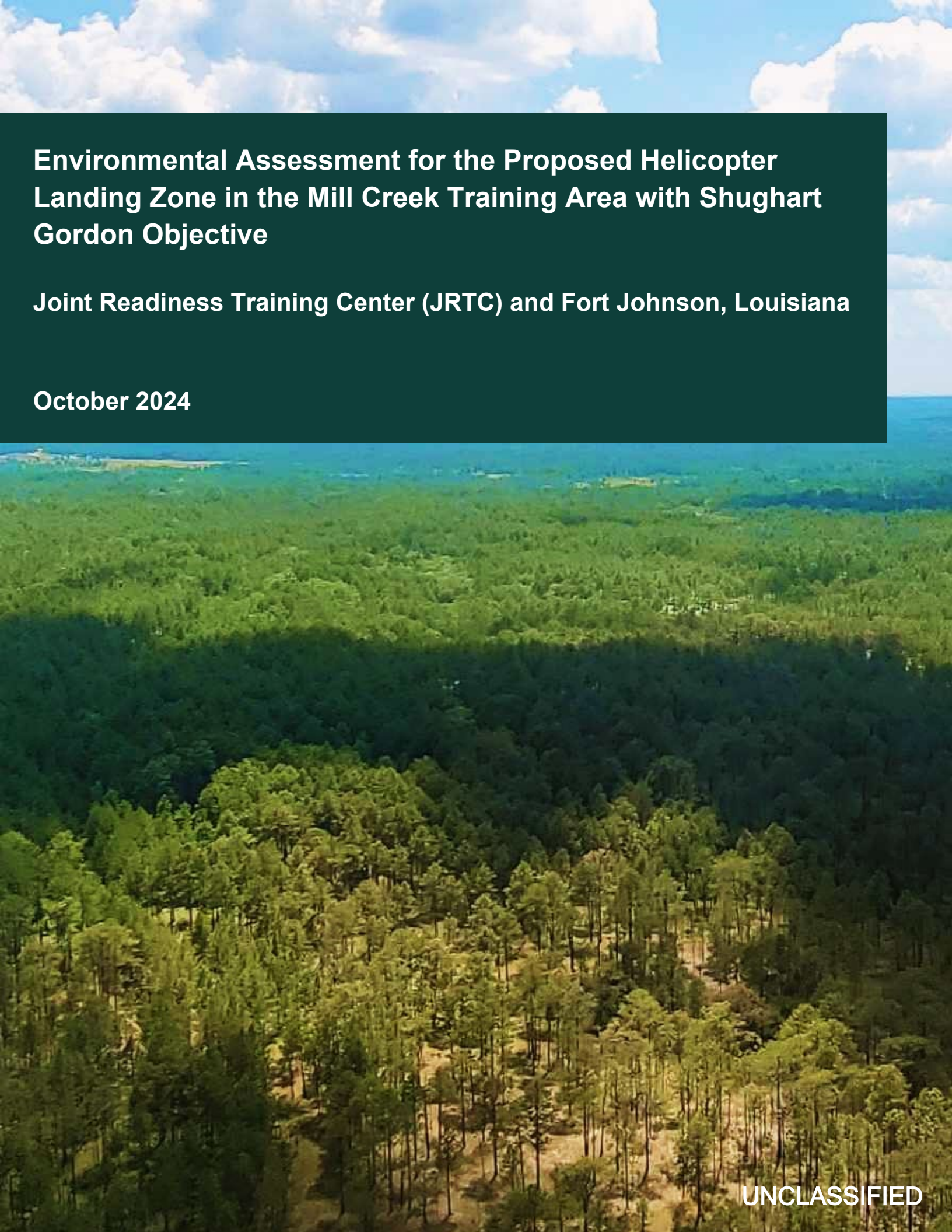
Environmental Assessment for the Proposed Helicopter Landing Zone in the Mill Creek Training Area with Shughart Gordon Objective

Joint Readiness Training Center (JRTC) and Fort Johnson, Louisiana

October 2024



UNCLASSIFIED

FINDING OF NO SIGNIFICANT IMPACT (FNSI)

Proposed Project to Construct a Helicopter Landing Zone (HLZ) in the Mill Creek Training Area with Shughart Gordon Objective at the Joint Readiness Training Center and Fort Johnson, Louisiana

1. BACKGROUND: The findings and conclusions reached in this document are based on a thorough review of the impacts and analysis considered and disclosed in the Environmental Assessment (EA) attached to this document. The EA, including its data analysis and conclusions, are incorporated in this FNSI by reference.

2. PROPOSED ACTION: The JRTC and Fort Johnson proposes to construct a HLZ in the Mill Creek Training Area to support aerial and large-scale combat operations (LSCO) that target Shughart Gordon. Currently, rotational units do not have an adequately sized opening to insert air forces 1,500 to 3,000 meters from the objective (Shughart Gordon) in the Mill Creek Training Area. The location of the HLZ must meet helicopter safety and training reliability. The HLZ should be designed to accommodate the landing points of the three Cargo Helicopters [CH-47s] and ten Utility Helicopter [UH-60s] and provide relatively level ground. The helicopters must be able to safely insert (land and/or hover) in a designated location to train the troops to deploy. Night insertions with slingload capability must also be incorporated into the size of the HLZ. The HLZ should avoid major linear danger areas and be located within 1,500 to 3,000 meters of the objective while supporting flanking maneuvers of the brigade.

While there are current areas for aerial and ground force operations, none of them meet the criteria required for this type of LSCO due to proximity of linear danger areas and/or exceeding the distance from Shughart Gordon, and therefore are not considered. These current areas consist of: Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex.

3. ALTERNATIVES CONSIDERED: Four Alternatives are considered in the EA for development of the proposed HLZ: three consider alternate layouts and the fourth is the No Action Alternative. Alternatives A1, A2, and B (located in the Mill Creek Training Area) would meet the purpose and need for the Proposed Action by providing the infrastructure necessary to support combat and aerial operations. Alternative 4 (No Action) would result in the continued use of Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex, which do not meet the purpose and need for the Proposed Action.

Alternative A1: Consists of the actions described in the Proposed Action. Alternative A1 is in the Mill Creek 4 Training Area, east of Cryer Road and overlaying Maneuver Trail (MT) 13A and MT 13B. This project area is 45.58 acres and has terrain that provides increased drainage, thus allowing for firmer ground. While the slope of Alternative A1 is within tolerance, ground leveling would be needed. There are no notable flight hazards.

Alternative A2: Consists of the actions described in the Proposed Action. Alternative A2 is on the boarder of the Mill Creek 3 and 4 Training Areas, overlaying Cryer Road. The project area is 41.46 acres and has terrain that decreases drainage, thus resulting in softer, less desirable ground for aircraft landings. Alternative A2 meets the slope requirements and has no notable flight hazards.

Alternative B: Consists of the actions described in the Proposed Action. Alternative B is in the Mill Creek 3 Training Area, overlaying Moss Hill Road. The project area is 36.07 acres and is near Self Airfield, which is used for unmanned aircraft system launch/recovery. The proposed aerial operations would conflict with UAS operations, resulting in limited flight path into/out of the proposed landing zone. Additionally, the terrain of Alternative B varies in slope which is less ideal for aerial operations.

Alternative 4 (No Action Alternative): Consideration of the No Action Alternative is mandated in the CEQ 40 CFR Parts 1500-1508 and Environmental Analysis of Army Actions 32 CFR Part 651.34. This alternative provides the baseline against which the potential effects of the Proposed Action and other alternatives are evaluated. Under this alternative, the Proposed Action would not be implemented, requiring the continued use of Self Airfield, Range 19, the Animal Farm, and the Multi-Purpose Range Complex (MPRC), which do not meet the purpose and need for the Proposed Action.

Fort Johnson would continue to be limited in the use of LSCO due to the locations and linear danger areas in relation to Shughart Gordon.

4. ENVIRONMENTAL IMPACTS: Potential impacts to soils; water resources (streams, wetlands and other surface water resources); and biological resources (forest ecology, native plants, invasive species, wildlife and aquatic species, threatened and endangered species, and species of concern) were considered and analyzed for Alternatives A1, A2, B and 4 (No Action Alternative). Analysis of baseline conditions; proposed activities; potential environmental effects; continued environmental stewardship; environmental requirements; and monitoring measures and programs determined that no significant adverse effects to the environment would be expected to occur under the implementation of any one of the Alternatives.

5. PUBLIC COMMENT: The EA and Draft FNSI were made available for public review from (DATE) to (DATE).

6. CONCLUSIONS: I have carefully reviewed the attached EA and the potential environmental impacts of each of the Alternative actions. Based on this review, I have determined that Alternatives A1, A2 and B will have no significant impacts on the environment. Therefore, preparation of an Environmental Impact Statement (EIS) is not required. Under the No Action Alternative, JRTC and Fort Johnson would continue to utilize the areas identified in Alternative 4. The No Action Alternative does not resolve the limited use of LSCO in the foreseeable future. The remaining Alternatives A1, A2 and B would resolve JRTC and Fort Johnson’s limited use of LSCO.

7. DECISION: In light of the preceding conclusions, I have decided to implement _____ as described in the EA. This will allow for the construction and operation of a HLZ in the Mill Creek Training Area with Shughart Gordon objective to safely support LSCO as described in this EA and the continued implementation of the environmental stewardship monitoring measures and programs.

_____
JASON A. CURL
Brigadier General, USA
Commanding

Date: _____

ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED HELICOPTER LANDING ZONE IN THE MILL CREEK TRAINING AREA WITH SHUGHART GORDON OBJECTIVE

JOINT READINESS TRAINING CENTER (JRTC) AND FORT JOHNSON, LOUISIANA

Prepared for:

JRTC Operations Group
Fort Johnson, Louisiana

Prepared by:

Directorate of Public Works,
Environmental and Natural Resources Management Division
1697 23rd Street, Building 2522
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9 October 2024

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ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED HELICOPTER LANDING ZONE IN THE MILL CREEK TRAINING AREA WITH SHUGHART GORDON OBJECTIVE

JOINT READINESS TRAINING CENTER (JRTC) AND FORT JOHNSON, LOUISIANA

Approved By:

_____
JASON A. CURL
Brigadier General, USA
Commanding

Date: _____

Prepared by:

Directorate of Public Works
Environmental and Natural
Resources Management Division
1697 23rd Street, Building 2522
Fort Johnson, LA 71439

Reviewed By:

_____
Mark Landis
Deputy CoS and STRAT Plans
Operations Group
JRTC and Fort Johnson, Louisiana

Date: _____

_____
Johnathan A. West
Chief, Environmental and Natural
Resources Management Division
Fort Johnson, Louisiana

Date: _____

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EXECUTIVE SUMMARY

Historically, units have conducted mission requirements such as airfield seizures, single row air drop missions, and defensive operations at the Joint Readiness Training Center (JRTC) and Fort Johnson, Louisiana (hereafter referred to as Fort Johnson). To meet the commitments for long-term, high-intensity combat and sustainment operations, Fort Johnson requires a mission capable **helicopter landing zone** (HLZ) that will provide training in the use of **large scale combat operations** (LSCO) (i.e., aerial operations and ground combat). Establishment of the HLZ will ensure safe and reliable training operations and ensure the military readiness of aerial and ground forces to meet the nation's present and future warfighting requirements.

Currently, there are no openings of adequate size for tactical insertion of air forces on the west side of Shughart Gordon (located in the Mill Creek Training Area) when rotational training units are on the offensive. Furthermore, for realistic training, the aircraft must be a safe distance from Shughart Gordon (1,500 to 3,000 meters), but close enough for the dismounted Soldiers to attack and secure within an hour (avoiding major linear danger areas). JRTC Operation Group has proposed to develop an HLZ in the Mill Creek Training Area that can support the appropriate number of Soldiers and aircrafts needed for realistic training simulations.

To ensure safe training operations, the HLZ should be designed to simultaneously accommodate the **landing points** of the three Cargo Helicopters [CH-47s] and ten Utility Helicopters [UH-60s] and provide relatively level ground. The Field Manual (FM) 3-21.38 "Pathfinder Operations" outlines the required dimensions, slopes, and glide paths and specifies that landing zones should have no tall trees, power lines, or similar obstructions on the landing site. Simultaneously landing three CH-47 and ten UH-60 requires a dimension of 800 x 200 meters; this is the minimum area required to safely land the helicopters and conduct operations. Furthermore, relatively level ground with a **slope** less than 7 degrees is preferred; otherwise, advisories would be issued for dangerous conditions.

For reliable training operations, the HLZ should avoid major linear danger areas and be located within 1,500 to 3,000 meters of the objective while supporting flanking maneuvers. This will provide training opportunities that best suit the mission.

While there are current areas for aerial and ground force operations, none of them meet the criteria required for this type of LSCO due to proximity of linear danger areas and/or exceeding the distance from Shughart Gordon, and therefore are not considered. These current areas consist of: Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex.

To accomplish the mission's need, JRTC Operation's Group propose to construct a new HLZ within the Mill Creek Training Area. To address the purpose and need for the Proposed Action, the JRTC and Fort Johnson considered and analyzed four alternatives

in this **Environmental Assessment** (EA). Alternatives A1, A2 and B would meet the purpose and need for the Proposed Action by providing the infrastructure necessary to support LSCO that target Shughart Gordon. Alternative 4 (No Action) would result in the inability to properly conduct these mission-essential training maneuvers and thus does not meet the purpose and need for the Proposed Action.

Alternative A1 (Proponent's Preferred Alternative)
Alternative A1 is in the Mill Creek 4 Training Area, east of Cryer Road and overlaying Maneuver Trail (MT) 13A and MT 13B. This project area is 45.58 acres and has terrain that provides increased drainage, thus allowing for firmer ground. While the slope of Alternative A1 is within tolerance, ground leveling would be needed. There are no notable flight hazards.

Alternative A2 (Environmentally Preferred Alternative)
Alternative A2 is on the boarder of the Mill Creek 3 and 4 Training Areas, overlaying Cryer Road. The project area is 41.46 acres and has terrain that decreases drainage, thus resulting in softer, less desirable ground for aircraft landings. Alternative A2 meets the slope requirements and has no notable flight hazards.

Alternative B
Alternative B is in the Mill Creek 3 Training Area, overlaying Moss Hill Road. The project area is 36.07 acres and is near Self Airfield, which is used for unmanned aircraft system (UAS) launch/recovery. The proposed aerial operations would conflict with UAS operations, resulting in limited flight path into/out of the proposed landing zone. Additionally, the terrain of Alternative B varies in slope which is less ideal for aerial operations.

Alternative 4 (No Action Alternative)
This alternative provides the baseline against which the potential effects of the Proposed Action and other alternatives are evaluated. Under this alternative, the Proposed Action would not be implemented, requiring the continued use of Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex, which do not meet the purpose and need for the Proposed Action.

Fort Johnson would continue to be limited in the use of LSCO due to the locations and linear danger areas in relation to Shughart Gordon.

This alternative would not meet the purpose and need of the Proposed Action; however, this alternative (No Action Alternative) will be carried forward for analysis in the EA and provides a baseline for measuring the environmental impacts of the other three alternatives.

This EA identifies environmental resource areas that have the potential to be affected because of the development of a HLZ in the Mill Creek Training Area. The resource areas were analyzed in detail to determine the level of environmental impacts.

Additionally, this EA identifies and documents alternatives to the Proposed Action that were considered but eliminated from further consideration.

Table ES-1 presents a summary of the environmental impacts for each Alternative and resource area analyzed in the EA.

TABLE ES- 1. SUMMARY OF IMPACTS

	Alternative A1 (*Proponent's Preferred Alternative*)	**Alternative A2** (*Environmentally Preferred Alternative*)	**Alternative B**	**Alternative 4 (**No Action**)**	**Environmental Requirements for Alternatives A1, A2 and B**
Meets Purpose	Yes	Yes	Yes	No	
Meets Need	Yes	Yes	Yes	No	
Soils	Direct, short-term, minor, and adverse impacts. Low Impact. "98.7% of soils at or below a moderate erosion rating."	Direct, short-term, minor, and adverse impacts. Medium Impact. "93.8% of soils at or below a moderate erosion rating."	Direct, short-term, minor, and adverse impacts. Higher Impact. "77.8% of soils at or below a moderate erosion rating."	No impacts.	Utilize Best Management Practices (i.e., silt fences, hay bales, etc.) to defuse and control water flow thereby inhibiting sheet and gully erosion.
Water Resources: Streams, Wetlands, Other Water Resources	Creeks: Negligible impacts. Wetlands: Direct, permanent, minor, and adverse impacts. Consult USACE for delineation. Medium Impact. "3.4 acres of baygall wetland impact."	Creeks: Negligible impacts. Wetlands: Direct, permanent, minor, and adverse impacts. Consult USACE for delineation. Low Impact. "One acre of baygall wetlands."	Creeks: Negligible impacts. Wetlands: Direct, permanent, minor, and adverse impacts. Consult USACE for delineation. Higher Impact. "10.5 acres of clay riparian wetlands."	No impacts.	Present a wetland delineation and/or permit application to the United States Army Corps of Engineers – New Orleans District and comply with any mitigation requirements the district requires. Develop and approve a Stormwater Pollution Prevention Plan prior to construction.
Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species	Direct, minor, long-term, and adverse impacts. Medium Impact. "7.8% of acres impacting baygall communities (wetlands) with no rare plants / communities."	Direct, minor, long-term, and adverse impacts. Low Impact. "2.6% of acres impacting baygall communities (wetlands) with no rare plants / communities."	Direct, moderate, long-term, and adverse impacts. Higher Impact. "30.3% of acres impacting clay riparian (wetlands) and 15% of acres impacting rare calcareous prairie communities."	No impacts.	Reseed with a critical area treatment and allow native seed to revegetate if they can establish and hold the soil in place. Fort Johnson, Conservation Branch Botanist will re-survey for rare plant species if a rare species was noted in selected Alternative.

	Alternative A1 (*Proponent's Preferred Alternative*)	**Alternative A2** (*Environmentally Preferred Alternative*)	**Alternative B**	**Alternative 4 (**No Action**)**	**Environmental Requirements for Alternatives A1, A2 and B**
Biological Resources: Wildlife (MBTA and Game Species)	MBTA: Direct, short-term, negligible, and beneficial impacts. Game Species: Direct, short-term, negligible, and adverse impacts. Negligible Impact.	MBTA: Direct, short-term, negligible, and beneficial impacts. Game Species: Direct, short-term, negligible, and adverse impacts. Negligible Impact.	MBTA: Direct, short-term, negligible, and beneficial impacts. Game Species: Direct, short-term, negligible, and adverse impacts. Negligible Impact.	No impacts.	Migratory Birds: Disturbance during the breeding/nesting season (March-July) requires a pre-construction survey from Fort Johnson, Directorate of Public Works (DPW) – Environmental and Natural Resources Management Division (ENRMD) to locate active nests and establish buffers around the nest site until a wildlife biologist or certified pest management specialist determines the nest site is abandoned or the species is not protected under state or federal laws. ***Note below Tricolored Bat overlap with migratory bird breeding/nesting season***
Biological Resources: Threatened and Endangered Species and Species of Concern	MBF: Direct, short-term, negligible, and discountable (not likely to adversely affect) impacts. Negligible Impact. RCW: Direct, long-term, minor, and discountable (not likely to adversely affect) impacts. Medium Impact. "Three active cluster sites within 0.5 miles of the project footprint and would result in 16% of RCW foraging acres removed."	MBF: Direct, short-term, negligible, and discountable (not likely to adversely affect) impacts. Negligible Impact. RCW: Direct, long-term, minor, and discountable (not likely to adversely affect) impacts. Low Impact. "Two active cluster sites within 0.5 miles of the project footprint and would result in 11% of RCW foraging acres removed."	MBF: Direct, short-term, minor, and discountable (not likely to adversely affect) impacts. Low Impact. "Best MBF habitat of the proposed Action Alternatives" RCW: No effect.	No impacts.	Fort Johnson, Conservation Branch Ecologist will complete a Biological Assessment and consult with the United States Fish and Wildlife Services for Federally listed species with the potential to occur in the action area as part of the NEPA process. TCB: Fort Johnson, DPW – ENRMD must complete a TCB Survey at least two weeks prior to construction (i.e. logging operations). To prevent possible harm to TCB in the project area, tree clearing will not occur between 1 May and 15 July to prevent any loss of pups. Also, tree clearing will not occur when the air temperature is below 40

	Alternative A1 (*Proponent's Preferred Alternative*)	**Alternative A2** (*Environmentally Preferred Alternative*)	**Alternative B**	**Alternative 4 (**No Action**)**	**Environmental Requirements for Alternatives A1, A2 and B**
	LPS: No effect. TCB: Indirect, short-term, negligible, and discountable (not likely to adversely affect) impacts. Negligible Impact.	LPS: No effect. TCB: Indirect, short-term, negligible, and discountable (not likely to adversely affect) impacts. Negligible Impact.	LPS: No effect. TCB: Indirect, short-term, negligible, and discountable (not likely to adversely affect) impacts. Negligible Impact.		degrees Fahrenheit because the TCB is known to roost in trees below this temperature. ***Note above migratory bird breeding/nesting season overlap***

1.0 PURPOSE, NEED AND SCOPE

This section states the purpose and need of the Proposed Action and outlines the scope of the environmental analysis for the considered alternatives. Inherent to these objectives, the location and land ownership of the area under consideration, as well as the timing for the Proposed Action, is described. Additionally, the screening criteria used to develop the range of alternatives evaluated are explained. Finally, the decision to be made is identified.

1.1 Introduction

Fort Johnson has prepared an EA to evaluate and inform the decision makers of the potential environmental impacts associated with the development of a HLZ in the Mill Creek Training Area. The HLZ will be constructed by clearing and grubbing 800x200 meters of land with shaping and establishment of sediment basins (no structures, utilities, or paving will occur). The proposed HLZ will provide Fort Johnson the ability to simulate LSCO in support of **aerial insertions** and **ground flanking maneuvers** when forces are attacking Shughart Gordon (the objective). Shughart Gordon, named after two Medal of Honor recipients, is a **Military Operations on Urbanized Terrian** village located in the Mill Creek 4 Training Area. Currently, rotational **brigades** do not have an adequately sized opening to insert their forces (approximately 255 Soldiers) and required aircraft (three Cargo Helicopters [CH-47s] and ten Utility Helicopters [UH-60s]) close enough to Shughart Gordon (within 1,500 to 3,000 meters). The HLZ would support the aircraft's ability to land and/or hover in a designated area and provide **slingload** capabilities. The HLZ is required to meet safety and maneuver specifications.

Three action alternatives, which meet JRTC Operation Group's purpose and need, and the no action alternative are described in Section 2.0. Furthermore, alternatives considered, but not carried forward along, are detailed in Section 2.3. The Proposed Action to develop a new HLZ in the Mill Creek Training Areas is critical to the overall readiness of today's Army. Therefore, this EA will evaluate potential impacts to the human and natural environments and identify the preferred alternative. This document was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321 et seq.), Council on Environmental Quality (CEQ) regulations Title 40 of the Code of Federal Regulations (CFR) Parts 1500-1508 and Army Regulations at 32 CFR Part 651 (Environmental Analysis of Army Actions).

1.1.1 Army Mission

The Army exists to serve the American people, to defend the Nation, to protect vital national interests, and fulfill national military responsibilities. The Army's mission is:

“To deploy fight and win our nation’s wars by providing ready, prompt and sustained land dominance by Army forces across the full spectrum of conflict as part of the joint force” (U.S. Army, n.d.).

The Army mission is vital to the Nation because the Army is the service capable of defeating enemy ground forces and indefinitely seizing and controlling those things an adversary prizes most- its land, its resources, and its population (U.S. Army, n.d.).

1.1.2 JRTC and Fort Johnson Mission

The primary mission of Fort Johnson is to support and train home stationed units while providing superior training opportunities at JRTC. Fort Johnson supports JRTC’s advanced-level joint training for Army, Air Force, Navy, and Marine Corps units under conditions that simulate low- and mid-intensity conflicts (U.S. Army, n.d.).

The JRTC is one of three Army Combat Training Centers, supporting 10 to 12 annual JRTC rotations, focused on Army Brigade level combat operations. The Army has designated JRTC and Fort Johnson as one of the Army’s power projection platforms (U.S. Army, n.d.).

“JRTC and Fort Johnson train Brigade Combat Teams (BCT) and Security Force Assistance Brigades (SFAB) to conduct large scale operations on a decisive action battlefield against a near-peer threat with multi-domain capabilities. Fort Johnson enables FORSCOM units to increase readiness and support globally deployable missions while facilitating a high Quality of Life for Soldiers and Army Families.” (U.S. Army, n.d.).

Tenant units assigned to Fort Johnson include JRTC Operations Group; 3rd Brigade Combat Team, 10th Mountain Division; Garrison; 32nd Hospital Center; 46th Engineer Battalion; 519th Military Police Battalion; 1st Battalion, 5th Aviation Regiment; 3rd Battalion, 353rd Regiment; Det 2, 18th Combat Weather Squadron; and 548th Combat Training Squadron. Additionally, Fort Johnson trains several Louisiana, Texas, and Mississippi Reserve and Army National Guard during annual training periods (U.S. Army, n.d.).

1.1.3 Installation Location and Land Ownership

Fort Johnson, formerly known as Fort Polk, was established in 1941 as Camp Polk and was used during the **Louisiana Maneuvers**, a series of LSCO conducted prior to the United States’ entry into World War II. In 1962, the installation became the Army’s largest Infantry Training Center with a new mission to provide basic training for individual Soldiers. In 1993, the JRTC moved from Arkansas to Louisiana, thus beginning the installation’s reputation as the Army’s premier Combat Training Center. On 13 June 2023, the installation was renamed to Fort Johnson in honor of Sergeant Henry Johnson, a distinguished World War I Medal of Honor recipient (U.S. Army, n.d.).

Fort Johnson is in west central Louisiana in Natchitoches, Sabine, and Vernon Parishes near the communities of Leesville and DeRidder, and about 15 miles east of the Texas-Louisiana border. Fort Johnson is comprised of Department of Defense (DoD) and United States Forest Service (USFS) permitted lands totaling 243,527 acres. DoD-owned lands consist of two primary land masses: Fort Johnson and Fort Johnson North. Fort Johnson USFS permitted lands cover three separate land masses: the Intensive Use Area, the Limited Use Area (including restricted access areas), and the Special Limited Use Area, or, reflecting its shape, the “Horse’s Head.” (Figure 1-1). The alternatives analyzed in this EA would not impact or utilize any USFS permitted lands under the Special Use Permit Agreements.

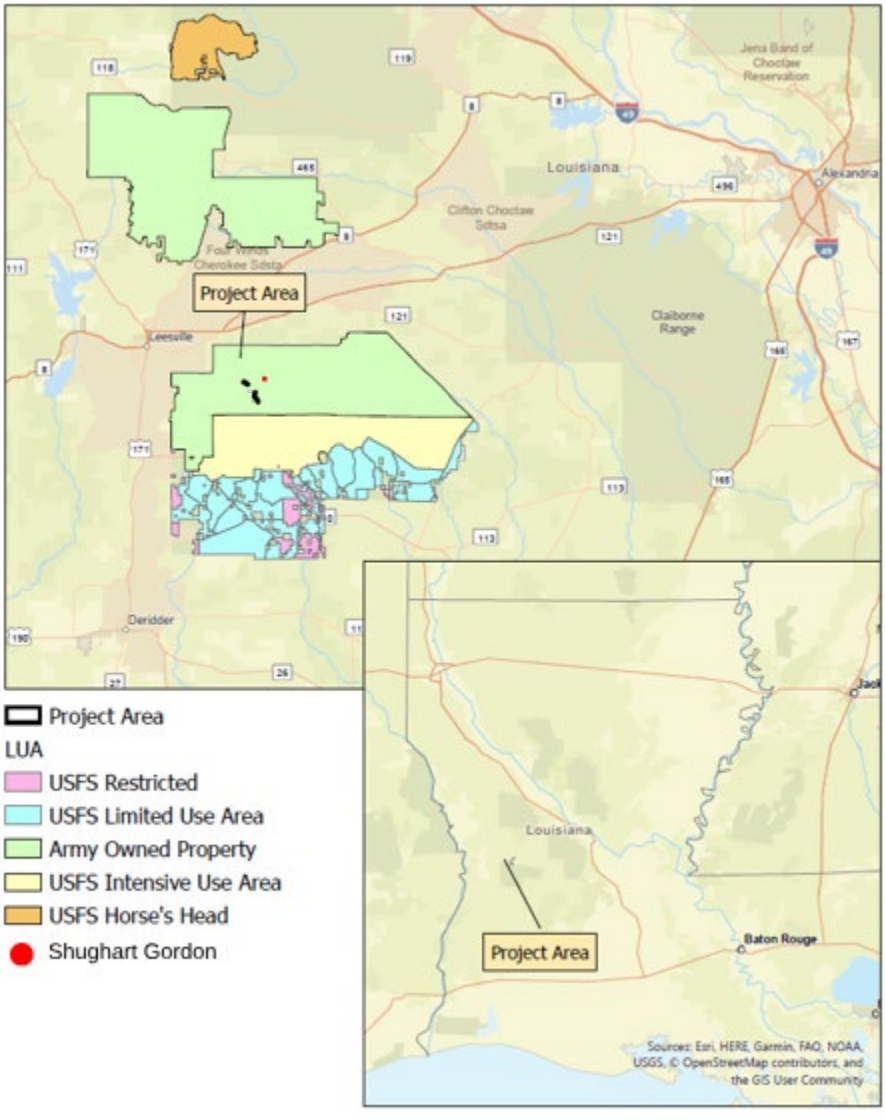

FIGURE 1-1. FORT JOHNSON LOCATION MAP

Fort Johnson is comprised of 21 Training Areas: Castor, Mill Creek, Slagle, Birds Creek, Six Mile Creek, Fullerton, Rosepine, Zion Hills, Big Creek, Johnsonville, Rustville, Cravens, Pitkin, Providence, Flatwoods, Marlow, Horse's Head, Peason, Cold Springs, Kurthwood, and Simpson (Figure 1-2 and Figure 1-3).

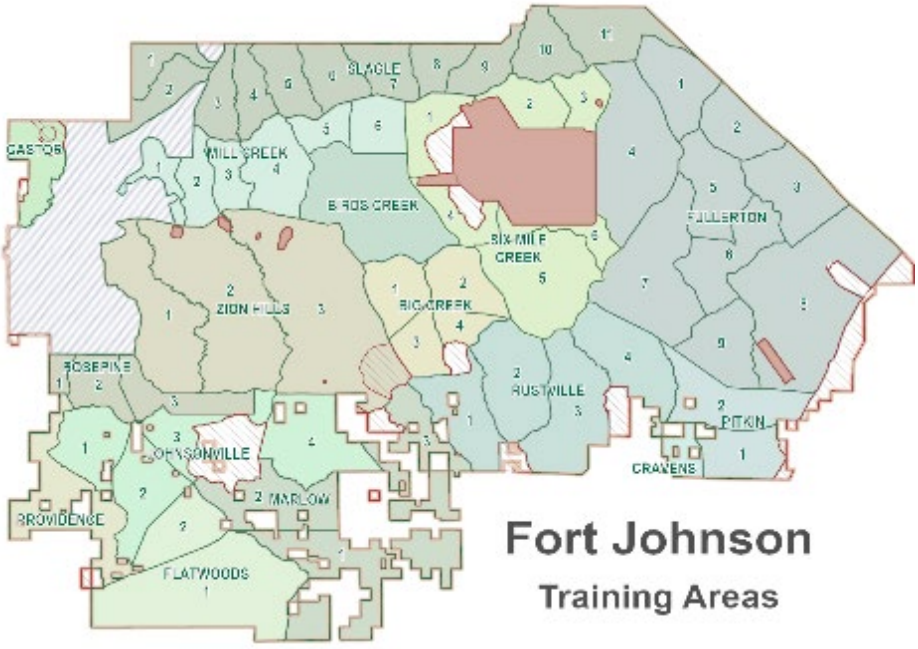

FIGURE 1-2. FORT JOHNSON TRAINING AREAS

FIGURE 1-3. FORT JOHNSON NORTH TRAINING AREAS

The Mill Creek Training Area, where the proposed project is located, was a part of the Camp Polk 1941 land acquisition (McManus 1995). The Mill Creek Training Area is comprised of 6,949 acres of dense and open woods that are used to support Army maneuvers; it is not utilized for long-term housing of Army personnel or civilians. This area features patches of prairie, sandhill, and pitcher plant communities throughout the Longleaf and Loblolly pine forest. Within the Mill Creek Training Area, there are 421 acres of wetlands. There are also 12 miles of streams (Mill Creek, Birds Creek, and Whiskey Chitto) that meander throughout the area. The primary roadways include Mill Creek Road, Artillery Road, Birds Creek Road, McCann Parkway and Cryer Road.

1.2 Purpose and Need for Proposed Action

Fort Johnson requires the ability to provide a training environment capable of simulating LSCO via aerial and ground force. Currently, there are no openings of adequate size for tactical insertion of air forces on the west side of Shughart Gordon (located in the Mill Creek Training Area) when rotational training units are on the offensive. Furthermore, for realistic training, the aircraft must be a safe distance from Shughart Gordon (1,500 to 3,000 meters), but close enough for the dismounted Soldiers to attack and secure within an hour (avoiding major linear danger areas). JRTC Operation Group has proposed to develop an HLZ in the Mill Creek Training Area that can support the appropriate number of Soldiers and aircrafts needed for realistic training simulations. The Proposed Action of developing an HLZ capable of these operations would allow for suitable combat operations.

1.2.1 Purpose of the Proposed Action

The purpose of the Proposed Action is to develop an HLZ in the Mill Creek Training Area that allows LSCO in support of aerial insertion and ground flanking maneuvers.

1.2.2 Need of the Proposed Action

To meet the commitments for long-term, high-intensity combat and sustainment operations, Fort Johnson requires a mission capable HLZ that will provide training in the use of aerial operations and ground combat. Establishment of the HLZ will ensure safe and reliable training operations and ensure the military readiness of aerial and ground forces to meet the nation’s present and future warfighting requirements.

To ensure safe training operations, the HLZ should be designed to simultaneously accommodate the landing points of the three CH-47s and ten UH-60s and provide relatively level ground. The FM 3-21.38 “Pathfinder Operations” outlines the required dimensions, slopes, and glide paths and specifies that landing zones should have no tall trees, power lines, or similar obstructions on the landing site. Simultaneously landing three CH-47s and ten UH-60s requires a dimension of 800 x 200 meters; this is the minimum area required to safely land the helicopters and conduct operations. Furthermore, relatively level ground with a slope less than 7 degrees is preferred; otherwise, advisories would be issued for dangerous conditions.

For reliable training operations, the HLZ should avoid major linear danger areas and be located within 1,500 to 3,000 meters of the objective while supporting flanking maneuvers. This will provide training opportunities that best suit the mission.

While there are current areas for aerial and ground force operations, none of them meet the criteria required for this type of LSCO due to proximity of linear danger areas and/or exceeding the distance from Shughart Gordon, and therefore are not considered. These current areas consist of: Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex.

1.2.3 Criteria for Evaluation of Alternatives

As noted in FM 3-21.38, necessary characteristics of the alternatives considered include:

- Type of mission;
- The location of the objective (Shughart Gordon) in relation to the tentative HLZ;
- Avoidance of major linear danger areas;
- The size and type of unit being supported;
- Size and type of aircraft [3 CH47s and 10 UH60s];
- Minimum landing space and distance between aircrafts;
- Surface conditions, vegetation growth and obstacles on Touchdown Points (12 inches or less);
- Dimensions, slopes, and glide paths;
- Flight path and prevailing winds;
- Visibility [day and night]; and
- Approach and Departure Obstacle Ratios [trees, power lines, etc.].

1.3 Scope of Environmental Analysis

This EA considers the **direct, indirect, and cumulative effects** of the viable alternatives and the no action alternative for the development and operation (analytic scope) of a proposed HLZ in the Mill Creek Training Area (geographic scope). It also provides a discussion of the affected environment and the potential impacts to environmental (air, soil, water, etc.) and biological (flora and fauna) resources. A team of Subject Matter Experts (SMEs) identified the following Valued Environmental Components (VECs) for detailed evaluation:

- Soils;
- Water Resources: Surface Water Quality, Streams, Wetlands Other Surface Water Resources.
- Biological Resources: Forest Conditions, Native Plant Species and Communities.
- Biological Resources: Wildlife; and
- Biological Resources: Threatened and Endangered Species.

The decision to be made is whether to select the alternative that supports the purpose and need or to select the No Action Alternative. If the EA concludes that the alternatives would not result in significant environmental effects, then the decision would result in a Finding of No Significant Impact (FNSI). If there is a finding of significant impact to the environment, then a higher level of NEPA analysis shall be developed and a Notice of Intent (NOI) to proceed with an Environmental Impact Statement (EIS) would be issued.

1.4 Public Participation

To facilitate the analysis and the decision-making process, the Army maintains a policy of open communication with interested parties and invites public participation. All federal and state agencies, public and private organizations, and members of the public that have a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the Army's EA and decision-making processes, as guided by CEQ regulations at 40 CFR Parts 1500-1508 and ARs at 32 CFR Part 651.

As a result of internal Fort Johnson scoping, the location, and design features of the proposed action, no formal public scoping was conducted. The 30-day public comment period for the EA will be the only comment opportunity offered to the public. This comment period is intended to provide those interested in or affected by this proposal an opportunity to make their concerns known before the Decision Maker selects an alternative.

Comments received on the EA, following release of the Notice of Availability (NOA), will be incorporated in the NEPA process. If any significant impacts are identified during the review of these comments, a NOI will be prepared, and an EIS process will commence. If no significant impacts are identified, the FNSI will be prepared and signed, and the proposed project will commence.

The EA and Draft FNSI will be made available to federal, state, and local agencies; Native American tribes; and the public for review and comment for 30 days. A NOA for the EA and Draft FNSI will be published in *The News Leader* (Vernon and Beauregard Parishes) and *Guardian* (Fort Johnson). The EA can be viewed online at https://home.army.mil/johnson/installation-information or at the following library:

Vernon Parish Library
1401 Nolan Trace
Leesville, Louisiana 71446

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2.0 DESCRIPTION OF ALTERNATIVES

This section describes the Proposed Action and the Alternatives. Screening criteria are defined (consistent with the purpose and need statements in Sections 1.2.1 and 1.2.2) as a baseline to evaluate each of the alternatives to determine which will be carried forward for environmental analysis. To address the purpose and need, four alternatives will be analyzed in the EA; one of which is the No Action Alternative (mandated in CEQ 40 CFR Parts 1500-1508 and Environmental Analysis of Army Actions 32 CFR Part 651.34). The Proposed Action is described in Section 2.1 and the Alternatives, including the No Action Alternative, are presented in Section 2.2. Alternatives considered but eliminated from detailed analysis are discussed in Section 2.3. To be considered for evaluation in the EA, an alternative must be feasible (capable of being implemented) and must meet the purpose and need for the project.

2.1 Proposed Action

Fort Johnson requires the ability to provide a training environment capable of simulating LSCO via aerial and ground force. Currently, rotational units do not have an adequately sized opening to insert air forces 1,500 to 3,000 meters from the objective (Shughart Gordon) in the Mill Creek Training Area. Operations Group proposed to develop an HLZ capable of LSCO which would allow realistic maneuvers in the Mill Creek Training Area.

The Proposed Action is to develop an HLZ in the Mill Creek Training Area in support of aerial and ground LSCO operations that target Shughart Gordon. The location of the HLZ must meet helicopter safety and training reliability. The HLZ should be designed to accommodate the landing points of the three CH-47s and ten UH-60s and provide relatively level ground. The helicopters must be able to safely insert (land and/or hover) in a designated location to train the troops to deploy. Night insertions with slingload capability must also be incorporated into the size of the HLZ. The HLZ should avoid major linear danger areas and be located within 1,500 to 3,000 meters of the objective while supporting flanking maneuvers of the brigade. Sections *2.1.1 – 2.1.4* provides construction actions associated with the proposed action.

Four Alternatives are considered in the EA for development of the proposed HLZ: three consider alternate layouts and the fourth is the No Action Alternative. Alternatives A1, A2, and B would meet the purpose and need for the Proposed Action by providing the infrastructure necessary to support combat and aerial operations (Figure 2-1). The alternatives range in size from 36.07 to 45.58 contiguous acres. Alternative 4 (No Action) would result in the continued use of Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex, which do not meet the purpose and need for the Proposed Action.

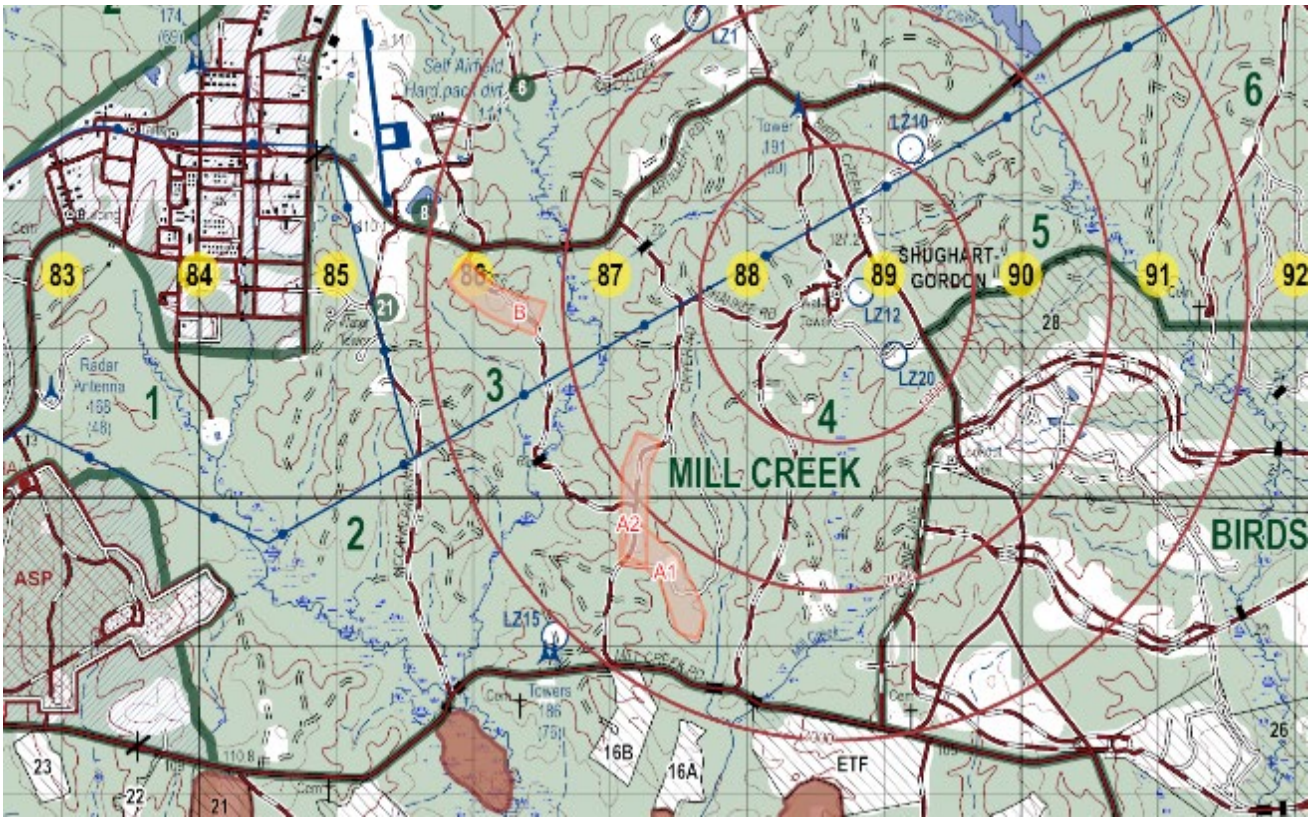

FIGURE 2-1. LOCATION OF ALTERNATIVES

The helicopters will be instructed to land in a staggered formation within the HLZ (Figure 2-2). After the first helicopter has landed, a second helicopter will land staggered 45 degrees to the left or right of the first. The subsequent helicopters will land in the HLZ in the same staggered 45-degree landing pattern.

FIGURE 2-2. HELICOPTER LANDING POSITIONS WITHIN AN HLZ

2.1.1 Project Timing and Progression

Anticipated construction will take place Fiscal Year 2026. Weather and training area closures could potentially delay construction completion.

The following phases will be implemented:

- Phase 1: Tree removal.
- Phase 2: Stump grubbing, piling of vegetative debris and reshaping surface to prevent erosion, duration 3-6 months.
- Phase 3: Burn debris piles and reseed using **critical area treatment** recommendations, duration 3-6 weeks (Code 342, NRCS, CPS).
- Phase 4: Shaping to control erosion and limit sediment migration off the HLZ.

2.1.2 Construction and Site Preparation

The HLZ will be constructed by clearing and grubbing 800x200 meters of land with shaping and establishment of sediment basins (no structures, utilities, or paving will occur). Site clearing requirements would include removal of the trees, stumps, and any understory using mechanical methods. Any timber debris would then be piled and burned. Once cleared, soil will be stabilized to prevent erosion and reseeded with the appropriate critical area treatment seed mix.

Temporary access roads and staging areas will not be required as removal will begin from established road/trail network access points.

2.1.3 Operational Activities

The HLZ would include clearance areas constructed with the use of dozers, excavators, and tractors. Potential aircraft to be used include the CH-47, UH-60, additional rotary winged aircraft, and unmanned aircraft. Flights would occur during the day and night. Three CH-47s and ten UH-60s require a minimum diameter of 800x200 meters (FM 3-21.38, 2006).

The area will be maintained with bush hogs approximately twice yearly to keep vegetation below 18 inches in height as required in the **Training Circulars** 25-1 and 25-8.

2.1.4 Post-operational Requirements

There is not a requirement for brigade size lift. A pending update to United States Army Forces Command Regulation 350-50-2, “Training” may include the brigade level needs. Future additional aircrafts consist of vertical lift helicopters, which have the same footprint requirements as the CH-47s.

2.2 Alternatives

2.2.1 Alternative A1 (Preferred Alternative)

Alternative A1 will consist of the actions described in the Proposed Action. Alternative A1 is in the Mill Creek 4 Training Area, east of Cryer Road and overlaying MT 13A and MT 13B (Figure 2-3). This project area is 45.58 acres and has terrain that provides increased drainage, thus allowing for firmer ground. While the slope of Alternative A1 is within tolerance, ground leveling would be needed. There are no notable flight hazards.

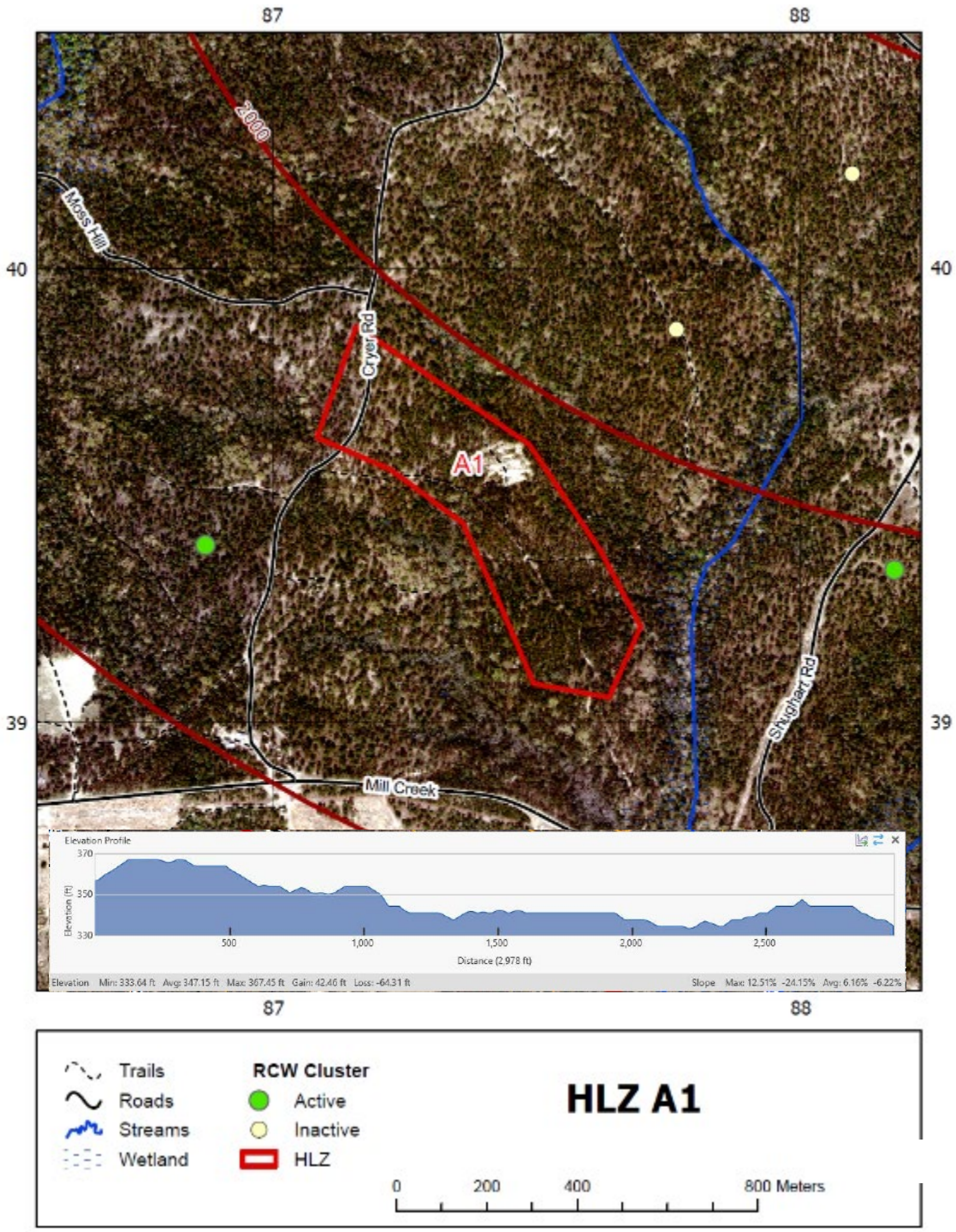

FIGURE 2-3. ALTERNATIVE A1

2.2.2 Alternative A2

Alternative A2 will consist of the actions described in the Proposed Action. Alternative A2 is on the boarder of the Mill Creek 3 and 4 Training Areas, overlaying Cryer Road (Figure 2-4). The project area is 41.46 acres and has terrain that decreases drainage, thus resulting in softer, less desirable ground for aircraft landings. Alternative A2 meets the slope requirements and has no notable flight hazards.

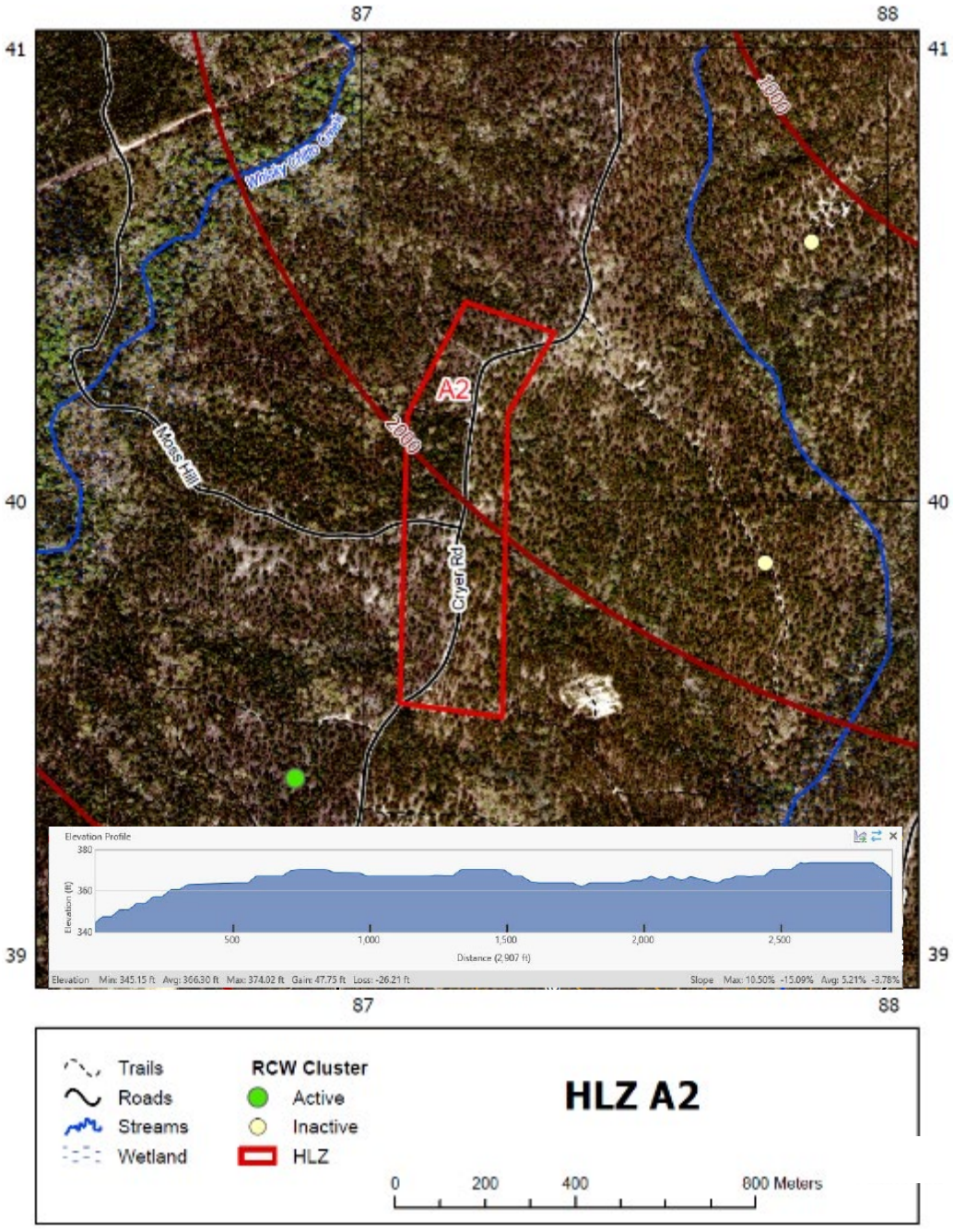

FIGURE 2-4. ALTERNATIVE A2

2.2.3 Alternative B

Alternative B will consist of the actions described in the Proposed Action. Alternative B is in the Mill Creek 3 Training Area, overlaying Moss Hill Road (Figure 2-5). The project area is 36.07 acres and is near Self Airfield, which is used for UAS launch/recovery. The proposed aerial operations would conflict with UAS operations, resulting in limited flight path into/out of the proposed landing zone (Figure 2-6). Additionally, the terrain of Alternative B varies in slope which is less ideal for aerial operations.

FIGURE 2-5. ALTERNATIVE B

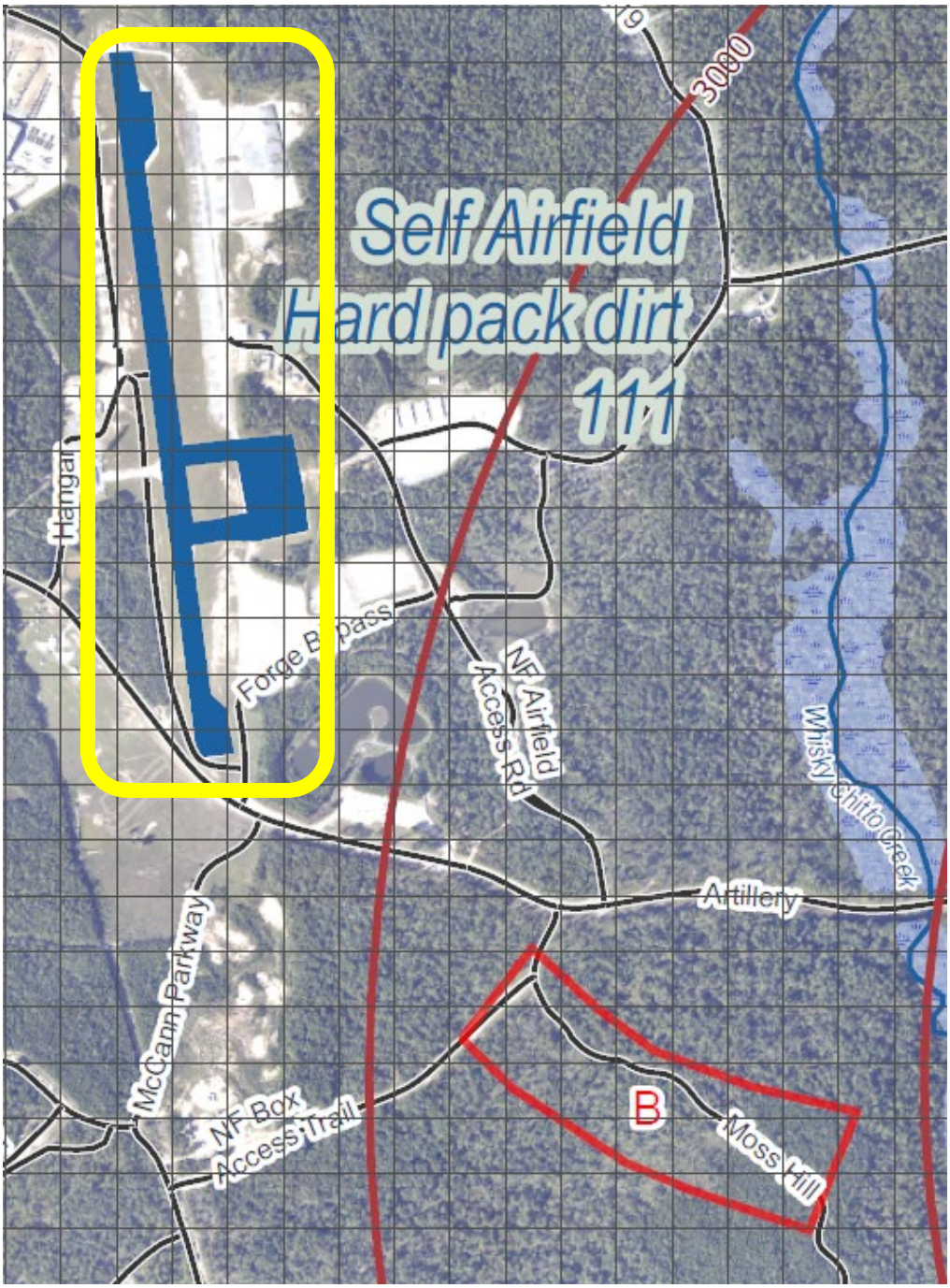

FIGURE 2-6. ALTERNATIVE B IN RELATION TO SELF AIRFIELD

2.2.4 Alternative 4 (No Action Alternative)

This alternative provides the baseline against which the potential effects of the Proposed Action and other alternatives are evaluated. Under this alternative, the Proposed Action would not be implemented, requiring the continued use of Self Airfield,

Range 19, Animal Farm, and the Multi-Purpose Range Complex, which do not meet the purpose and need for the Proposed Action.

Fort Johnson would continue to be limited in the use of LSCO due to the locations and linear danger areas in relation to Shughart Gordon.

This alternative would not meet the purpose and need of the Proposed Action; however, this alternative (No Action Alternative) will be carried forward for analysis in the EA and provides a baseline for measuring the environmental impacts of the other three alternatives.

2.3 Alternatives Considered but Eliminated from Detailed Study

2.3.1 Mill Creek 3 Training Area, Tower HLZ

This alternative is located north of Mill Creek Road and east of Cryer Road in the Mill Creek 3 Training Area. Although the road and trail networks are developed and usable by Units conducting operations at Fort Johnson, the proximity of Tower HLZ is an obstruction safety concern (FM 3-21.38, 2006). Although this alternative would meet the purpose, the known obstruction restrictions would not meet the need of the action. Therefore, this alternative will not be carried forward for analysis in the EA.

2.3.2 Slagle 4 Training Area, Landing Zone 1

This alternative is located along 700 Cutoff Road in the Slagle 4 Training Area. Although the road and trail networks are developed and usable by Units conducting operations at Fort Johnson, this area would not support the training mission and reliability. Due to the location, the brigade would not be able to perform a flanking position and Soldiers would have to cross a linear danger area; therefore, this alternative would not support the purpose and need.

2.3.3 Slagle 5 Training Area, Landing Zone 1

This alternative is in proximity of the Slagle 4 Training Area, Landing Zone 1 alternative along 700 Road. Although the road and trail networks are developed and usable by Units conducting operations at Fort Johnson, this area would not support the training mission and reliability. Due to the location, the brigade would not be able to perform a flanking position and Soldiers would have to cross a linear danger area; therefore, this alternative would not support the purpose and need.

2.3.4 Slagle 5 Training Area

This alternative is located north of Birds Creek, along MT 12A. Although the road and trail networks are developed and usable by Units conducting operations at Fort Johnson, this area would not support the training mission and reliability. Due to the location, the brigade would not be able to perform a flanking position and Soldiers would

have to cross a linear danger area; therefore, this alternative would not support the purpose and need.

2.4 Alternatives Summary

For this EA to consider Alternatives to the Proposed Action, the Alternative must meet the purpose and need as stated in Section 1.2 and must be considered as a viable alternative. A total of eight Alternatives were identified and evaluated. Four Alternatives were eliminated from further consideration after the purpose and need were unable to be met during site selection process. Alternatives A1, A2, and B fully meet the purpose and need for the Proposed Action. Therefore, Alternatives A1, A2, and B and the No Action Alternative (required) will be carried forward and further analyzed in this EA.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 Introduction

This section describes the affected environment and methodology used to analyze the Potential environmental impacts on the affected environment that would result from implementation of the Alternatives for the development and operation of an HLZ in the Mill Creek Training Area. The affected environment represents baseline conditions against which environmental impacts can be measured. An environmental impact or consequence is defined as a modification or change in the existing environment brought about by the action taken. Effects can be direct, indirect, or cumulative and can be temporary (short-term) or permanent (long-term). Effects can also vary in degree, ranging from only a slight discernable change to a drastic change in the environment. The terms “effect” and “impact” are synonymously used in this EA.

This EA focuses on resources and issues of concern identified during the internal scoping process (see Section *1.3*) and on differences among Alternatives. A progressive approach was taken in the analysis for each VEC. Resource areas and issues of concern that were identified as having a very low level of concern are not discussed in detail or on a limited basis in Section *3.3*. The VECs that were identified as potentially having a medium or high level of concern are discussed in detail in Section *3.4*.

3.2 Valued Environmental Components and Measure of Environmental Impacts

In 1997, CEQ published specific guidelines for Cumulative Effects Analysis, establishing a new impact assessment approach (or paradigm) that focuses on important regional resources, as opposed to the traditional action-impact approach used for direct and indirect effects. The assessment approach focuses on VECs or resources that are important in a specific region.

Utilizing this approach early in the planning and decision-making process effectively, systematically, and defensively identifies the appropriate level of NEPA analysis required for each resource area. However, the VEC levels identified are not correlated with the level of anticipated effects.

To aid in the analysis of the environmental impacts, to supplement guidance found in 32 CFR Part 651 and 40 CFR Parts 1500-1508, and to ensure a consistent and defensible evaluation of environmental impacts, thresholds of concern were developed for each VEC. Resource management professionals and SMEs developed these thresholds. The spatial boundary and thresholds of concern for each VEC for the analysis of the Action Alternatives (A1, A2, and B) are presented in Table 3-1.

The potential impacts of implementing a Proposed Action and Alternative(s) can be characterized by one of three types of impacts. They are as follows:

- **Direct impact.** Those effects caused by an action and that occur at the same time and place as the action.
- **Indirect impact.** Those effects caused by an action and that occur later in time or are farther removed in distance from the action.
- **Cumulative impact.** Those effects that 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 person undertakes such other actions". Cumulative impacts can result from individually minor but collectively significant actions taking place over a period.

Environmental impacts also may be expressed in terms of duration. The duration of short-term impacts is 1-year or less, and long-term impacts are described as lasting beyond 1-year. Long-term impacts can potentially continue in perpetuity.

TABLE 3-1. VALUED ENVIRONMENTAL COMPONENTS

Valued Environmental Component	Spatial Boundary	Threshold of Concern Proposed Action Would Cause or Result in:
Land Use	Installation boundary or region of influence (ROI)	Concern that land-use conflicts will occur. Examples include preclusion of implementation of or conflicts with *Fort Johnson Integrated Natural Resources Management Plan (INRMP).*
Geology	Geology within sub-watersheds of the installation boundary	Reduction in access to or availability of publicly or privately owned mineral resources.
Soils	Soils within the ROI	Soil loss or compaction to the extent that natural reestablishment of native vegetation within two growing seasons is precluded unless substantial rehabilitation efforts are undertaken.
Groundwater	Aquifer within the ROI	Degradation of aquifer quality; Violation of drinking water standards.
Water Resources: Surface Water Quality, Streams, Wetlands, and Other Surface Water Resources	Sub-watershed, United States Army Corps of Engineers (USACE) jurisdictional "Waters of the U.S.," or state-designated stream segment within the installation boundary	Sedimentation or discharge into streams, wetlands, waters of the U.S., or state scenic streams within project footprint or adjacent to project within watershed (within a distance to be concerned about sedimentation); Net loss of wetlands (bogs, baygalls, hillside seeps, or riparian zones) within installation boundary due to direct or indirect effects (e.g., sedimentation).
Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive plant species	Installation boundary	Permanent conversion or net loss of forest lands at landscape scale of > 5 percent relative to baseline; Permanent net loss of Red-cockaded (RCW) woodpecker foraging habitat from land base to level below that required for achieving long-term RCW population recovery objectives; Permanent loss or degradation of designated rare/sensitive plant sites; Introduction or increased prevalence of undesirable nonnative species.

Valued Environmental Component	Spatial Boundary	Threshold of Concern Proposed Action Would Cause or Result in:
Biological Resources: Wildlife	Species home range, local habitat, or migratory range intersecting the Installation boundary	Long-term loss or impairment of a substantial portion of local habitat (species-dependent); Biologically significant decline in Migratory Bird Treaty Act (MBTA) population; Biologically significant decline in game species population.
Biological Resources: Rare, Threatened, and Endangered Species	Home range or protected habitat within the Installation boundary	Reduction of RCW foraging habitat for one or more clusters/groups; Reduction in Habitat Management Unit (HMU) acreage. Alleviation of time for biologist to manage the species; Direct mortality or other unpermitted “take” of threatened or endangered species.
Cultural Resources	Specific boundary of archaeological sites.	Irretrievable or irreversible damage to a prehistoric or historic site that is listed or is eligible/potentially eligible for listing on the National Register of Historic Places.
Noise	Land use zones within the ROI and Installation boundary	Exceedance of noise limit guidelines published in AR200-1, Chapter 16 (2015); Exceedance of existing 104 dBA for Zone II.
Air: Air Quality, Greenhouse Gas (GHG) Emissions, and Climate Change	Airshed (AQCR 106) (AQCR 22) or Installation boundary (Title V)	Violation of National Ambient Air Quality Standards (NAAQS). Contributing to >5% of the state’s GHG emissions. Public safety, well-being, and property hazards from specific climate impacts (i.e. hurricanes, wildfires, flooding, etc.).

Valued Environmental Component	Spatial Boundary	Threshold of Concern Proposed Action Would Cause or Result in:
Social Conditions: Public Access and Recreational Use, Public Services, Public Safety and Protection of Children, Environmental Justice	Installation boundary or ROI	Long-term substantial loss or displacement of recreational opportunities/resources relative to baseline; Substantial degradation of recreational value; Exceedance of Rational Threshold Value (RTV) for population and assessment of baseline social services; Need for increase in large-scale facilities (e.g., new school or hospital); Public safety hazard from military operations; Public health hazard from exposure to hazardous waste or hazardous materials; Disproportionate environmental health or safety risk to children; Disproportionate environmental, economic, social, or health impacts on minority or low-income populations; Environmental health or safety risk to children. For the most up to date guidance see Executive Order (EO) 14096 and Army Environmental Justice Policy (Army 2022).
Socioeconomics	ROI	Exceedance of RTV for socioeconomic indicators (i.e., modeled population, personal income, employment, or business activity exceeds the difference between the maximum and average historical level over the past 19 years).
Transportation and Infrastructure	ROI or Installation boundary	Decrease in Level-of-Service (LOS) of key installation arteries and collectors below the acceptable LOS; Road failure resulting in rutting, cracking, or other pavement problems that require substantial maintenance or rehabilitation activities; Violation of a Federal Aviation Administration (FAA) regulation that undermines the safety of commercial passengers or personnel at Alexandria International Airport/England Industrial Airpark; Impairment of installation's ability to meet federally mandated or Army objectives for waste minimization and pollution prevention; Accidence of existing facility or system capacity for hazardous waste/hazardous material management, storage, disposal, or emergency response; water supply and sewage treatment; or utility services.
General Compliance	Installation boundary or limits of affected environmental media	Violations of federal or state environmental rules, regulations, or permits held by the installation.

In addition to the type and duration of an impact to a resource area, effects to resource areas are characterized by the relative severity of an environmental effect. Four terms are used throughout this EA to indicate the relative degree of predicted impacts that the Proposed Action and Alternatives would have. They are as follows:

- **Negligible.** The term used to indicate the relative degree of severity of an environmental effect that could occur but might not be detectable.
- **Minor.** The term used to indicate the relative degree of severity of an environmental effect that is measurable but is clearly not significant.
- **Moderate.** The term used to indicate the relative degree of severity of an environmental effect that might approach but not exceed a threshold of significance. For example, where a "threshold of concern" as described in Table 3-1, might be approached, where the predicted consequence of implementing an action suggests the need for additional care in following standard procedures, employing Best Management Practices (BMPs), or applying precautionary measures to minimize adverse effects; or where there is some uncertainty inherent in whether the effects forecast by a predictive model would occur.
- **Significant.** A measure in terms of the degree of severity of the environmental effect of an action reflecting the context and intensity of the effect, as defined in CEQ regulations (40 CFR §1500-1508).

Lastly, environmental impacts can either have beneficial or adverse impacts on a resource area.

The determination of the level of effects of the Proposed Action on threatened and endangered species follows the USFWS guidance, which uses somewhat different terms to describe the level of potential effects. Terms used by the USFWS are as follows:

- **No Effect.** The term used to indicate that no long or short-term effects are expected.
- **Discountable.** The term used to indicate that effects would be extremely unlikely to occur or would be insignificant (the size of the impact should never reach the scale where "**take**" occurs) or completely beneficial. "Take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct," and includes habitat modification and the impairment of essential behavioral patterns (i.e. breeding, feeding, sheltering; USFWS and National Marine Fisheries Service 1998). It should be noted that "discountable" as used herein is an aggregation of the three effect levels (discountable, insignificant, and completely beneficial) defined by the USFWS upon which a conclusion of "is not likely to affect" is made.
- **Adverse - individual.** The term used to indicate effects that would be likely to adversely affect individuals, but not significantly affect populations.
- **Adverse - population.** The term used to indicate effects that would be likely to adversely affect the population.

3.3 Resource Areas and Effects not Considered

Land Use**.**

The Proposed Action would occur entirely within Army lands and would not change the way in which the land is used or managed. Training activities would continue at levels consistent with past and on-going training and in areas specified for training; training activities would continue to be compatible with existing land use. The area of proposed action is within the Tactical Environment Visual Zone which is characterized by mission support and training that focuses on replicating tactical conditions. Thus, this resource area was eliminated from further analysis.

Geology**.**

The Proposed Action does not include new activities which would result in the extraction of mineral resources or affect any subsurface geological features. Thus, this resource area was eliminated from further analysis.

Groundwater*.*

The Proposed Action does not include any new activities which would result in the degradation of aquifer quality or propose to remove water from an **aquifer**. Thus, this resource area was eliminated from further analysis.

Cultural Resources*.*

The footprints of each alternative have been phase-I and -II surveyed and the Proposed Action will not impact any known prehistoric or historic site that is listed or is eligible/potentially eligible for listing on the National Register of Historic Places. Thus, this resource was eliminated from further analysis.

Noise.

The Proposed Action adheres to the guidelines published in AR 200-1, Chapter 16 (2015) and will not exceed noise limit guidelines published in exceedance of existing 104 dBA for Zone II.

Air Quality, GHG Emissions, and Climate Change*.*

The Proposed Action is located within Vernon Parish, Louisiana. Air quality in this parish meets or exceeds the National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency (EPA). Therefore, these areas are considered attainment areas according to 40 CFR Part 81.319. Actions in attainment/unclassifiable areas do not require review under the General Conformity Rule (40 CFR §93 (B)). Fort Johnson maintains a Title V federal operating permit for stationary sources. The Proposed Action is not expected to have a discernible impact on Air Quality because the project would not result in any new permanent air emission sources. Furthermore, in reference to climate change, the Mill Creek Training Area, where the Action Alternatives are located, is not utilized for long-term housing of Army personnel or civilians. Any natural disasters that impact the action would not impact public safety, well-being, or residential property. Additionally, wildfire management is in place by Directorate of Public Works (DPW) – Environmental and Natural Resources Management Division

(ENRMD) - Forestry Branch (hereafter referred to as Forestry Branch). Thus, this resource area was eliminated from further analysis.

Social Conditions*.*

In line with the EO 14096 and 13045, Fort Johnson has taken an approach informed by up-to-date scientific research utilizing high quality data and data collection processes. Therefore, there would be no disproportionate impact to the health and safety of neighboring communities.

EO 12898 requires federal agencies to consider any potential disproportionally high and adverse human health and environmental impacts to minority and low-income populations. The Proposed Action would occur on Army lands historically and currently used for military training. Proposed training activities would occur on lands away from the general population, including minority populations, low-income populations, and children. The Proposed Action does not propose any action which would affect current public access, recreational use, and public services. Additionally, the Proposed Action would not affect the level and frequency of public use within the designated areas at JRTC and Fort Johnson. There would be no change in the management and maintenance of recreation areas. Thus, this resource area was eliminated from further analysis.

In adherence to the Department of the Army Environmental Justice Policy, the Army is committed to the integration of Environmental Justice principles across various facets of its operations and activities. This comprehensive approach encompasses a range of areas, including but not limited to NEPA documentation and Environmental Restoration activities, Master Planning, Program Management, and the development of Strategic Planning documents.

Socioeconomics*.*

Implementation of the Proposed Action would not result in an increase of personnel at JRTC and Fort Johnson and there would be no change in training levels. Construction of the HLZ would not attract a long-term worker population to the project vicinity nor affect the need for housing in the area. The Proposed Action does not propose any action which would affect the regional and local economics surrounding JRTC and Fort Johnson land. Thus, this resource area was eliminated from further analysis.

Transportation and Infrastructure*.*

The Proposed Action would not increase airspace operations nor impede existing airspace use or management by the military or public. No new airspace is proposed, and existing airspace operations would continue to comply with existing airspace regulations. The Proposed Action would accommodate the continuation of current training rotations, and no expansion of the existing training program is proposed. Thus, no new operational impacts would occur. Because there would be no increase in training levels, there would be no corresponding increase in transportation or utility demand. The Proposed Action does not propose any action which would affect the level-of-service provided for and by the Installation. Thus, this resource area was eliminated from further analysis.

General Compliance.

The Proposed Action does not propose any action which would cause a violation to federal or state environmental regulations or permits the Installation may hold. Thus, this resource area was eliminated from further analysis.

3.4 Resources Considered on a Detailed Basis

3.4.1 Soils

3.4.1.1 Affected Environment

Based on Natural Resources Conservation Service (NRCS) soil survey mapping and United States Department of Agriculture (USDA) – National Cooperative Soil Survey data, there are three soil types that are located within the Action Alternatives and are represented by the following six map units:

- Briley loamy fine sand, 1-5% slopes (BrC) are very deep, sandy, well drained soils with very low runoff. These soils have moderate permeability and are gently sloping. They are considered to have a slight erosion hazard and are not limited for an HLZ.

- Briley loamy fine sand, 5-12% slopes (BRE) are very deep, sandy, well drained soils with low runoff. These soils have moderate permeability and are gently sloping. They are considered to have a moderate erosion hazard and are very limited for an HLZ.

- Eastwood silt loam, 1-5% slopes (EaC) are deep, well drained soils with high runoff. These soils have very slow permeability and are gentle to moderately sloping. These are considered to have a moderate erosion hazard and are somewhat limited for an HLZ.

- Eastwood silt loam, 5-12% (EAE) are moderately well drained soils with very high runoff. These soils have very slow permeability and are sloping to strongly sloping. They are considered to have a very severe erosion hazard and are very limited for an HLZ.

- Ruston fine sandy loam, 1-3% slopes (RuB) are very deep, well drained soils with medium runoff. These soils have moderate permeability and are moderately sloping. They are considered to have a moderate erosion hazard and are somewhat limited for an HLZ.

- Ruston fine sandy loam, 3-8% slopes (RuD) are very deep, well drained soils with medium runoff. These soils have moderate permeability and are moderately sloping. They are considered to have a moderate erosion hazard and are somewhat limited for an HLZ.

Soil types that have an increase potential for erosion are correlated with positive land slope, frequency and duration of rainfall, and the amount of vegetative cover. The soil erosion hazard categories are (NRCS 2024):

- **Slight**. Erosion is unlikely under ordinary climatic conditions.
- **Moderate**. Some erosion is likely and that erosion-control measures may be needed.
- **Severe**. Erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised.
- **Very Severe**. Significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Erosion control measures are recommended for soils within the moderate, severe, or very severe categories. Approximately 63% of the soils within the Action Alternatives are categorized as moderate, severe, or very severe and 37% are considered slight erosion hazard. Figure 3-1 features soil types and erosion categories within the Proposed Alternatives.

In addition to the soil erosion hazard categories, there are soil ratings for HLZs based on the soil properties that influence construction, maintenance, and readiness of landing zones. Rating class terms indicate the extent to which the soils are limited by all the soil features that affect HLZs (NRCS 2024):

- **Not Limited.** Soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.
- **Somewhat Limited**. Soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.
- **Very limited.** Soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures.

Approximately 63% of the soils within the Action Alternatives are rated as “somewhat limited” and “very limited” while 37% are rated “not limited.” Figure 3-1 provides HLZ soils ratings in reference to the Proposed Alternatives.

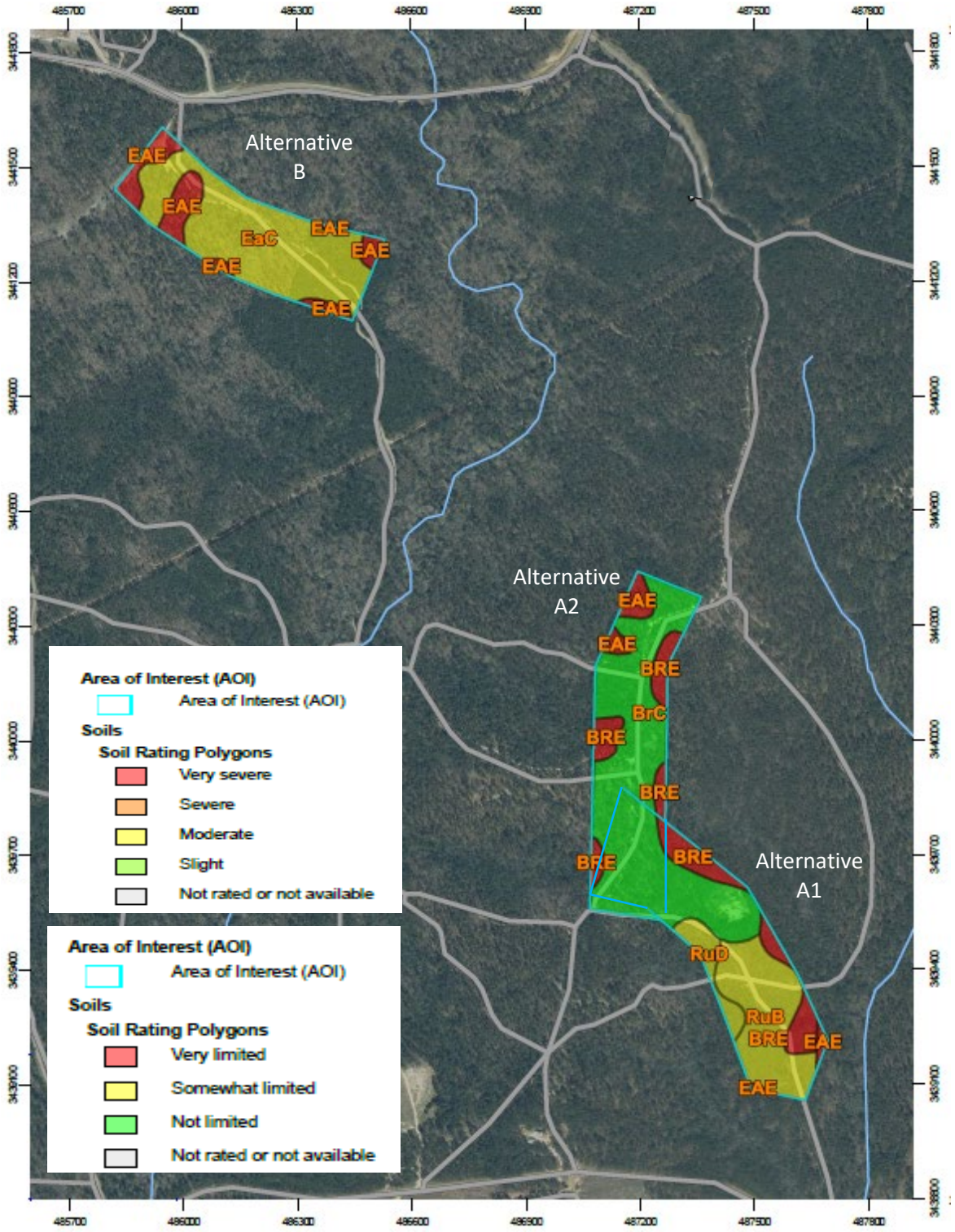

FIGURE 3-1. SOIL RATINGS WITHIN THE PROPOSED ALTERNATIVES (A1, A2 AND B)

Certain management practices such as the rehabilitation and establishment of vegetative cover on bare areas is an effective means to decrease erosion. The terrain in the Action Alternatives is suited for actions associated with the Proposed Action, but

erosion poses an environmental issue without critical area treatment being applies to the soil after vegetation is removed and without proper maintenance.

Previous Commitments

Fort Johnson has established programs and procedures to minimize soil erosion on its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following procedures and programs utilized to decrease erosion and soil displacement are defined in Appendix A:

- **Temporary Closure of Sites**
- **Integrated Training Area Management and Land Rehabilitation and Maintenance**
- **Maneuver Damage Inspection and Monitoring**
- **Range Training Land Assessments**

3.4.1.2 Environmental Impacts

Alternative A1 (preferred Alternative)
Under this Alternative, 46 acres of soils would be disturbed by development/use of an HLZ. Most soils located within the footprint of Alternative A1 are considered to have moderate (57%), followed by slight (42%) and very severe (1%) erosion potential (Table 3-2), which indicates that this Alternative is somewhat limited.

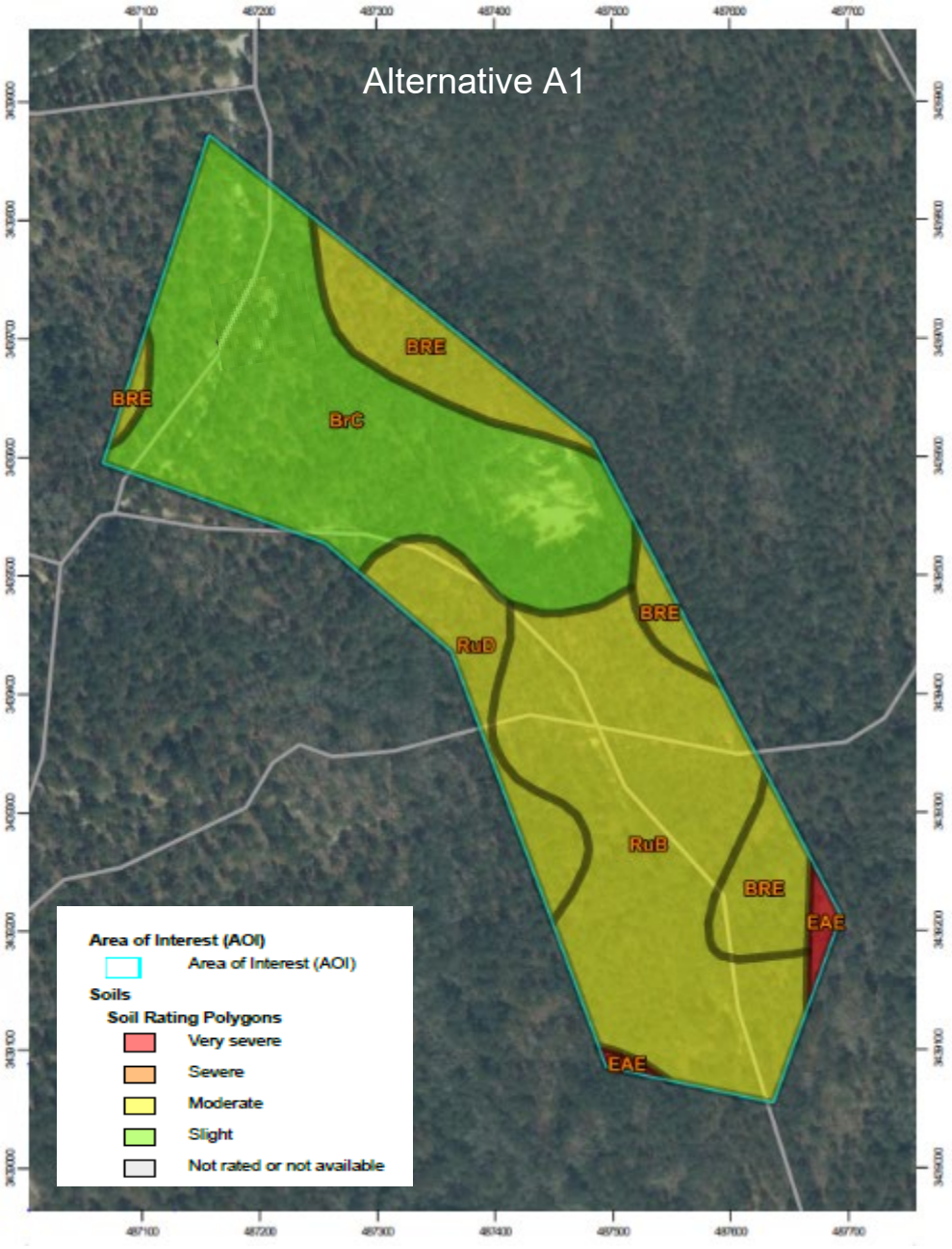

FIGURE 3-2. ALTERNATIVE A1 EROSION POTENTIAL

TABLE 3-2. ALTERNATIVE A1 EROSION POTENTIAL

Map Unit Symbol	Map Unit Name	Rating	Rating Reason	Acres in AOI	Percent of AOI
BrC	Briley loamy fine sand, 1 to 5 percent slopes	Slight		19.2	41.6%
BRE	Briley loamy fine sand, 5 to 12 percent slopes	Moderate	Surface kw times slope times R index (0.50)	6.6	14.4%
EAE	Eastwood silt loam, 5 to 12 percent slopes	Very Severe	Surface kw times slope times R index (1.00)	0.6	1.3%
RuB	Ruston fine sandy loam, 1 to 3 percent slopes	Moderate	Surface kw times slope times R index (0.15)	16.2	35.1%
RuD	Ruston fine sandy loam, 3 to 8 percent slopes	Moderate	Surface kw times slope times R index (0.63)	3.5	7.6%
Totals for Area of Interest				46.1	100%

Rating	Acres in AOI	Percent of AOI
Moderate	26.3	57.2%
Slight	19.2	41.6%
Very Severe	0.6	1.3%
Totals for Area of Interest	**46.1**	**100%**

The programs described above in Section *3.4.1* will continue to be implemented at the Installation. These programs would preclude potential soil displacement due to erosion. Additionally, the implementation of the BMPs during construction would ensure that any soil would be contained on-site. Upon completion of construction, the project site would be reseeded with critical area treatments, assessed on a regular frequency to determine if maintenance activities are required, and would be maintained by bush hogging. Impacts on soils from Alternative A1 are anticipated to be direct, short-term, minor, and adverse.

Alternative A2

Alternative A2 contains 42 acres of soils would be disturbed by development/use of an HLZ. Most soils located within the footprint of Alternative A2 are considered to have slight (80%), followed by moderate (14%) and very severe (6%) erosion potential (Table 3-3), which indicates that this Alternative is not limited.

FIGURE 3-3. ALTERNATIVE A2 EROSION POTENTIAL

TABLE 3-3. ALTERNATIVE A2 EROSION POTENTIAL

Map Unit Symbol	Map Unit Name	Rating	Rating Reason	Acres in AOI	Percent of AOI
BrC	Briley loamy fine sand, 1 to 5 percent slopes	Slight		33.5	79.6%
BRE	Briley loamy fine sand, 5 to 12 percent slopes	Moderate	Surface kw times slope times R index (0.50)	6.0	14.2%
EAE	Eastwood silt loam, 5 to 12 percent slopes	Very Severe	Surface kw times slope times R index (1.00)	2.6	6.2%
Totals for Area of Interest				42.1	100%

Rating	Acres in AOI	Percent of AOI
Moderate	6.0	14.2%
Slight	33.5	79.6%
Very Severe	2.6	6.2%
Totals for Area of Interest	**42.1**	**100%**

The programs described above in Section *3.4.1* will continue to be implemented at the Installation. These programs would preclude potential soil displacement due to erosion. Additionally, the implementation of BMPs during construction would ensure that any soil would be contained on-site. Upon completion of construction, the project site would be reseeded with critical area treatments, assessed on a regular frequency to determine if maintenance activities are required, and would be maintained by bush hogging. Impacts on soils from Alternative A2 are anticipated to be direct, short-term, minor, and adverse.

Alternative B

Under this Alternative, 36 acres of soils would be disturbed by development/use of an HLZ. Most soils located within the footprint of Alternative B are considered to have moderate (78%), followed by very severe (22%) erosion potential (Table 3-4), which indicates that this Alternative is somewhat limited.

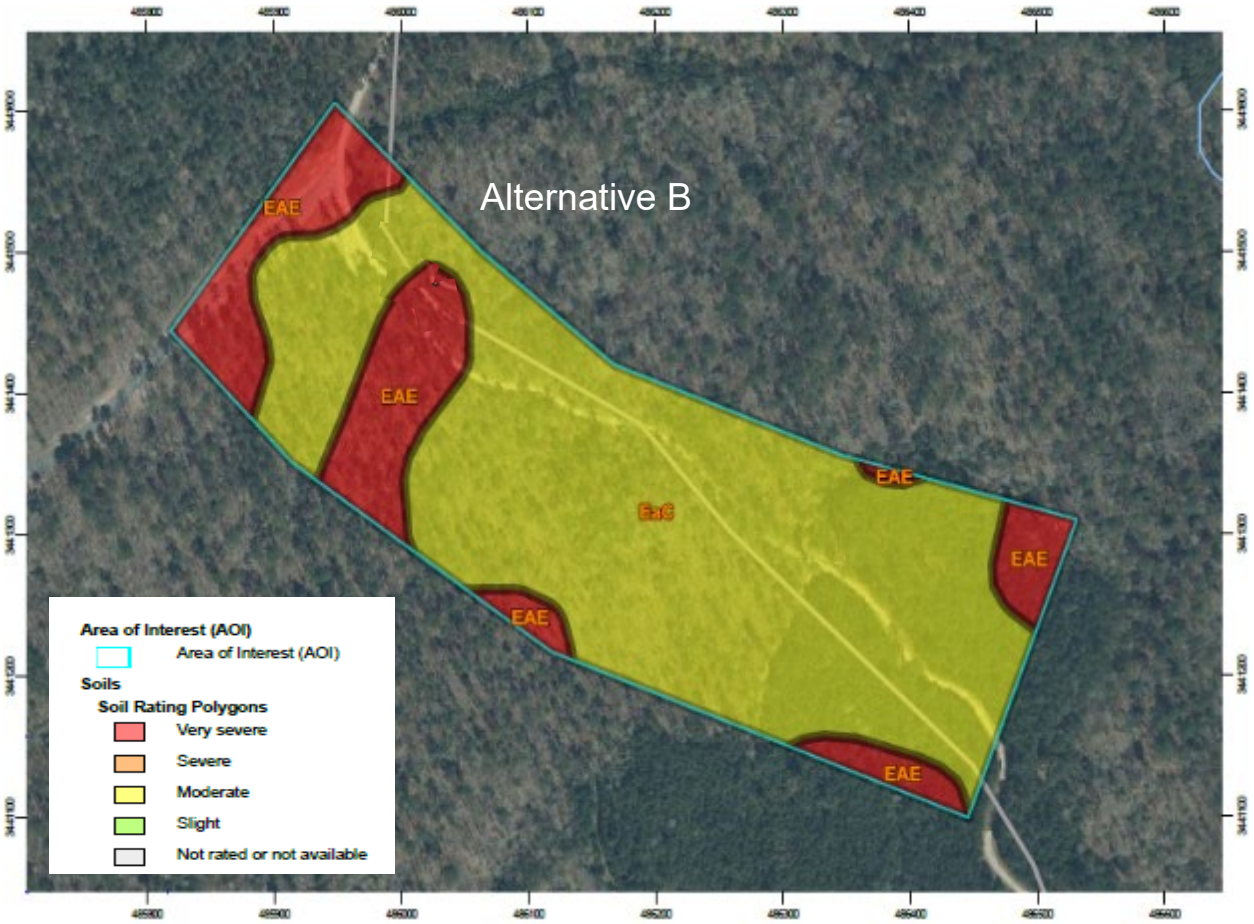

FIGURE 3-4. ALTERNATIVE B EROSION POTENTIAL

TABLE 3-4. ALTERNATIVE B EROSION POTENTIAL

Map Unit Symbol	Map Unit Name	Rating	Rating Reason	Acres in AOI	Percent of AOI
EaC	Eastwood silt loam, 1 to 5 percent slopes	Moderate	Surface kw times slope times R index (0.66)	28.1	77.8%
EAE	Eastwood silt loam, 5 to 12 percent slopes	Very Severe	Surface kw times slope times R index (1.00)	8.0	22.2%
Totals for Area of Interest				36.1	100%

Rating	Acres in AOI	Percent of AOI
Moderate	28.1	77.8%
Very Severe	8.0	22.2%
Totals for Area of Interest	**36.1**	**100%**

The programs described above in Section *3.4.1* will continue to be implemented at the Installation. These programs would preclude potential soil displacement due to erosion. Additionally, the implementation of BMPs during construction would ensure that any soil would be contained on-site. Upon completion of construction, the project site would be reseeded with critical area treatments, assessed on a regular frequency to determine if maintenance activities are required, and would be maintained by bush hogging. Impacts on soils from Alternative B are anticipated to be direct, short-term, minor, and adverse.

Alternative 4 (No Action Alternative)
There would be no impacts to soil resources under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative - Soils
Based on the erodibility ratings of each area, Alternative A1 is the Environmentally Preferred Alternative, followed by Alternative A2. This was concluded based on the percentage of area considered to have an erosion rating at or below moderate. Alternative A1 has 98.8% of soils at or below a moderate erosion rating; Alternative A2 has 93.8% of soils at or below a moderate erosion rating, and Alternative B has 77.8% of soils at or below a moderate erosion rating. Table 3-5 provides an overview of the acres of erodibility within each Action Alternative.

TABLE 3-5. ACRES OF EROSION

	Acres of Erosion			
Alternatives	*Slight*	*Moderate*	*Severe*	*Very Severe*
A1	19.2	26.3	0	0.6
A2	33.5	6.0	0	2.6
B	0	28.1	0	8.0

3.4.2 Water Resources: Surface Water Quality, Streams, Wetlands, and Other Surface Water Resources

3.4.2.1 Affected Environment

The Louisiana Department of Environmental Quality (LDEQ) has established surface water quality standards for the protection of natural resources and public health while enhancing the quality of state waters for designated uses in compliance with the objectives of the Louisiana Water Control Law and Federal Clean Water Act (CWA) (33 U.S.C. §1251 et seq). Under these provisions, the Action Alternatives (A1, A2, and B) may impact surface water resources.

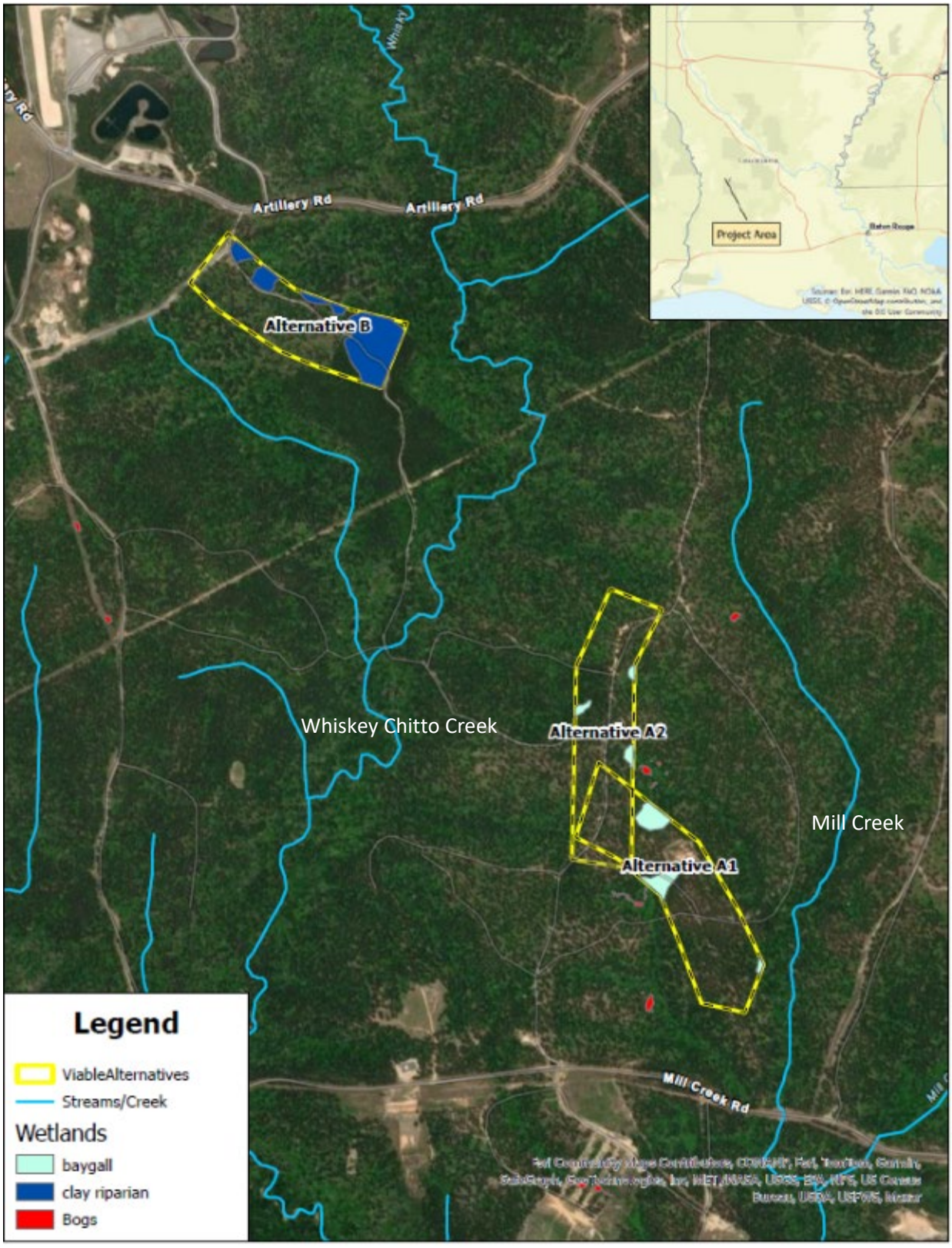

FIGURE 3-5. UPPER CALCASIEU WATERSHED SURFACE WATERS IN PROXIMITY TO THE ACTION ALTERNATIVES (A1, A2 AND B)

Mill Creek and Whiskey Chitto Creek

Surface water systems are typically defined in terms of **watersheds**. Watersheds are delineated into hydrologic units by the United States Geological Survey using a nationwide system based on surface features (USGS 2024). Alternatives A1, A2, and B are located within the Upper Calcasieu watershed, which is characterized by a humid subtropical climate.

The Calcasieu River, the main river in the Upper Calcasieu watershed, is fed by waterways near the Action Alternatives. Mill Creek (a waterway within the Mill Creek Training Area) is a **tributary** to the Ouiska "Whiskey" Chitto Creek (hereafter referred to as Whiskey Chitto Creek), which is one of the waterways that ultimately enters the Calcasieu River. The three Action Alternatives are adjacent to Mill Creek and Whiskey Chitto Creek (Figure 3-5); therefore, were reviewed for potential impact.

Mill Creek, and **intermittent stream**, is a **subwatershed** on Fort Johnson. This creek has 2.7% of subwatershed on the training lands with 277 acres overlapping training lands. Since Mill Creek is a tributary to Whiskey Chitto Creek, impact to Mill Creek could contribute to the overall impairment of Whiskey Chitto Creek and ultimately the Calcasieu River.

Whiskey Chitto Creek, a **perennial stream**, is also a subwatershed on Fort Johnson. Whiskey Chitto Creek has 33.7% of subwatershed on training lands with 18,356 acres overlapping training lands. This waterway flows throughout the southern boundary of Fort Johnson and 70 miles before entering the Calcasieu River. The Whiskey Chitto Creek has been identified by the EPA and LDEQ as an impaired waterway and Scenic River (see Table 3-5 for points of consideration).

Under Section 303 (d) of the CWA, the EPA maintains a list of **impaired** or threatened waters along with the pollutant causing the impairment, if known. Water quality standards are provisions of local, state, or federal law and must protect public health or welfare, enhance the quality of water, and serve the purposes of the CWA. Based on these standards, Whiskey Chitto Creek has been listed as impaired by natural resources and on-site treatment systems (Table 3-6) (303d Appendix G CWA).

The Louisiana Department of Wildlife and Fisheries (LDWF) Scenic River Program "preserves, protects, develops, reclaims, and enhances the wilderness qualities, scenic beauties, and ecological regimes of designated free-flowing Louisiana rivers, streams, bayous, and segments thereof." Within the Scenic River Program, Whiskey Chitto Creek is designated as a scenic river from the boundary of Lookout Road, Fort Johnson to its entrance into the Calcasieu River.

Nonpoint sources are the primary pollutant sources of concern for surface water at Fort Johnson. To protect water ways from runoff, erosion, and sedimentation, BMPs should be implemented prior to ground disturbance when constructing the HLZ. Fort Johnson uses numerous abatement prevention actions such as:

- Placement of silt fencing to prevent erosion consistent with the Installation's BMPs for construction.

- Planting of grasses on areas where vegetation is removed, and erosion risk is high due to soil composition or slope.
- Maintenance of **streamside management zones** (SMZs).
- Timely repair of maneuver damages.

Implementing a SMZ provides protection of water quality and wildlife habitat, maintains bank stability, and reduces flood flow (BLM 2022). A SMZ is measured from the top of each bank and is established on both sides of the waterway. Soil type, slope, vegetation cover, and stream classification should be considered when designing each SMZ. The suggested SMZ zones are:

- Intermittent streams: 35-feet (each side).
- Perennial streams: 50-feet (each side) if stream is less than 20-feet wide.
- Perennial streams: 100-feet (each side) if stream is more than 20-feet wide.

Although Louisiana's Natural and Scenic River System defines a SMZ as 100-feet (each side) for listed Scenic Rivers, all the Alternatives are proposed above the location of Whiskey Chitto Creek's designated start of consideration (Lookout Road). Based on these guidelines, Mill Creek was analyzed under the 35-foot SMZ as an intermittent stream, and the Whiskey Chitto Creek was analyzed with a 50-foot SMZ as a perineal stream less than 20-feet wide.

Table 3-6. Louisiana Water Quality Impairment: Whiskey Chitto Creek

Appendix G:
Corrected Final Louisiana's 2022 Section 303(d) List
August 19, 2022

Description of Codes and Acronyms:

Water Body Types: R = Rivers; L = Lakes; E = Estuaries; W = Wetlands; C = Coastal Waters

Water Body Sizes: R = Miles; L = Acres; E = Square Miles; W = Acres; C = Miles

Designated Use Descriptions: PCR = Primary Contact Recreation (swimming)
SCR = Secondary Contact Recreation (boating)
FWP = Fish and Wildlife Propagation (fishing)
DWS = Drinking Water Supply
ONR = Outstanding Natural Resource
OYS = Oyster Propagation
AGR = Agriculture
LAL = Limited Aquatic Life and Wildlife

Use Support Codes for Designated Uses: F = Fully supporting designated use
N = Not supporting designated use
I = Insufficient data to make reliable determination
X = No data

IR Category for Suspected Causes: IRC 5 = 303(d) List
IRC 5-Alt = 303(d) List but LDEQ will implement alternative corrective strategies
IRC 5RC = 303(d) List but criteria revisions (Revise Criteria (RC)) are planned

Subsegment Number	Subsegment Description	Water Body Type	Size	Designated Water Body Uses								Impaired Use for Suspected Cause	Suspected Causes of Impairment	IR Category for Suspected Causes	TMDL Priority	Suspected Sources of Impairment
				PCR	SCR	FWP	DWS	ONR	OYS	AGR	LAL					
LA030102_00	Calcasieu River-From La. Highway 8 to the Rapides-Allen Parish line (Scenic)	R	75	N	F	F		F		F		PCR	FECAL COLIFORM	IRC 5	L	NATURAL SOURCES
LA030502_00	Whiskey Chitto Creek-From the southern boundary of Fort Polk Military Reservation to the Calcasieu River (Scenic)	R	74	N	F	F		F				PCR	FECAL COLIFORM	IRC 5	L	NATURAL SOURCES
LA030502_00	Whiskey Chitto Creek-From the southern boundary of Fort Polk Military Reservation to the Calcasieu River (Scenic)	R	74	N	F	F		F				PCR	FECAL COLIFORM	IRC 5	L	ON-SITE TREATMENT SYSTEMS (SEPTIC SYSTEMS AND SIMILAR DECENTRALIZED SYSTEMS)
LA030503_00	Six Mile Creek-East and West Forks from headwaters to the southern boundary of Fort Polk Military Reservation	R	19	N	F	N						FWP	PH, LOW	IRC 5	L	NATURAL SOURCES
LA030503_00	Six Mile Creek-East and West Forks from headwaters to the southern boundary of Fort Polk Military Reservation	R	19	N	F	N						FWP	PH, LOW	IRC 5	L	SILVICULTURE ACTIVITIES
LA030503_00	Six Mile Creek-East and West Forks from headwaters to the southern boundary of Fort Polk Military Reservation	R	19	N	F	N						PCR	FECAL COLIFORM	IRC 5	L	NATURAL SOURCES
LA030503_00	Six Mile Creek-East and West Forks from headwaters to the southern boundary of Fort Polk Military Reservation	R	19	N	F	N						PCR	FECAL COLIFORM	IRC 5	L	ON-SITE TREATMENT SYSTEMS (SEPTIC SYSTEMS AND SIMILAR DECENTRALIZED SYSTEMS)

Wetlands

Wetlands are protected as a subset of "Waters of the United States" (waters of the U.S.) under Section 404 of the CWA. Wetlands present on the Installation are pitcher plant bogs; baygalls; swamps; riparian forests; 50 acres of beaver ponds; 100 acres of man-made impoundments; and wet pine dominated savannahs. Fort Johnson has attempted to map the general boundaries of wetlands using soils data from the USDA, existing vegetation maps, and aerial and satellite imagery, as well as targeted mapping of bogs.

Based on DPW – ENRMD - Conservation Branch (hereafter referred to as Conservation Branch) vegetation and bog mapping data, "potential wetlands occupy 17% of Army-owned Fort Johnson training lands;" however, those acres are known to "exclude a limited number of small, isolated wetlands that have not been mapped but are likely overstated by the inclusion of riparian forests. It is expected that only those riparian forest acres immediately adjacent to streams are wetlands and most of the mapped riparian forest acres do not fit the definition of jurisdictional wetlands. In the absence of a verified Installation-wide survey, site-specific surveys are required to identify jurisdictional wetlands" (Fort Johnson 2020). Under these provisions, the Action Alternatives (A1, A2, and B) may impact wetlands (Figure 3-5).

EO 11990 "Protection of Wetlands" (1977) and the CWA require no "net" wetland losses on federal lands in the US. To meet those directives, Fort Johnson staff work with appropriate agencies, including the USACE, during the planning stages of new projects to ensure compliance with all applicable executive orders, DoD regulations, and state laws. All potential wetlands are identified and surveyed during project planning as part of the NEPA process. A combination of existing wetland location data and field investigation are used to identify wetlands within proposed project footprints. If wetlands are identified within a proposed project footprint, Fort Johnson staff or contractors will map the wetlands using USACE-approved methods. Wetlands are surveyed with a GPS and the resulting location data are stored in the Conservation Branch *Geographic Information System* (GIS) archives (Fort Johnson 2020).

As mentioned above in the *Mill Creek and Whiskey Chitto Creek* Section above, nonpoint sources are the primary pollutant sources of concern for surface water at Fort Johnson, thus BMPs should be implemented prior to ground disturbance when constructing the HLZ. Fort Johnson uses numerous abatement prevention actions, such as wetland buffer zones. As defined by EPA, a riparian or forested buffer is an area along a wetland. A common and effective approach to buffer design or preservation is the three-zone buffer system, consisting of inner, middle, and outer zones ("Stormwater Best Management Practices"). These zones are defined as:

- **Inner Zone**. Often around 25 feet and encompasses wetlands and other critical habitats.
- **Middle Zone**. 50 to 100 feet depending on stream order, slope, width of the 100-year floodplain or presence of jurisdictional wetlands. The vegetative target for this zone is mature riparian vegetation, which in most cases consists of riparian forest.

- **Outer Zone**. The first zone to encounter stormwater discharge from upland development; a minimum of around 25 feet.

Wetlands would have to undergo delineation by USACE prior to construction to determine the appropriate wetland buffer zone listed above.

When proposed actions on the Installation may potentially affect certain natural resource areas, other regulatory agencies may be consulted to determine if applicable permits or formal/informal consultation are required. When project-specific wetland loss is identified, Fort Johnson Proponents work with USACE to obtain CWA Section 404 permits for those wetland impacts and to develop appropriate mitigation plans. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into a Waters of the US, including wetlands. The procedure is formally explained in EPA, CWA Section 404(b)(1) Guidelines and is implemented by USACE when imposing permit conditions. Mitigation procedures may include avoidance of impacts whenever possible, minimization when impacts cannot be avoided, and compensation for impacts that cannot be minimized (40 CFR §230.10(a)).

Previous Commitments

Fort Johnson has established programs and procedures to protect water resources within its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following procedures and programs utilized to protect watersheds are defined in Appendix A:

- ***Biological and Water Quality Monitoring.***
- ***Watershed Management and Monitoring.***
- ***Construction Process Oversight*.**
- ***Maneuver Damage Inspection and Monitoring***.

3.4.2.2 Environmental Impacts

Alternative A1 (preferred Alternative)
There are no creeks within the footprint or SMZ of Alternative A1. Mill Creek, the closest waterway to Alternative A1, is approximately 295 feet from the closest point of Alternative A1 and is therefore outside of the required 35-foot SMZ as an intermittent stream.

There are bogs 44.2 feet from the Alternative A1 footprint, and there are 3.4 acres of baygall wetlands within the project footprint that would be disturbed because of the HLZ development (Figure 3-6). Due to this potential impact, a wetland delineation is needed. This could result in a Section 404 permit for unavoidable impacts to wetlands, and mitigation measures to offset potential impacts to wetlands.

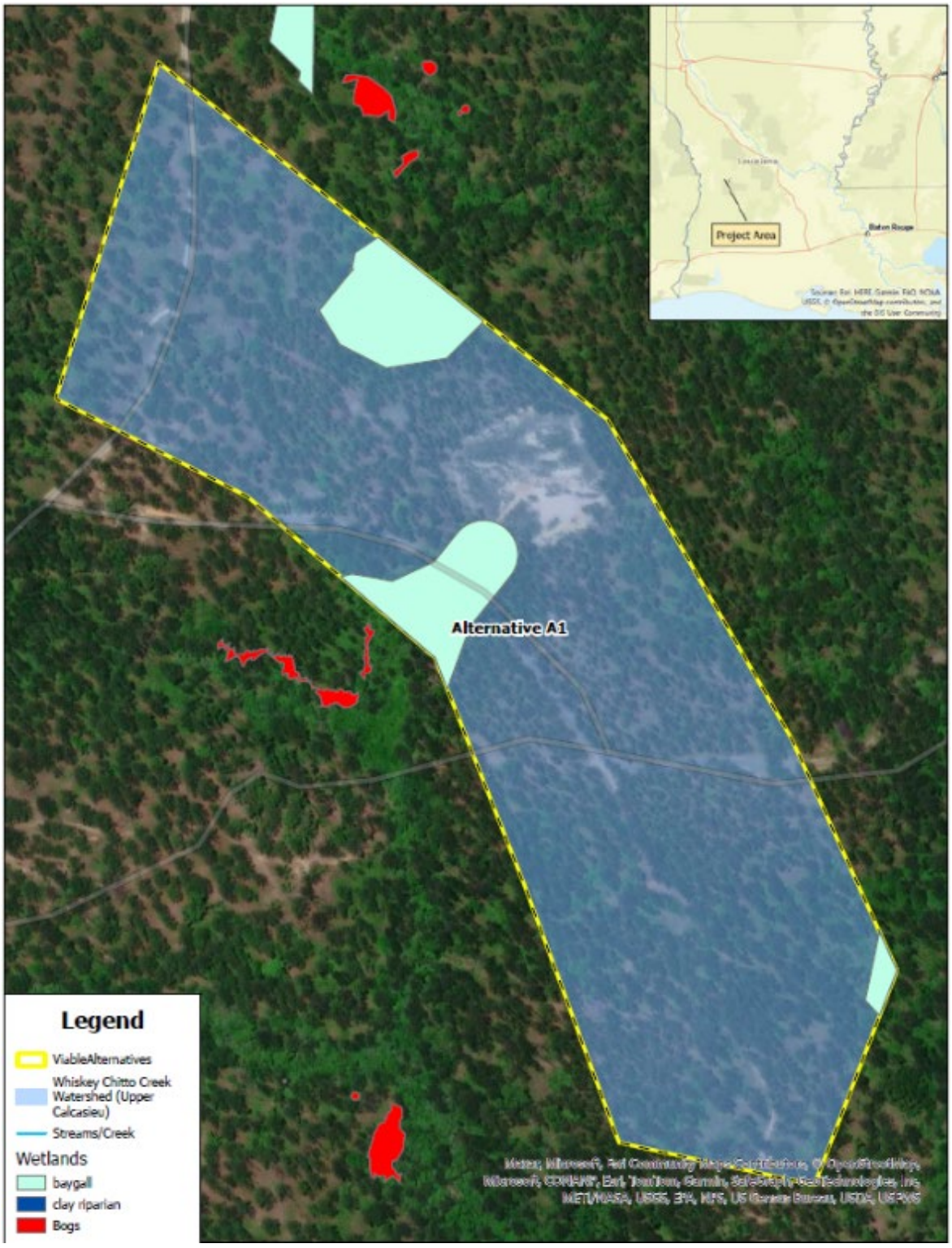

FIGURE 3-6. ALTERNATIVE A1 SURFACE WATERS

The programs described above in Section *3.4.2* will continue to be implemented at the Installation. These programs would preclude potential surface water impacts due to

erosion and sediment displacement during construction of the HLZ. Additionally, the implementation of BMPs during construction would ensure that any soil displacement during construction would be contained on-site. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. Impacts on creeks from Alternative A1 are anticipated to be negligible; however, impacts on wetlands from Alternative A1 are anticipated to be direct, permanent, minor, and adverse.

Alternative A2

There are no creeks within the footprint or SMZ of Alternative A2. This Alternative lies between Mill Creek and Whiskey Chitto Creek. Alternative A2 is approximately 1,038 feet from Mill Creek and is therefore outside of the required 35-foot SMZ as an intermittent stream. Alternative A2 is approximately 1,879 feet from Whiskey Chitto Creek and is therefore outside of the required 50-foot SMZ as a perennial stream less than 20-feet wide.

There are bogs 70 feet from the Alternative A2 footprint, and there is one acre of baygall wetlands that would be disturbed because of the HLZ development (Figure 3-7). Due to this potential impact, a wetland delineation is needed. This could result in a Section 404 permit for unavoidable impacts to wetlands, and mitigation measures to offset potential impacts to wetlands.

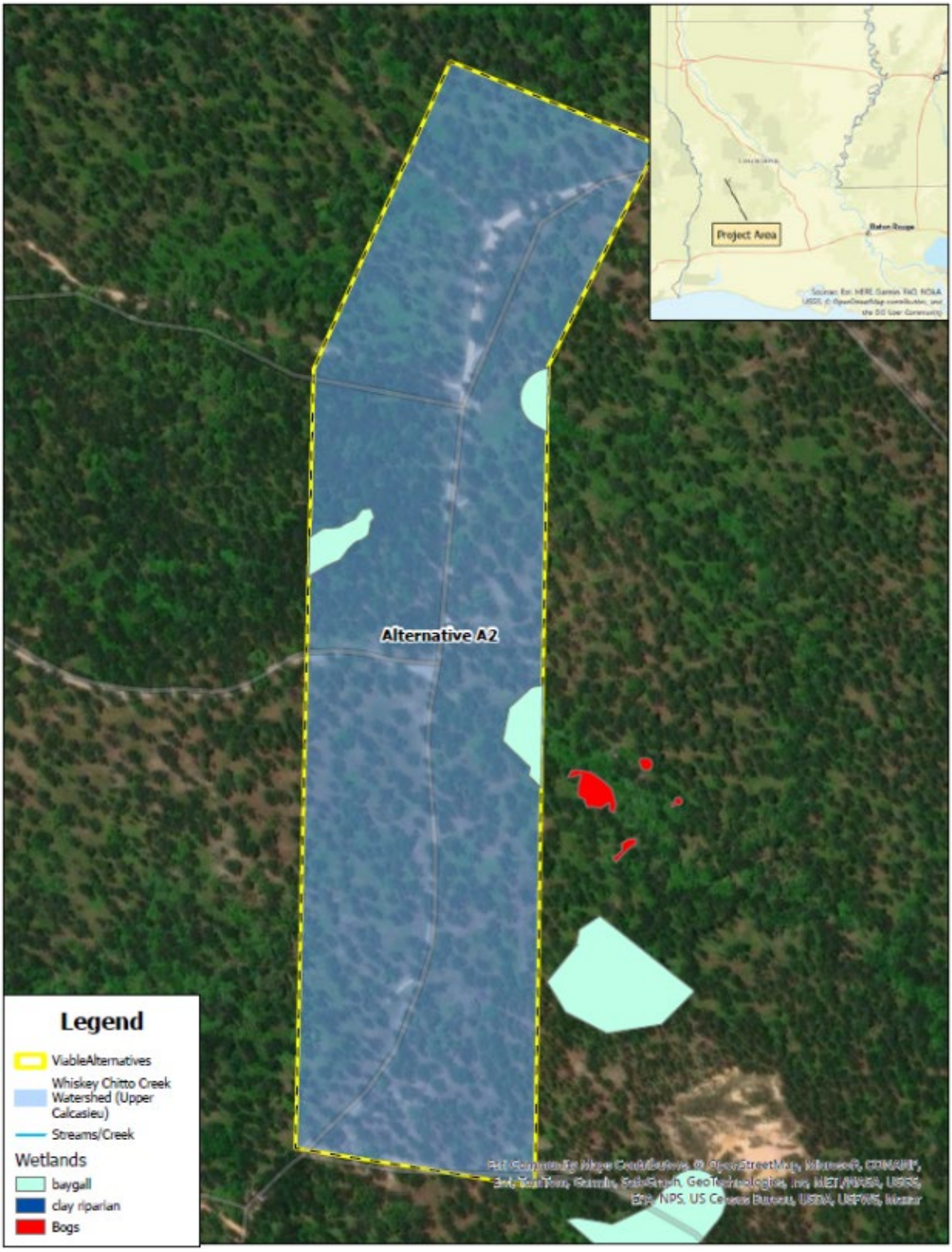

FIGURE 3-7. ALTERNATIVE A2 SURFACE WATERS

The programs described above in Section *3.4.2* will continue to be implemented at the Installation. These programs would preclude potential surface water impacts due to erosion and sediment displacement during construction of the HLZ. Additionally, the implementation of BMPs during construction would ensure that any soil displacement during construction would be contained on-site. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. Impacts on creeks from Alternative A2 are anticipated to be negligible; however, impacts on wetlands from Alternative A2 are anticipated to be direct, permanent, minor, and adverse.

Alternative B

There are no creeks within the footprint or SMZ of Alternative B. Whiskey Chitto Creek, the closest waterway to Alternative B, is approximately 506 feet from the closest point of Alternative B and is therefore outside of the required 50-foot SMZ as a perennial stream less than 20-feet wide.

While there are no bogs or baygalls in outer footprint of Alternative B, there are 10.5 acres of clay riparian wetlands that would be disturbed because of the HLZ development (Figure 3-8). Due to this potential impact, a wetland delineation is needed. This could result in a Section 404 permit for unavoidable impacts to wetlands, and mitigation measures to offset potential impacts to wetlands.

FIGURE 3-8. ALTERNATIVE B SURFACE WATERS

The programs described above in Section *3.4.2* will continue to be implemented at the Installation. These programs would preclude potential surface water impacts due to erosion and sediment displacement during construction of the HLZ. Additionally, the implementation of BMPs during construction would ensure that any soil displacement during construction would be contained on-site. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. Impacts on creeks from Alternative B are anticipated to be negligible; however, impacts on wetlands from Alternative B are anticipated to be direct, permanent, minor, and adverse.

Alternative 4 (No Action Alternative)
There would be no impacts to surface water resources under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Water Resources
Based on the wetland impact of each area, Alternative A2 is the Environmentally Preferred Alternative, followed by Alternative A1. This was concluded based on the percentage of acres impacting wetlands. Alternative A1 has 7.6% of acres impacting wetlands; Alternative A2 has 2.3% of acres impacting wetlands, and Alternative B has 29.1% of acres impacting wetlands. Table 3-7 provides an overview of the acres of wetland impact within each Action Alternative.

TABLE 3-7. ACRES OF WETLAND IMPACT

	Acres of Wetlands		
Alternatives	*Bogs*	*Baygalls*	*Clay Riparian*
A1	0	3.4	0
A2	0	1	0
B	0	0	10.5

3.4.3 Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species

3.4.3.1 Affected Environment

Forest Ecology

The Louisiana Wildlife Action Plan (WAP), developed by LDWF as a roadmap for nongame conservation in Louisiana, divides Louisiana into six ecoregions, which are areas that share similar ecological attributes (e.g., vegetation, soils, geology, climate, hydrology, and wildlife). Vernon Parish lies in the West Gulf Coastal Plain ecoregion (Figure 3-10), which is primarily known for its Longleaf pine woodlands. The West Gulf Coastal Plain is also associated with Hardwood Slope Forests, and Mixed Hardwood-Loblolly Forests with Bayhead Swamps and Western Hillside Seepage Bogs occurring

along slopes and at lower elevations. The WAP recognizes that longleaf pine restoration is a conservation priority within this ecoregion (DWF 2015).

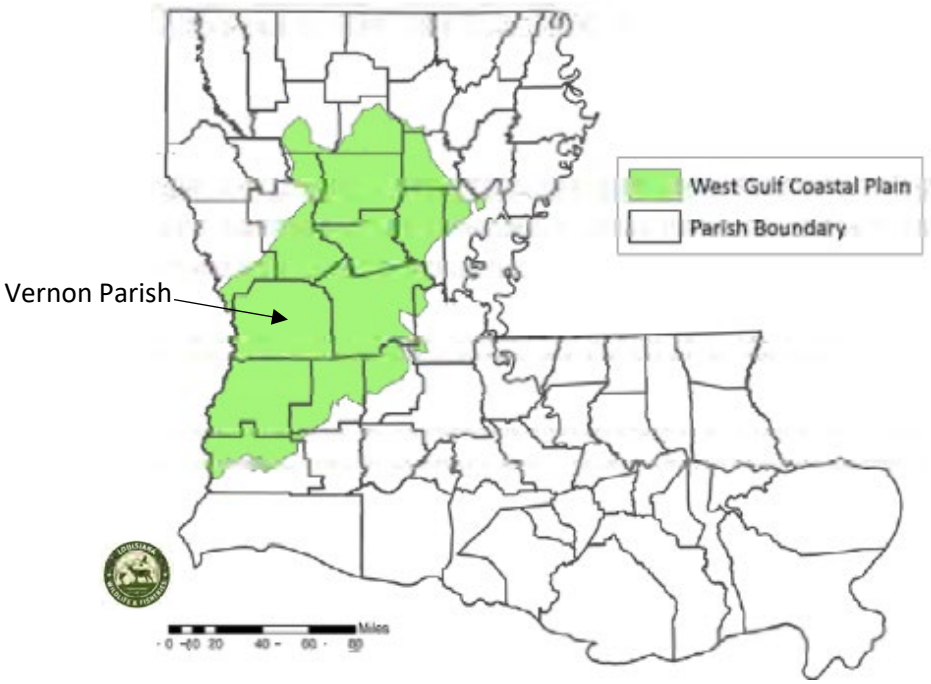

FIGURE 3-9. WEST GULF COSTAL PLAN ECOREGION (VERNON PARISH)

Approximately 76% of Fort Johnson is forested with longleaf pine forests dominating the Installation lands with a rich mosaic of embedded wetlands, linear drainages and streams and riparian systems with hardwood-dominated floodplain forests. These features play a vital role in the region's biodiversity and still harbor many of the coastal plain's rare species and natural communities, making them an important focus for conservation efforts (Fort Johnson 2020).

Fort Johnson conducts forest management on 106,040 acres, which provides support for the military mission, longleaf pine restoration and other major ecosystems (e.g., shortleaf-oak hickory and bottomland hardwoods). The amount of timber that will be removed for each Action Alternative is provided in the table below.

TABLE 3-8. TIMBER QUALITY WITHIN THE ACTION ALTERNATIVES (A1, A2, AND B)

Forest Type and Understory	Alternative A1 (acres)	Alternative A2 (acres)	Alternative B (acres)
Longleaf Forest. Understory: bushes and shrubs.	14.3	22.1	0
Longleaf-Upland Hardwood Forest. Understory: bushes and shrubs	0	0	19.4
Longleaf Forest. Understory: bluestem.	29.4	16.5	0
Loblolly-Upland Hardwood Forest. Understory: bushes and shrubs.	0	0	5.8

Loblolly Forest. *Understory: bushes and shrubs.*	0	0	9.5

Vegetation Communities

Longleaf pine forests often encompass smaller areas of several community types, including the intertwined riparian forest along smaller streams and drainages. Upland, deep sandy soils support unique sandy wood land communities. Shortleaf pine occurs along ridges. Hardwoods and less fire tolerant pines can be found in riparian woods and flatwoods depressions. Other wetlands include the small but richly diverse bogs and baygalls. The upland areas are frequently dissected by perennial and intermittent streams. Military use has increased wildfire frequency, benefitting the longleaf pine landscape and its embedded plant communities (Fort Johnson 2020).

Fort Johnson botanists have identified 22 vegetation community types on the Installation. The longleaf pine ecosystem is the dominant vegetation community on Fort Johnson. The highly diverse understory associated with the open canopy of longleaf pine forests consists of native ferns, grasses, and forbs. This predominantly includes bluestem grasses (*Schizochyrium scoparium* and *Andropogon* spp.), panic grasses (*Dichanthelium spp.*), silkgrass sunflower (*Pityopsis gramnifolia*), bracken fern (*Pteridium aquilinum*) and milkworts (*Polygala* spp.) (Fort Johnson 2020). The primary vegetation types in the Action Alternative footprints are in the table below.

TABLE 3-9. VEGETATION TYPES IN ACTION ALTERNATIVES (A1, A2, AND B)

Alternative	Artificial Prairie (acres)	*Calcareous Prairie (acres)*	Baygall (acres)	Clay Riparian (acres)	Longleaf Pine Forest (acres)	Mixed Pine Forest (acres)	Mixed Pine/Hardwood Forest (acres)	Sandstone Glade (acres)	Sandy Woodland (acres)
A1	0	0	3.7	0	2.2	39	0	0.6	0.4
A2	0	0	1	0	0	39.3	0.9	0	0.4
B	0.4	5.2	0	10.5	0	0	19.9	0	0

Native Plants

The most threatened communities on the installation, as well as in the country, are our native prairies. On Fort Johnson, calcareous prairies exist in mosaic with the calcareous forests. These occur in clay-rich areas where woody growth is limited by the harsh soils, allowing for unique herbaceous species to compete. These communities are rich in diversity and provide critical habitat for pollinators, including the Monarch Butterfly. State and globally rare species can be found in Fort Johnson calcareous prairies, including Missouri coneflower (*Rudbeckia missouriensis*), purple coneflower (*Echinacea purpurea*), prairie acacia (*Acacia angustissima* var. *hirta*), and Mead's sedge (*Carex meadii*). These communities serve a large role in carbon sequestration. The clay riparian and adjacent woods in Alternative B feature calcareous forest and prairie.

The known flora of Fort Johnson and Vernon Parish consists of 1,467 species in 561 genera and 151 families (Fort Johnson 2020). Currently, 88 species of special status flora occur on Fort Johnson. There are no known federally listed plant species on Fort Johnson, though the giant coco orchid (*Pteroglossaspis ecristata*), last seen in 2021 on the installation, has been proposed repeatedly in the past.

Every plant, animal, natural community, etc. is assigned a Global Rank and State Rank. These ranks represent the level of rarity, which assists in designing and prioritizing projects and programs to benefit Species of Greatest Conservation Need and their associated habitats. The only rare species directly within the proposed Action Alternatives is the Parlin's pussytoes (*Antennaria parlinii*) in Alternative B. While the Parlin's pussytoes are globally ranked as G5 (secure), it is listed at a state rank of SNR (no rank) due to lack of data and therefore should be tracked so long as the stability of the population is uncertain (NatureServe Explorer 2024).

Nonnative and Invasive Plants

Large infestations of nonnative or invasive plant species could affect Fort Johnson's ability to use and maintain high quality forest. Nonnative or invasive plant species, such as noxious weeds, have the potential to negatively impact projects involving soil erosion control, revegetation, wetland protection, and wildlife management. Several nonnative and invasive plant species, such as Chinese tallow tree (*Triadica sebifera*), Japanese privet (*Ligustrum japonicum*), Kudzu (*Pueraria montana*), and Mimosa trees (*Albizia*

julibrissin) have been found on Fort Johnson. Much of the known nonnative and invasive plants species found on Fort Johnson have not spread aggressively within the project area. Invasive plant species have been recorded within the footprints of Alternatives A1 and B (Figures 3-10 and 3-12). Fort Johnson uses mechanical and chemical methods to control or prevent the spread of noxious plants, which avoids damage and minimizes adverse side effects to non-target species and the environment (Fort Johnson 2020).

Previous Commitments

Fort Johnson has established programs and procedures to protect vegetation within its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following procedures and programs utilized to protect forested areas, native plant species and communities are defined in Appendix A:

- ***Vegetation Management.***
- ***Vegetation Compartment Surveys.***
- ***Construction Process Oversight.***

3.4.3.2 Environmental Impacts

Alternative A1 (preferred Alternative)

Alternative A1, a mixed pine forest, would not be expected to significantly change the ratio of open to forested land based on the amount and quality of timber to be removed. While 43.7 acres of vegetation would be removed, this is a small percentage of land area that comprises Fort Johnson and would remove less than 1% of the total land area (0.04%). Embedded riparian plant communities also dissect the dominantly mixed pine habitat of Alternative A1. Smaller plant communities within the area include longleaf pines, sandstone glades, sandy woodlands, and baygall wetlands.

The implementation of this Alternative would not have any direct impacts to rare plant species, as there are no known to be located within the project footprint. However, invasive plant species tend to be found in more disturbed sites and the clearing of vegetation may make this area more susceptible to invasive species.

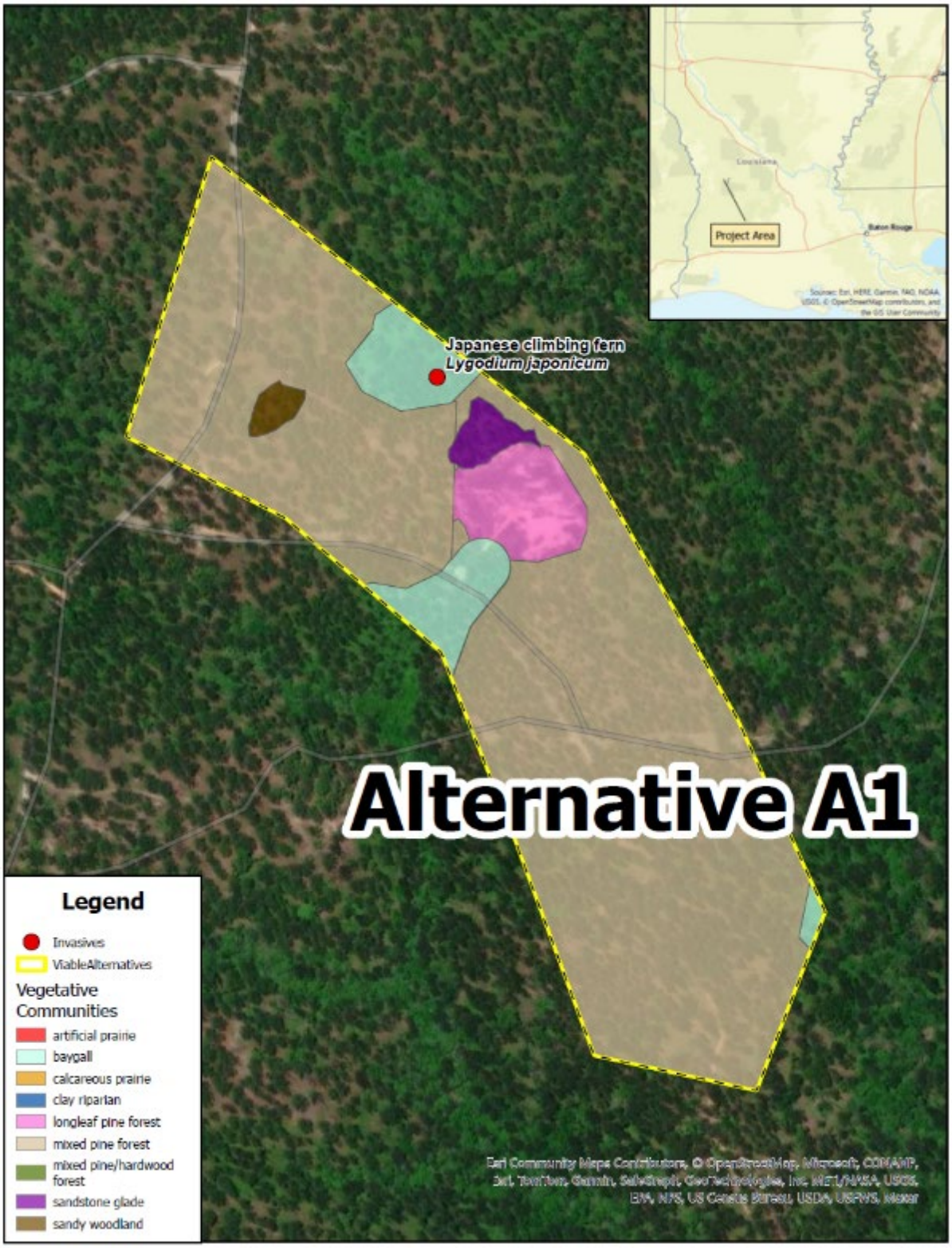

FIGURE 3-10. VEGETATION WITHIN ALTERNATIVE A1

The programs described above in Section *3.4.3* will continue to be implemented at the Installation. These programs would preclude potential forest and native plant species

and community impacts due to timber removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of Fort Johnson's INRMP, impacts to forest ecology and native plant species are anticipated to be direct, minor, long-term, and adverse.

Alternative A2

Alternative A2, a mixed pine forest, would not be expected to significantly change the ratio of open to forested land based on the amount and quality of timber to be removed. While 38.6 acres of vegetation would be removed, this is a small percentage of land area that comprises Fort Johnson and would remove less than 1% of the total land area (0.04%). Embedded riparian plant communities also dissect the dominantly mixed pine habitat of Alternative A2. Smaller plant communities within the area include mixed pine/ hardwood forest, sandy woodlands, and baygall wetlands.

The implementation of this Alternative would not have any direct impacts to rare plant species or invasive plant species, as there are no known to be located within the project footprint. However, invasive plant species tend to be found in more disturbed sites and the clearing of vegetation may make this area more susceptible to invasive species.

FIGURE 3-11. VEGETATION WITHIN ALTERNATIVE A2

The programs described above in Section *3.4.3* will continue to be implemented at the Installation. These programs would preclude potential forest and native plant species and community impacts due to timber removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of Fort Johnson's INRMP, impacts to forest ecology and native plant species are anticipated to have direct, minor, long-term, and adverse impacts.

Alternative B

Alternative B, a riparian calcareous forest featuring open prairie, would not be expected to significantly change the ratio of open to forested land based on the amount and quality of timber to be removed. While 34.7 acres of vegetation would be removed; this is a small percentage of land area that comprises Fort Johnson and would remove less than 1% of the total land area (0.03%). Embedded riparian plant communities also dissect the dominantly mixed pine/ hardwood habitat of Alternative B. Smaller plant communities within the area include clay riparian and artificial prairie. Furthermore, as mentioned in the *Native Plants* section above, the most threatened communities on the installation, as well as in the country, are our native prairies. Alternative B features 5.2 acres of calcareous prairies; this is approximately 15% of the proposed footprint.

Alternative B is also home to the rare plant species, Parlin's pussytoes (*Antennaria parlinii*), which is described in the *Native Plants* section above as having an uncertain population stability in Louisiana.

The implementation of this Alternative may introduce invasive species within and around the footprint, a unique habitat featuring sensitive species and is not known to currently harbor any invasive at present.

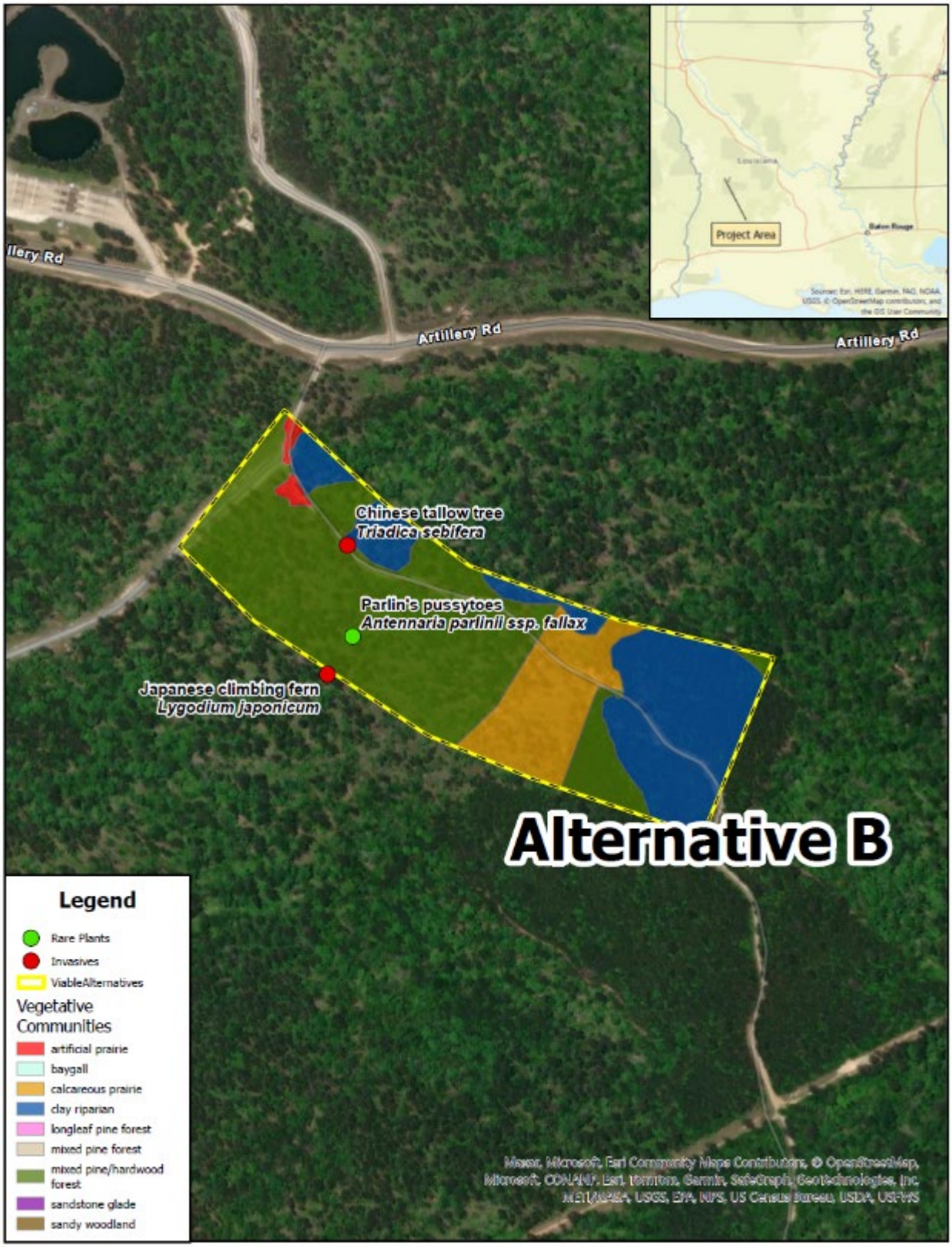

FIGURE 3-12. VEGETATION WITHIN ALTERNATIVE B

The programs described above in Section *3.4.3* will continue to be implemented at the Installation. These programs would preclude potential forest and native plant species and community impacts due to timber removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the presence of the calcareous prairies and the continued implementation of Fort Johnson's INRMP, impacts to forest ecology and rare/native plant species are anticipated to be direct, moderate, long-term, and adverse.

Alternative 4 (No Action Alternative)
There would be no impacts to forest, native plant species or vegetative community resources under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative - Vegetation
Based on the vegetative communities of each area, Alternative A2 is the Environmentally Preferred Alternative, followed by Alternative A1. This was concluded based on the percentage of acres impacting wetland communities and rare plants/ communities within the footprints. Alternative A1 has 7.35% of acres impacting baygall communities (wetlands) with no rare plants/communities; Alternative A2 has 2.29% of acres impacting baygall communities (wetlands) with no rare plants/communities, and Alternative B has 29.14% of acres impacting clay riparian (wetlands) and 14.36% of acres impacting rare calcareous prairie communities. Table 3-10 provides an overview of the acres of vegetative communities and rare plants within each Action Alternative.

TABLE 3-10. ACRES IMPACTING VEGETATIVE COMMUNITIES

	Acres of Vegetative Communities								Rare Plants
Alternatives	*Mixed Pine Forest*	*Longleaf Pine Forest*	*Baygall (wetland)*	*Clay Riparian (wetland)*	*Calcareous Prairie*	*Artificial Prairie*	*Sandy Woodland*	*Sandstone Glade*	
A1	39	2.2	3.7	0	0	0	0.4	0.6	None
A2	40.2	0	1	0	0	0	0.4	0	None
B	19.9	0	0	10.5	5.2	0.4	0	0	Parlin's pussytoes

3.4.4 Biological Resources: Wildlife

3.4.4.1 Affected Environment

Migratory Birds

Migratory birds are protected under the MBTA (16 U.S.C. §703-712) enacted in 1918. The MBTA implements conventions for the protection of migratory birds between the United States and four countries: Canada, Mexico, Japan and Russia. The MBTA prohibits the "take" of migratory birds unless permitted by regulation (i.e., waterfowl hunting, incidental taking during DoD training and testing).

"Authorization of take incidental to military readiness activities," also referred to as the "Military Readiness Rule," was addressed by the Secretary of the Interior through 50 CFR Part 21, which includes §21.42 for the potential for "take" of MBTA during military readiness activities. Military readiness activities were defined as all training and operations of the Armed Forces that relate to combat, and the adequate and realistic testing of military equipment, vehicles, weapons, and sensors for proper operation and suitability for combat use. It does not include industrial activities, maintenance activities, storage facilities, construction, or demolition of structures, or support activities and associated. Full definitions are provided in DoD's *Guidance for Addressing Migratory Bird Management in Integrated Natural Resource Management Plans* (August 2017). DoD installations are responsible for consulting with the USFWS for intentional "take" of MBTA protected species. Military installations are required to support migratory bird conservation, habitat protection, restoration, and enhancement as well as participation in regional cooperative efforts with USFWS and other conservation partners (77 FR §60381 and 71 FR §51580).

Fort Johnson accomplishes the requirements set forth in guidance documents by considering the effects of proposed actions and ongoing management activities on MBTA protected species. The potential impacts to MBTA protected species are considered in NEPA analyses by evaluating expected changes in habitat conditions and identifying those species expected to be impacted as identified by species-habitat associations.

A total of 239 native bird species protected under the MBTA have been found on Fort Johnson (Fort Johnson 2021). Birds protected by the MBTA that appear within the Action Alternatives include the pine warbler (*Setophaga pinus*), yellow-rumped warbler (*Setophaga coronata*), American robin (*Turdus migratorius*), American goldfinch (*Spinus tristis*), white-throated sparrow (*Zonotrichia albicollis*), eastern bluebird (*Sialia sialis*), eastern phoebe (*Sayornis phoebe*), chipping sparrow (*Spizella passerina*), red-winged blackbird (*Agelaius phoeniceus*), red-tailed hawk (*Buteo jamaicensis*), and barred owl (*Strix varia*). Several bird species detected during annual MAPS surveys include northern cardinal (*Cardinalis cardinalis*), Carolina wren (*Thryothorus ludovicianus*), hooded warbler (Setophaga citrina), Acadian flycatcher (Empidonax virescens), yellow-billed cuckoo (*Coccyzus americanus*), summer tanager (*Piranga rubra*), tufted titmouse (*Baeolophus bicolor*), ruby-throated hummingbird (*Archilochus colubris*), red-bellied woodpecker (*Melanerpes carolinus*), red-eyed vireo (*Vireo olivaceus*), and prairie warbler (*Setophaga discolor*) (Fort Johnson 2020).

Data is collected monthly on avian diversity utilizing established points encompassing multiple habitat types. During these surveys, five habitat types are selected for analysis: prairie, riparian, mixed forest, pine forest, and open water. The Action Alternatives meet the criteria of two of these habitat types: pine forest and riparian. Utilizing data from 2018-2024 there are only three species that are listed on the state or global species of concern list (designated S1 (Critically Imperiled), S2 (Imperiled), or S3 (Vulnerable) as sensitive species) within the Action Alternatives.

Alternatives A1, A2 and B were noted to have the following listed migratory birds in the area: American Kestrel (S2), Bachman's Sparrow (S3), and Louisiana Waterthrush (S3). Prior to construction, the Proponent will need to consult with the Conservation Branch to ensure MBTA species will not be impacted.

Previous Commitments

Fort Johnson has established programs and procedures to protect MBTA species within its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following procedure utilized to protect migratory birds is described in Appendix A**:**

- ***Pre-Construction Surveys.***

Game Species

There are 140,000 acres on Fort Johnson and Fort Johnson North that are considered Wildlife Management Areas (WMA) (Fort Johnson 2020). During times of military training, as much as 90% of these lands may be closed to the public. Additionally, all areas containing unexploded ordnance or sensitive equipment are permanently closed for any outdoor recreation (e.g., hunting and fishing). Alternatives A1, A2 and B are within the WMA boundaries (Figure 3-13).

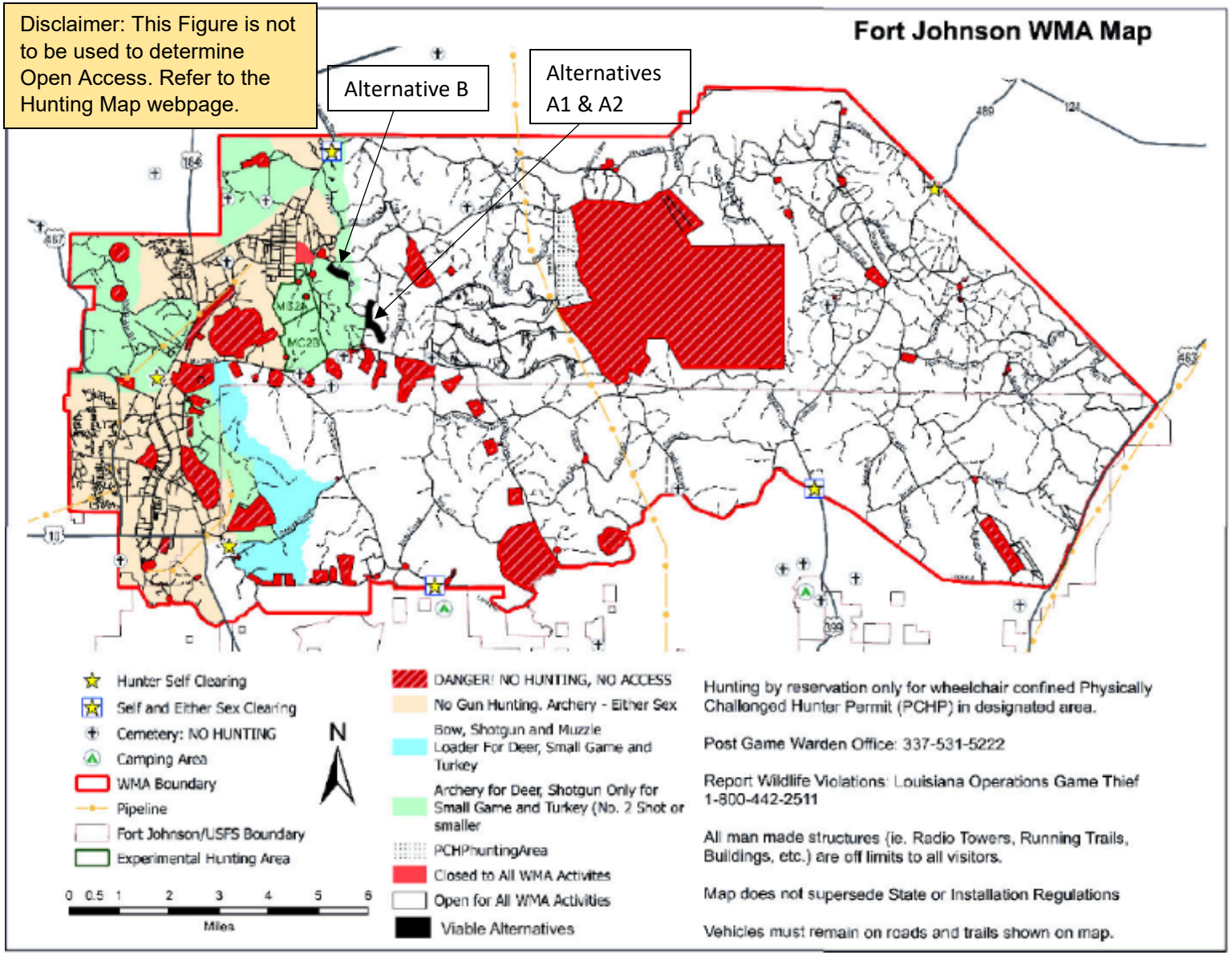

FIGURE 3-13. WILDLIFE MANAGEMENT AREA IN RELATION TO THE ACTION ALTERNATIVES (A1, A2 AND B)

Several game species are managed through Fort Johnson and the LDWF. A memorandum of agreement between Fort Johnson and the LDWF was signed in February 2013 to reestablish an understanding of policies, procedures, and responsibilities of enforcing game and conservation laws and for the management and conservation efforts on the installation (Fort Johnson 2020).

Fort Johnson has over 11,000 recreational efforts each year (Fort Johnson 2021). The most popular game species on Fort Johnson include white-tailed deer (*Odocoileus virginianus*), eastern wild turkey (*Meleagris gallopavo*), eastern gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), northern bobwhite quail (*Colinus virginianus*), mourning dove (*Zenaida macroura*), feral hogs (*Sus scrofa*), rabbits (*Sylvilagus sp.*), American woodcock (*Scolopax minor*), and migratory and resident waterfowl. Trapping season also opens annually for coyote (*Canis latrans*), bobcat (*Lynx rufus*), red (*Vulpes vulpes*) and gray fox (*Urocyon cinereoargenteus*), North American river otter (*Lontra canadensis*), American mink (*Vison vison*), American beaver (*Castor canadensis*), common raccoon (*Procyon lotor*), eastern spotted (*Spilogale putorius)* and striped skunks (*Mephitis mephitis*) and Virginia opossum (*Didelphis virginiana*) (Fort Johnson 2020).

Harvest data has been collected over a 42-year period (1980 - 2022) by LDWF and the Conservation Branch. In the last year available (2021-2022), 824 deer, 10 turkey, 4 feral pigs, 49 squirrels, 28 bobwhite quail, 132 mourning dove, and 76 woodcock were harvested on both Fort Johnson-Vernon and Fort Johnson North WMAs (Fort Johnson 2021). No eastern cottontails or wood ducks were harvested.

Recreational ponds and lakes on the Installation are managed for largemouth bass (*Micropterus salmoides),* bluegill (*Lepomis macrochirus),* redear sunfish (*Lepomis microlophus),* and channel catfish (*Ictalurus punctatus).* Fish in Installation streams, which are primarily small headwater streams, are limited and less desirable to most anglers due to their small size. Commercial fishing is prohibited on the Installation (Fort Johnson 2020).

Previous Commitments

Fort Johnson has established programs and procedures to protect game species within its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following procedure utilized to protect game species is described in Appendix A:

- ***Monitoring and Management of Populations and Habitats.***

3.4.4.2 Environmental Impacts

Migratory Birds

Alternative A1 (preferred Alternative)
There are 45.6 acres that would be disturbed by clearing and grubbing Alternative A1. The habitat type found within this Alternative is common on Fort Johnson. It is

recognized that there is adequate suitable habitat in all surrounding areas for any species to disperse to due to the implementation of the Proposed Action. The American Kestrel, Bachman's Sparrow, and Louisiana Waterthrush would not be adversely affected; this location could be utilized for foraging and may temporarily displace foraging activities, but the completed project would be more beneficial than the current habitat.

The procedure described above in Section *3.4.4* will continue to be implemented at the Installation. This procedure would preclude potential migratory bird species impacts due to habitat removal and land clearing activities during construction of the HLZ Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of Fort Johnson's INRMP, impacts to migratory bird species are anticipated to be direct, short-term, negligible, and beneficial.

Alternative A2

There are 41.5 acres that would be disturbed by clearing and grubbing Alternative A2. The habitat type found within this Alternative is common on Fort Johnson. It is recognized that there is adequate suitable habitat in all surrounding areas for any species to disperse to due to the implementation of the Proposed Action. The American Kestrel, Bachman's Sparrow, and Louisiana Waterthrush would not be adversely affected; this location could be utilized for foraging and may temporarily displace foraging activities, but the completed project would be more beneficial than the current habitat.

The procedure described above in Section *3.4.4* will continue to be implemented at the Installation. This procedure would preclude potential migratory bird species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of Fort Johnson's INRMP, impacts to migratory bird species are anticipated to be direct, short-term, negligible, and beneficial.

Alternative B

There are 36.1 acres that would be disturbed by clearing and grubbing Alternative B. The habitat type found within this is less common on Fort Johnson. However, it is recognized that there is adequate suitable habitat in all surrounding areas for any species to disperse to due to the implementation of the Proposed Action. The American Kestrel, Bachman's Sparrow, and Louisiana Waterthrush would not be adversely affected; this location could be utilized for foraging and may temporarily displace foraging activities, but the completed project would be more beneficial than the current habitat.

The procedure described above in Section *3.4.4* will continue to be implemented at the Installation. This procedure would preclude potential migratory bird species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon

completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of Fort Johnson's INRMP, impacts to migratory bird species are anticipated to be direct, short-term, negligible, and beneficial.

Alternative 4 (No Action Alternative)
There would be no impacts to migratory bird species under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Migratory Birds
Each Action Alternative proposes the same impact to migratory birds; therefore, there is not an Environmentally Preferred Alternative in reference to migratory birds.

Game Species

Alternatives A1 (preferred Alternative), A2 and B
All three Action Alternatives are within a WMA (Figure 3-13). Typical safety procedures for public access due to training would apply; when the area is reserved for training, the hunting compartment will be closed to recreation activities. It is recognized that there is adequate suitable habitat in all surrounding areas for any species to disperse to due to the implementation of the Proposed Action. Additionally, no recreational fishing ponds, lakes or streams that would support game fish exist in the project footprint; therefore, no impacts are anticipated for game fish (see Section *3.4.2* SMZs for streams).

The procedure described above in Section *3.4.4* will continue to be implemented at the Installation. This procedure would preclude potential game species impacts due to habitat removal and land clearing activities during construction of the HLZ. Impacts to game birds (also, MBTA species) are addressed in *Migratory Birds* above. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of Fort Johnson's INRMP, impacts to game species are anticipated to have direct, short-term, negligible, and adverse impacts.

Alternative 4 (No Action Alternative)
There would be no impacts to game species under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Game Species
Each Action Alternative proposes the same impact to game species; therefore, there is not an Environmentally Preferred Alternative in reference to game species.

3.4.5 Biological Resources: Threatened and Endangered Species, and Species of Concern

3.4.5.1 Affected Environment

Sensitive species conservation is required to meet Army-wide goals to maintain biological diversity and ecosystem processes and prevent potential impacts to the training mission from federal listing of additional species. The Conservation Branch is responsible for the management and monitoring of rare species on the Installation and assuring that the Installation complies with all applicable laws, regulations, and mandates, including the Endangered Species Act (ESA), AR 200-1, and the applicable provisions of the Sikes Act.

Fort Johnson's wildlife species include most animals indigenous to the southwestern Louisiana pinelands region. Totals of 244 avian, 50 reptile species, 22 amphibian species, 46 species of mammals, 74 butterfly, and 1,400 vascular plant species have been recorded on Fort Johnson (Fort Johnson 2021).

The LDWF maintains a list of plant and animal species that are considered Species of Greatest Conservation Need. These species may be federally listed as threatened or endangered, or they may be uncommon species that rely on imperiled habitats for their survival. A total of 127 species are considered Species of Greatest Conservation Need in Vernon Parish, Louisiana, with plants being the most numerous taxa with 60 species listed. In addition to these species, there are 14 natural communities included in this list (DWF 2015). Federally listed species, species under US Fish and Wildlife Service review, and US Army Species at Risk that are known to occur or potentially occur on Fort Johnson Main Post and/or Fort Johnson North are in Table 3-11 (Fort Johnson 2020).

Plant and animal species that are federally listed as proposed, threatened, or endangered by the USFWS receive Federal protection under the ESA of 1973. Fort Johnson is working to confirm the occurrence of the frosted elfin (butterfly), northern long-eared bat, Louisiana pigtoe (mussel), western chicken turtle and golden-winged warbler through targeted surveys developed in consultation with SMEs. The only federally listed species (threatened, endangered, or proposed) known to occur on Fort Johnson are (DWF 2015):

- Red-cockaded woodpecker (*Dryobates borealis*; hereafter RCW) listed as endangered on August 25, 1970 (35 Federal Register [FR] §13519 13520)
- Louisiana pinesnake (*Pituophis ruthveni*; hereafter LPS) listed as threatened on April 6, 2018 (83 FR §14958 14968)
- American alligator (*Alligator mississippiensis*) classified as "Threatened due to Similarity of Appearance" in Louisiana in 1975 for law enforcement purposes (40 FR §44412)
- Monarch butterfly (*Danaus Plexippus;* hereafter MBF*)* proposed to be listed as threatened on 17 December 2020 (85 FR §81813)

- Tricolored bat (*Perimyotis subflavus*; hereafter TCB) proposed to be listed as endangered on September 13, 2022 (87 FR §56381), and
- Alligator snapping turtle (*Macrochelys temminckii;* hereafter AST) was proposed to be listed as threatened on November 9, 2021 (86 FR §62434).

The only species federally listed as threatened, endangered, or proposed by the USFWS that have the potential to occur with the proposed Action Alternatives are the RCW, LPS, MBF, and TCB. The American alligator and AST have potential to be downstream of the Whiskey Chitto Creek and Mill Creek; however, “take” of the species would not occur; therefore, no effects on the American alligator and AST are anticipated.

TABLE 3-11. FEDERALLY LISTED SPECIES, SPECIES UNDER US FISH AND WILDLIFE SERVICE REVIEW, AND US ARMY SPECIES AT RISK (SAR) THAT ARE KNOWN TO OCCUR OR POTENTIALLY OCCUR ON FORT JOHNSON MAIN POST AND/OR FORT JOHNSON NORTH

Scientific Name	Common Name	State Rank & Status[a]	Federal Status[b]	Global Status[c]	Alternative Presence
Leuconotopicus borealis	Red-cockaded Woodpecker	S2, E	E	G3	Resident
Pituophis ruthveni	Louisiana Pinesnake	S2, T	T	G1G2	Resident
Myotis septentrionalis	Northern Long-eared Bat	S1	E	G2G3	Potential, No Known Presence
Perimyotis subflavus	Tricolored Bat	S4	E[b]	G2	Resident
Alligator mississippiensis	American Alligator	S5	T[a]	G5	Resident in Neighboring Creeks
Danaus plexippus	Monarch	S4	T[b]	G4	Resident Migrant
Macrochelys temminckii	Alligator Snapping Turtle	S3, RH	T[b]	G1G2	Resident in Neighboring Creeks
Pleurobema riddellii	Louisiana Pigtoe	S1S2	T[b]	G1G2	Potential, No Known Presence in Neighboring Creeks
Orconectes maletae	Kisatchie Painted Crayfish	S2	P, SAR	G2	Resident in Neighboring Creeks
Somatochlora margarita	Texas Emerald Dragonfly	S2	P, SAR	G2	Potential, No Known Presence
Callophrys irus	Frosted Elfin	S2S3	P	G3	Potential, No Known Presence
Faxonius hathawayi blacki	Calcasieu Painted Crayfish	S1	P	G3T2	Potential, No Known Presence
Bombus pensylvanicus	American Bumble Bee	S3	P	G3	Resident
Vermivora chrysoptera	Golden-winged Warbler	S2N	P	G4	Migrant
Deirochelys reticularia miaria	Western Chicken Turtle	S2	P	G5T5	Potential, No Known Presence

Scientific Name	Common Name	State Rank & Status[a]	Federal Status[b]	Global Status[c]	Alternative Presence
Amblyscirtes alternata	Dusky Roadside Skipper	S2S3	SAR	G2G3	Potential, No Known Presence
Orthochilus ecristatus	Wild Coco Orchid, Giant Orchid	S2	SAR	G2G3	Potential, No Known Presence
Fusconaia askewi	Texas Pigtoe	S3	SAR	G2	Resident in Neighboring Creeks
Lampsilis satura	Sandbank Pocketbook	S2	SAR	G2	Potential, No Known Presence
Obovaria arkansasensis	Southern Hickorynut	S1S2	SAR	G2	Resident
Megachile deflexa	Leafcutter Bee	SH	SAR	G2	Resident
Peucaea aestivalis	Bachman's Sparrow	S3	BCC; SAR	G3	Resident
Anthus spragueii	Sprague's Pipit	S2N	BCC; SAR	G3G4	Wintering

Notes: [a] **State Ranks** and **State Protection Status** from Louisiana Rare Species List (2023; http://www.wlf.louisiana.gov/page/species-of-greatest-conservation-need): S1 = critically imperiled in Louisiana because of extreme rarity (5 or fewer known extant populations), S2 = imperiled in Louisiana because of rarity (6 to 20 known extant populations), S3 = rare and local throughout the state or found locally (even abundantly at some of its locations) in a restricted region of the state, S4 = apparently secure in Louisiana with many occurrences, S5 = demonstrably secure in Louisiana, SU = possibly in peril in Louisiana, but status uncertain, and B or N: may be used as qualifier of numeric ranks indicating whether the occurrence is breeding or nonbreeding), SA: accidental in Louisiana, including species (usually birds or butterflies) recorded once or twice or only at great intervals hundreds or even thousands of miles outside their usual range, SH: historical occurrence in Louisiana, but no recent records verified within the last 20 years; formerly part of the established biota, possibly still persisting, SR: reported from Louisiana, but without conclusive evidence to accept or reject the report, SU: possibly in peril in Louisiana, but status uncertain; need more information, SX: believed to be extirpated from Louisiana, and SZ: transient species in which no specific consistent area of occurrence is identifiable. **State Status:** E= Endangered: species at risk of extirpation or extinction. Take or harassment of these species is a violation of state and federal laws, T= Threatened: species at risk of becoming endangered, T/E= Threatened/Endangered: imperiled species with populations of conflicting protection status. Take or harassment of these species is a violation of state and federal laws, P= Prohibited: possession of these species is prohibited; no legal harvest or possession allowed without valid Scientific Research and Collecting Permit issued by LDWF, RH= Restricted Harvest: restrictions regarding the take and possession of these species. Take or harassment of these species is a violation of state and federal laws. [b] **Federal Status:** Endangered (E) or Threatened (T) under the Endangered Species Act (ESA), Threatened due to Similarity of Appearance (T^a), Federal Proposed Rule (E^b or T^b), Petitioned (P) for listing under the ESA and under US Fish and Wildlife Service status review, Army Species at Risk (SAR), and US Fish and Wildlife Service Birds of Conservation Concern (BCC); [c] **Global Status:** NatureServe (2023) species global ranks: G1 = critically imperiled globally because of extreme rarity, G2 = imperiled globally because of rarity, G3 = either very rare and local throughout its range or found locally in a restricted range, G4 = apparently secure globally, though it may be quite rare in parts of its range, GQ = uncertain taxonomic status; T = subspecies rank; [d] **Biological Opinion** (2012) on the effects of Fort Polk's Implementation of the Endangered Species Management Component of the JRTC and Fort Polk Integrated Natural Resources Management Plan; and [e] **Biological Opinion** (2018) on the Effects on the Louisiana Pine Snake from Ongoing Military Training at the Joint Readiness Training Center and Fort Polk, Louisiana, Adoption of the Revised Endangered Species Management Component, and Ongoing and Proposed Army Compatible Use Buffer Program Acquisitions.

Monarch Butterfly

The MBF, perhaps the most familiar butterfly in North America, is a migratory species that can be found in many habitat types, if flowers and native milkweeds are available. Loss of habitat and use of pesticides have caused the MBF to decline. On 17 December 2020, the MBF was proposed to be listed as threatened (DWF “Monarch Butterfly”).

The butterfly’s migratory range is from southern Canada through northern South America (DWF 2024). The species has been spotted on the Installation and may occur throughout the Action Alternatives, with an average of three individuals spotted near the Action Alternatives during biannual surveys. Additionally, the proposed Action Alternatives contain open canopies which is suitable for milkweed habitat; therefore, MBF impacts were analyzed for Alternatives A1, A2, and B.

Previous Commitments

Fort Johnson has established programs and procedures to protect the MBF within its training lands. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following procedures utilized to protect the monarch butterfly and its habitat are defined in Appendix A:

- ***Vegetation Compartment Surveys.***
- ***Butterfly Surveys***.

Red-cockaded Woodpecker

The RCW, unlike other woodpecker species, excavates their cavities in living rather than dead trees or snags (Cornell University 2024). The RCW depends on old-growth (80 to 100-year-old) pine forests for both nesting habitat and foraging; and cavity trees are often infected with **red heart fungus** (*Phellinus pini*) (Cornell University 2024). RCWs are highly social and live in family groups where they cooperatively breed. A family excavates several cavities within their territory, taking two or more years to completely dig out one cavity.

Fort Johnson manages two separate RCW populations; the Vernon-Fort Johnson population found on Fort Johnson Main Post and the Vernon Unit of the Kisatchie National Forest, and the Peason Ridge Training Area population. The old growth forest stands of Fort Johnson and Fort Johnson North provide foraging, roosting, and nesting habitat that is critical to the survival of these RCW populations. The Vernon-Fort Johnson population is designated as a primary core population, ideally supporting 350 breeding pairs (Fort Johnson 2020). The Peason Ridge population is designated an essential support population which aims to support 70 or more breeding pairs. As of 2021, the Fort Johnson population consisted of 48 potential breeding groups and the Peason Ridge population had 19 potential breeding pairs (Fort Johnson 2021).

The collection of cavity trees that harbor or could potentially harbor an RCW family group is known as a cluster. Fort Johnson’s goal is to maintain 410 active RCW clusters on Fort Johnson and 90 on Peason Ridge (Fort Johnson 2020). As of 2021, the Fort

Johnson population consisted of 54 clusters while Peason Ridge had 19 clusters (Fort Johnson 2021).

RCW need 125 acres of good quality foraging habitat within a 0.5-mile radius of the cluster center (Fort Johnson 2020). Proposed projects within this 0.5-mile buffer must be evaluated to determine if habitat removal would result in a loss of foraging habitat to below 125 acres post-project. Fort Johnson maintains a HMU for the RCW; the HMU is all habitats that currently meet the requirements for suitable RCW nesting and foraging habitat (whether it is presently occupied or not), plus all habitats that could meet the requirements for habitat in the future. Currently, the total RCW HMU acreage on Fort Johnson is 31,555 acres (an excess of 9,955 acres) (Fort Johnson 2020). Fort Johnson is required to maintain a minimum of 21,600 acres of RCW HMU to support the Installation Regional Recovery Goal. While there are no RCW cluster sites within the footprint of Alternative B, there are cluster sites within 0.5 miles of Alternatives A1 and A2 (Figure 3-14).

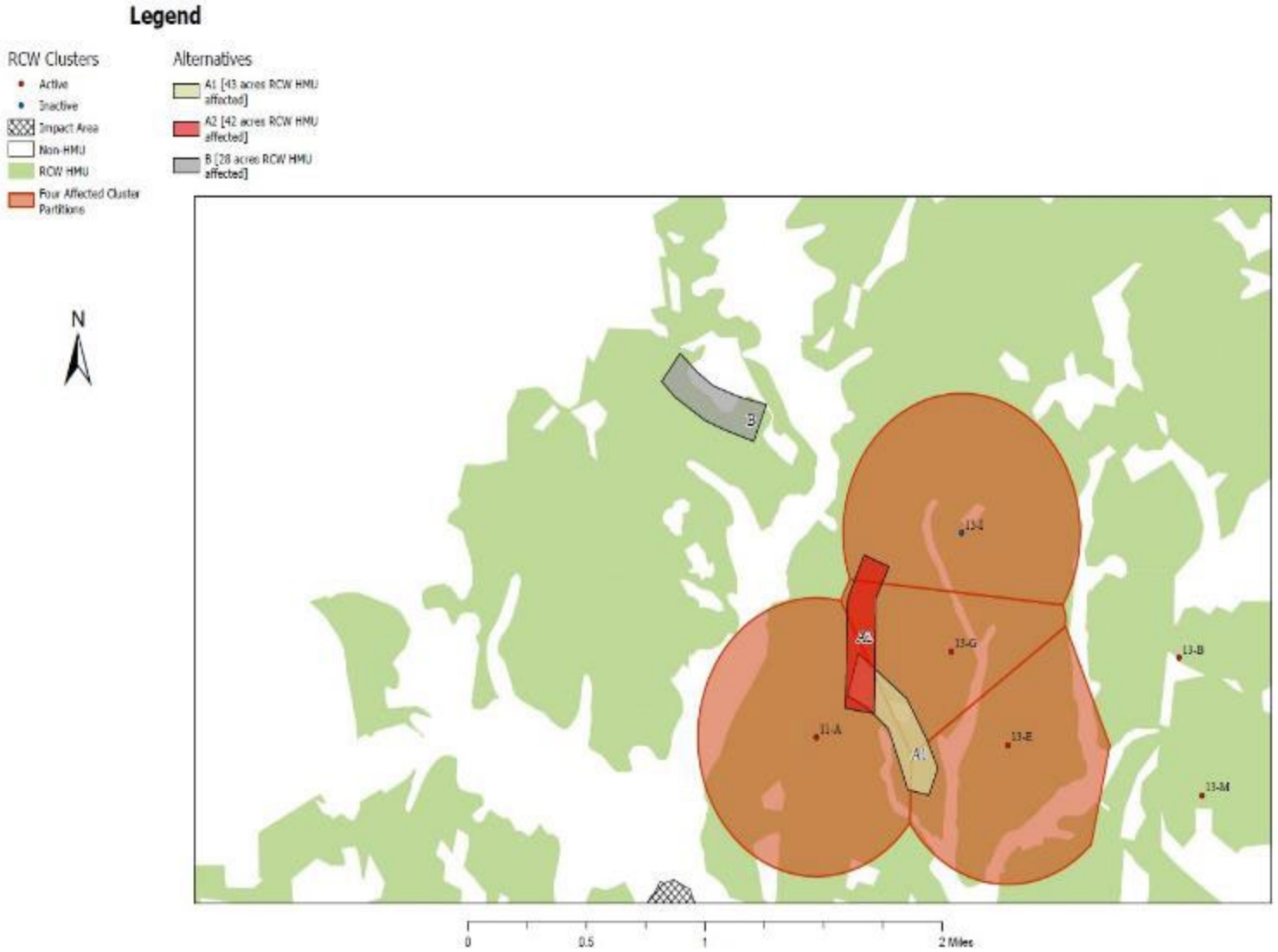

FIGURE 3-14. RCW CLUSTERS IN RELATION TO THE ACTION ALTERNATIVES (A1, A2 AND B)

Previous Commitments

Fort Johnson has established programs and procedures to protect RCW within its training lands. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following program utilized to protect the RCW and its habitat is defined in Appendix A:

- ***RCW Conservation.***

Louisiana Pinesnake

The LPS is recognizes as one of the rarest snakes in North America. It is a burrowing, non-venomous snake that primarily lives underground. The LPS is generally associated with sandy, well drained soils, and longleaf pine savannah with a sparse to moderate mid-story and a well-developed understory dominated by grasses. The LPS is typically found with Baird's pocket gophers (*Geomys breviceps*) which is an important prey item and provides burrows for the LPS (USFWS 2024). The LPS is also seasonally active, being more active between March/May and fall, and they are least active between December and February, and in the heat of summer (especially August) (Fort Johnson 2021).

The major threats to LPS include habitat loss, fire suppression, and vehicle mortality (Fort Johnson 2020). A population of LPS is located on Fort Johnson and is known mostly from trap captures that are part of an extensive, ongoing effort to monitor the species on Fort Johnson. Through LPS trapping efforts and hand captures, 39 LPS have been captured on Fort Johnson Army-owned lands. (Fort Johnson 2020).

Alternatives A1, A2, and B are partly located on LPS HMU (Figure 3-15). LPS HMU has no set target of acres or limit on how much can be removed; the HMU is indication of where LPS habitat is or could be. The Proposed Action to clear vegetation will not remove any LPS HMU; pocket gophers are common in existing Drop Zones and LZs, clearing the vegetation may in fact improve gopher habitat and improve LPS habitat. It is highly unlikely that a LPS will be encountered during the construction of this project, based on past trapping efforts. There are no documented sightings in the project areas; the most recent recorded LPS sighting is miles from the project area.

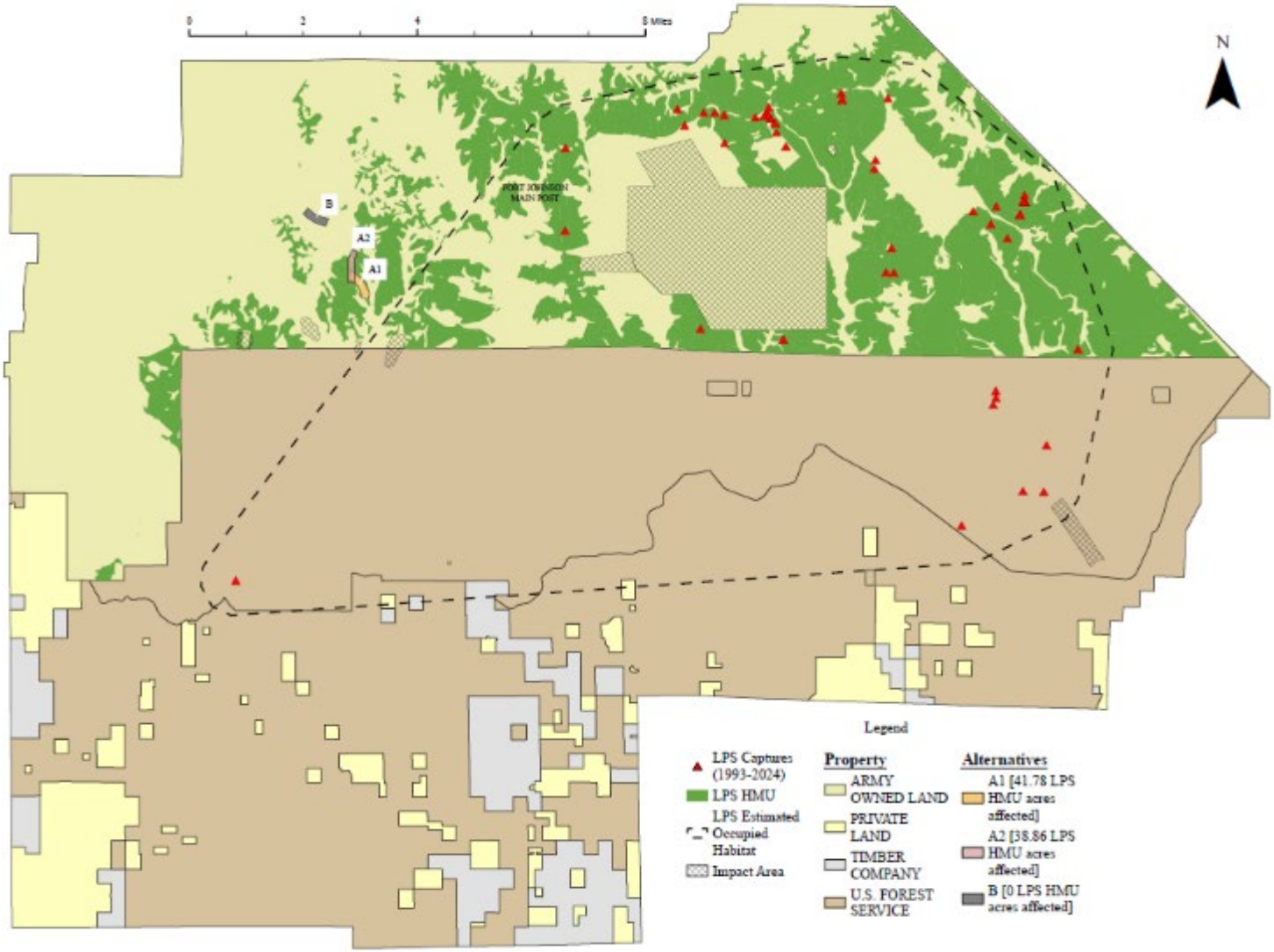

FIGURE 3-15. LPS CAPTURE LOCATIONS AND HMU IN RELATION TO THE ACTION ALTERNATIVES (A1, A2 AND B)

Previous Commitments

Fort Johnson has established programs and procedures to protect LPS within its training lands. The following procedures and programs utilized to protect the LPS, and its habitat are defined in Appendix A:

- ***Louisiana Pinesnake Conservation.***
- ***Pre-Construction Brief.***

Tricolored Bat

The TCB is a proposed species to be listed as endangered under the ESA. The TCB faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting bats across North America. While the TCB is typically cave-dwelling, in southern United States TCB often roost in road-associated culverts or in forested habitats (e.g., in trees and primarily among leaves) (USFWS DOI 2024).

Fort Johnson conducts bat roost monitoring, acoustic monitoring, and DNA analysis of **guano** to determine species occurrence and abundance. Through such monitoring and analysis, it has been determined that TCB are present on Fort Johnson.

In 2023, acoustic monitors recorded TCB within a mile of the Action Alternatives. During the Spring 2024, acoustic monitors were placed in all three Action Alternative sites and TCBs were recorded at all sites (Figure 3-16).

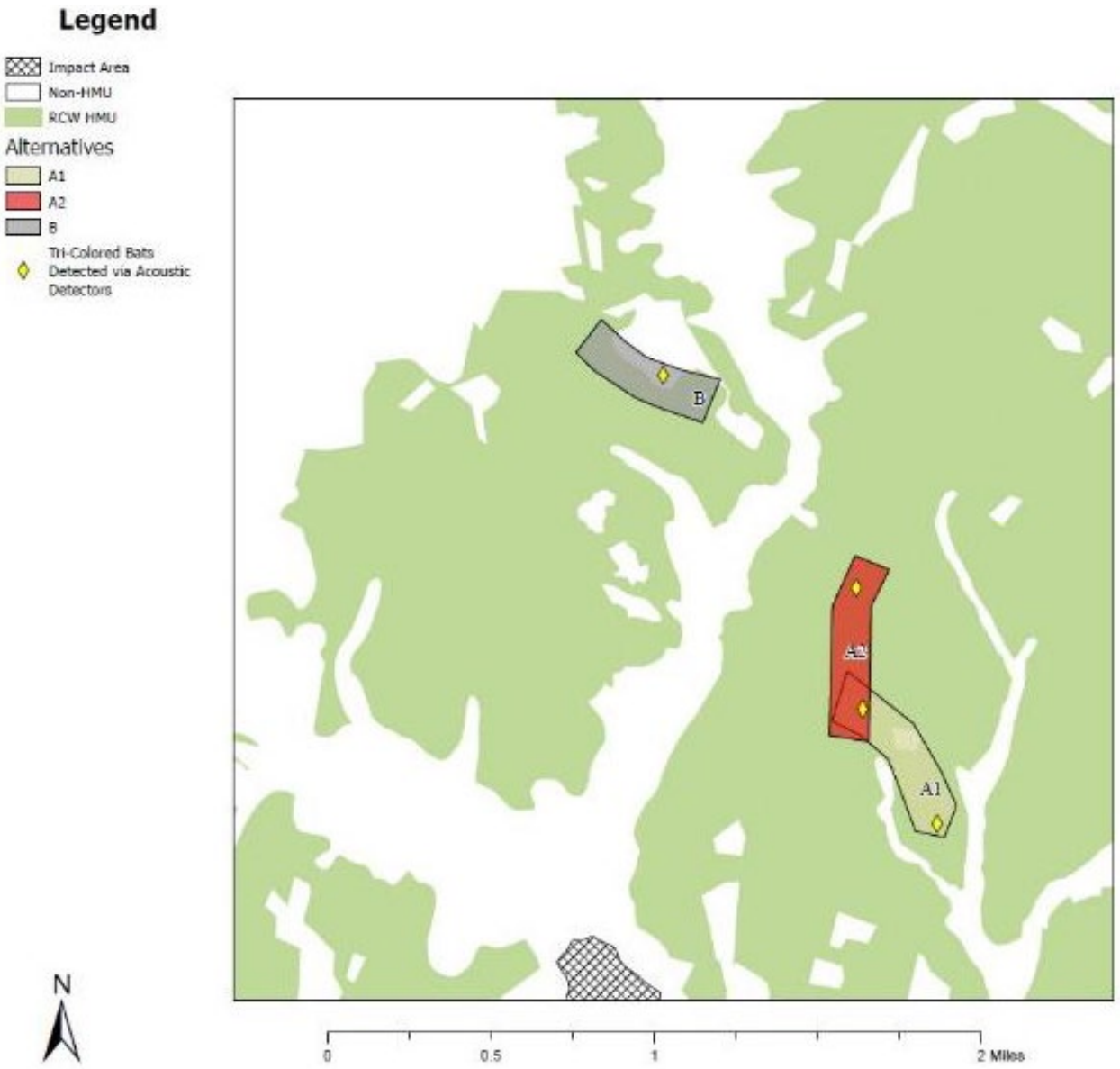

FIGURE 3-16. TCB LOCATIONS WITHIN THE ACTION ALTERNATIVES (A1, A2 AND B)

Previous Commitments

Fort Johnson has established programs and procedures to protect TCB within its training lands. Environmental requirements specific to the proposed HLZ are provided in Appendix B. The following program utilized to protect the TCB is defined in Appendix A:

- ***TCB Conservation.***

3.4.5.2 Environmental Impacts

Monarch Butterfly

Alternatives A1 (preferred Alternative) and A2
Alternatives A1and A2 are mixed pine forests that contain sensitive open habitat that features butterfly milkweed, a host plant for the MBF. Clearance and regular bush hogging of the habitat could introduce aggressive annual and invasive species, outcompeting any milkweed present in Alternatives A1 and A2.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of the INRMP, impacts to MBF are anticipated to be direct, short-term, negligible, and discountable.

Alternative B
Alternative B is a clay riparian forest that features numerous prairie species, such as the green antelope horn milkweed, a host plant for the MBF. Alternative B is a highly unique botanical site and likely the best MBF habitat of the proposed Action Alternatives. Clearance and regular bush hogging of the habitat could remove any milkweed present in Alternative B.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. Based on habitat, with the continued implementation of the INRMP, impacts to MBF are anticipated to be direct, short-term, minor, and discountable.

Alternative 4 (No Action Alternative)
There would be no impacts to MBF species under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Monarch Butterflies

Based on the habitat of each area, Alternatives A1 and A2 are the Environmentally Preferred Alternatives, followed by Alternative B. This was concluded based on the habitat type of each area. Alternatives A1 and A2 are a mixed pine forests that contain sensitive open habitat that often features butterfly milkweed, a host plant for the MBF. Impact to the MBF habitat from Alternative A1 and A2 are equal. However, Alternative B is a highly unique botanical site and likely the best MBF habitat of the proposed Action Alternatives.

Red-cockaded Woodpecker

Alternative A1 (preferred Alternative)
Alternative A1 has three active RCW cluster sites within 0.5 miles of the project footprint: sites 11A, 13E, and 13G. Cluster site 11A is located 429 meters from Alternative A1 and currently has 365 acres of foraging habitat. Cluster site 13G is located 534 meters from Alternative A1 and currently has 191 acres of foraging habitat. Cluster site 13E is located 500 meters from alternative A1 and currently has 247 acres of foraging habitat.

In consideration of current foraging habitat and reduction after completion of the Alternative A1, Cluster 11A will lose 22 acres; Cluster site 11E will lose 10 acres; and Cluster 13G will lose 11 acres (Table 3-12).

TABLE 3-12. PRE- VERSUS POST- CONSTRUCTION FORAGING HABITAT (ALTERNATIVE A1)

RCW Cluster	Acres of Foraging Pre-Construction	Acres Removed by Alternative A1	Total Foraging Post-Construction	Percent Affected
11A	365	22	343	6.03
13E	247	10	237	4.05
13G	191	11	180	5.76

Alternative A1 will not fragment or isolate any RCW cluster sites. All cluster sites will still be connected to continuous forest, allowing dispersal of young and adult RCWs. The RCW HMU currently has an excess of 9,955 acres after meeting its population target. The noise and military activity will not affect the surrounding RCWs. The proposed HLZ will not be used more than once a month and will likely not be used during months when rotational training is not scheduled.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of RCW management efforts, impacts to RCW species are anticipated to be direct, long-term, minor, and discountable (not likely to adversely affect).

Alternative A2

Alternative A2 has two active RCW cluster sites within 0.5 miles of the project footprint: sites 11A and 13G. Cluster site 11A is located 370 meters from Alternative A2 and currently has 365 acres of foraging habitat. Cluster site 13G is located 424 meters from Alternative A2 and currently has 191 acres of foraging habitat. Cluster site 13I is inactive but is located 633 meters from Alternative A2 and currently has 373 acres of foraging habitat.

In consideration of current foraging habitat and reduction after completion of the Alternative A2, Cluster 11A will lose 18 acres and Cluster 13G will lose 17.3 acres (Table 3-13).

TABLE 3-13. PRE- VERSUS POST- CONSTRUCTION FORAGING HABITAT (ALTERNATIVE A2)

RCW Cluster	Acres of Foraging Pre-Construction	Acres Removed by Alternative A2	Total Foraging Post-Construction	Percent Affected
11A	365	18	343	4.93
13G	191	17.3	180	9.06
13I (inactive)	373	6	367	1.61

Alternative A2 will not fragment or isolate any RCW cluster sites. All cluster sites will still be connected to continuous forest, allowing dispersal of young and adult RCWs. The RCW HMU currently has an excess of 9,955 acres after meeting its population target. It is believed that the increased noise and military activity will not affect the surrounding RCWs. The proposed HLZ will not be used more than once a month and will likely not be used during months when rotational training is not scheduled.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. With the continued implementation of RCW management efforts, impacts to RCW species are anticipated to be direct, long-term, minor, and discountable (not likely to adversely affect).

Alternative B

Alternative B has zero active RCW cluster sites within or 0.5 miles from the project footprint. Construction of Alternative B would have no foraging habitat impacts.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. Upon completion of construction, the project site would be reseeded/revegetated using a critical area treatment and allow native seeds to revegetate if they can establish and hold the soil in place and the area would be maintained by bush hogging. Impacts are anticipated to have no effect.

Alternative 4 (No Action Alternative)
There would be no impacts to RCW species under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Red-cockaded Woodpecker
Based on active RCW cluster sites and percent of foraging habitat affecting by each Action Alternative, Alternative B is the Environmentally Preferred Alternative, followed by Alternatives A1 and A2. This was concluded based on the proximity (<0.5 miles) of active RCW cluster sites from the footprints and how many RCW foraging acres are impacted (removed) from each proposed area. Alternative A1 has three active cluster sites within 0.5 miles of the project footprint and would result in 16% of RCW foraging acres removed; Alternative A2 has two active cluster sites within 0.5 miles of the project footprint and would result in 11% of RCW foraging acres removed, and Alternative B has zero active cluster sites within 0.5 miles of the project footprint and would not remove any RCW foraging acres. See Tables 3-12 and 3-13 above for percentage of RCW foraging habitat affected by Alternatives A1 and A2.

Louisiana Pinesnake

Alternatives A1 (preferred Alternative), A2 and B
From 2002 to 2006, snake traps were located approximately 290 meters from Alternatives A1, A2 and B. There are no documented sightings in Alternative A1, A2 or B; the most recent recorded LPS sighting is miles from the project area. Each Action is partly located on LPS HMU (Figure 3-15); however, the proposed project will not remove any LPS HMU. Pocket gophers are common in existing Drop Zones and LZs, clearing the vegetation may improve gopher habitat and improve LPS habitat.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. With the continued implementation of LPS management efforts, impacts are anticipated to have no effect.

Alternative 4 (No Action Alternative)
There would be no impacts to LPS species under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Louisiana Pine Snake
Each Action Alternative will have no effect on LPS or its habitat; therefore, there is not an Environmentally Preferred Alternative in reference to LPS.

Tricolored Bat

Alternatives A1(preferred Alternative), A2 and B
The TCB has been documented roosting in pine needles located on pine tree limbs during the summer. There is a possibility that a bat could be disturbed in Alternatives A1, A2 and B when trees are cleared for the proposed project. The surrounding project

area currently has over 70% forest cover. Increased noise and military activity should not affect any TCB near the area. The proposed HLZ will not be used more than once a month and will likely not be used during months when rotational training is not scheduled.

The procedure described above in Section *3.4.5* will continue to be implemented at the Installation. This procedure would preclude potential species impacts due to habitat removal and land clearing activities during construction of the HLZ. To prevent possible harm to any TCB in the project area, tree clearing will not occur between 1 May and 15 July to prevent any loss of pups. Also, tree clearing will not occur when the air temperature is below 40 degrees Fahrenheit because the TCB is known to roost in trees below this temperature. With the continued implementation of TCB management efforts, impacts to TCB species are anticipated to be indirect, short-term, negligible, and discountable (not likely to adversely affect).

Alternative 4 (No Action Alternative)
There would be no impacts to federally listed species under this Alternative, as there would be no changes to the current baseline condition for these resources.

Environmentally Preferred Alternative – Tricolored Bat
Each Action Alternative proposes the same impact to the TCB; therefore, there is not an Environmentally Preferred Alternative in reference to the TCB.

4.0 CUMULATIVE EFFECTS

A cumulative effect is an environmental impact (characterized as adverse or beneficial) that results from “incremental impact of the action when added to other past, present, or reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR, §1500-1508). Cumulative impact analysis includes consideration of:

- Actions taken by other agencies, organizations, or private landowners.
- Actions not included in the Proposed Action or Action Alternatives that are having or will have impacts on the same resources that are likely to be affected by your Proposed Action and Action Alternatives.
- Actions that may have taken place in the past, are occurring in the present or are reasonably foreseeable and likely to occur. Past actions should be included only when their impacts are ongoing; impacts that happened in the past and have not continued are described as the affected environment in Section *3.4.1*. Reasonably foreseeable future actions include activities that have not yet been implemented but for which there are existing decisions, funding, or proposals, and that have a reasonable likelihood of occurring. “Reasonably foreseeable future actions” do not include actions that are speculative or indefinite (43 CFR §46.30).

The goal of a cumulative effects analysis is to help Army decision makers and the public understand the “big picture” view of the cumulative effects of each proposed action, when added to the effects of other projects, on the future sustainability of the resource areas considered in detail in this EA.

For each resource area analyzed in detail in this EA, a cumulative effects boundary is defined, and appropriate thresholds of significance are identified (as presented in Table 3-1). Then, the analysis determines the environmental consequence of the Proposed Action in combination with past, present, and reasonably foreseeable projects. Table 4-1 lists other major actions and activities that could contribute cumulatively to the effects of the Proposed Action. The effects of these past and ongoing actions/activities have been previously addressed whereas the identified reasonably foreseeable actions and their associated potential effects are either being evaluated or will be evaluated under NEPA.

4.1 Proposed Action

The HLZs proposed for construction are currently nonexistent and are within uncleared vegetation. No future development is currently planned on these proposed HLZs. Currently, the Army uses HLZs for simulated training purposes. The HLZ training operations could potentially occur 10-12 times a year, dependent upon training requirements.

No significant adverse impacts would result from the individual actions described in Table 4-1. No significant impacts were identified in the analysis of the proposed action by itself.

TABLE 4-1. PAST, PRESENT, AND FUTURE ACTIONS OCCURRING NEAR THE PROPOSED ACTION ALTERNATIVES (A1, A2, AND B).

Impacted Resource	Contributing Activity	Description of Activity and Nature of Effects	Time Frame
Soils	Culvert Replacement and Erosion Control, Mill Creek 3	Cleaned and re-established ditches on outflow side away from existing road, lined channel side walls with rip-rap inflow and outflow sides, installed headwalls, and repaired 0.5 miles of road and placed aggregate.	Past May - June 2014
	Culvert Replacement and Erosion Control, Mill Creek 4	Cleaning existing flumes, match and add 15 feet to existing flume, extend existing concrete drop box with vertical supports and top cover with manhole, tree clearance, placement of riprap around the box, and replacement of headwall.	Past 2014-2015
	Repair and Replacement of Damaged Mill Creek Road Culvert	Replacement of the culvert, establishment of drainage, placement of riprap as needed, and the placement of headwalls, wing-walls, and apron.	Past July 2016
	Replacement of Culvert off Mill Creek Road	Construction of new headwall, drop inlet, and implement erosion control measures.	Past October 2016
	Culvert Replacement and Erosion Control, Mill Creek	Remove failed culvert under Mill Creek Road and replace with a new 6'x3' box culvert, repave the utility trench, and install object markers and headwalls.	Past 2018
Water Resources: Streams, Wetlands, and Other Surface Water Resources	Road Repair and Placement of Low Water Crossing in Mill Creek Training Area	Repair approximately 1.5 mile of road, place aggregate and place one Low Water Crossing at Birds Creek.	Past October 2012

Impacted Resource	Contributing Activity	Description of Activity and Nature of Effects	Time Frame
Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species	Prescription Burn	Prescription burns of Compartment 10, 1,284 acres.	Present December 2024
	Prescription Burn	Prescription burns of forested areas under direction of Forestry Branch to maintain or restore ecosystem health.	Foreseeable Compartment 7 is scheduled to be prescribed burned in FY26, 29, 32, and 35. Compartment 8 is scheduled to be prescribed burned in FY25, 27, 29, 31, 33, and 35. Compartment 9 scheduled to be prescribed burned in FY25, 28, 31, and 34. Compartment 10 is scheduled to be prescribed burned in FY24, 27, 30, 33, and 36. Compartment 11 is scheduled to be prescribed burned in FY25, 28, 31, and 34. Compartment 13 is scheduled to be prescribed burned in FY24, 26, 28, 30, 32, and 34
Wildlife (MBTA and Game Species)	Any repairs, construction, training, and management activities.	All activities conducted may temporarily displace wildlife. This may include but is not limited to road and trail maintenance/construction activities, timber thinning, prescribed burns, training activities, environmental surveys, etc.	Past, Present and Foreseeable

Impacted Resource	Contributing Activity	Description of Activity and Nature of Effects	Time Frame
Threatened and Endangered Species, and Species of Concern	Timber Thinning, Compartments 10 and 12, Slagle	Thin 75 acres of pine timber to a basil area of 60 in Compartment 10, and thin clumps of hardwoods in compartment 10 and 12 to create quality RCW habitat.	Past August – October 2015
	Timber Thinning, Compartment 13, Mill Creek	Thin 297 acres of pulpwood to a 50-basil area in Compartment 13.	Present December 2024
	Timber Thinning	Thin areas to 50 basil area within surrounding area. Maintain a rich diversity of native plants and animals, encourage RCW recovery.	Foreseeable Compartment 7 will be inventoried in FY31. If the inventory shows a need for thinning, it will occur in FY32. Compartment 8 will be inventoried in FY32. If the inventory shows a need for thinning, it will occur in FY33. Compartment 9 will be inventoried in FY29. If the inventory shows a need for thinning, it will occur in FY30. Compartment 10 will be inventoried in FY32. If the inventory shows a need for thinning, it will occur in FY33. Compartment 11 will be inventoried in FY26. If the inventory shows a need for thinning, it will occur in in FY27. Compartment 13 will be inventoried in FY33. If the inventory shows a need for thinning, it will occur in FY34.

4.2 Cumulative Effects: Impacted Resources

4.2.1 Soils

A major cumulative impact on soils would occur if the actions exacerbated or promoted long-term erosion. Projects listed in Table 4-1 for “Impacted Resource: Soils” assisted in the prevention of long-term erosion; thus are a beneficial cumulative impact. The Proposed Action would follow BMP guidance with sites marked as temporarily off-limits to digging and driving until the area is recovered, undergo inspection by the Maneuver Damage Inspection and Repair Program and receive quarterly Range Training Land Assessments. When added to the impacts from other cumulative actions, implementation of the Proposed Action would not result in significant adverse cumulative impact to soils.

4.2.2 Resources: Streams, Wetlands, and Other Surface Water Resources

A major cumulative impact on water resources would occur if the action resulted in sedimentation or discharge into streams, wetlands, waters of the U.S., or state scenic streams within project footprint or adjacent to project within watershed, or net loss of wetlands within installation boundary due to direct or indirect effects. Installation activities, including timber thinning and prescribed burning, must comply with the CWA and implement required measures and mitigation to offset impacts. Projects listed in Table 4-1 have/would not result in a loss of jurisdictional waters; installation of the low water crossing would assist in maintaining a natural streambed with more natural sediment and aquatic movement in Birds Creek, thus is a beneficial cumulative impact. The Proposed Action would abide by the anticipated CWA Section 404/401 permit to offset impacts to jurisdictional waters of the U.S. Therefore, when added to the impacts from other cumulative actions, implementation of the Proposed Action would not result in a significant adverse cumulative impact to water resources.

4.2.3 Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species

A major cumulative impact on forest ecology and plant species would occur if a substantial reduction in ecological processes, communities, or populations would threaten the long-term viability of a species or result in the substantial loss of a sensitive community that could not be offset or otherwise compensated. Projects listed in Table 4-1 for “Impacted Resource: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species” assisted in ecological health, promoting better growth in the area. Under the Proposed Action, vegetation would be cleared, and the area will be reseeded with native species. While the Proposed Action to clear timber could promote the presence of invasive species, this should be offset by native reseeding methods and area maintenance. When added to the impacts from other cumulative actions, implementation of the Proposed Action would not result in a significant adverse cumulative impact to forest conditions, native plant species and communities.

4.2.4 Biological Resources: Wildlife

A major cumulative impact on MBTA or game species would occur if the action resulted in a significant decline in MBTA or game population.

All Installation activities are required to undergo a MBTA survey prior to ground disturbance if activities take place during breeding/nesting season (March-July). This allows for the establishment of a buffer should MBTA species be located within the project area. Projects listed in Table 4-1, if in March-July, have/would complete(d) a MBTA survey through the Conservation Branch. Under the Proposed Action, a MBTA survey would be required if construction activities take place March-July. Additionally, game species would be potentially displaced, but no "take" should occur from the actions listed in Table 4-1. Therefore, when added to the impacts from other cumulative actions, implementation of the Proposed Action would not result in a significant adverse cumulative impact to MBTA or game species.

4.2.5 Biological Resources: Threatened and Endangered Species, and Species of Concern

A major cumulative impact on threated and endangered species or species of concern would occur if there were direct mortality or other unpermitted "take" of threatened or endangered species. Protective measures have been developed and will be incorporated during construction to prevent species mortality because of construction activities. Projects listed in Table 4-1 for "Impacted Resource" have/would not result in "take" of species; these actions would promote RCW recovery and are a beneficial cumulative impact. Under the Proposed Action, there are no RCW cluster sites within the footprint of the Alternatives; LPS, AST, the American alligator and monarchs are not anticipated to be impacted; and TCB would undergo guidelines established through USFWS consultation (Appendix C). Therefore, when added to the impacts from other cumulative actions, implementation of the Proposed Action would not result in a significant adverse cumulative impact to threatened and endangered species and species of concern.

5.0 SUMMARY

This EA has been prepared to evaluate the potential effects on the natural and human environment from activities associated with the Proposed Action to construct a HLZ in the Mill Creek Training Area capable of supporting LSCO at Fort Johnson. The EA has evaluated the potential effects of implementing each viable Alternative, as identified in Section *2.0*. The following VECs were analyzed in detail Soils; Water Resources: Streams, Wetlands, and Other Surface Water Resources; Biological Resources: Forest Ecology, Native Plants, and Invasive Plant Species; Wildlife Species (Migratory Birds and Game Species); and Threatened and Endangered Species and Species of Concern. Additionally, previous commitments (management, monitoring, programs, etc.) were identified for each VEC in the detailed analysis of Section *3.0*. Implementation of these measures will lessen the impacts to resource areas and reduce the anticipated impacts to a non-significant level.

Alternative A2 is identified as the "Environmentally Preferred Alternative" for the proposed action based on the impacts of each VEC. Table 5-1 provides the environmental constraints matrix utilized to determine the "Environmentally Preferred Alternative." Table 5-2 summarizes the potential impacts of the Proposed Action for each Action Alternative.

TABLE 5-1. ENVIRONMENTAL CONSTRAINTS MATRIX

Environmental Constraints for Constructing a Helicopter Landing Zone in the Mill Creek Training Area with Shughart Gordon Objective

Environmental Constraint	*Alternative A1*	*Rating*	*Alternative A2*	*Rating*	*Alternative B*	*Rating*
Soils	Low Impact. "98.7% of soils at or below a moderate erosion rating."	1	Medium Impact. "93.8% of soils at or below a moderate erosion rating."	2	Higher Impact. "77.8% of soils at or below a moderate erosion rating."	3
Water Resources: Streams, Wetlands, Other Water Resources	Medium Impact. "3.4 acres of baygall wetland impact."	2	Low Impact. "One acre of baygall wetlands."	1	Higher Impact. "10.5 acres of clay riparian wetlands."	3
Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species	Medium Impact. "7.8% of acres impacting baygall communities (wetlands) with no rare plants / communities."	2	Low Impact. "2.6% of acres impacting baygall communities (wetlands) with no rare plants / communities."	1	Higher Impact. "30.3% of acres impacting clay riparian (wetlands) and 15% of acres impacting rare calcareous prairie communities."	3
Biological Resources: Wildlife (MBTA and Game Species)	Negligible Impact.	0	Negligible Impact.	0	Negligible Impact.	0
Biological Resources: Threatened and Endangered Species and Species of Concern (MBF)	Negligible Impact.	0	Negligible Impact.	0	Low Impact. "Best MBF habitat of the proposed Action Alternatives"	1
Biological Resources: Threatened and Endangered Species and Species of Concern (RCW)	Medium Impact. "Three active cluster sites within 0.5 miles of the project footprint and would result in 16% of RCW foraging acres removed."	2	Low Impact. "Two active cluster sites within 0.5 miles of the project footprint and would result in 11% of RCW foraging acres removed."	1	No effect.	0
Biological Resources: Threatened and Endangered Species and Species of Concern (LPS)	No Effect.	0	No Effect.	0	No Effect.	0
Biological Resources: Threatened and Endangered Species and Species of Concern (TCB)	Negligible Impact.	0	Negligible Impact.	0	Negligible Impact.	0
TOTAL		**7**		**5**		**10**

0- Negligible Impact / No Effect
1- Low Impact
2- Medium Impact
3- Higher Impact
*****Lowest Score = Lower Impact / Environmentally Preferred Alternative***

TABLE 5-2. SUMMARY OF IMPACTS

	Alternative A1 (*Proponent's Preferred Alternative*)	**Alternative A2** (*Environmentally Preferred Alternative*)	**Alternative B**	**Alternative 4** (No Action)
Meets Purpose	Yes	Yes	Yes	No
Meets Need	Yes	Yes	Yes	No
Soils	Direct, short-term, minor, and adverse impacts.	Direct, short-term, minor, and adverse impacts.	Direct, short-term, minor, and adverse impacts.	No impacts.
Water Resources: Streams, Wetlands, Other Water Resources	Creeks: Negligible impacts. Wetlands: Direct, permanent, minor, and adverse impacts. Consult USACE for delineation.	Creeks: Negligible impacts. Wetlands: Direct, permanent, minor, and adverse impacts. Consult USACE for delineation.	Creeks: Negligible impacts. Wetlands: Direct, permanent, minor, and adverse impacts. Consult USACE for delineation.	No impacts.
Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species	Direct, minor, long-term, and adverse impacts.	Direct, minor, long-term, and adverse impacts.	Direct, moderate, long-term, and adverse impacts.	No impacts.
Biological Resources: Wildlife (MBTA and Game Species)	MBTA: Direct, short-term, negligible, and beneficial impacts. Game Species: Direct, short-term, negligible, and adverse impacts.	MBTA: Direct, short-term, negligible, and beneficial impacts. Game Species: Direct, short-term, negligible, and adverse impacts.	MBTA: Direct, short-term, negligible, and beneficial impacts. Game Species: Direct, short-term, negligible, and adverse impacts.	No impacts.
Biological Resources: Threatened and Endangered Species and Species of Concern	MBF: Direct, short-term, negligible, and discountable (not likely to adversely affect) impacts. RCW: Direct, long-term, minor, and discountable (not likely to adversely affect) impacts. LPS: No effect. TCB: Indirect, short-term, negligible, and discountable (not likely to adversely affect) impacts.	MBF: Direct, short-term, negligible, and discountable (not likely to adversely affect) impacts. RCW: Direct, long-term, minor, and discountable (not likely to adversely affect) impacts. LPS: No effect. TCB: Indirect, short-term, negligible, and discountable (not likely to adversely affect) impacts.	MBF: Direct, short-term, minor, and discountable (not likely to adversely affect) impacts. RCW: No effect. LPS: No effect. TCB: Indirect, short-term, negligible, and discountable (not likely to adversely affect) impacts.	No impacts.

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7.0 ABBREVIATIONS, BREVITY CODES, AND ACRONYMS

AST	Alligator Snapping Turtle
BLM	Bureau of Land Management
BrC	Briley Loamy Fine Sand, 5-12% Slopes
BRE	Briley loamy fine sand, 5-12% Slopes
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH	Cargo Helicopters
COR	Contracting Office Representative
CPP	Compartment Prescription Process
CPS	Conservation Practice Standard
DoD	Department of Defense
DOI	Department of Interior
DPW	Directorate of Public Works
EA	Environmental Assessment
EaC	Eastwood Silt Loam, 1-5% Slopes
EAE	Eastwood Silt Loam, 5-12% Slopes
EIS	Environmental Impact Statement
ENRMD	Environmental and Natural Resources Management Division
EO	Executive Order
EPA	Environmental Protection Agency
FNSI	Finding of No Significant Impact
FR	Federal Regulations/Register
HLZ	Helicopter Landing Zone
HMU	Habitat Management Unit
INRMP	Integrated and Natural Resources Management Program

JRTC	Joint Readiness Training Center
LPS	Louisiana Pinesnake
LSCO	Large Scale Combat Operations
MBF	Monarch Butterfly
MBTA	Migratory Bird Treaty Act
MT	Maneuver Trail
n.d.	no date
NEPA	National Environmental Policy Act
NOA	Notice of Availability
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
RCW	Red-Cockaded Woodpecker
ROI	Region of Influence
RuB	Ruston Fine Sandy Loam, 1-3% Slopes
RuD	Ruston Fine Sandy Loam, 3-8% Slopes
SMEs	Subject Matter Experts
TCB	Tricolored Bat
UAS	Unmanned Aircraft System
UH	Utility Helicopters
USACE	U.S. Army Corps of Engineers
USFS	United States Forest Service
VEC	Valued Environmental Component
WAP	Wildlife Action Plan
WMA	Wildlife Management Area

8.0 GLOSSARY

Adverse - individual
USFWS term used to indicate effects that would be likely to adversely affect individuals, but not significantly affect populations.

Adverse - population
USFWS term used to indicate effects that would be likely to adversely affect the population.

Aerial Insertion
The entrance of a force into an area by means of air transportation.

Aquifer
Any geologic material that is currently used or could be used as a source of water (for drinking or other purposes) within the target distance limit.

Brigade
Consists of three to five battalions (3,000-5,000 Soldiers).

Compartment Prescription Process
All surveys, reporting, and staff meetings held to coordinate the development of forest compartment prescriptions. The Installation is divided into 101 compartments and are accessed by Conservation and Forestry Branch staff once every 10 years. Compartment prescriptions focus on timber resources, wildlife habitat management, including endangered species habitats; the protection of archeological or cultural heritage sites; the protection of rare plants and management needs of plant communities; and the protection of environmentally sensitive or exceptional areas. Such integration of resources and shared information affords a more holistic approach to forest and ecosystem management on the Installation.

Critical Area Treatment
Establishing permanent vegetation on sites that have, or are expected to have, high erosion rates, and on sites that have physical, chemical, or biological conditions that prevent the establishment of vegetation with normal seeding/planting methods.

Cumulative Effects
Results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

Direct Effects
Caused by the action and occur at the same time and place.

Discountable
USFWS term used to indicate that effects would be extremely unlikely to occur or would be insignificant (the size of the impact should never reach the scale where “take” occurs) or completely beneficial.

Environmental Assessment

A concise document discussing the need for a project, alternative courses of action, and environmental impacts.

Finding of No Significant Impact
A brief statement by an agency that explains why an action will not have a significant effect on the environment.

Ground Flanking Maneuvers
Movement of a force around an enemy force's side to achieve an advantageous position.

Guano
The excrement of bats.

Helicopter Landing Zone
Contain one or more helicopter landing site. Each landing site has a control center and, in most cases, a manned or unmanned release point. Each landing site might have one or more specific landing points for individual aircraft to touch down.

Impaired (Waters)
Those that fail to meet water quality standards; officially listed under the CWA 303(d).

Indirect Effects
Caused by the action and are later in time or father removed in distance but are still reasonably foreseeable.

Inner Zone (Wetland Buffer Zone)
Often around 25 feet and encompasses wetlands and other critical habitats.

Intermittent Stream
Stream that flows only during certain times of the year and may not have any flowing surface water during the dry season.

Landing Point
A point within a landing site where one helicopter can land.

Large Scale Combat Operations
Intense training exercises in which units attack peer defenses. Dismounted operations are paramount for brigade combat teams to preserve combat power, seize key terrain, and protect the flanks of armored forces.

Louisiana Maneuvers
A series of major U.S. Army exercises held in 1941 in the Fort Johnson area (then designated as Camp Polk). The exercises, which involved some 400,000 troops, were designed to evaluate U.S. training, logistics, doctrine, and commanders.

Major Linear Danger Areas
An area where the platoon's flanks are exposed along a relatively narrow field of fire. Examples include streets, roads, trails, and streams.

Middle Zone (Wetland Buffer Zone)

50 to 100 feet depending on stream order, slope, width of the 100-year floodplain or presence of jurisdictional wetlands. The vegetative target for this zone is mature riparian vegetation, which in most cases consists of riparian forest.

Military Operations on Urbanized Terrain
All military actions planned and conducted on a topographical complex and is adjacent terrain where manmade construction is the dominant feature. A concentration of structures, facilities, and populations (such as villages, cities, and towns) that form the economic and cultural focus for the surrounding area.

Minor Impact
The term used to indicate the relative degree of severity of an environmental effect that is measurable but is clearly not significant.

Moderate Impact
The term used to indicate the relative degree of severity of an environmental effect that might approach but not exceed a threshold of significance.

Moderate Erosion
Some erosion is likely and that erosion-control measures may be needed.

National Environmental Policy Act
Requires federal agencies to assess the environmental effects of proposed actions prior to making decisions. Using the NEPA process, agencies evaluate the environmental and related social and economic effects of their proposed actions.

Negligible Impact
The term used to indicate the relative degree of severity of an environmental effect that could occur but might not be detectable.

No Effect
USFWS term used to indicate that no long- or short-term effects are expected.

Nonpoint Sources
Runoff from storm water, erosion, groundwater, septic systems, or various training activities.

Not Limited Soil Rating
Soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Outer Zone (Wetland Buffer Zone)
The first zone to encounter stormwater discharge from upland development; a minimum of around 25 feet.

Perennial Stream
Streams that have water flowing in them year-round.

Red Heart Fungus

A disease that primarily affects the heartwood of hardwood trees such as oak, elm, and maple. The fungi causing red heart rot penetrates the tree through wounds/broken branches, producing decay that turns the wood reddish-brown.

Severe Erosion
Erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised.

Significant Impact
A measure in terms of the degree of severity of the environmental effect of an action reflecting the context and intensity of the effect, as defined in CEQ regulations (40 CFR §1508.27).

Slight Erosion
Erosion is unlikely under ordinary climatic conditions.

Slingload
Consists of supplies or equipment properly rigged with either one or more slings, cargo bags, or cargo nets.

Slope
The steepness of the ground's surface.

Somewhat Limited Soil Rating
Soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Streamside Management Zone
Also called a riparian zone, reduces erosion by slowing surface water runoff and increasing water filtration.

Subwatershed
A smaller watershed that nests inside of a larger watershed.

Take
To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct, and includes habitat modification and the impairment of essential behavioral patterns (i.e. breeding, feeding, sheltering; USFWS and National Marine Fisheries Service 1998); for migratory birds this includes possessing or transporting any migratory bird, nest, egg, or part thereof.

Training Circulars
Outlines a methodology for designing and executing training exercises.

Tributary
A freshwater stream that feeds into a larger stream or river**.**

Very Severe Erosion
Significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical (NRCS).

Very Limited Soil Rating
Soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures (NRCS).

Watershed
An area that drains, captures, and filters streams and rainfall to a common outlet.

Wetlands
Areas that are inundated or flooded 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.

9.0 APPENDIX A: PROGRAMS AND PROCEDURES – PREVIOUS COMMITMENTS

Programs and Procedures - Previous Commitments

SOILS

Fort Johnson has established programs and procedures to minimize soil erosion on its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. The following describes procedures and programs utilized to decrease erosion and soil displacement:

- **Temporary Closure of Sites.** Sites will be marked as temporarily off-limits to digging and driving until the sites are recovered. Closed areas will be added to the "No Dig/No Drive" map used by military trainers for planning purposes on an as needed basis.
- **Integrated Training Area Management (ITAM) and Land Rehabilitation and Maintenance (LRAM).** Training areas are inspected by the Maneuver Damage Inspection and Repair Program to identify sites needing repair. The ITAM and LRAM programs are used to repair land that requires rehabilitation. All range repair and sustainment programs utilize contouring, grading, seeding, and fertilization, on a site-specific, as needed basis to maintain an adequate ground cover.
- **Maneuver Damage Inspection and Monitoring**. Fort Johnson Maneuver Damage Inspection and Repair Program includes identification and monitoring for damages associated with home station and rotational training events. All training lands are inspected for damage to soils, vegetation, streams and wetlands, and sensitive environmental resources following each training exercise and corrective actions are initiated to minimize soil displacement. Damages may include rutting, general ground disturbances, and engineering-dug fighting positions.
- **Range Training Land Assessments**. Training clearings are assessed quarterly on all LRAM managed multi-use clearings to identify sites requiring maintenance (i.e., bush hogging, erosion control, application of seed/fertilizer, etc.). Additionally, extreme weather assessments occur following each event to identify damages to trails and clearings. Any deficiencies are reported to LRAM.

WATER RESOURCES: SURFACE WATER QUALITY, STREAMS, WETLANDS, AND OTHER SURFACE WATER RESOURCES

Fort Johnson has established programs and procedures to protect water resources within its training lands. The following measures are currently implemented installation-

wide and would be used to maintain and sustain the training lands associated with the Proposed Action. The following describes procedures and programs utilized to protect watersheds and thereby protect waterways from sedimentation:

- ***Biological and Water Quality Monitoring.*** Directorate of Public Works (DPW) – Environmental and Natural Resources Management Division (ENRMD) is responsible for monitoring surface waters of perennial streams at or downstream of installation boundaries, including stream biological monitoring activities (i.e., Integrated and Natural Resources Management Program and water quality (i.e., DPW – ENRMD - Stormwater program) to ensure stream integrity is maintained.
- ***Watershed Management and Monitoring.*** Forestry Branch follows Louisiana Forestry Association Best Management Practices (BMPs) to ensure stream buffers are maintained during forestry management practices. Installation biologists and botanists follow Forestry Branch's compartment prescription schedule to survey the conditions of wetland areas present. As each compartment is surveyed, management recommendations are incorporated into the installations forestry prescription for maintaining the wetland areas and associated vegetation community and preserving and protecting important wildlife areas (Fort Johnson 2020).
- ***Construction Process Oversight*.** Procedures to ensure that environmental compliance requirements and measures to reduce adverse effects to environmentally sensitive resources are included in contract specifications for military construction projects. Consideration of nonpoint source pollution abatement in all construction and land management plans and activities. The Contracting Office Representative (COR) would ensure compliance with specified limits of construction, construction sequencing, Section 404 permit conditions, a Stormwater Pollution Prevention Plan, and other environmental considerations during construction, as specified in construction specifications, National Environmental Policy Act (NEPA), and permit documents. The COR would review environmental requirements before construction, coordinate with the ENRMD - NEPA document point-of-contact to ensure compliance, and have the authority to halt construction if work is not performed in accordance with environmental requirements.
- ***Maneuver Damage Inspection and Monitoring***. Fort Johnson Maneuver Damage Inspection and Repair Program includes identification and monitoring for damages associated with home station and rotational training events. All training lands are inspected for damage to soils, vegetation, streams and wetlands, and sensitive environmental resources following each training exercise and corrective actions are initiated to minimize soil displacement. Damages may include rutting, general ground disturbances, and engineering-dug fighting positions. The ITAM and LRAM programs are used to repair land that requires rehabilitation. All range repair and sustainment programs utilize contouring, grading, seeding, and fertilization, on a site-specific, as needed basis to maintain an adequate ground cover.

BIOLOGICAL RESOURCES: FOREST CONDITIONS, NATIVE PLANT SPECIES AND COMMUNITIES, NONNATIVE, AND INVASIVE PLANT SPECIES

Fort Johnson has established programs and procedures to protect vegetation within its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. The following describes procedures and programs utilized to protect forested areas, native plant species and communities:

- ***Vegetation Management.*** Maneuver areas are maintained to meet habitat management requirements, maintain desired training conditions, and maintain native flora diversity through exemplary natural area management, timber management, and regular applications of prescribed fire.
- ***Vegetation Compartment Surveys.*** These surveys are imperative in maintaining an accurate baseline Geographic Information System (GIS) spatial data layer for impact analysis, faunal species habitat preferences, as well as monitoring floral species diversity and occurrences. As each compartment is surveyed, management recommendations are prepared for maintaining or restoring vegetative communities, preserving, and protecting the rare plant species and landmark trees, and preserving important wildlife areas. When species are encountered that were not previously documented to occur on the Installation or within the Parish, Installation botanists record the species location, observation date and health of the population. Vegetative hosts on the Installation are also recorded during surveys.
- ***Construction Process Oversight.*** Procedures to ensure that environmental compliance requirements and measures to reduce adverse effects to environmentally sensitive resources are included in contract specifications for military construction projects. The COR would review environmental requirements before construction, coordinate with the ENRMD - NEPA document point-of-contact to ensure compliance, and have the authority to halt construction if work is not performed in accordance with environmental requirements.

BIOLOGICAL RESOURCES: WILDLIFE

Fort Johnson has established programs and procedures to protect migratory birds and game species within its training lands. The following measures are currently implemented installation-wide and would be used to maintain and sustain the training lands associated with the Proposed Action. The following describes procedures and programs utilized to protect migratory birds and game species:

Migratory Birds

- ***Pre-Construction Surveys.*** To reduce adverse effects to wildlife and their habitats all construction activities should be implemented during the nonbreeding/nesting season (August - February) to the extent feasible. Disturbance during the breeding/nesting season (March-July) requires a pre-construction survey from the Conservation Branch to locate active nests and

establish buffers around the nest site until a wildlife biologist or certified pest management specialist determines the nest site is abandoned or the species is not protected under state or federal laws.

Game Species

- ***Monitoring and Management of Populations and Habitats.*** Installation biologists survey, monitor and implement habitat enhancements for wildlife populations using various methodologies to sustain and enhance hunted and trapped species populations without compromising ecosystem management principles. Habitats are surveyed by forested compartments on a rotating basis as part of Forestry Branch's Compartment Prescription Plan. Additional projects conducted annually to acquire the information required to make sound management decisions with respect to game population and habitat management include harvest and hunter effort surveys, species counts, estimates of food availability and food plot provisioning. Recreational fisheries are managed in accordance with biological diversity considerations, species priorities, population ecology and health, habitat capacities, and recreational requirements.

BIOLOGICAL RESOURCES: THREATENED AND ENDANGERED SPEICES, AND SPECIES OF CONCERN

Fort Johnson has established programs and procedures to protect the MBF, RCW, LPS, and TCB within its training lands. The following describes existing procedures and programs used to protect the species and its habitat, and would be used to sustain and maintain its habitat associated with the Proposed Alternatives:

MBF

- ***Vegetation Compartment Surveys.*** These surveys are imperative in maintaining an accurate baseline GIS spatial data layer for impact analysis, faunal species habitat preferences, as well as monitoring floral species diversity and occurrences. As each compartment is surveyed, management recommendations are prepared for maintaining or restoring vegetative communities, preserving, and protecting the rare plant species and landmark trees, and preserving important wildlife areas. When species are encountered that were not previously documented to occur on the Installation or within the Parish, Installation botanists record the species location, observation date and health of the population.
- ***Butterfly Surveys***. Conservation Branch botanists conduct bi-annual (twice/year) butterfly surveys to record the presence of species on the Installation.

RCW

- ***RCW Conservation.*** To avoid or reduce future construction-related effects on the RCW, cavity trees within protected clusters are to be marked with two white

bands 4–6 inches wide and one foot apart, centered 4–6 feet. above the base of the tree. Cluster protective buffers are to be marked with 10-inch white or yellow diamond shaped signs placed at reasonable intervals along the 200-foot. perimeter of cavity trees facing the outside of the buffer zone and along roads, trails, firebreaks, and other likely entry points into the buffer zone. The signs state “Endangered Species Site; Red-cockaded Woodpecker; Do Not Disturb; Restricted Activity” in 3/8-inch lettering.

TCB

- ***TCB Conservation.*** Following the guidelines found in *Northern Long-eared Bat and Tricolored Bat Voluntary Environmental Review Process for Development Projects.* Project Proponents are encouraged to use this step-by-step approach to streamline compliance with the ESA and associated implementing regulations. Proponent should coordinate with the Conservation Branch to conduct a TCB survey prior to construction. Presence of the TCB may result in construction delays.

10.0 APPENDIX B: ENVIRONMENTAL REQUIREMENTS

Environmental Requirements
Proposed Helicopter Landing Zone
Mill Creek Training Area
Joint Readiness Training Center and Fort Johnson

Resource(s)	Environmental Requirements
Soils	□ Utilize Best Management Practices (i.e., silt fences, hay bales, etc.) to defuse and control water flow thereby inhibiting sheet and gully erosion.
Water Resources: Surface Water Quality, Streams, Wetlands, and Other Surface Water Resources	□ Present a wetland delineation and/or permit application to the United States Army Corps of Engineers – New Orleans District and comply with any mitigation requirements the district requires. □ Develop and approve a Stormwater Pollution Prevention Plan prior to construction.
Biological Resources: Forest Conditions, Native Plant Species and Communities, Nonnative and Invasive Plant Species	□ Reseed with a critical area treatment and allow native seed to revegetate if they can establish and hold the soil in place. □ Fort Johnson, Conservation Branch Botanist will re-survey for rare plant species if a rare species was noted in selected Alternative.
Biological Resources: Wildlife	□ Migratory Birds: Disturbance during the breeding/nesting season (March-July) requires a pre-construction survey from Fort Johnson, Directorate of Public Works (DPW) – Environmental and Natural Resources Management Division (ENRMD) to locate active nests and establish buffers around the nest site until a wildlife biologist or certified pest management specialist determines the nest site is abandoned or the species is not protected under state or federal laws. ***Note below Tricolored Bat overlap with migratory bird breeding/nesting season***
Biological Resources: Threatened and Endangered Species, and Species of Concern	□ Fort Johnson, Conservation Branch Ecologist will complete a Biological Assessment and consult with the United States Fish and Wildlife Services for Federally listed species with the potential to occur in the action area as part of the NEPA process. □ Tricolored Bats (TCB): Fort Johnson, DPW – ENRMD must complete a TCB Survey at least two weeks prior to construction (i.e. logging operations). To prevent possible harm to TCB in the project area, tree clearing will not occur between 1 May and 15 July to prevent any loss of pups. Also, tree clearing will not occur when the air temperature is below 40 degrees Fahrenheit because the TCB is known to roost in trees below this temperature. ***Note above migratory bird breeding/nesting season overlap***

United States Department of the Interior

FISH AND WILDLIFE SERVICE
200 Dulles Drive
Lafayette, Louisiana 70506

August 7, 2024

Mr. Kenneth Moore
Ecologist
IMCOM-Readiness
DPW-ENRMD, CB
1697 23rd Street Building 2543
Fort Johnson, LA 71459

Dear Mr. Moore:

Please reference the Fort Johnson's May 16, 2024, *Biological Evaluation* (BE) for the Proposed Construction of a Helicopter Landing Zone in the Mill Creek Training Area that includes Four Alternatives on Fort Johnson, Louisiana in Vernon Parish, Louisiana. Fort Johnson requests our concurrence with their determination that the proposed project is not likely to adversely affect the endangered red-cockaded woodpecker (RCW, *Picoides borealis*), the threatened Louisiana pine snake (LPS, *Pituophis ruthveni*), and the proposed endangered tri-colored bat (TCB, *Perimyotis subflavus*). The Fish and Wildlife Service (Service) has reviewed all information provided and offers the following comments in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Proposed Action

The proposed action is to develop a Helicopter Landing Zone (HLZ) in the Mill Creek Training Area in support of aerial and ground operations that target Shughart Gordon. This location must meet helicopter safety and training reliability. It will be designed to accommodate the landing points of the CH-47s and UH-60s helicopters and provide relatively level ground. The HLZ is anticipated to be used less than 10 times a year and use will depend on the rotation training scenario. Troops will be transported to and/or from the HLZ by helicopters where they will exit the helicopters and attack the village of Shughart Gordon or conduct exfiltration from their mission. The helicopters will be at the HLZ for less than 10 minutes.

There are four alternatives considered in the BE for development of the proposed HLZ. Alternatives A1, A2, and B meet the purpose and need for the proposed action. These alternatives range in size from 40.80 to 45.58 contiguous acres, while Alternative 4 (No Action) would result in the continued use of Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex, which do not meet the purpose and need for the Proposed Action. Construction requirements would include removal of the trees, stumps, and any understory using mechanical methods. Any timber debris would then be piled and burned. Once cleared, soil will be stabilized to prevent erosion and reseeded with the appropriate seed mix.

Alternatives

Alternative A1

Alternative A1 consists of the actions described in the Proposed Action. It is in the Mill Creek 4 Training Area, east of Cryer Road and overlaying Maneuver Trail 13A and MT 13B. The project area is approximately 45.58 acres with terrain that provides increased drainage, thus allowing for firmer ground and is dominated by upland longleaf pine forest. While the slope of Alternative A1 is within tolerance, some ground leveling would be needed but there are not notable flight hazards. This is the preferred alternative site.

Alternative A2

Alternative A2 will consist of the actions described in the Proposed Action and is on the boarder of the Mill Creek 3 and 4 Training Areas, overlaying Cryer Road. The habitat is a mix of upland Longleaf and Loblolly pine forest. The project area is approximately 41.46 acres with a terrain that decreases drainage, thus resulting in softer, less desirable ground for aircraft landings. This alternative meets the slope requirements and has no notable flight hazards.

Alternative B

Alternative B will consist of the actions described in the Proposed Action. This alternative is in the Mill Creek 3 Training Area, overlaying Moss Hill Road and has a mix of hardwoods and Loblolly pine. The project area is approximately 36.07 acres and abuts Self Airfield, which is used for unmanned aircraft system (UAS) launch/recovery. The proposed aerial operations would conflict with UAS operations, resulting in limited flight path into/out of the proposed landing zone. The terrain of Alternative B varies in slope which is less ideal for aerial operations.

No Action Alternative

The No Action Alternative provides the baseline against which the potential effects of the Proposed Action and other alternatives are evaluated. Under this alternative, the Proposed Action would not be implemented, requiring the continued use of Self Airfield, Range 19, Animal Farm, and the Multi-Purpose Range Complex, which do not meet the purpose and need for the Proposed Action.

Effects Analysis

Red-cockaded Woodpecker

The majority of the active RCW cluster sites are found on the eastern portion of Fort Johnson where longleaf pine forests are found. The population currently has 60 potential breeding groups. From 2023 to 2024, potential breeding groups grew 13%, the highest growth recorded during the last 25 years. There are three active RCW cluster sites located within ½ mile of Alternative A1, cluster site 11A, 13E, and 13G. Cluster sites 11A and 13G are located within ½ mile of alternative A2. Alternative B is not located in RCW habitat or within ½ mile of an active cluster site. Cluster site 11A is located 429 meters from alternative A1 and 370 meters from alternative A2. The cluster site currently has 365 acres of foraging habitat. Cluster site 13G is located 534 meters from A1 and 424

meters from A2. The cluster site currently has 191 acres of foraging habitat. Cluster site 13E is located 500 meters from alternative A1 and currently has 247 acres of foraging habitat. Inactive cluster site 13I is located 633 meters from Alternative A2 and currently has 373 acres of foraging habitat.

Cluster 11A will lose 22 acres from alternative A1 and 18 acres from alternative A2. Cluster site 11E will lose 10 acres from A1 and 0 acres from A2. Cluster 13G will lose 11 acres from Alternative A1 and 17.3 acres from Alternative A2. Cluster site 13I will lose 0 acres from A1 and 6 acres from A2. Over 120 acres of suitable habitat will remain for each cluster site, regardless of chosen alternative.

There will be no fragmentation or isolation of any RCW cluster sites from Alternatives A1 and A2. All cluster sites will still be connected to continuous forest allowing dispersal of young and adult RCWs. The RCW HMU currently has an excess of 9,881 acres after meeting its population target. The nearest cluster site to a proposed alternative is 424 meters with short term helicopter noise, therefore, the increased noise and military activity should not affect significantly disturb the surrounding RCWs. RCWs in the proposed project area are accustomed to military activity including vehicles, foot patrols and firing blanks. The proposed HLZ is not expected to be used more than once a month and will likely not be used during months when rotational training is not scheduled for that month. Helicopters will only be at the HLZ for less than 10 minutes during each training event. Based on that information, the Service concurs with your determination that implementation of the proposed action is not likely to adversely affect the RCW.

Louisiana Pinesnake

On Fort Johnson, LPS are currently found in the northeast section of the installation, especially west of the Geronimo Drop Zone. The Fort Johnson-Vernon population of LPS is known from trap captures as part of an extensive, ongoing effort to monitor the species of the property. Through LPS trapping efforts and hand captures, 39 LPS have been captured on Fort Johnson Army-owned lands. From 2002 to 2006, snake traps were set within the project footprints. One snake trap was set 141 meters from alternative A1 and one was set within alternative A2 with no LPS caught during the trapping period. No LPS have been captured or observed on roads in the project area. The project area is also outside the Estimated Occupied Habitat Area (EOHA). Alternatives A1, A2, and B are partly located on LPS HMU. Only woody vegetation will be removed from the HMU, therefore the proposed project will not remove any LPS HMU. Based on past trapping efforts it is unlikely that a LPS will be encountered during the construction of this project. There are no documented sightings in the project areas with the nearest recorded LPS sighting 1.2 miles east of the project area in 1996.

Before clearing the vegetation, a gopher survey will be conducted on the proposed project site. Any gopher mound complex found will be marked with pink flagging and all efforts will be made to avoid digging more than six inches in the gopher mound complexes. Based on this information, the Service concurs with your determination that the project activities are not likely to adversely affect the LPS.

Tri-colored Bat

Fort Johnson conducts bat roost monitoring, acoustic monitoring, and DNA analysis of guano to determine species occurrence and abundance. TCBs were observed in low numbers roosting under

one bridge during monitoring conducted in 2020 and 2021. The bridge is not located near the project area. Acoustic monitors recorded TCBs within a mile of the project area in 2023. During the spring of 2024, acoustic monitors were placed in all three action alternative sites and TCBs were recorded at all sites Based on bat monitoring results, the TCB is a common resident of Fort Johnson.

While there could be a possibility that a bat could be disturbed when trees are cleared for the proposed project, tree clearing will not occur between May 1 and July 15 or when the air temperature is below 40°F. The surrounding project area currently has over 70% forest cover. The proposed HLZ will normally not be used more than once a month for less than 10 minutes during each training event and will likely not be used during months when rotations training is not scheduled for that month. Based on this information, the Service concurs with your determination that the project will not adversely affect the TCB.

We appreciate the opportunity to review the proposed action and to work with the USFS to conserve listed species and their habitats. If you have any questions regarding this letter, please contact Ms. Amy Trahan (337-291-3126) of this office.

Sincerely,

Deputy Field Supervisor

For Brigette D. Firmin
Field Supervisor
Louisiana Ecological Services Office

cc: Eric Baka, LDWF, Pineville, LA at ebaka@wlf.la.gov