation, providing a source of energy resiliency to the Installation and the backup microgrid facilities on FSGA and HAAF. Electric service at HAAF is privatized and managed by CEMC through a main substation serving approximately 662 buildings and 2,900 streetlights. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Natural Gas. FSGA is served by Gas South, a subsidiary of Atlanta Gas Light. In 2020, natural gas accounted for approximately 34% of FSGA's total energy consumption (IEWP, 2020). Natural gas boilers are used at Fort Stewart's Central Energy Plant for heating and cooling and most of Fort Stewart's mission critical facilities are served by nearby pressure regulated natural gas lines stemming from one supply point. There are roughly 37 miles of the distribution pipes made with Polyethylene Flexible DR-11, coated and wrapped steel, and PVC throughout the Installation. All natural gas services on HAAF are privatized and HAAF distributes its natural gas purchases via approximately 22,760 linear feet of distribution pipe, with diameters ranging from less than two inches to eight inches. It is primarily coated steel pipe with a small amount of polyethylene pipe. Various buildings and facilities on HAAF utilize other energy sources as their primary, to include No. 2 fuel oil, propane, waste wood, and waste oil. All are tracked to ensure compliance with both the Army Energy Program and the Installation's Title V Permit, which requires emissions inventories. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Communications. FSGA/HAAF's communication system is government-owned but operated by a communications contractor. It serves the entire cantonment area and provides local area network services and Internet access; Bell South is the local telephone provider for the Savannah metropolitan area, and Comcast provides cable television service. There are several distinct types of information networks in a range

environment: administrative, range control, and tactical. The administrative networks provide telephone and data support for the range buildings, to include safety telephones. The special RC networks control down-range targets and sensors, which monitors and transports this information to off-site locations. The tactical networks support the unit training requirements in a field environment. In addition, there could be security and alarm networks. The current infrastructure consists of single mode fiber optic cable installed in a maintenance hole/duct system, sections of which are direct buried. The fiber between nodes consists of directly connected fiber, as well as fibers that are spliced through intermediate buildings to make connections. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Wastewater. Fort Stewart operates two sanitary and one industrial wastewater treatment plants (WWTPs) in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit Number GA0004308 (issued by GA DNR-EPD). Fort Stewart also operates four Land Application Systems (LAS), located at Wright Army Airfield (WAAF), Camp Oliver, Evans Army Airfield (EAAF), and the Non-Commissioned Officer Academy. All of the LAS are managed/maintained by the Installation. Many of the ranges utilize septic systems, portable toilets, or Dry Vault Latrines and do not affect any wastewater capacity issues, as these are physically pumped out regularly and the wastes are properly disposed. Although Fort Stewart utilizes its two sanitary WWTPs in the training areas, it discharges sanitary waste from its Garrison area to the City of Hinesville's privately owned WWTP. Though this facility is owned and operated by the city, FSGA has an agreed-upon apportionment of 3.79 mgd at the Plant, although current use is 2.31mgd. The overall Hinesville permitted usage total of 7.15 mgd. The wastewater distribution system consists of 100 lift stations and 454,654 feet of sewer pipe. There are also 38 septic tanks which serve more remote sites on the Installation. Fort Stewart also operates an industrial WWTP which treats all waste from industrial activities, such as motor pools and the Central Energy Plant (CEP), to physically separate the oil from the water with a sand filter system for additional treatment.

HAAF owns and operates a wastewater collection system that consists of approximately 24 miles of sewer mains and laterals. Wastewater treatment facilities include a central WWTP off of North Perimeter Road on the north end of the Installation and 43 sewage lift stations (pumping stations). The central wastewater treatment plant is an activated sludge plant that treats an average flow of 0.336 MGD (CY 2019). The plant receives and treats all wastewater generated on HAAF, including minor industrial wastewater from wash racks. Sludge generated from the WWTP is dried on-site and taken off-Post to Superior Landfill and Recycling Center in Savannah, a commercial Subtitle D landfill operated by Waste Management. All liquid effluent joins with the City of Savannah's Wilshire Street Sewage Treatment Plant's effluent and discharges into the Savannah River. This discharge is covered under the plant's NPDES permitted 1.25mgd discharge limit and the Installation's average daily usage is 0.339mgd, giving the Installation an additional future capacity of 0.991mgd. There is an ongoing training program at HAAF to minimize potential pollutant discharges, as well as an inspection program to ensure

compliance. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Potable Water. FSGA's potable water supply is provided from eight wells that tap into the Floridan aquifer and have a combined maximum rated capacity of 8.4 million gallons per day (mgd). Its annual permitted drinking water capacity is 4.99mgd and its current use is 1.47mgd, leaving an approximate available capacity for additional use at FSGA of 3.52mgd. Four of the wells that serve the main cantonment have backup generators. If at least two of the wells remain operational, all critical mission needs can be supplied without curtailing installation usage. The FSGA cantonment area also has a series of elevated water storage tanks utilized for potable water storage, which range from a capacity of 250,000 gallons to 500,000 gallons. Currently, there are 1,974,130 gallons of storage on FSGA. There are also elevated water tanks located outside of the cantonment area, including one at EAAF, which has a capacity of 150,000 gallons, and two at the Unmanned Aerial Surveillance Complex at WAAF, each with a capacity of 200,000 gallons. Unlike the water tanks within the cantonment area, these tanks are utilized for fire suppression and not for potable water storage. Water service is also provided to its outlying lands, including the range and training areas, by 11 wells.

HAAF withdraws groundwater from five community wells and three non-community system wells that tap into the Floridan aquifer. This groundwater is treated with chlorine at the well head prior to being utilized. HAAF operates under a Water Management Plan, and groundwater withdrawals are permitted by the GA EPD, for a combined monthly average withdrawal of 0.35mgd, and a yearly average withdrawal of 0.30mgd from these eight wells. The approximate available capacity for additional use at HAAF is roughly 419,000mgd. All wells are tested monthly and potable water on FSGA and HAAF consistently meets all GA EPD standards. As a condition of its permit, FSGA/HAAF samples for various contaminants in its drinking water and reports those findings to the GA EPD. It also provides residents with a Consumer Confidence Report, compiled and provided to residents on an annual (calendar year) basis, no later than July 1st of each year. These systems will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

Solid Waste and Recycling. Solid waste is generated in a variety of ways, including routine day-to-day activities at offices, barracks, schools, and construction sites. Construction and demolition (C&D) debris is maintained as a separate solid waste stream and includes excavated soil as well as scrap from the constructed or demolished site. HAAF operated one inert landfill for the deposition of C&D debris, which underwent formal closure procedures in 2015, in accordance with the Georgia Rules for Solid Waste Management Chapter 391-3-4-.06(3)(c), as amended. There are no plans to re-open the landfill or to construct any facilities on or in its immediate vicinity.

Currently, all municipal and inert waste generated on HAAF is collected and transported to existing landfills on FSGA and these materials do not enter the waste stream within the Study Area. Fort Stewart has three active landfills: the South Central Sanitary Landfill, Non-Putrescible Landfill, and Inert (Yard Waste) Landfill. All are located in the

South Central Landfill Complex in the northwest corner of the cantonment area. These landfills are inspected in accordance with all federal, state, and Installation laws and regulations and were found to be fully in compliance during a January 2020 inspection by the GA EPD.

Fort Stewart/HAAF operates under the Solid Waste and Recycling SOP and Recycling Clause (52.000-4061), which states that all Army personnel, on-Post housing, and other community members and contractors are required to actively participate in the recycling program, and all contracts issued work must include participation in the recycling program. Achievement of at least 60 percent diversion, by weight, of all non-hazardous construction and demolition waste debris is required and all working projects on the Installation must track and report all potentially recyclable materials. This data is consolidated with other solid waste data and reported to the Department of the Army in the Solid Waste Annual Reporting System. All recyclables generated through construction projects must be kept separate from other waste and may be delivered to the Processing Station/Building 1384 or the Recycling Center/Building 1143. Curb-side recycling from on-Post activities, to include offices and residences, is collected weekly by the Installation waste management contract. In all actions, FSGA/HAAF ensures compliance with EO 13834, Efficient Federal Operations. These processes/programs will not be altered or otherwise impacted by implementing the proposed action or its alternatives.

E.3 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

In 2021, FSGA/HAAF commissioned an Economic Impact and Contribution Analysis (EICA) through the Center for Business Analytics and Economic Research (CBAER), a component of the Business Innovation Group at Georgia Southern University. The study is a comprehensive analysis of the economic contribution the installation makes to the Savannah-Hinesville-Statesboro Combined Statistical Area (SHSCSA), which includes Bulloch, Bryan, Effingham, Chatham, Liberty, Long and Wayne Counties and includes the entirety of FSGA and HAAF. Although part of FSGA's northwestern boundary lies within Tattnall County, it was not included in this specific economic analysis and no explanation was provided for it not being included in the 2021 EICA; however, economic impacts are anticipated to be similar to those experienced in the other counties discussed in the EICA. The EICA is in the process of being updated, but the updated numbers were not available at the writing of this PEA.

Population. The SHSCSA is the second largest population center in Georgia, outside of Atlanta and has experienced consistent growth over the past 20 plus years (Figure G-1, E-3). The largest urban center in the immediate vicinity of Fort Stewart is Hinesville, located just south of the installation's cantonment area in Liberty County. Other substantial municipalities outside the boundary include Richmond Hill (southeast, in Chatham County), Glennville (southwest, in Tattnall County), and Pembroke (North, in Bryan County), as well as several smaller communities through the multi-county area. HAAF is surrounded on its north, east, and south by the City of Savannah, the largest urban center in its vicinity, and the smaller communities of Pooler (northwest) and

Garden City (north), all located in Chatham County. As of 2019, there were 708,061 people living in the AHSCS (CBAER, 2021).

Figure E-1: Population Growth in the Study Area

Total Population					
Geography	2000	2010	2019	2030 (Est)	2040 (Est)
Bryan County	23,417	30,233	37,063	51,025	61,808
Bulloch County	55,983	70,217	76,120	93,233	105,549
Camden County	43,664	50,513	53,231	59,056	62,037
Chatham County	232,048	265,128	288,496	315,524	335,211
Effingham County	37,535	52,250	60,477	85,054	103,498
Glynn County	67,568	79,626	84,470	96,110	98,151
Liberty County	61,610	63,453	61,349	62,286	61,727
Long County	10,304	14,464	18,692	23,327	26,607
McIntosh County	10,847	14,333	14,174	17,234	17,361
Screven County	15,374	14,593	13,989	14,095	13,810
Region	558,350	654,810	708,061	802,849	871,949
Georgia	8,186,453	9,687,653	10,617,423	11,979,787	13,006,562

Source: U.S. Census Bureau Decennial Census, American Community Survey, GA Governor's Office of Planning and Budget

Data collected by the U.S. Census Bureau and CRC show growth trends increasing in Bryan, Chatham, Effingham, and Long counties and decreasing in Evans, Liberty, and Tattnall counties (Figure E-1) (CRC, 2019). Many persons who work on FSGA reside in communities located within these counties. Although Chatham County has experienced more modest growth by percentage, the total number of persons added since 2010 exceeds Bryan and Long Counties combined. Growth in Chatham County is partially attributable to the City of Savannah, which is the fifth overall largest city in Georgia; however, many other small-to-midsize cities in the area, such as Pooler and Richmond Hill, have seen considerably high growth rates during the last few years. Growth trends are anticipated to continue in a study conducted by the Coastal Regional Commission in 2020, based on consistent existing and anticipated future economic opportunities in the region (CRC, 2020).

There are an estimated 21,000 Soldiers and 37,000 associated Family members residing on and off-Post in the overall SHSCSA, and an additional 3,200 unaccompanied Soldiers residing on-Post. Approximately 5,000 military retirees and their dependents live within a 40-mile radius of FSGA/HAAF, and an additional 65,000 military retirees/dependents live outside that 40-mile radius, many of whom make use of the facilities on-Post. Population density (per square mile) tends to be highest around Savannah and Hinesville, and HAAF and FSGA by association. No regional data was available for percentage male or female in the SHSCSA; however, state data for 2019 was 51% female and 49% male and is anticipated to be commensurate in the Study Area (CBAER, 2021). No changes in population are anticipated as a result of implementing the proposed action or its alternatives.

Employment. In 2019, the SHSCSA was identified as a $27.8 billion component of a $616 billion state economy (GA) with 358,721 individuals in the SHSCSA workforce (Figure E-2). In 2021, the unemployment rate in the SHSCSA was 2.4 percent, less than that of the state of Georgia at 3.1 percent for the same period, indicating a strong local economy (EIA, 2021). The EISA indicates that the installation supports a combined 39,293 jobs within the region, which includes 28,615 individuals whose work is directly linked to the installation and the 10,678 people who are employed by businesses that provide products or services that support base operations. However, the most significant single contributing factor to the regional economy was determined to be personnel, including active-duty Soldiers, Civilian employees, and civilian contractors, accounting for approximately 14.9 percent of the total employment opportunities in the region (CBAER, 2021).

Total in Work Force (16 and older)	
Geography	**Total in Labor Force**
Bryan County	18,689
Bulloch County	37,345
Camden County	27,104
Chatham County	152,956
Effingham County	30,323
Glynn County	41,073
Liberty County	30,546
Long County	8,165
McIntosh County	6,524
Screven County	5,996
Region	358,721

Source: American Community Survey 2015-2019

Figure E-2: Total Persons in Work Force.

In 2019 alone, FSGA/HAAF contributed $1.27 billion in military salaries, $210 million in Civilian salaries, and $164 million in retiree's pensions; in addition, $31 million dollars was spent on construction projects in the region (CBAER, 2021). During federal fiscal year 2018, total defense spending in Georgia was 13th in the nation, based on contractor and payroll spending, and based on work done by defense contractors and defense personnel. Statewide contract figures included funds spent on supplies and equipment (53%), services (38%), research and development (5%), and construction (4%). Personnel payroll spending included active duty (52%), Civilian employees (27%), National Guard (11%), and reserves (10%). About two-thirds of these funds were spent on Army personnel due to the location of three military installations in Georgia. There are also 46 active farms in SHSCSA, comprising just over 6,000 total acres of land. Top crop items by acre included forage-land used for hay, silage, and greenchop; corn for grain; soybeans; pecans; and cut Christmas trees. In 2019, the median household income was $50,411 in Liberty County and $57,739 and Chatham County, which was not far from the Georgia mean household income of $56,000. Construction associated with implementation of the RCMP is anticipated to be conducted by personnel already residing within the region, employed by existing companies, and will not result in discernable changes in employment as a result of implementing the proposed action or its alternatives.

Housing. Military personnel stationed on FSGA/HAAF live in on-Post AFHAs and military barracks, as well as in off-Post housing. There are 3,268 Family housing units,

334 unaccompanied housing units, and 6,177 barracks spaces (FSGA/HAAF, 2022). In 2003, FSGA transferred responsibility for providing AFHAs services and ancillary supporting facilities, to include unaccompanied personnel housing (barracks) to a private entity, in accordance with the Residential Communities Initiative (RCI). Accordingly, the Army's RCI partner, Balfour Beatty Communities, has all ownership, maintenance, and repair responsibilities for these properties. Both married Soldiers and single Soldiers with Family members who are enrolled in the Defense Enrollment Eligibility Reporting System (DEERS) are authorized a Basic Allowance for Housing (BAH) based on their pay grade and is issued monthly to cover the cost of housing (FSGA/HAAF, 2022).

As of 2019, the median housing value in Liberty County was $124,500 and the median housing value for Chatham County was $194,500, both lower than the state of Georgia's median value of $306,113. The larger value of homes in Chatham County is likely due to the presence of the city of Savannah within Chatham County, which drives up the cost of housing in that market. This is not the case in Liberty County, in which the predominant community is Hinesville, which is not the size or composition of Savannah. Age of housing available in the SHSCSA tends to be newer and trends at 21% constructed between 2000-2009, 20% constructed between 1990-1999, 15% constructed between 1980-1989, and 12% constructed between 1970-1979 (CBAER, 2021). Newer housing tends to require less upkeep for the renter or owner. As of 2019, there were more units rented (19,768) county-wide than properties whose owners reside in the property as their primary residence (19,092). Due to continuous transition of military personnel arriving to the community and leaving, it is often easier for military Families to rent property as opposed to purchasing a home. Mean rent in the region is $1009, which is in line with the state of Georgia median rent of $1006 (CBAER, 2021). No changes in housing options/opportunities are anticipated as a result of implementing the proposed action or its alternatives.

Schools. The U.S. Department of Education provides federal impact aid to school districts that have federal lands within their jurisdiction. This federal impact aid is authorized under Public Law 103-382 as payment in lieu of taxes that would have been paid if the land was not held by the federal government. School districts receive federal funding for each student whose parent or parents live on or work on federal property. The amount of federal aid a school district receives is dependent on the number of "federal" students the district supports in relation to the total district student population. Schools receive more funding for students whose parents both live and work on federal property, although total funding varies annually according to congressional appropriations for the program. Funding has ranged from $200 to $3,000 per pupil. There are elementary and middle schools located on FSGA and HAAF, as well as Child Development Centers (CDCs) and these facilities are utilized by the Post's pre-school aged children. High-school-aged children on-Post attend Liberty and Chatham County public school district schools or private schools within the Study Area.

The FSGA Army Education Centers provide adult and continuing education services to active-duty Soldiers and their Family members, Army Civilians, reserve personnel, and

retired personnel. The center provides counseling, an English as a second language program, high school completion preparation, on-duty performance enhancement programs, and testing and professional development programs. Associate's, Bachelor's, and Master's degrees programs are offered on-Post through a consortium of area colleges and universities offering a variety of degree programs. Armstrong Atlantic State University, Coastal Georgia Community College, Georgia Southern University, East Georgia College, and Savannah State University are the institutions that compose the Liberty Center. There are a number of universities and colleges in the ROI and nearby Savannah, including the Brewton-Parker College Hinesville campus, St. Leo College in Savannah, the Savannah College of Art and Design, South College in Savannah, Altamaha Technical Institute in Jessup in Wayne County, and the Savannah Technical Institute. No changes in educational opportunities are anticipated as a result of implementing the proposed action or its alternatives.

Environmental Justice (EJ). On February 11, 1994, President Clinton issued EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. The EO is designed to focus the attention of federal agencies on the human health and environmental conditions in minority communities and low-income communities. EJ analyses are performed to identify the disproportionate placement of high and adverse environmental or health effects from proposed federal actions on minority or low-income populations and to identify alternatives that could mitigate these effects. Title VI of the Civil Rights Act of 1964 states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI further states that EJ "is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

Federal agencies are legally mandated to identify and address disproportionally high or adverse human health or environmental impacts of programs, policies, and activities on minority or low-income populations. EJ is an important aspect of the transportation planning process and must be addressed, specifically as it relates to public involvement, project funding priorities, and disproportionate impacts to protected populations. Through a thoughtful NEPA analysis, the Army seeks to avoid, minimize, or otherwise mitigate any disproportionately high and/or adverse environmental effect from its proposed action, which may include social and/or economic effects on minority and low-income populations. This process can be assisted via a full and fair participation by all potentially affected communities in the NEPA process. No actions are proposed under either alternative that will result in disproportionately high and adverse environmental or human health impacts to an identified minority or low-income population per Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

Race and Ethnicity. To assess the potential impacts to EJ communities, FSGA/HAAF is utilizing the 50% Analysis in combination with the Meaningfully Greater Analysis

(MGA). The 50% Analysis is used in areas where more than half the residents and/or potentially affected persons are defined as minorities. This analysis is often used in combination with the MGA, where more people in the affected area (such as 10-20%) are minorities than in the general population or in other areas used as a reference area (such as the state). Even if a Fifty-Percent Analysis shows a majority-minority population justifying an EJ analysis, conducting the MGA can add additional important information, as it could show a large difference between the affected community and the reference community and help ensure a meaningful analysis of potential impacts.

In 2020, the racial/ethnicity composition in the Study Area was 61% Caucasian/White and 39% persons of color (POC), where POC is defined as individuals who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino (EJ, 2022) (Figure C-4). However, when examined on a county-by-county basis Liberty County (in which much of FSGA is located) is 45% Caucasian/White and 55% POC and Chatham County (in which all of HAAF is located) is 52% Caucasian/White and 48% POC. In 2022, utilization of the EPA EJ Screening Tool identified a racial/ethnicity composition of 50% Caucasian/White and 50% POC (FSGA, 2020; EJ, 2022; CRC, 2019).

Analysis of available materials and data did not identify EJ communities within the boundaries of FSGA or HAAF; however, EJ Communities have been identified within the Study Area adjacent to the installation and have been highlighted on Figures G-6 and G-7 for the purposes of this discussion. There is one MGA population located approximately three miles southeast of FSGA (Figure E-5) that is 76% POC, 8% unemployed, 9% less-than-high-school graduates, and 8% persons over the age of 64. Another MGM population is located to the north, west, and slightly east of HAAF (Figure E-6), and this community is 71% POC, 13% unemployed, 13% less-than-high-school graduates, and 17% over the age of 64. No actions are proposed under either alternative that will result in disproportionately high and adverse environmental or human health impacts to an identified minority or low-income population per EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. No changes impacting race/ethnicity are anticipated as a result of implementing the proposed action or its alternatives.

Provision for the Handicapped. The Americans with Disabilities Act (ADA) guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. All actions on FSGA/HAAF, and the surrounding communities, occur in accordance with the ADA, unless there is a specific exclusion, such as (on FSGA/HAAF) for ranges and other areas where the disabled are not reasonably anticipated to be present. No changes impacting resources for the handicapped are anticipated as a result of implementing the proposed action or its alternatives.

Redacted for OPSEC

Figure E-3: Population Density in the Study Area (APHC, 2020).

Race/Ethnicity									
Geography	Total Pop	White	Black or African American	American Indian and Alaska Native	Asian Alone	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic/ Latino (Any Race)
Bryan County	37,063	77.0%	14.4%	0.4%	1.4%	0.1%	2.4%	4.3%	7.1%
Bulloch County	76,120	65.1%	27.9%	0.4%	1.3%	0.3%	1.5%	3.5%	4.0%
Camden County	53,231	73.0%	18.8%	0.7%	2.2%	0.1%	1.7%	3.5%	6.7%
Chatham County	288,496	52.7%	39.9%	0.3%	2.6%	0.1%	1.5%	2.9%	6.4%
Effingham County	60,477	81.6%	13.3%	0.2%	0.9%	0.0%	1.2%	2.8%	4.4%
Glynn County	84,470	68.5%	26.3%	0.4%	1.3%	0.1%	1.0%	2.4%	6.6%
Liberty County	61,349	45.8%	41.2%	0.5%	2.1%	0.5%	3.4%	6.6%	12.6%
Long County	18,692	63.9%	24.9%	0.2%	1.1%	0.4%	4.2%	5.3%	11.3%
McIntosh County	14,174	62.3%	35.5%	0.1%	1.3%	0.1%	0.0%	0.6%	0.3%
Screven County	**13,989**	55.6%	41.6%	0.2%	0.7%	0.0%	0.7%	1.1%	2.2%
Region	708,061	61.1%	31.4%	0.4%	1.9%	0.2%	1.7%	3.3%	6.5%

Source: American Community Survey 2019

Figure E-4: Race/Ethnicity in the Study Area.

Redacted for OPSEC

Figure E-5: EJ-MGM Population Southeast of Fort Stewart, Georgia.

Redacted for OPSEC

Figure E-6: EJ-MGM Population North of Hunter Army Airfield, Georgia

Persons without Transportation. The Coastal Georgia Region contains the state's largest urbanized area (Savannah) that is located outside of the metropolitan Atlanta (CRC, 2020). The counties in this region consist of several cities and communities and three urbanized areas, Savannah in Chatham County, Brunswick in Glynn County, and Hinesville in Liberty County. The development of mobility options, connecting rural communities to urbanized areas, and properly addressing rural growth factors is vital to ensure public transportation service needs are met in rural Coastal Georgia. Based on the U.S. Census, 13.9 percent of Georgia residents between the ages of 5 and 64 have one or more disabilities; therefore, many of them rely heavily on transportation assistance in order to be a functioning member of society. For Coastal Georgia, the highest percentage of disabled persons in the Study Area is in Chatham County at 13.5%, followed by Liberty County at 13.4%.

A small percentage of those persons residing and/or working within the SHSCSA do not have access to vehicles, ranging from 5.36% in Liberty County to 8.16% in Chatham County (CBAER, 2021). There is an existing public transportation network available to assist those without vehicles. The Liberty Transit System is a regional, urban, transportation service in the Hinesville/FSGA area, operating three fixed routes via a fleet of nine buses, each equipped with ADA compliant wheelchair lifts and tie downs, as well as bicycle racks for multimodal passengers. Curb-to-curb service is available, including a limited number of stops on FSGA. In the Savannah/HAAF area, similar services are provided by the Chatham County Area Transit System (Catch a CAT). Although it does not come onto HAAF itself, the CAT routes terminate adjacent to the installation's Access Control Point located at Montgomery Street (CAT, 2019). No changes impacting transportation options for the handicapped are anticipated as a result of implementing the proposed action or its alternatives.

Elderly. In 2019, the largest age group in the SHSCSA were those 65 and older, who made up 13.9% of the population, followed by those aged 20-24, at 8.4% of the population, and those aged 25-29 at 8.2%. This is consistent with the EJ Screen data from 2022, which identified 13% of the population in the EJ ROI as over 65 years or older. This is roughly comparable to the State of Georgia, in which roughly 14.7% are over the age of 65 (CBAER, 2021). In recent years, census reports that indicated that the population has been slowly growing older over the past five years, and this trend is projected to continue for at least the next 20 years; accordingly, this should be planned for at the local level as the aging population lives longer and requires services (U.S. Census, 2019). As indicated earlier, approximately 5,000 military retirees and their dependents live within a 40-mile radius of FSGA/HAAF, and an additional 65,000 military retirees/dependents live outside that 40-mile radius. Many of these retirees and their dependents make use of the facilities on-Post medical clinics, Winn Army Community Hospital on FSGA, and the Veterans Administration facilities within the local community (FSGA, 2022). No changes impacting the elderly/services available for the elderly are anticipated as a result of implementing the proposed action or its alternatives.

Poverty, Help for the Homeless, and Protection of Children. There are several shelters and assistance programs in the SHSCSA for individuals and Families in need of temporary placement due to lack of fixed, regular income, or an adequate residence. A mixture of government and private funding supports these programs, to include the FSGA/HAAF Family Advocacy Program, which provides shelter and referral information in the Study Area. In 2019, approximately 16.3% of the population in the Study Area lived below the poverty line, slightly more than the state average, which was 15.1% at that time (CBAER, 2021; CRC, 2019) (Figure E-7). No discussion was provided for the decrease noted poverty numbers from 2017-2019; however, this region has a strong economy and diverse employment opportunities and that may contribute to the relatively lower and decreasing trend in poverty.

In January 2020, the U.S. Department of Housing and Urban Development (HUD) reported that Georgia had an estimated 10,234 persons experiencing homelessness on any given day United States Interagency Council on Homelessness (USICH, 2022), higher than its immediate neighbors to the west (Alabama at 3,351), to the north (Tennessee at 7,256), and to the east (South Carolina at 4,207), but lower than its neighbor to the south (Florida at 27,487). SHSCSA data from 2019 indicated that 5,044 persons identified as homeless in the SHSCSA (Figure E-8) (CBAER, 2021). Within the Study Area, the highest homeless rate was identified in Chatham County, with 4,641 persons identified as experiencing homelessness during that period.

Poverty Status: Percent Below Poverty Line				
Geography	2017	2018	2019	3-Year Change
Bryan County	14.1%	14.1%	12.4%	-6.8%
Bulloch County	30.4%	28.7%	26.4%	-11.3%
Camden County	12.7%	12.9%	15.5%	24.1%
Chatham County	17.3%	15.8%	15.1%	-11.9%
Effingham County	9.6%	8.6%	8.5%	-6.1%
Glynn County	19.2%	18.3%	18.1%	-4.3%
Liberty County	16.6%	16.8%	15.9%	-5.2%
Long County	20.0%	20.0%	18.9%	-1.4%
McIntosh County	22.6%	22.3%	22.5%	-1.6%
Screven County	22.6%	22.3%	22.5%	-1.6%
Average	17.8%	16.8%	16.3%	-7.3%
Georgia	16.9%	16.0%	15.1%	-9.0%
Source: American Community Survey 2015-2019				

Figure E-7: Poverty Levels in the Study Area.

HAAF lies within Chatham County. The Chatham-Savannah Authority for the Homeless (CSAH) provides support for the Homeless Continuum of Care (CoC), led by a community board. Services offered include emergency shelter, supportive housing, food, clothing, health care, and case management. CSAH also writes and secures an annual HUD funding request for the CoC. The relatively higher cost of housing in the Chatham-Savannah area is identified as one reason homeless numbers are higher in this portion of the Study Area as compared to others (CSAH, 2022). More than 4,000 individuals' access CSAH services each year and the most recent point-in-time count identified more than 600 individuals living unsheltered, mostly in one of the several unregulated homeless camps throughout the county (CSAH, 2022). Walk-in resources in this portion of the Study Area for those in need of shelter include the Inner-City Night Shelter, Old Savannah City Mission, and the CSAH itself. The CSAH has initiated a Tiny House Project dedicated to reducing veteran homelessness in Chatham County, providing 46 affordable, permanent homes and support services for veterans. Called The Cove at Dundee, it also includes two clubhouses and a medical clinic.

FSGA lies within portions of several counties; however, as Hinesville is the largest community within this portion of the Study Area, Liberty County will be the focus of this discussion. During 2019, there were 24 individuals identified as homeless in Liberty County. The City of Hinesville provides support for the homeless via a CoC, all of which is detailed in the City of Hinesville Consolidated Plan (COH, 2014). The city established the Liberty County Homeless Coalition, a collaborative entity comprised of representatives from multiple agencies and nonprofits in the county. The Coalition serves as a referral agency that utilizes a central, coordinated assessment system that helps the community (service providers, agencies, churches and other organizations) to systematically assess the needs of persons seeking assistance, and link them with the appropriate resources. Hinesville has also implemented the Kirk Healing Center, a non-profit organization whose long-term goal is to construct a facility adequate to accommodate at least 100 single persons. Walk-in resources in this portion of the Study Area for those in need of shelter include Liberty County Manna House, United Way of Liberty County, and Liberty County Re-Entry Coalition in Liberty County (COH, 2022).

EO 13045, Protection of Children from Environmental Health and Safety Risks, requires federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children. Children are present at FSGA/HAAF as residents in the AFHAs and as visitors to the CDCs and recreational facilities. The Army takes precautions for their safety through a number of means, including, but not limited to, the use of fencing, limitations on access to certain areas, and provision of adult supervision. The Family Advocacy Program at FSGA/HAAF provides classes on child abuse prevention and personal safety for children. Public school data reported to the U.S. Department of Education during the 2018-2019 school year shows that an estimated 38,891 public school students experienced homelessness over the course of the year. Of that total, 642 students were unsheltered, 2,675 were in shelters, 7,632 were in hotels/motels, and 27,942 were doubled up (FSGA, 2022). No changes that will impact poverty, the homeless, or

children are anticipated as a result of implementing the proposed action or its alternatives.

Individual Experiencing Homelessness (2019)	
Geography	Number (PIT 2019)
Bryan County	4
Bulloch County	20
Camden County	5
Chatham County	4641
Effingham County	25
Glynn County	324
Liberty County	24
Long County	0
McIntosh County	0
Screven County	1
Total Region	5044
Source: Georgia Balance of State Continuum of Care, Chatham Savannah Authority for the Homeless	

Figure E-8: Persons Experiencing Homelessness in the Study Area.

E.4 LAND USE

Land use generally refers to human modification of land for a specific use, and it may also refer to the specific or primary use that a community has set aside for a parcel of land. Land use is guided by management plans, policies, ordinances, and/or regulations that determine the types of activities that are allowed on that specific parcel of land, as well as established guidelines for implementing said activities and the process through which new activities may be added over time. The Army Real Property Master Planning process determines the types of activities that are allowed on specific portions of Army land and FSGA/HAAF utilizes its own master planning process to efficiently and appropriately manage land uses and development decisions across the installation (FSGA 2009).

Compatibility of land use adjacent to military installations is encouraged at the federal, state, and local levels, and several encroachment prevention efforts may be used, including conservation partnerships, regional and county comprehensive plans, zoning codes, state or federal legislation, and financial assistance. All actions/activities on the installation occur in accordance with approved installation management plans and partnerships, to include the Army Compatible Use Buffer program. The installation and its partners within the surrounding communities share future development plans, such as zoning requests, area development plans, and metropolitan planning organization documents, to ensure adjacent land uses are identified well in advance of any future

development. This ensures that construction is compatible on and off post for FSGA/HAAF and its neighbors in the community.

The four construction projects discussed within the RCMP are located within the appropriate land use category and there are no land use conflicts with adjacent properties. The projects have been planned in coordination with the FSGA/HAAF Master Planning Branch (MPB) and all will continue to be coordinated with the MPB as they enter the design phase, and as they are funded, ensuring land use compatibility. There are no other potential land use conflicts associated with mission or training activities on FSGA/HAAF. Accordingly, no impacts are anticipated as a result of implementing the proposed action or its alternatives.

E5. SAFETY

Fire and Police Protection. Law enforcement services on FSGA/HAAF are provided by Department of the Army Civilian Police (DACP), in accordance with AR 190-56, The Army Civilian Police and Security Guard Program (DA, 2013). DACP Officers perform a multitude of duties, ranging from manning the ACPs, conducting traffic control and enhancement, patrolling the Installation, answering calls for service registered by workers and residents, and assisting/presenting at events as needed. The DACP law enforcement and security duties are authorized by the Installation and are limited in the execution of their authority to the Installation boundaries. They can apprehend any persons found on the Installation or at an activity for offenses committed on-Post that are felonies, misdemeanors, breaches of the peace, a threat to property or welfare, or detrimental to good order and discipline. In addition to apprehension authority, the DACP are authorized by the Federal/State/United States Code of Military Justice (UCMJ) to issue traffic citations and coordinate with local tenant units for the release of Soldiers for prosecution under/in accordance with the UCMJ and the local U.S. Magistrates for Federal/State prosecution of non-affiliated civilians. Installation Law Enforcement responsibilities fall under the Directorate of Emergency Services and the DACP and Military Police collectively work together to accomplish the Department of the Army Law Enforcement mission(s).

The FSGA/HAAF Fire Department is operated by Civilian Service personnel in accordance with AR 420-90, Fire and Emergency Services, the National Fire Protection Association (NFPA), OSHA, and other pertinent federal, state, and local safety regulations and laws. The Department provides protection from fire, rescue from dangerous situations, incidents involving acts associated with terrorism or personal and large-scale disasters (man-made or natural), education in fire prevention, fire and life safety assessments and assistance in any emergency where lives and property are in jeopardy. The Department also provides specific services to Soldiers and Civilian workers on Post, including safety inspections, public fire safety training, Fire extinguisher training, Fire Warden training, Facility design reviews, and hot work permits, and also provide coverage to the airfield for assigned and transient aircraft assistance and hazardous materials incidents. No changes to law enforcement or

emergency services are anticipated as a result of implementing the proposed action or its alternatives.

Range Safety. The "Range Safety Program," implemented under Army Regulation (AR) 385-63, governs Army policies, responsibilities, and procedures for firing ammunitions, lasers, guided missiles, demolitions, explosives, rockets, and the delivery of bombs on Army and Marine Corps ranges and live-fire training facilities (DA, 2012). The program is applicable to operational ranges, non-range training lands, bombing ranges, impact areas, surface dangers zones, target areas, all live fire weapons firing areas, recreational ranges utilized for rod and gun clubs, and test and evaluation ranges. All ranges are sited within the Training Standard on FSGA/HAAF, which is devoted entirely to Soldier training on the Installation and not adjacent to any facilities with which there is a conflicting land use. Because there are competing requirements for use of training lands on Post, the Range Facility Management Support System range scheduling process is utilized by the Installation's Range Control Office to automate the scheduling, operations and management functions of Range Branch. No changes to these safety protocols are anticipated as a result of implementing the proposed action or its alternatives.

Airfield Safety. All airfields are located in the Airfield Operations Standard of the FSGA/HAAF Regulating Plan. Land immediately adjacent to the airfield is located within the Airfield Support Standard and Training Standard, neither of which conflict with activities on the airfield or adjacent to it. Regulation of facilities and infrastructure in the vicinity of the airfield in necessary to ensure there are no distractions to aircrew members. This includes highly reflective surfaces and the presence of detention/retention ponds that attract waterfowl capable of interfering with landing and takeoff, among others. Regulating the use of this land assists in the safety of airfield resources. Airfields are kept free of vertical and horizontal obstructions, in accordance with FAA regulations, 14 CFR Part 139 Section 331, Obstructions, and UFC 3-260-01, Airfield and Heliport Planning and Design. No changes to these safety protocols are anticipated as a result of implementing the proposed action or its alternatives.

E6. HAZARDOUS MATERIALS/WASTE MANAGEMENT AND REMEDIATION

Asbestos Containing Materials (ACM). Contact with ACM is regulated on FSGA/HAAF to only those who are certified to handle this material. ACM was phased out of use in the United States in 1981 and all buildings/facilities/structures that were constructed prior to that year are assumed to contain ACM and/or are surveyed for ACM prior to work that will result in physical disturbance to materials that may contain ACM. Abatement/removal of ACM is not required if work will not disturb the ACM, rendering it friable/airborne; however, if ACM is present and will be disturbed, abatement is required and included as part of the contract, to include renovation, remodeling, or demolition. The contractor performing the work must conduct all asbestos abatement, containment, and disposal actions, and submit a 10-day notification to the GA EPD in accordance with the Georgia Asbestos Safety Act, Official Code of Georgia, Annotated Section 12-12-1. FSGA shall receive a copy of all

documentation and the 10-day notification to the GA EPD. Troop labor is not approved for work with ACM. The disposal of ACM must be in accordance with both the GA EPD and OSHA requirements and FSGA maintains copies of all disposal manifests and surveys in the offices of the DPW Environmental Division. No change to existing installation protocols for handling, maintaining, and disposal of ACM is proposed as a result of implementing the proposed action or its alternatives.

Lead Based Paint (LBP). Contact with LBP is also regulated on FSGA/HAAF to only those who are certified to handle this material, and all buildings/facilities/structures that were constructed prior to 1978 are assumed to contain LBP, the date these materials were phased out of use within the United States. Removal of LBP is not required if work within the building will not disturb the area containing LBP, rendering the lead airborne; for example, it may be painted over and encapsulated. If LBP removal is necessary, it is collected and disposed of off-Post in accordance with local, state, and Federal regulations, to include OSHA Regulation 29 CFR 1926.62, Lead Exposure in Construction; Interim Final Rule: Inspection and Compliance Procedures. Troop labor is not approved for work with LBP. LBP removal is not required prior to demolition of buildings on FSGA as all previous demolition containing LBP has passed the toxicity characteristic leaching procedure (TCLP) and qualified for off-Post Municipal Solid Waste Landfill disposal. The LBP transport and disposal manifest for all LBP removal and the TCLP results for demolition work shall be provided to the FSGA POC within 10 days of transport. FSGA maintains copies of all disposal manifests and surveys in the offices of the DPW Environmental Division. No change to existing installation protocols for handling, maintaining, and disposal of LBP is proposed as a result of implementing the proposed action or its alternatives.

Polychlorinated Biphenyls (PCBs). The presence of PCBs is often associated with older electrical system components and FSGA/HAAF has conducted extensive surveys to identify and remove PCB-containing components. However, fluorescent light ballasts (FLB) containing PCBs may be present in buildings demolished to support future construction on FSGA and surveys would be conducted to identify and properly remove and dispose of these items. Although PCBs in FLB are not regulated under the TSCA, the State of Georgia does regulate these PCBs and they are accordingly managed as PCB waste on FSGA through the HAZMAT Program. No change to existing installation protocols for handling, maintaining, and disposal of PCB is proposed as a result of implementing the proposed action or its alternatives.

Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs). FSGA/HAAF has removed or closed in place the majority of its historic USTs, and currently maintains only active UST sites, which are used for storage of used oil, used hydraulic fluid, used antifreeze, motor gasoline, and aviation fuels. All USTs and ASTs must have appropriate secondary containment and be installed, inspected, managed, maintained, and monitored in accordance with local, state, and federal law. No change to existing installation protocols is proposed as a result of implementing the proposed action or its alternatives.

APPENDIX F

Supplementary Information from

Chapter 3.0 of PEA

F-1: Installation Climate Resilience Plan Summary Matrix.

CUI

1.1 RISK ANALYSIS – SUMMARY RISK MATRIX

This Installation Climate Resilience Plan (ICRP) provides a path for Fort Stewart/Hunter Army Airfield (HAAF) to address its threats of climate change holistically in the Real Property Master Plan (RPMP) by identifying climate-related risks. The Plan follows the Risk Analysis approach; this approach includes Risk Assessment and Risk Management, including implementation.

Each climate hazard was assessed using the Standardized Army Risk Matrix. Inputs to the assessment included authoritative climate projections, virtual meetings with stakeholders, the workshop results, and subsequent research and evaluation. A summary of that assessment is provided in **TABLE 1.1.1**. Please refer to **SECTION 3.2** for detailed definitions of each climate hazard's impact and likelihood.

FORT STEWART HIGHEST RISK: HEAT

HEAT, INCLUDING INCREASINGLY WARM SUMMERS AND WINTERS, POSES MANY CHALLENGES FOR FORT STEWART AND COMPOUNDS IMPACTS OF OTHER CLIMATE HAZARDS. HEAT ADVERSELY IMPACTS TRAINING AND MISSION READINESS.

HAAF HIGHEST RISK: HEAT

RISING TEMPERATURES WILL CONTINUE DEGRADING ASPHALT AND INFRASTRUCTURE AT HUNTER ARMY AIRFIELD, RESULTING IN DEGRADING MISSION CAPABILITY. HEAT ADVERSELY IMPACTS TRAINING AND MISSION READINESS.

TABLE 1.1.1 RISK ASSESSMENT OVERVIEW

	FORT STEWART		HUNTER ARMY AIRFIELD	
ENERGY DEMAND	LOW RISK **Impact:** Moderate	**Likelihood:** Seldom/ Unlikely	LOW RISK **Impact:** Moderate	**Likelihood:** Seldom/ Unlikely
SEVERE WEATHER	HIGH RISK **Impact:** Moderate	**Likelihood:** Frequent	HIGH RISK **Impact:** Moderate	**Likelihood:** Frequent
DROUGHT	LOW/MEDIUM RISK **Impact:** Moderate/Critical	**Likelihood:** Seldom	LOW/MEDIUM RISK **Impact:** Moderate/Critical	**Likelihood:** Seldom
WATER SUPPLY	MEDIUM RISK **Impact:** Moderate	**Likelihood:** Occasional	MEDIUM RISK **Impact:** Moderate	**Likelihood:** Occasional
WILDFIRE	MEDIUM/HIGH RISK **Impact:** Critical/Catastrophic	**Likelihood:** Seldom	N/A **Impact:** N/A	**Likelihood:** N/A
HEAT	HIGH/EXTREMELY HIGH RISK **Impact:** Moderate/Critical	**Likelihood:** Frequent	HIGH/EXTREMELY HIGH RISK **Impact:** Moderate/Critical	**Likelihood:** Frequent
FLOODING	MEDIUM/HIGH RISK **Impact:** Moderate/Critical	**Likelihood:** Likely/ Occasional	MEDIUM/HIGH RISK **Impact:** Moderate/Critical	**Likelihood:** Likely/ Occasional
LAND DEGRADATION	LOW RISK **Impact:** Negligible/Moderate	**Likelihood:** Unlikely	LOW RISK **Impact:** Negligible/Moderate	**Likelihood:** Unlikely
COASTAL FLOODING	N/A **Impact:** N/A	**Likelihood:** N/A	LOW RISK **Impact:** Moderate	**Likelihood:** Seldom/ Unlikely

CUI

F.2 Protected Species on FSGA/HAAF

Red-cockaded Woodpecker (RCW). The RCW is federally listed as threatened by the USFWS due to habitat loss. The RCW is a non-migratory, territorial, cooperative breeder, and form social groups that consist of either a solitary territorial male, a mated pair, or a pair with their helpers (usually male offspring from previous years). RCWs live in clusters, defined as the area which contains a collection of cavity starts and cavities (roost, nest, and inactive) habitually used by a group, plus a 200-foot buffer zone. There may be numerous cavities within a cluster, but there is only 1 breeding pair per group. The RCW differs from other woodpeckers in that it excavates cavities for roosting and nesting in live pine trees rather than dead ones. The quality of RCW foraging habitat varies depending upon vegetation in the understory, weather, soils, season, and fire frequency and intensity, with the highest populations of RCWs occurring in areas with active prescribed burning programs that control hardwoods (frequency every 2-3 years).

Fort Stewart contains Georgia's largest remaining forest of longleaf pine, which is essential habitat for the RCW, and has surpassed its recovery goal of 350 potential breeding groups. It has enough suitable or potentially suitable habitat to support 657 RCW clusters and regularly contributes RCWs to a regional cooperative translocation program, through which adult RCWs are translocated from FSGA to other populations that are not yet fully recovered. The RCW is not managed on HAAF due to the lack of any sitings of this species on HAAF, the installation's small size (and associated amount of suitable habitat), and the inability to conduct specific activities required for the management of this species (cannot conduct prescribed burns due to adjacency to City of Savannah).

Wood Stork. The wood stork (WS) is listed as threatened by the USFWS due to habitat loss. The WS use a variety of freshwater and estuaries/wetlands for nesting, feeding, and roosting sites, and their nesting sites are located either in standing water or on islands surrounded by broad expanses of open water. Freshwater breeding sites may be used for many years and are most often dominated by cypress and gum species (*Nyssa*). The WS may feed in a wide variety of calm, shallow wetlands where the water column is uncluttered by dense patches of vegetation. Roosting sites may be used for a period of years or days, depending on the availability of food. Based on all available data, WS are not known to nest on FSGA; however, they are known to occasionally forage on the installation in shallow wetlands and swamps as they dry out during the summer months. There are no known WS on HAAF, although isolated sightings have occurred on HAAF when water levels were sufficient to concentrate their prey.

Eastern Indigo Snake (EIS). The EIS is federally listed as threatened by the USFWS due to habitat loss and its collection for the pet trade. It is a large, robust snake, and is iridescent bluish black in color, except for the chin and sides of the head, which may be red, coral, or white. Activity and surface movements are greatest from spring-fall, with individuals having territories of up to 125-250 acres or more during this time. During the winter months individuals may appear on the surface to bask, but seldom wander far from a favored retreat. This species searches actively for prey, and often forages along

the margins of wetlands. The eastern indigo snake breeds fall-late winter and lays its eggs (average nine per clutch) in gopher tortoise burrows, stump holes or other underground burrows. Suitable habitat on FSGA has been designated for the EIS, but they are not known to occur on HAAF.

Eastern Black Rail (EBR). The EBR is federally listed as threatened by the USFWS and is a year-round resident along the GA coastline, where it prefers salt, brackish, and freshwater marshes. Adults are generally pale to blackish gray, with a small blackish bill and bright red eyes. The wings are dark gray with small white spots. Little is known about EBR during migration, including migratory stopover habitat, but individuals seem to appear more frequently in wet prairies, wet meadows, or hay fields during migration than during the breeding and wintering seasons. Foraging for small aquatic and terrestrial invertebrates (and perhaps seeds) most likely occurs on or near the edges of stands of emerging vegetation, both above and below the high-water line. EBR are not known to occur on FSGA or HAAF but could transition through the installation without being seen or heard.

***Frosted Flatwoods Salamander (FFS)*.** The FFS is listed as threatened by the USFWS because of loss and degradation of native mesic flatwoods habitat and isolated ephemeral wetlands used for breeding. The flatwoods salamander has 2 life stages that occupy 2 distinct habitats. Adult flatwoods salamanders are terrestrial, and the larvae are aquatic. Adults inhabit mesic, fire-maintained pine flatwoods and savannas that surround ephemeral pond breeding sites. Flatwoods habitats where this species occurs may be described as flat to gently rolling with an open-canopied overstory of scattered longleaf and slash pine. Accordingly, their habitat is widespread on FSGA and includes many areas not heavily used or impacted by mechanized training activities. Salamander breeding sites are small ponds, often less than one acre, which receive surface water runoff from adjacent pine habitat. Terrestrial adult FFS inhabit low areas in pine flatwoods, where they live in underground burrows that they excavate, or in crayfish tunnels. FSGA have been found more than one mile from their breeding ponds; accordingly, once a potential breeding pool is identified, a protective buffer of 492 yards from its edge is recommended by USFWS and implemented by FSGA/HAAF. Fort Stewart has identified potential breeding ponds and ranked them according to their suitability as FFS breeding sites, including establishing protective buffers. The primary conservation goal for the flatwoods salamander is to manage sites supporting salamander populations or potential salamander habitat to encourage long-term survival of the species on the installation. Suitable habitat for this species is widespread on the installation and has been promoted through past and current management practices, especially prescribed burning. This habitat on FSGA has been designated FFS Habitat Management Unit (HMU). No FFS are known to occur on HAAF.

Atlantic and Shortnose Sturgeon. The Atlantic and shortnose sturgeons are federally listed as endangered by the USFWS. These fish have long bodies and are distinguished from other sturgeon by their wide mouths and individual coloration. These fish are “freshwater amphidromous,” where adults spawn in freshwater, then remain in either the river’s estuary or in the river itself, and only periodically visit saltwater at the river’s

mouth, to include the Canoochee River system in GA. In the Ogeechee River, sturgeon have been located approximately eight kilometers upstream of the installation's northern boundary. Although regions upriver contain sufficient spawning and overwintering habitats, sturgeon have not been found there. Habitat degradation by eutrophication of the river, reduction or absence of thermal refuges, and/or bycatch mortalities in the shad fishery are the three most likely limiting factors in the Ogeechee River. The Canoochee River is too shallow to provide suitable summer thermal refuges but may be deep enough to allow the fish passage on spawning migrations during fall and winter. Aquatic habitats of a portion of the Ogeechee River were designated as critical habitat for the Atlantic Sturgeon; however, none are known to occur in any of the river or stream systems on HAAF.

Smooth Coneflower. The smooth coneflower is a perennial herb in the Aster family that was federally listed as endangered by the USFWS in 1992, with a smooth stem and large pink or purple petals. The plant loses all its leaves in the fall but remains alive underground until the leaves reemerge in March. The plant grows up to 3 feet tall and depends on periodic fire to reduce competition for sunlight. Fort Stewart has a single population of the smooth coneflower with 45 individuals in the northwestern corner of the installation, and none are known to occur on HAAF. It is found in only two or three counties in Georgia, with scattered populations in the Carolinas and Virginia.

West Indian Manatee (*WIM*)*. The WIM is listed as threatened by the USFWS. Often called sea cows, these* large, aquatic mammals forage on aquatic plants and spend most of their time underwater, returning to the surface to breathe, often remaining just below the surface with only their snout exposed. They have large, heavy, seal-shaped bodies with paired flippers, and a round, paddle-shaped tail. The WIM prefer shallow, slow-moving waters of rivers, estuaries, saltwater bays, canals, and coastal areas, and they can move easily between freshwater and saltwater but prefer freshwater. They have no natural predators, and the primary threats to manatee survival are collisions with boats and loss of warm water springs that provide wintering habitat. Manatees have been observed on FSGA in the lower Canoochee River, upstream from its confluence with the Ogeechee River. However, there is no critical habitat identified for the manatee on FSGA or HAAF, and due to the distance between the proposed action areas and documented manatee sightings, this project will not affect the West Indian manatee.

Bald Eagle. The Bald eagle is listed as not listed by the USFWS but is protected by the Bald and Golden Eagle Act. It is a large, predatory raptor seen near all types of water habitats. These birds are opportunistic predators, and when fish aren't available, will eat many prey items, to include scavenging on carrion. Breeding pairs build a platform nest in the top of a large tree and return to the same nest as long as it is suitable, and egg laying generally occurs in the winter months here. There are two known bald eagle nests on FSGA, but there is no critical habitat identified for the bald eagle on the installation. No Bald eagles are known to occur on HAAF, and due to the distance between the proposed action areas and documented eagle nests, this project will not affect the bald eagle.

F-3. Groundwater

The FSGA potable water supply is provided from eight wells that tap into the Floridan aquifer and have a combined maximum rated capacity of 8.4 million gallons per day (mgd). Its annual permitted drinking water capacity is 4.99mgd and its current use is 1.47mgd, leaving an approximate available capacity for additional use at FSGA of 3.52mgd. Four of the wells that serve the main cantonment have backup generators. If at least two of the wells remain operational, all critical mission needs can be supplied without curtailing installation usage.

The FSGA cantonment area also has a series of elevated water storage tanks utilized for potable water storage, which range from a capacity of 250,000 gallons to 500,000 gallons. Currently, there are 1,974,130 gallons of storage on FSGA. There are also elevated water tanks located outside of the cantonment area, including one at Evans Army Airfield (EAAF), which has a capacity of 150,000 gallons, and two at the Unmanned Aerial Surveillance Complex at Wright Army Airfield (WAAF), each with a capacity of 200,000 gallons. Unlike the water tanks within the cantonment area, these tanks are utilized for fire suppression and not for potable water storage. Water service is also provided to its outlying lands, including the range and training areas, by 11 wells.

The HAAF potable water supply is provided from five community wells and three non-community system wells that also tap into the Floridan aquifer. This groundwater is treated with chlorine at the well head prior to being utilized. HAAF operates under a Water Management Plan, and groundwater withdrawals are permitted by the GA EPD, for a combined monthly average withdrawal of 0.35mgd, and a yearly average withdrawal of 0.30mgd from these eight wells. The approximate available capacity for additional use at HAAF is roughly 419,000mgd.

All wells are tested monthly and potable water on FSGA and HAAF consistently meets all GA EPD standards. As a condition of its permit, FSGA/HAAF samples for various contaminants in its drinking water and reports those findings to the GA EPD. It also provides residents with a Consumer Confidence Report, compiled and provided to residents on an annual (calendar year) basis, no later than July 1st of each year. The installation implements water conservation measures to reduce water withdrawals; however, this is being done strictly as a conservation measure and not because of dwindling permitted withdrawal capacity. If at least two of the four wells on FSGA are operational, all critical mission needs can be supplied without curtailing installation usage; if at least one of the four wells on HAAF is operational, all critical mission needs can be supplied without curtailing installation usage. This backup system aids in energy resilience measures on the installation. If a drought is designated, water use can be prioritized to critical mission facilities and/or activities, and water restrictions (such as not watering lawns at all until the region has moved beyond the period of drought) are employed. The installation has made identifying its Critical Facilities List a priority, ensuring they have an adequate source of power in the event of an emergency. The FSGA/HAAF IEWP provides a roadmap for supporting increased energy resilience, readiness, and mission assurance. This document is driven by Army energy and water

security goals, as outlined in Army Directive 2020-03, Installation Energy and Water Resilience Policy, as well as other federal, DOD, and Army policies and regulations.

F-4

Hazardous Materials/Hazardous Wastes and Remediation Figures

Redacted for OPSEC - here forward

Figure F-1: Active ERA and PFAS Site on HAAF, GA.

Figure F-2: ERA Sites (SWMUs and MMRPs) on Fort Stewart, GA.

Figure F-3: ERA Sites (MMRPs) on Fort Stewart, GA.

Figure F-4: AOPIs on FSGA.

Figure F-5: AOPIs on HAAF.

DEPARTMENT OF DEFENSE
UNITED STATES ARMY
PROGRAMMATIC FINDING OF NO PRACTICABLE ALTERNATIVE FOR ROUTINE AND ONGOING ARMY ACTIONS OCCURRING WITHIN WETLANDS AND THE FLOODPLAINS AT FORT STEWART / HUNTER ARMY AIRFIELD, GEORGIA

1.0 Introduction

Fort Stewart, Georgia (FSGA) is a 289,000-acre U.S. Army Installation Management Command (IMCOM) installation located in southeastern Georgia. Located adjacent to the city of Hinesville, it lies within portions of five separate counties (Bryan, Evans, Liberty, Long, and Tattnall) (Figure 1) and is home to the 3rd Infantry Division (3ID), a combined arms and infantry division, and direct subordinate unit of the XVIII Airborne Corps. Hunter Army Airfield, Georgia (HAAF) is a 5,400 acre IMCOM installation located 40 miles to the east of FSGA, adjacent to the City of Savannah, and is the home of the 3ID Combat Aviation Brigade. Collectively, FSGA/HAAF serves as a major power project platform and provides a full spectrum of individual and collective training for combat, combat service, and combat service support personnel. The installation also provides administrative, residential, recreational, and other valuable support services to the Soldiers, Families, and Civilian employees who work and/or reside on the installation.

Fort Stewart contains 176,420 acres of floodplains and 85,785 acres of wetlands, and HAAF contains 5,400 acres and contains 1,413 acres of floodplains and 1,639 acres of wetlands. In many locations, the wetlands and floodplains are interconnected. Due to the preponderance of these resources on the installation, including within the existing built-up areas (such as the cantonment), the avoidance of wetlands and floodplains while implementing routine mission requirements is difficult and often not practicable. To support these mission requirements, the installation proposes to enact a Programmatic Finding of No Practicable Alternative (PFONPA) for actions occurring within wetlands and floodplains determined to be routine and ongoing. This will reduce the amount of time, resources, and administrative burden associated with preparing individual project-level FONPAs for each action as it is proposed. Activities that do not meet criteria established in this PFONPA will require an individual project-level FONPA.

This PFONPA was available for a 30-day public review and comments period on the FSGA/HAAF National Environmental Policy Act (NEPA) webpage (https://home.army.mil/stewart/index.php/about/Garrison/DPW/environmental/prevention-andcompliance/nepa.) (December 21-January 19, 2023) and a Notice of its Availability was published in the Savannah Morning News, Coastal Courier, and The Frontline, which is hereby incorporated by reference. No comments were received during this time, and a public meeting was not required.

2.0 Proposed Action

Fort Stewart/HAAF proposes to implement a PFONPA for routine and ongoing actions occurring within wetlands and floodplains on FSGA/HAAF. The Wetlands and Floodplains POCs review all project submittals via the FSGA/HAAF NEPA process and will determine if an action meets the criteria suitable for tiering from this PFONPA.

These criteria are: (a) the anticipated impact is no more than negligibly adverse to wetlands and/or floodplains; (b) the action falls within the boundary of those approved in this PFONPA; and (c) the action meets all requirements for a Categorical Exclusion under 32 CFR Part 651 (Appendix B). If the action does not qualify for the PFONPA, the NEPA POC will begin preparation of an individual FONPA for that action, in accordance 32 CFR Part 651 (Appendix B) and EOs 11988, 13690, and 11990.

The actions covered for this PFONPA include:
a. Interior renovations, repairs, and/or maintenance to existing facilities and infrastructure that do not involve ground disturbance and that remain within the interior of the identified facility. Examples include removal of asbestos containing materials or lead based paint abatement and removal.

b. Exterior renovation and/or repairs to existing facilities and infrastructure that involve ground disturbance, but which meet the criteria for a nationwide permit. Examples of which include minor repairs to buildings, parking lots, sidewalks, dams, and bridges.

c. Maintenance and repair of existing roads, tank trails, railroads, and/or other transportation conveyances within the cantonment area and the range and training lands. Examples include quarterly maintenance, application of gravel, stabilization, ditching, and/or grading.

d. Maintenance, repair, restoration, and/or replacement of existing bridges, dams, railroads, and other water-crossing structures in accordance with required CWA requirements. Examples include patchwork, replacing damaged sections of a structure in disrepair, upgrading to meet current safety standards, or partial-to-complete replacement.

e. Maintenance and/or repair of recreational structures, such as docks, boat ramps, and sports fields.

f. Maintenance and/or repair of components of the stormwater drainage system. Examples include culverts, ditches, and restoration or replacement-in-kind in accordance with CWA requirements, as well as shoulder work, reshaping, debris removal, erosion rills and culvert replacement within existing systems.

g. Maintenance and repair of upland training areas, such as firing points, bivouac areas, maneuver areas, marshaling points.

h. Maintenance and repair associated with bank stabilization projects, to include ponds, streams, rivers, and areas within upland systems, with an approved erosion and sedimentation plan.

i. Spill response operations, including construction of temporary dams to restrict or stop flow of contaminants.

j. Installation, maintenance, repair and/or replacement of in-kind scientific measurement devices, such as metering, for the purpose of monitoring environmental conditions.

k. Temporary construction for access through footprinted and delineated wetlands or floodplains (as established/confirmed by the FSGA/HAAF Wetlands and Floodplains POCs) if no wider than 12 feet, no greater than 1/10 of an acre, and for no longer than 30 days. Activity must also be approved by the FSGA/HAAF Conservation Branch, Cultural Resources Section, and other resource managing authorities, as applicable to the specific action.

l. Streambank and shoreline stabilization in accordance with CWA and Coastal Zone Management Act requirements.

m. General land maintenance and repairs that do not increase the amount of impervious material within a watershed, examples of which include dam maintenance, tree and brush removal along roads/railroad tracks/fence lines, grounds maintenance, mowing, and landscaping.

n. Demolition of existing structures in accordance with 32 CFR Part 651 (Appendix B)(c)(2), where standard demolition practices would be applied to control E&S concerns during demolition.

o. Upgrades to existing utilities and/or installation of new utilities within an existing right-of-way.

p. Debris and sediment removal from waterways and water access points in accordance with federal and state requirements.

q. Conservation, cultural resources, forestry, restoration, and other program management activities such as establishing and maintaining food plots, land regeneration activities, conducting archaeological resource recovery actions, conducting restoration program site investigations, pest management, and firebreak maintenance/other forestry activities, fish and wildlife harvesting, enhancement, and/or other approved management activities.

r. Recreational use of areas within wetlands and the floodplain to include, but not limited to, fishing, golfing, boating, hunting, and hiking.

s. Daily use of tank trails, range and training lands, position artillery areas, observation points, firing points, impact areas, and other training resources for the purposes of training.

3.0 Impacts and Mitigation Measures

3.1 Floodplain

EO 11988, Floodplain Management, and EO 13690, Establishing a Federal Flood risk Management Standard, state that if the only practicable alternative requires siting in a floodplain, the agency shall, prior to taking action, design or modify its action to minimize potential harm to or within the floodplain, and it is Department of Defense policy to minimize construction within floodplains. Therefore, where possible, installation POCs shift proposed actions out of floodplains in the project planning phase (via mitigation by design). The FSGA/HAAF Floodplain POC will review all proposed actions, and the installation will follow all local, state, and federal laws, and incorporate BMPs to reduce erosion, runofff, encroachment, and maintain water quality.

Taken together, these mitigation tactics would avoid and/or minimize impacts to floodplains on FSGA/HAAF, and these measures represent all practicable measures to minimize harm to floodplains.

3.2 Wetlands

Executive Order 11990, Protection of Wetlands, requires that each federal agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds: (1) there is no practicable alternative to such construction and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. The FSGA/HAAF Wetlands POC will review all proposed action, and the installation will follow all local, state, and federal laws, as well as any permitting requirements, and will incorporate BMPs to reduce erosion, runofff, encroachment, and maintain water quality.

Taken together, these mitigation tactics would avoid and/or minimize impacts to wetlands on FSGA/HAAF, and these measures represent all practicable measures to minimize harm to wetlands.

4.0 Finding of No Practicable Alternative

Following an evaluation of the impacts associated with conducting routine and ongoing activities, as defined in this PFONPA, I find that there is no practicable alternative to conducting these activities within wetlands and the floodplain, due in part to the preponderance of these resources on this installation. Furthermore, pursuant to EOs 11988, 13690, and 11990, and as described above, FSGA/HAAF will take all practical measures to minimize impacts associated with these activities to and within the wetlands and floodplain environment. FSGA/HAAF will also review each application to ensure that there are no practicable alternatives and that the screening criteria described above are applied. This PFONPA is effective as of this date and will be reviewed annually by the installation subject matter experts to ensure protection of installation resources.

For Carla K. Coulson
Deputy Assistant Secretary of the Army
(Installations, Housing & Partnerships)

Attachments:
Figure 1. FSGA/HAAF Location Map
Figure 2. FSGA Wetlands and Floodplains
Figure 3. HAAF Wetlands and Floodplains

References:
EO 11988
EO 11990
EO 13690

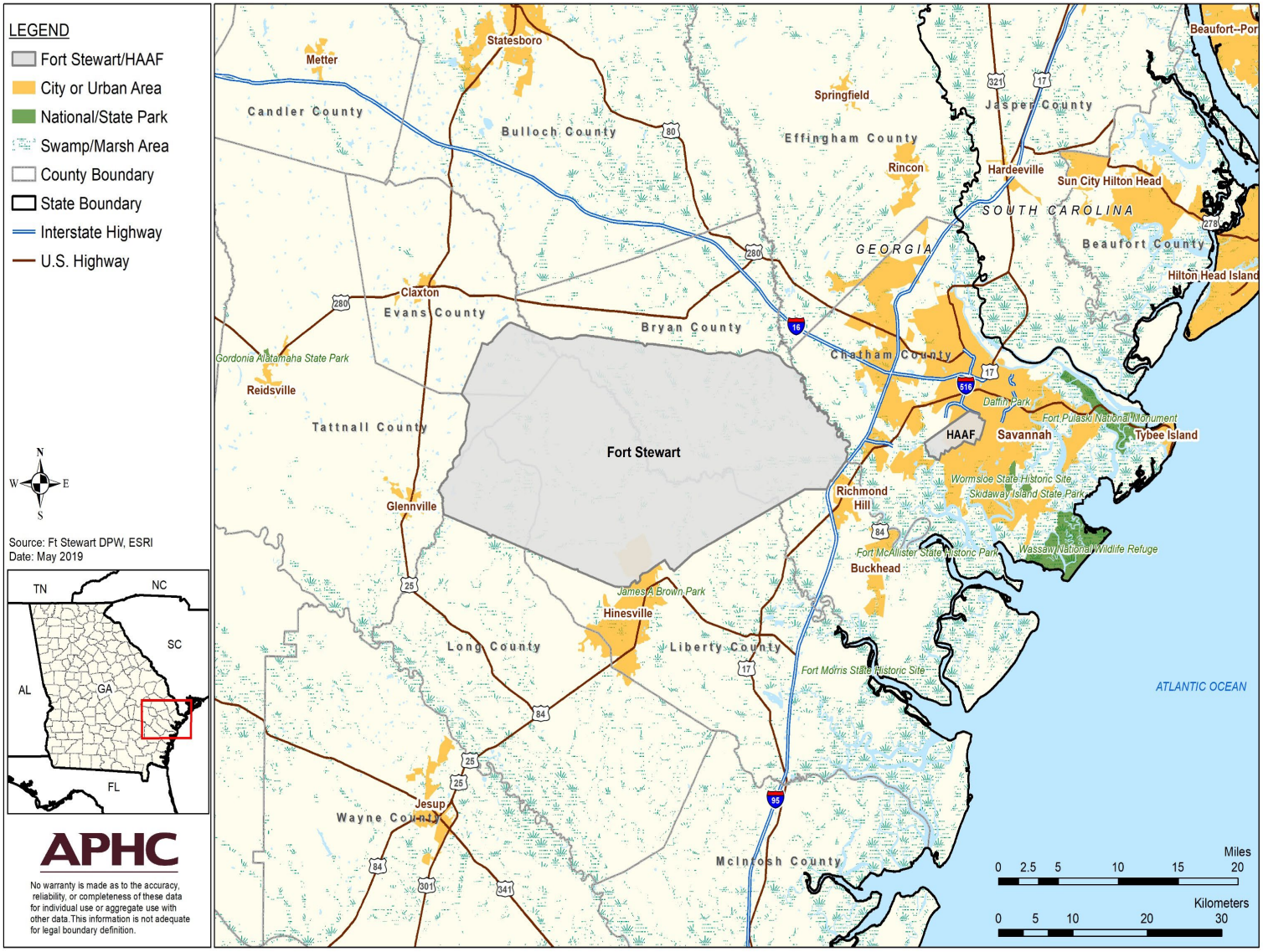


Figure 1: location Map for Fort Stewart and Hunter Army Airfield, Georgia.

Figure 2: Wetlands and Floodplains on Fort Stewart, Georgia.

Figure 3: Wetlands and Floodplains on Hunter Army Airfield, Georgia.