FINAL

ENVIRONMENTAL ASSESSMENT

CONSTRUCTION AND OPERATION OF MULTIPURPOSE MACHINE GUN RANGE AND IMPLEMENTATION OF AERIAL DOOR GUNNERY MANEUVER LIVE FIRE EXERCISES

ROBINSON MANEUVER TRAINING CENTER PULASKI AND FAULKNER COUNTIES, ARKANSAS

Arkansas Army National Guard

Robinson Maneuver Training Center
North Little Rock, Arkansas 72199

January 2022

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ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the potential environmental, socioeconomic, and cultural effects of constructing and operating a Multipurpose Machine Gun (MPMG) Range and implementing aerial door gunnery maneuver live fire exercises at the Robinson Maneuver Training Center (RMTC) in Pulaski and Faulkner Counties, Arkansas. As required by the National Environmental Policy Act of 1969 (NEPA; 42 United States Code [USC] 4321 *et seq*.), the Council on Environmental Quality (CEQ) *Regulations Implementing the Procedural Provisions of NEPA* (40 Code of Federal Regulations [CFR] 1500-1508), and 32 CFR Part 651 (*Environmental Analysis of Army Actions, Final Rule*), the potential effects of the Proposed Action and its alternatives are analyzed. This EA will facilitate the decision process regarding the Proposed Action and its alternatives, and is organized as follows:

EXECUTIVE SUMMARY: Describes the Proposed Action; summarizes environmental, cultural, and socioeconomic consequences; and compares potential effects associated with the two considered alternatives.

SECTION 1 PURPOSE AND NEED FOR THE PROPOSED ACTION: Summarizes the purpose of and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.

SECTION 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES: Describes the Proposed Action and presents alternatives for implementing the Proposed Action.

SECTION 3 AFFECTED ENVIRONMENT: Describes the existing environmental, cultural, and socioeconomic setting of the Proposed Action area and the surrounding vicinity.

SECTION 4 ENVIRONMENTAL CONSEQUENCES: Identifies potential environmental, cultural, and socioeconomic effects of implementing the Proposed Action and alternatives, and identifies proposed mitigation measures.

SECTION 5 COMPARISON OF ALTERNATIVES AND CONCLUSIONS: Compares the environmental effects of the considered alternatives and summarizes the significance of effects of these alternatives.

SECTION 6 REFERENCES: Provides bibliographical information for cited sources.

SECTION 7 GLOSSARY: Defines terms used in the EA.

SECTION 8 LIST OF PREPARERS: Identifies document preparers and their areas of expertise.

SECTION 9 AGENCIES AND INDIVIDUALS CONSULTED: Lists agencies and individuals consulted during EA preparation.

APPENDICES:

Appendix A – Agency Coordination and Native American Consultation

Appendix B – US Army Public Health Command Operational Noise Consultation

Appendix C – Memorandum of Understanding between the US Department of Defense and the US Fish and Wildlife Service to Promote the Conservation of Migratory Birds

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- ✓ **Funding Source:** MILCON # 050186A
- ✓ **Proponent:** Arkansas Army National Guard
- ✓ **Fiscal Year (FY):** 2022

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ENVIRONMENTAL ASSESSMENT

SIGNATURE PAGE

LEAD AGENCY:	Army National Guard (ARNG)
COOPERATING AGENCIES:	None
TITLE OF PROPOSED ACTION:	Construction and Operation of Multipurpose Machine Gun (MPMG) Range and Implementation of Aerial Door Gunnery Maneuver Live Fire Exercises, Robinson Maneuver Training Center, Pulaski and Faulkner Counties, Arkansas
AFFECTED JURISDICTION:	Pulaski and Faulkner Counties, Arkansas
POINT OF CONTACT:	Mr. Douglas Ernst, Environmental Section Deputy Chief, Deputy Chief of Staff, Engineering, Building 1301, Camp J. T. Robinson, N. Little Rock, AR 72199-9600
PROPONENTS:	Arkansas Army National Guard (AR ARNG)

APPROVED BY:	REVIEWED BY:	REVIEWED BY:
_____	_____	_____
KENDALL W. PENN Major General, AR ARNG The Adjutant General	BRADLEY J. COX Construction and Facilities Management Officer Arkansas Army National Guard	DARRELL W. DANIELS Environmental Protections Specialist Arkansas Army National Guard

DOCUMENT DESIGNATION: Environmental Assessment

ABSTRACT: The AR ARNG proposes to construct and operate a Multipurpose Machine Gun (MPMG) Range and implement aerial door gunnery maneuver live fire exercises at Robinson Maneuver Training Center (RMTC) in Pulaski and Faulkner Counties, Arkansas. The purpose of the Proposed Action is to provide the requisite range and training facilities at RMTC for AR ARNG units and other Department of Defense (DoD) entities, to train and test units on the skills necessary to attain target training, weapons, and gunnery qualifications. The Proposed Action is needed to ensure AR ARNG provides complete range and training facilities for its units. Implementation of the Proposed Action would ensure useful, realistic training will continue to be conducted at the RMTC to support the AR ARNG's and other military users' assigned training missions.

This Environmental Assessment (EA) evaluates the effects of the Preferred Action Alternative (construction and operation of the proposed MPMG Range and implementation of aerial door gunnery maneuver training) and the No Action Alternative (maintain baseline conditions) with respect to the following resources: land use and cover; air quality; noise; topography, geology, and soils; water resources; biological resources; cultural resources; environmental justice; infrastructure; and hazardous and toxic materials and wastes (HTMW).

The evaluation performed in this EA concludes there would be no significant adverse environmental impact, to the local environment or quality of life associated with implementing the Proposed Action. As such, the EA recommends implementation of the Preferred Action Alternative.

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EXECUTIVE SUMMARY

This Environmental Assessment (EA) evaluates the proposal, hereafter referred to as the Proposed Action, by the Arkansas Army National Guard (AR ARNG) to construct and operate a United States (US) Department of the Army (DA) Multipurpose Machine Gun (MPMG) Range and implement aerial door gunnery maneuver live fire exercises at the approximately 33,000-acre Robinson Maneuver Training Center (RMTC) in Pulaski and Faulkner Counties, Arkansas. The Proposed Action would provide the requisite range and training facilities at RMTC to enhance military readiness, and would be utilized by units of the AR ARNG, neighboring states' National Guard members, and other active duty, reserve, or guard units.

This EA has been prepared under the provisions of and in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [USC] § 4321 et seq.), Council on Environmental Quality (CEQ) *Regulations Implementing the Procedural Provisions of NEPA* (40 Code of Federal Regulations [CFR] Parts 1500-1508), 32 CFR Part 651, and 2011 *ARNG NEPA Handbook, Guidance on Preparing Environmental Documentation for ARNG Actions in Compliance with the National Environmental Policy Act of 1969* (ARNG, 2011). This EA will facilitate the AR ARNG's decision-making process regarding the Proposed Action and its alternatives.

PROPOSED ACTION

The Proposed Action entails the construction and operation of a five-lane MPMG Range and implementation of aerial door gunnery maneuver live fire exercises at RMTC.

The proposed MPMG Range would include five 1,500-meter lanes for small arms training. Automated Sniper Field Fire Range Targetry would be superimposed on all five lanes in order to eliminate range complex deficits in accordance with the Army Range Requirements Model (ARRM). The MPMG Range would include two primary components: (1) the physical range footprint, consisting of the firing positions, targetry, support structures, and associated facilities; and (2) the Surface Danger Zone (SDZ), the area where projectiles fired on the range would land based on the types of weapons and ammunition used. Construction activities would require approximately 223 acres of ground disturbance to accommodate the permanent MPMG Range footprint and the associated small arms range operations and control area (SAROCA). The proposed MPMG Range footprint is undeveloped; however, a state-funded tree harvest for merchantable timber was completed on 6 October 2019 in this area. Construction of the MPMG Range would also include the addition of lighting, utility extensions, access and maintenance road development, and overflow parking.

Aerial door gunnery maneuver training would not include a physical range footprint as only temporary targets would be used; however, a Weapons Danger Zone (WDZ), which is similar to an SDZ, but for projectiles fired from aerial vehicles, would be established. No land disturbance or construction activities would be required for implementing aerial door gunnery maneuver training.

The SDZ and WDZ are mathematically-predicted areas where a projectile will impact upon return to earth, and have specific dimensions so all projectile fragments are contained in this area. SDZ is the terminology used for physical ranges, while WDZ is used for live-fire training activities from aerial vehicles. The SDZ and WDZ are one of the determining factors of range/training location and orientation as they must be contained within the controlled boundaries of a training site. The MPMG Range would require an approximately 6,906-acre SDZ, while aerial door gunnery maneuver training would require an approximately 2,924 acres WDZ. The SDZ and WDZ for the two actions partly overlap, resulting in a total of approximately 8,636 acres of combined danger zones. No land disturbance would be required to accommodate the SDZs or WDZs.

The Proposed Action would not change the AR ARNG or RMTC military missions, but would be used to further meet mission training objectives. The MPMG Range and aerial door gunnery maneuver training course would be available to all ARNG units, as well as other Department of Defense (DoD) and civilian users. Usage of the RMTC could increase by up to 18.6 percent after implementation of the Proposed Action.

PURPOSE AND NEED

The ***purpose*** of the Proposed Action is to provide the requisite range and training facilities at RMTC for AR ARNG units to train and test Soldiers on the skills necessary to attain target training, weapons, and gunnery qualifications. MPMG ranges and aerial door gunnery maneuver training are critical elements in the Army and National Guard training strategy. The Proposed Action would ensure the AR ARNG provides complete, sustainable, and viable training facilities for its units.

The Proposed Action is ***needed*** to: (1) address shortfalls in required training facilities and capabilities in the region, (2) ensure attainment and maintenance of a full readiness posture of its combat units, and (3) meet mission training requirements as set forth in the DA Pamphlets 350-38 and 385-63.

Currently, the AR ARNG can only conduct portions of the required training on-site at the RMTC, and must travel to Fort Chaffee Joint Maneuver Training Center (FCJMTC) to meet full training requirements. FCJMTC is located in the north-western portion of Arkansas, immediately adjacent to the Oklahoma border. As such, travel to this site for units throughout the state requires extensive travel, frequently exceeding 180 miles, which is established as the reasonable travel distance limit in TC 3-20.40, *Training and Qualification – Individual Weapons*. The need for travel to FCJMTC to meet training requirements causes loss of critical training resources, costs, and training time, in addition to violating TC 3-20.40. Conversely, RMTC is situated in the central region of the state, allowing for better access to units and shorter travel distances.

The Proposed Action is also needed to ensure useful, realistic training will continue to be conducted at RMTC to support the AR ARNG's and other military users' assigned training missions. While the Proposed Action is smaller than a standard-size MPMG Range, its implementation along with the use of the existing Range 19 would provide a full scope of MPMG Range training requirements for Soldiers.

AGENCY AND PUBLIC INVOLVEMENT

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding Federal Proposed Actions. CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, the AR ARNG notifies relevant Federal, state, and local agencies and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the EA. This coordination fulfills requirements under Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs* (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. It also constitutes the IICEP process for the EA.

Section 9 contains a list of the Federal, state, and local agencies and other entities consulted for this EA. Responses will be incorporated into the EA, as appropriate, and copies of relevant correspondence will be included in an appendix to the EA (**Appendix A**).

The AR ARNG, as the proponent of the Proposed Action, has published and distributed the final EA and draft Finding of No Significant Impact (FNSI) for a 30-day public review period, as announced by a Notice of Availability (NOA) published in the local newspaper, *Arkansas Democrat Gazette*. Review copies were made available at the William F. Laman Public Library - Main Branch, 2801 Orange Street, North Little Rock, Arkansas 72114 and online at https://arkansas.nationalguard.mil/Public-Affairs-Office/Press_Room. The AR ARNG Public Affairs Officer was responsible for reviewing notices for distribution within the local newspaper and is the primary contact for local news media inquiries. The AR ARNG's Environmental Office is responsible for receiving comments submitted during the 30-day public comment period. If it is determined that implementation of the Proposed Action would result in significant impacts, the AR ARNG will either not implement this action as proposed, or will publish a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the *Federal Register*. The public may obtain information on the status and progress of the EA through the AR ARNG Public Affairs Office at (501) 212-5098 throughout this process.

ALTERNATIVES

NEPA, CEQ regulations, and 32 CFR 651 require that all reasonable alternatives for the Proposed Action be explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified, along with a brief discussion of the reasons for eliminating them. For purposes of analysis, an alternative was considered reasonable only if it would enable to AR ARNG to accomplish the purpose of and need for the Proposed Action. Alternatives that would not enable to AR ARNG to meet the purpose of and need for the Proposed Action were dismissed from further analysis.

The AR ARNG considered the following alternatives: (1) use of other training site; (2) construct and operate a standard-size MPMG Range; and (3) use an alternate location of range footprints within RMTC. AR ARNG eliminated these alternatives from further consideration because they did not meet one or more of the screening criteria. For more detailed information on AR ARNG's screening criteria and on the alternatives eliminated from further consideration, refer to **Section 2.3**.

Once RMTC was identified as the only viable solution, the AR ARNG undertook a rigorous siting analysis to identify potential range locations that could achieve the purpose of and need for the Proposed Action, as well as best meet the alternative screening criteria. The AR ARNG identified a location within the north-central portion of the RMTC as best meeting the screening criteria to support the Proposed Action. This EA examines two alternatives in-depth, the Preferred Action Alternative, which would carry out the Proposed Action, and the No Action Alternative, which would not carry out the Proposed Action. These two alternatives are defined as follows:

- Preferred Action Alternative – Under this alternative, the AR ARNG would construct and operate the proposed MPMG Range and implement aerial door gunnery maneuver training at RMTC. This is the AR ARNG's Preferred Action Alternative because it best meets the needs of the AR ARNG and training requirements, as well as the site screening criteria.
- No Action Alternative – Under this alternative, the AR ARNG would continue with operations as currently conducted and would not implement the Proposed Action.

AFFECTED ENVIRONMENT

The approximately 33,000-acre RMTC is located in both Pulaski and Faulkner Counties, Arkansas. RMTC is used primarily for military training activities by the AR ARNG, DoD Reserve and Active components, and other federal, state, and civilian agencies, ranging from billeting and small arms ranges to light maneuver training. Land management practices such as forestry, range sustainment, flora and fauna protection, and

recreation also occur within RMTC. The permanent MPMG Range footprint consists of undeveloped land that was harvested for merchantable timber in October 2019. The temporary aerial door gunnery maneuver training footprint is also undeveloped, with the exception of the existing targets in the Mortar Artillery Impact Area. The Proposed Action area is currently used for field training exercises and recreational hunting. The region's air quality is currently in attainment for all National Ambient Air Quality Standards (NAAQS). Noise-generating activities at RMTC include small caliber weapons (.50 caliber and below), demolition and large caliber weapons (20mm and greater), and aviation activity. Live-fire of munitions is a frequent occurrence at RMTC.

Approximately 0.4 mile (or 2,355.7 linear feet) of streams, 0.1 acre of ponds, 0.1 acre of wetlands, and 12.8 acres of 100-year floodplains occur within the permanent MPMG Range footprint. Within the temporary footprint of the aerial door gunnery maneuver training area, 0.7 mile (3,722.3 linear feet) of streams and 2.5 acres of wetlands are present.

A total of four federally listed and 13 state-listed threatened and endangered (T&E) species occur in Pulaski and Faulkner Counties; however, none of these species are known to occur at RMTC.

ENVIRONMENTAL CONSEQUENCES

The Proposed Action was evaluated to determine its potential impact(s) on the physical, environmental, cultural, and socioeconomic aspects of the Proposed Action area as well as the surrounding vicinity. Technical areas evaluated include: land use and cover; air quality; noise; topography, geology, and soils; water resources; biological resources; cultural resources; recreation; environmental justice; infrastructure; and hazardous and toxic materials and waste (HTMW). The AR ARNG determined the Proposed Action would have no adverse impact on the following resources: geology and topography; groundwater; and socioeconomic conditions, including health and safety, and protection of children; therefore, these resources were dismissed from detailed analysis. The Preferred Action Alternative and No Action Alternative would result in the impacts identified throughout **Section 4** and summarized in **Table ES-1.**

Table ES-1-1: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Land Use and Cover	***Long-term, minor adverse impact*** to future land use from a decrease in the utility and use of training land at RMTC.	***Long-term, less-than-significant adverse impact*** on land cover from the conversion of unimproved to semi-improved grounds, and recreation from the reduction in public hunting availability; ***long-term beneficial impact*** on land use from maximized training value; ***no effect*** on aesthetics and visual resources.
Air Quality	No impact.	***Short-term, less-than-significant adverse impact*** on air quality and climate change from construction-related air emissions; ***long-term, beneficial impact*** on air quality and climate change from reduced vehicular emissions.
Noise	No impact.	***Short-term, less-than-significant adverse* impact** from construction noise; ***long-term, less-than-significant adverse impact*** from Zone II noise levels extending off-post.
Soils	No impact.	***Short-term, less-than-significant adverse impact*** from soil erosion and sedimentation during construction; ***long-term, less-than-significant adverse*** impact on soil erosion from increased impervious surfaces and training vehicle/equipment usage.
Water Resources	No impact.	***Short-term, less-than-significant adverse impact*** on surface water from inadvertent releases during construction; ***short-term, less-than-significant adverse impact*** on surface water quality from increased erosion and sedimentation; ***long-term, less-than-significant adverse impact*** on surface water quality from runoff during range operations; ***no impact*** on waters of the United States (WOUS) and floodplains from construction and operation of the MPMG Range as these resources would be avoided.

Table ES-1-1: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Biological Resources	No impact.	***Short- and long-term, less-than-significant adverse impact*** on vegetation communities from land conversion; ***short- and long-term, less-than-significant adverse impact*** on wildlife species, including migratory birds, from habitat loss and displacement; ***no effect*** on T&E species.
Cultural Resources	No impact.	***No effect*** on historic properties, as no eligible or unevaluated historic structures or archaeological sites have been identified within the construction footprint.
Environmental Justice	No impact.	***No adverse effect*** as the environmental justice community of concern would not be disproportionately impacted; ***potential short-term, beneficial impact*** on environmental justice from an increase in temporary employment.
Infrastructure	No impact.	***Short-term, less-than-significant adverse impact*** on utility service from line extensions and construction activities; ***short- and long-term, less-than-significant adverse impact*** on traffic and congestion from construction activities and increased facility usage.
Hazardous and Toxic Materials and Wastes	No impact.	***Short- and long-term, less-than-significant adverse impact*** from use, storage, and generation of HTMW during construction activities and range operations.

BEST MANAGEMENT PRACTICES

Per established protocols, procedures, and requirements, the AR ARNG would implement BMPs and satisfy all applicable regulatory requirements in association with the Proposed Action. BMPs are practices regularly implemented by the AR ARNG and are included as components of the Preferred Action Alternative, as appropriate. BMPs are different from "mitigation measures," which are defined as project-specific requirements (not routinely implemented by the AR ARNG) necessary to reduce potentially significant adverse environmental impacts to less-than-significant levels. Under the Preferred Action Alternative, no significant impacts would be anticipated; therefore, no mitigation measures are required to reduce potentially significant adverse impacts.

Summary of Best Management Practices

Land Use and Cover. The AR ARNG would minimize ground disturbance to the extent practicable to minimize land disturbance while still providing adequate space to conduct the required training activities.

Air Quality. The AR ARNG would ensure dust control associated with construction of the proposed MPMG Range is conducted in accordance with the Arkansas Division of Environmental Quality (ADEQ) – Office of Air Quality guidelines. Available methods include application of water, soil stabilizers, or vegetation; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-movement activities during high wind conditions. To minimize dust generated by vehicles and equipment on unpaved surfaces, the AR ARNG would maintain an appropriate speed. Equipment would be shut down when it is not in use. Construction equipment would be repaired and serviced in accordance with the regular maintenance schedule recommended for each individual equipment type, and cleaned of excess soil before leaving the construction zone to prevent off-site transport. These dust-reducing measures will be briefed to the construction contractor responsible for implementing these activities. The AR ARNG's on-site construction manager would be responsible for bringing air quality issues, if they arise, to the AR ARNG for resolution.

Noise. The following standard BMPs would be implemented by the AR ARNG, as appropriate, to limit noise impacts during construction: (1) Stationary equipment and material transportation routes would be located as far away from sensitive receivers as practicable; (2) Equipment would be operated per manufacturer's recommendations, and noise-generating heavy equipment would be shut down when not needed; and, (3) Construction personnel would be directed to operate equipment in the quietest manner practicable (e.g., speed restrictions, retarder brake restrictions, engine speed restrictions, etc.). These noise-reducing measures would be briefed to the contractor or Soldiers responsible for implementing these activities. The AR ARNG's on-site construction manager would be responsible to bring noise issues, if they arise, to the AR ARNG for resolution. This information would be incorporated into construction contracts. During range operations, training activities would occur in accordance with the AR ARNG Statewide Operational Noise Management Plan (SONMP). Currently, the AR ARNG Public Affairs Office (PAO) issues noise alerts to the local media when noise levels would exceed small arms firing levels. The AR ARNG would continue to provide public notification of upcoming training events and continue to implement its current noise complaint protocol. Additional noise testing would be performed by the US Army Public Health Center once the MPMG Range is constructed and full training conditions are implemented in order to determine additional minimization measures, if necessary.

Soils. The AR ARNG would prepare a detailed, site-specific Erosion and Sediment (E&S) Control Plan to address all earth-disturbance aspects of the Proposed Action. The E&S Control Plan would include standard BMPs, such as specific guidelines and engineering controls to address anticipated erosion and resultant sedimentation impacts from establishing and operating the proposed MPMG Range. The AR

ARNG would implement the following measures: install and monitor erosion-prevention measures such as silt fences and water breaks, sedimentation basins, filter fences, sediment berms, interceptor ditches, straw bales, rip-rap, and/or other sediment control structures; re-spread stockpiled topsoil; and seed/revegetate areas temporarily cleared of vegetation with native vegetation.

Water Resources. Project activities that result in soil disturbance (e.g., clearing, grading, or excavating) of 1 acre or more require a National Pollution Discharge Elimination System (NPDES) permit from ADEQ. Long-term surface water protection during training operations would be accomplished by implementing stormwater BMPs, maintaining vegetative cover, and implementing the RMTC Spill Prevention Control and Countermeasure Plan (SPCCP).

Biological Resources. The AR ARNG would limit ground disturbing activities during the establishment of the proposed MPMG Range to the extent feasible. Native plant species would be used when revegetating. Long-term land management and training operations would be conducted in accordance with the 2013 RMTC Integrated Natural Resource Management Plan (INRMP). To minimize potential impacts associated with vegetation removal, land clearing, and maintenance activities would be scheduled to occur, to the extent feasible, outside the migratory bird breeding season or late in the breeding season. Further, SAROCA facilities and power lines would be designed in a manner to incorporate bird protection measures to the extent feasible, such as bird-window collision deterrence options and bird electrocution prevention measures.

Cultural Resources. Should archaeological materials or human remains be inadvertently discovered during ground disturbing activities, all work would immediately cease, and the proper authorities would be contacted in accordance with the 2020 AR ARNG Integrated Cultural Resources Management Plan (ICRMP).

Infrastructure. The AR ARNG would minimize heavy construction vehicle and equipment movement during peak rush hour on the installation. Coordination with RMTC personnel would occur as needed. The AR ARNG would also obtain necessary approvals and permits for extension or installation of utility services.

HTMW. During construction and operation of the proposed MPMG Range and implementation of aerial door gunnery maneuver training, all HTMW that would be used or generated would be handled and disposed of in compliance with the RMTC SPCCP. In the event that unexploded ordnance or munitions or explosives of concern (UXO/MEC) is encountered during construction, an UXO/MEC expert would be contacted immediately for safe handling and removal.

CONCLUSIONS

The evaluation performed within this EA concludes there would be no significant adverse impact to the natural or social environment as a result of implementing the Proposed Action. The BMPs specified in this EA would enable the AR ARNG to avoid or further minimize *less-than-significant* impacts on RMTC and the surrounding area to the extent practicable. Therefore, an EIS is unnecessary to support the implementation of the Proposed Action and a FNSI is appropriate. The Preferred Action Alternative was determined by the AR ARNG to provide the best combination of land and resources to sustain quality military training and to maintain and improve the units' readiness postures. The No Action Alternative would not fulfill the purpose of and need for the Proposed Action. It would limit the capability of the AR ARNG to carry out its assigned mission to provide adequate training facilities, and would jeopardize the proficiency and military readiness of the AR ARNG and other military entities that require MPMG Range and/or aerial door gunnery maneuver training. As such, this EA recommends implementation of the Preferred Action.

CONTENTS

TABLES

FIGURES

APPENDICES

ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
AASF	Army Aviation Support Facility
ADNL	A-weighted average day-night level
ADEQ	Arkansas Division of Environmental Quality
AGFC	Arkansas Game and Fish Commission
AHPP	Arkansas Historic Preservation Program
AMSL	above mean sea level
ANHC	Arkansas Natural Heritage Commission
APE	Area of Potential Effect
AR	Army Regulation
AR ARNG	Arkansas Army National Guard
ARNG	Army National Guard
ARRM	Army Range Requirements Model
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
CAA	Clean Air Act
CDNL	C-weighted average day-night level
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
CRSUA	Camp Robinson Special Use Area
CRWMA	Camp Robinson Wildlife Management Area
CRWMP	Camp Robinson Wildlife Management Program
CWA	Clean Water Act
DA	Department of the Army
dB	decibel
dBA	A-scale decibel
dBC	C-scale decibel
DNL	average day-night level
DoD	Department of Defense
DoDI	Department of Defense Instruction
E&S	Erosion and Sedimentation
EA	Environmental Assessment
ECOP	Environmental Condition of Property
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FCJMTC	Fort Chaffee Joint Maneuver Training Center
FNSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FY	Fiscal Year
GHG	Greenhouse Gas
HTMW	Hazardous and Toxic Materials and Waste
ICRMP	Integrated Cultural Resources Management Plan
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
INRMP	Integrated Natural Resources Management Plan
IPaC	Information, Planning, and Consultation system
LUPZ	Land Use Planning Zone
MAT	Moving Armor Targets
MBTA	Migratory Bird Treaty Act
MEC	munitions and explosives of concern
MFR	Memorandum for Record
MILCON	Military Construction
MIT	Moving Infantry Target

MOU	Memorandum of Understanding
MPMG	Multipurpose Machine Gun Range
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act of 1969
NGB	National Guard Bureau
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
PAO	Public Affairs Office
PM	particulate matter
$PM_{2.5}$	PM with aerodynamic size less than or equal to 2.5 micrometers
PM_{10}	PM with aerodynamic size less than or equal to 10 micrometers
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
RCMP	Range Complex Master Plan
RMTC	Robinson Maneuver Training Center
SAROCA	Small Arms Range Operations and Control Area
SDZ	Surface Danger Zone
SF	square foot
SHPO	State Historic Preservation Office
SAT	Stationary Armor Targets
SIT	Stationary Infantry Targets
SOCC	Species of Conservation Concern
SONMP	Statewide Operational Noise Management Plan
SPCCP	Spill Prevention Control and Countermeasure Plan
SWPPP	Storm Water Pollution Prevention Plan
T&E	threatened and endangered
TC	Training Circular
UFC	Unified Facilities Criteria
US	United States
USACE	United States Army Corps of Engineers
USAPHC	United States Army Public Health Center
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UXO	unexploded ordinance
VOC	Volatile Organic Compound
WDZ	Weapons Danger Zone
WOUS	Waters of the United States
WMA	Wildlife Management Area

SECTION 1: Purpose of and Need for the Proposed Action

1.1 Introduction

This Environmental Assessment (EA) evaluates the proposal, hereafter referred to as the Proposed Action, by the Arkansas Army National Guard (AR ARNG) to construct and operate a United States (US) Department of the Army (DA) Multipurpose Machine Gun (MPMG) Range and implement aerial door gunnery maneuver live fire exercises at the approximately 33,000-acre Robinson Maneuver Training Center (RMTC) in Pulaski and Faulkner Counties, Arkansas (see **Figures 1-1** and **1-2**). RMTC is used primarily for military training activities by the AR ARNG, Department of Defense (DoD) Reserve and Active components, and other Federal, state, and civilian agencies, ranging from billeting and small arms ranges to light maneuver training. Infantry training by the AR ARNG is the dominant activity.

The Proposed Action is intended to meet current range requirements set forth in Training Circular (TC) 25-8, *Training Ranges* (DA, 2016) and facilitate aerial door gunnery qualification and continuation training in accordance with DA Pamphlet (PAM) 385-63, *Range Safety*, Chapter 17, *Live-Fire Exercises* (DA, 2014). The MPMG Range is intended to provide a new range in order to train and test Soldiers on the skills necessary to zero, detect, identify, engage, and defeat stationary and moving infantry targets and stationary armor targets in a tactical array in accordance with DA PAM 350-38, *Standards in Weapons Training* (DA, 2020). The MPMG Range and aerial door gunnery maneuver training would support the AR ARNG's goal to become a premier training center to support assigned training missions, in accordance with the *RMTC Executive Level Master Plan* (AR ARNG, 2018a).

Under its Federal mission, the Adjutant General of the AR ARNG has the responsibility to provide properly trained and equipped units for prompt mobilization for war, national emergency, or as otherwise needed. As Commander-in-Chief of AR ARNG, the Governor of Arkansas may call upon the AR ARNG to provide trained and disciplined forces for domestic emergencies or as otherwise provided by state law when necessary in the protection of life and property, and in the preservation of peace, order, and the public safety. Adequate military training and administrative facilities are necessary to meet these responsibilities.

The MPMG Range and aerial door gunnery maneuver training are proposed to meet these responsibilities by providing training areas to enhance military readiness and prepare Soldiers and units for combat operations.

This EA has been prepared under the provisions of and in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [USC] § 4321 et seq.), Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), 32 CFR Part 651, and 2011 Army National Guard (ARNG) NEPA Handbook, *Guidance on Preparing Environmental Documentation for ARNG Actions in Compliance with the National Environmental Policy Act of 1969* (ARNG, 2011). This EA will facilitate the decision-making process regarding the Proposed Action and its alternatives considered by the AR ARNG.

Figure 1-1: Project Location

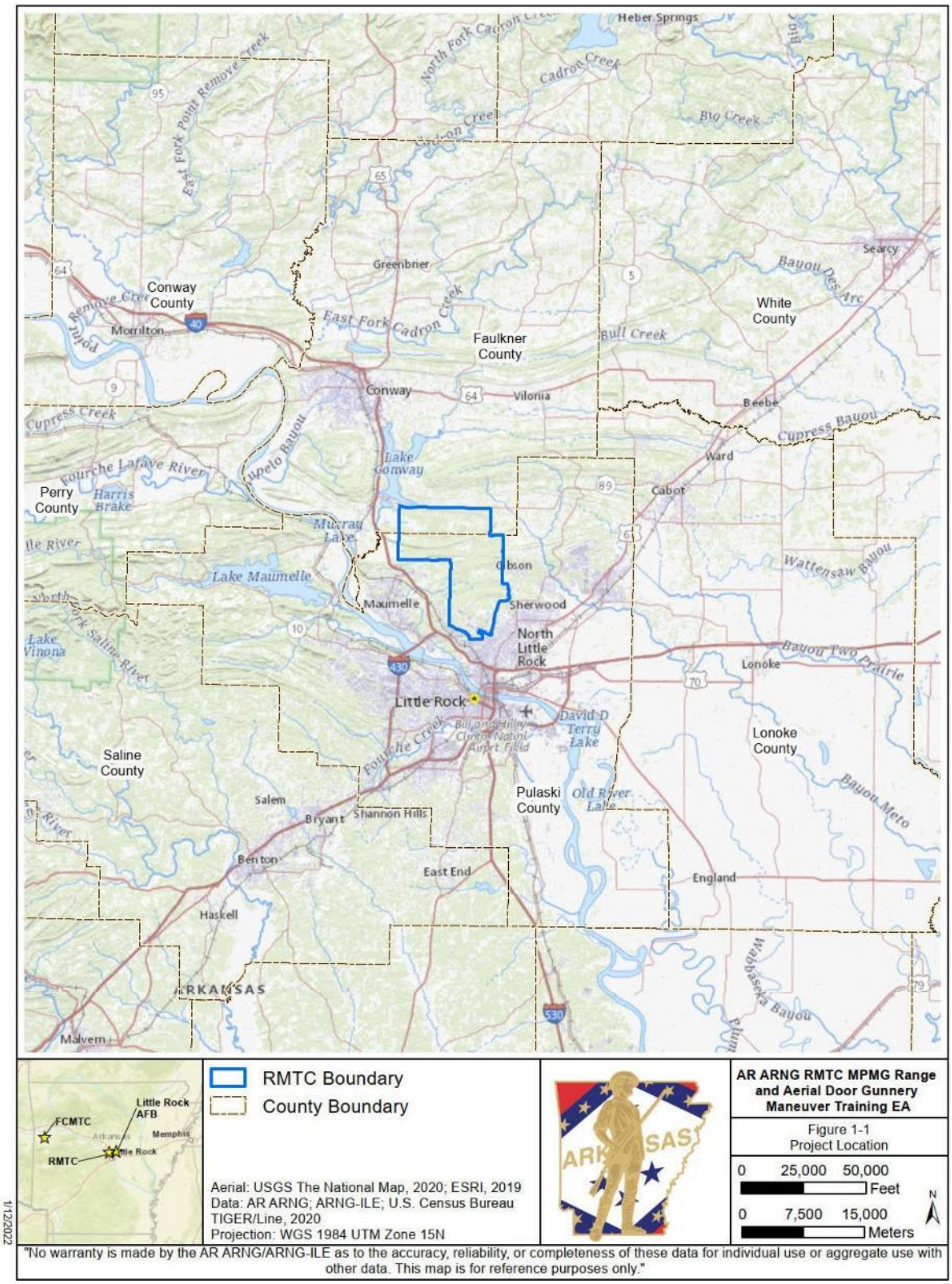
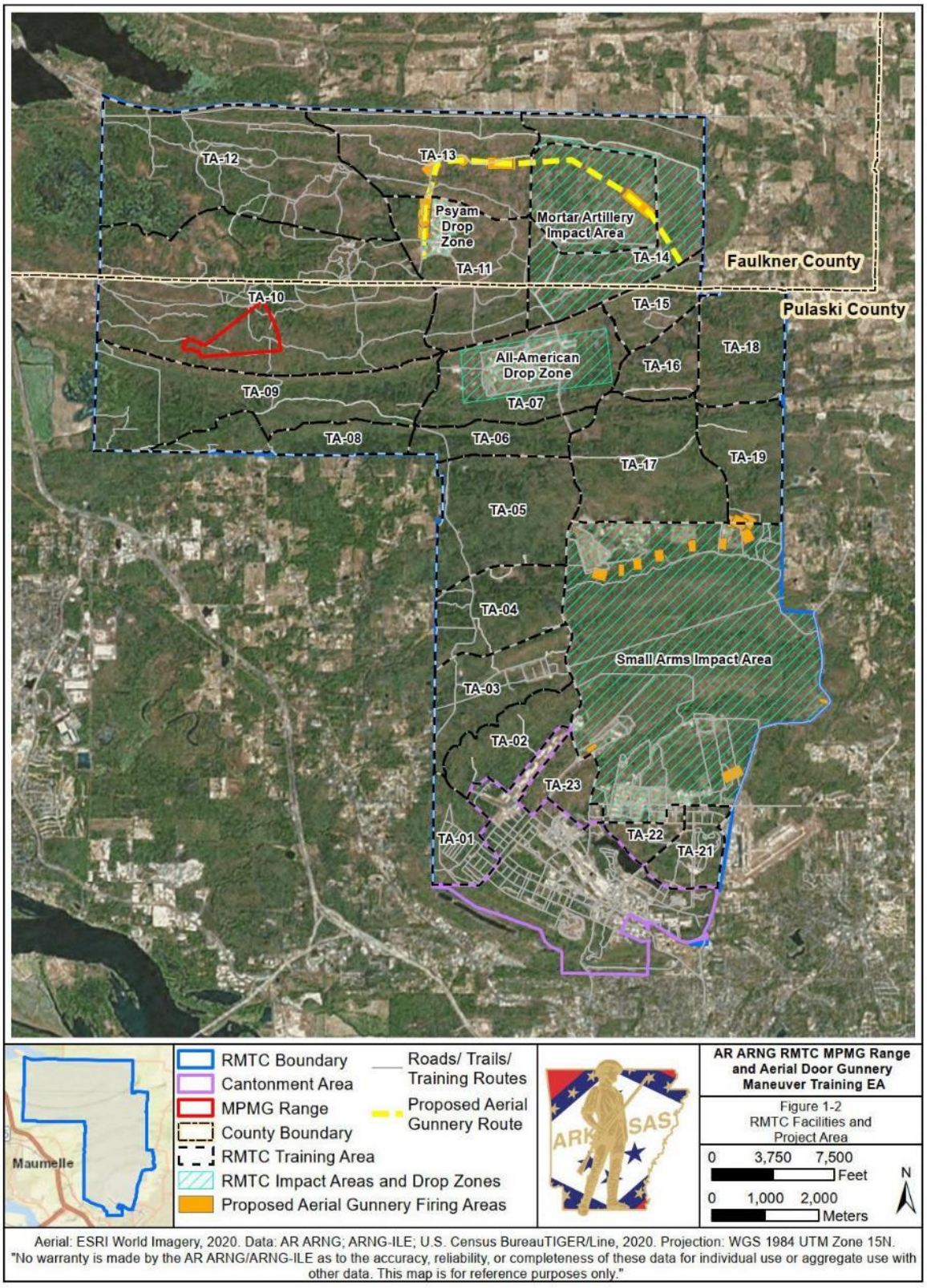


Figure 1-2: RMTC Facilities and Project Area



1.2 Purpose and Need

The ***purpose*** of the Proposed Action is to provide the requisite range and training facilities at RMTC for AR ARNG units to train and test Soldiers on the skills necessary to attain target training, weapons, and gunnery qualifications. MPMG ranges and aerial door gunnery maneuver training are critical elements in the Army and National Guard training strategy. The Proposed Action would ensure the AR ARNG provides complete, sustainable, and viable training facilities for its units.

The Proposed Action is ***needed*** to: (1) address shortfalls in required training facilities and capabilities in the region, (2) ensure attainment and maintenance of a full readiness posture of its combat units, and (3) meet mission training requirements as set forth in DA PAM 350-38 and DA PAM 385-63.

An MPMG Range is required to train and test individuals, teams, sections, and squads on the skills necessary to conduct individual and collective tasks as outlined in DA PAM 350-38. Aerial door gunnery maneuver training is required to facilitate door gunnery qualification and continuation training in accordance with DA PAM 385-63. Current facilities available at RMTC do not provide sufficient training opportunities for Soldiers. An existing five-lane 800-meter range (Range 19) allows for training qualification for 7.62 millimeter (mm) ammunition and below, but does not have the capacity for larger weaponry/ammunition that would allow Soldiers to meet complete mission training requirements. As a result, currently all AR ARNG units must travel to Fort Chaffee Joint Maneuver Training Center (FCJMTC), including units already situated at RMTC (e.g., Marksmanship Training Unit and Regional Training Institute), to conduct MPMG and aerial door gunnery maneuver training (see **Figure 1-1**). FCJMTC is located in the north-western portion of Arkansas immediately adjacent to the Oklahoma border. As such, travel to this site for units throughout the state requires extensive travel, frequently exceeding 180 miles which is established as the reasonable travel distance limit in TC 3-20.40, *Training and Qualification – Individual Weapons*. The need for travel to FCJMTC to meet training requirements causes loss of critical training resources, costs, and training time, in addition to violating TC 3-20.40. Conversely, RMTC is situated in the central region of the state, allowing for better access to units and shorter travel distances. If the Project is not constructed, assigned units could not acquire and maintain the proficiency required for combat units. The required proficiency could only result from realistic training under simulated combat conditions, or continuing to travel to an alternative facility, which impacts valuable collective training time normally reserved for annual training and affects troop morale. Additionally, an MPMG Range and aerial door gunnery maneuver training at RMTC would allow assigned AR ARNG units to have schedule priority for training, as opposed to training at FCJMTC.

The Proposed Action is also needed to ensure useful, realistic training will continue to be conducted at RMTC to support the AR ARNG's and other military users' assigned training missions. While the Proposed Action is smaller than a standard-size MPMG Range, its implementation along with the use of the existing Range 19 would provide a full scope of MPMG Range training requirements for Soldiers. Implementation of the Proposed Action would support higher quality, mission-essential, and increased training activities at RMTC. Maintaining the status quo could result in military personnel deploying to world conflicts without adequate training.

1.3 Scope of the EA

The EA evaluates the potential physical, environmental, cultural, and socioeconomic effects of implementing the Proposed Action and reasonable alternatives to that scenario. The terms "effects" and

"impacts" are used interchangeably throughout the EA. A detailed description of the Proposed Action is provided in **Section 2.2**. The AR ARNG developed 13 screening criteria (described in **Section 2.3**) to determine potential sites that would meet the purpose of and need for the Proposed Action. After an examination of existing in-state AR ARNG and DoD installations, it became apparent to the AR ARNG that locating the proposed MPMG Range and conducting aerial door gunnery maneuver training at RMTC was the only suitable alternative (see **Section 2.3.2**). Alternatives were eliminated from further consideration if they did not meet one or more of the screening criteria (see **Section 2.3.1**). In accordance with NEPA and CEQ Regulations, this EA considers two alternatives for implementing the Proposed Action:

- Preferred Action Alternative – Implement the Proposed Action by constructing and operating a five-lane MPMG Range and conducting aerial door gunnery maneuver training at RMTC, as described in **Section 2.2**. The MPMG would train and test Soldiers on the skills necessary to zero, detect, identify, engage, and defeat stationary and moving infantry targets, along with stationary armor targets, in a tactical array to meet the military readiness objectives and qualification training requirements for various weapons systems in accordance with DA PAM 350-38. In addition, the Proposed Action would facilitate aerial door gunnery qualification and continuation training in accordance with DA PAM 385-63.
- No Action Alternative – Continue with operations as currently conducted and do not implement the Proposed Action.

Resource categories that are described in **Section 3** and evaluated in **Section 4** of the EA include: land use and cover; air quality; noise; topography, geology, soils; water resources, wetlands; biological resources, vegetation, wildlife, threatened and endangered (T&E) species; cultural resources; environmental justice; infrastructure, utilities, transportation; and hazardous or toxic materials and wastes (HTMW). This EA also considers the cumulative effects of other past, present, and reasonably foreseeable actions within the Proposed Action's region of influence (ROI). This ROI includes RMTC, its immediate vicinity, and Pulaski and Faulkner Counties. Meaningful effects beyond this ROI would not be anticipated, based on the nature and scope of the Proposed Action and its considered alternatives.

As specified under the NEPA and CEQ regulations (40 CFR 1500-1508), a monetary cost-benefit analysis would not be required as part of the EA. The Proposed Action and its alternatives have been developed based on military training needs and mission requirements. Therefore, no quantitative financial assessment would be performed as part of the EA. However, economic factors that result in socioeconomic impacts to RMTC and its surrounding ROI would be addressed in the EA, as required under NEPA.

1.4 Decision Making

As described in 32 CFR Part 651.5, the NEPA process provides the Army's planners and decision-makers with a meaningful, informed review of environmental considerations associated with the Proposed Action and its alternatives. The analysis set forth in the EA would allow the decision-makers to balance the protection of environmental resources while fulfilling the Army's essential roles, including national defense, and RMTC's mission to provide adequate training facilities in support of the military mission. AR ARNG environmental staff and military personnel were consulted and provided guidance on the development of this EA.

Per amendments to 10 USC 10501, described in DoD Directive 5105.77 (21 May 2008), the National Guard Bureau (NGB) is a joint activity of the DoD. NGB serves as a channel of communication and funding between the United States (US) Army and state National Guard organizations in the 54 US states and

territories. The ARNG is a Directorate within NGB. The ARNG's G9 is the ARNG Installation and Environment Directorate. It is the directorate that is responsible for environmental matters, including compliance with the NEPA. As ARNG is the Federal decision-maker concerning this Proposed Action and controls the Federal funds that would be used for its implementation, this is a Federal Proposed Action. The Federal decision-making on the part of the ARNG includes selecting an alternative to implement, and identifying the actions that the Government will commit to undertake to minimize environmental effects, as required under the NEPA, CEQ Regulations, and 32 CFR Part 651.

1.5 Public and Agency Involvement

The AR ARNG invites public participation in decision-making on new proposals through the NEPA process. Public participation with respect to decision-making on the Proposed Action is guided by 32 CFR Part 651, which is the Army's NEPA implementation regulation. Consideration of the views of and information provided by all interested persons and stakeholders promotes open communication and enables better decision-making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, including minority, low-income, disadvantaged, and Native American tribes, are encouraged to participate. A record of public involvement, agency coordination, and Native American consultation associated with this EA is provided in **Appendix A**. **Section 9** includes a complete list of agencies and individuals consulted in support of analyses conducted during preparation of the EA.

1.5.1 Public Review

The AR ARNG, as the proponent of the Proposed Action, has published and distributed the final EA and draft Finding of No Significant Impact (FNSI) for a 30-day public review period, as announced by a Notice of Availability (NOA) published in the local newspaper, *Arkansas Democrat Gazette*. Review copies were made available at the William F. Laman Public Library - Main Branch, 2801 Orange Street, North Little Rock, Arkansas 72114 and online at https://arkansas.nationalguard.mil/Public-Affairs-Office/Press_Room. The AR ARNG Public Affairs Officer is responsible for reviewing notices for distribution within the local newspaper and is the primary contact for local news media inquiries. The AR ARNG's Environmental Office is responsible for receiving comments submitted during the 30-day public comment period. If it is determined that implementation of the Proposed Action would result in significant impacts, the AR ARNG will either not implement this action as proposed, or will publish in the *Federal Register* a Notice of Intent to prepare an Environmental Impact Statement (EIS). The public may obtain information on the status and progress of the EA through the AR ARNG Public Affairs Office at (501) 212-5098 throughout this process.

1.5.2 Agency Coordination

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding Federal Proposed Actions. CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, the AR ARNG notified relevant Federal, state, and local agencies and invited them to consult. IICEP letters were mailed in April 2021, notifying relevant Federal, state, and local agencies of the Proposed Action and inviting their review and comment. Within 30-days of the scoping period, responses were received from nine agencies. On 28 September 2021, the Draft EA was mailed to relevant Federal, state, and local agencies to solicit comments prior to releasing the Final EA for public review. Responses were received from four agencies. Comments and concerns submitted by these agencies during the IICEP process have been incorporated into the analysis

of potential environmental impacts conducted as part of this EA. This coordination fulfills requirements under Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs* (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. It also constitutes the IICEP process for the EA.

Section 9 contains a list of the Federal, state, and local agencies and other entities consulted for this EA. Responses are incorporated into the EA, as appropriate, and copies of relevant correspondence are included in an appendix to the EA (**Appendix A**).

1.5.3 Native American Consultation/Coordination

The AR ARNG is consulting and coordinating with federally recognized Native American tribes as required under Department of Defense Instruction (DoDI) 4710.02, *DoD Interactions with Federally Recognized Tribes*, which implements the Annotated DoD American Indian and Alaska Native Policy (DoD, 2018); Army Regulation (AR) 200-1, *Environmental Protection and Enhancement* (DA, 2007); NEPA; the National Historic Preservation Act (NHPA); and the Native American Graves and Protection and Repatriation Act (NAGPRA). Tribes were invited to participate in the EA and NHPA Section 106 processes as Sovereign Nations per EO 13175, *Consultation and Coordination with Indian Tribal Governments* (2000).

Section 9 contains a list of the federally recognized Native American tribes with historical cultural affiliations with the RMTC area of Arkansas. This list is based on recent tribal consultations on the Integrated Cultural Resources Management Plan (ICRMP) (AR ARNG, 2020a). Correspondence was initiated via letters sent certified mail to these tribes on 21 April 2021. Responses were received from the Mississippi Band of Choctaw Indians, the Seminole Nation of Oklahoma, the Quapaw Nation, and the Osage Nation. On 28 September 2021 and 1 November 2021, the AR ARNG made additional attempts to contact the tribes. Responses were received from the Seminole Nation of Oklahoma and the Eastern Shawnee Tribe of Oklahoma. Responses received have been incorporated into this EA and are included in **Appendix A**. A Memorandum for Record (MFR) summarizing Section 106 consultation efforts by the AR ARNG is included in **Appendix A**.

1.6 Related NEPA, Environmental, and Other Documents and Processes

Other NEPA and early planning level documents and studies were reviewed and/or used to support the preparation of this EA, including the following:

- RMTC Integrated Natural Resources Management Plan (INRMP) (AR ARNG, 2018b)
- AR ARNG ICRMP (AR ARNG, 2020a)
- AR ARNG Statewide Operational Noise Management Plan (AR ARNG, 2012)
- AR ARNG Range Complex Master Plan (RCMP) for the State of Arkansas (AR ARNG, 2020b)
- RMTC Executive Level Master Plan (AR ARNG, 2018a)

1.7 Regulatory Framework

This EA has been prepared under the provisions of, and in accordance with NEPA, CEQ Regulations, and 32 CFR Part 651. In addition, the document has been prepared as prescribed in the 2011 *ARNG NEPA Handbook, Guidance on Preparing Environmental Documentation for Army National Guard Actions in Compliance with the National Environmental Policy Act of 1969* (ARNG, 2011). A summary of regulations relevant to resource areas will be included in the EA analysis, as appropriate.

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SECTION 2: Description of The Proposed Action and Alternatives

2.1 Introduction

Implementation of the Proposed Action would provide the requisite range and training facilities at RMTC for units of the AR ARNG, neighboring states' National Guard members, and other active duty, reserve, or guard units to meet training requirements set forth in DA PAM 350-38 and DA PAM 385-63. The following sections provide a detailed description of the Proposed Action and the alternatives considered to meet the purpose of and need for the Proposed Action. Development and evaluation of alternative sites and screening criteria used during alternative development are presented in **Section 2.3**. The proposed MPMG Range (Project Number 050186A) is a Fiscal Year (FY) 2022 Military Construction (MILCON) project.

2.2 Proposed Action

The Proposed Action entails the construction and operation of a five-lane MPMG Range and implementation of aerial door gunnery maneuver live fire exercises at RMTC. Construction of the MPMG Range is anticipated to begin in FY 2022 and to be operational in FY 2025. Aerial gunnery maneuver training is anticipated to begin at RMTC in FY 2022.

An Environmental Condition of Property (ECOP) investigation is required for all MILCON funded projects in accordance with AR 200-1 and the 2011 ARNG ECOP Handbook. ECOP investigations are required for MILCON actions to ensure protection of construction workers and personnel, and to ensure unforeseen cleanup costs and delays are avoided. ECOPs are typically valid for six months, but may be valid longer depending on site-specific issues and proposed activities. Under the Proposed Action, the AR ARNG would conduct an ECOP prior to implementing the MILCON-funded MPMG Range project.

2.2.1 MPMG Range Construction

The AR ARNG would construct the proposed MPMG Range in accordance with the applicable US Army Corps of Engineers (USACE) range design guidelines and TC 25-8 (DA, 2016; USACE, 2017). However, the proposed MPMG Range would be smaller than a standard-sized MPMG Range, which comprises 10 lanes, per TC 25-8.

Construction activities would require approximately 223 acres of ground disturbance to accommodate the permanent MPMG Range footprint and the associated small arms range operations and control area (SAROCA). The proposed MPMG Range footprint is currently undeveloped; however, all merchantable timber in the footprint was harvested on 6 October 2019[1]. Construction activities would also include the addition of lighting, utility extensions, access and maintenance road development, and overflow parking. The AR ARNG would integrate sustainable principles into the design, development, and construction of the Project in accordance with EO 13123 and other applicable laws.

2.2.1.1 MPMG Range Components

The proposed MPMG Range would include five 1,500-meter lanes for small arms training. Automated Sniper Field Fire Range Targetry would be superimposed on all five lanes in order to eliminate range complex deficits in accordance with the Army Range Requirements Model (ARRM). The MPMG Range would include two primary components: (1) the physical range footprint, consisting of the firing positions,

[1] Timber harvesting was conducted as part of a state initiative. No federal funding or approvals were associated with this action.

targetry, support structures, and associated facilities; and (2) the Surface Danger Zone (SDZ), the area where projectiles fired on the range would land based on the types of weapons and ammunition used (**Section 2.2.3.2**).

The proposed MPMG Range components are summarized in **Table 2-1**. The physical range footprint would consist of firing positions and lanes, targets, and support structures. Stationary Infantry Targets (SIT) would be emplaced at approximately 100-meter intervals from the firing position at 100, 200, 300, 400, 500, 600, 700, and 800 meters from the firing line. Moving Infantry Targets (MIT) would be emplaced between 100 and 600 meters. Double SIT Target Arms would be emplaced at 700 meters. Widened SIT emplacements, which contain two SITs, would be emplaced at 400, 500, 600, and 800 meters. Stationary Armor Targets (SAT) would be emplaced at 590, 680, 845, 915, 960, 1000, 1030, 1100, 1290, 1380, 1500, 1560, 1660, and 1775 meters. The nearest Moving Armor Targets (MAT) would be emplaced across multiple range bands starting from 1115 meters to 1290 meters to support moving targets in depth.

Table 2-1: Proposed Components – MPMG Range

Component	MPMG Range

Range Area	• Five lanes (Lanes 1, 2, 3, 4, 5)
	  • 1,500-meters long
	  • Width of 25 meters at the firing line (each lane)
	  • Width of 200 meters at 1,500 meters (each lane)

Total Targets	• Five lanes (Lanes 1, 2, 3, 4, 5)
	  • 46 Stationary Infantry Targets (SIT)
	  • 30 Moving Infantry Targets (MIT)
	  • 22 Stationary Armor Targets (SAT)
	  • 20 Widened Sit Emplacements (each contains two SITs)
	  • 25 Iron Maiden Targets (IM)
	  • 5 Double Target Arms (Not an additional SIT Device)

SAROCA	• Control Tower (657-square foot [SF]) • Range Operations and Storage Building (800 SF) • Ammunition Breakdown Building (185 SF) • Latrines (330 SF) • Bleacher Enclosure (726 SF) • Classroom Building (800 SF) • Covered Mess Shelter (800 SF) • Five (5) Vehicle Firing Position with integrated 2-Man Fighting Position
Other	• Overflow Parking (27,000 SF)

The Proposed MPMG Range would also include the construction of SAROCA facilities to support administrative and personnel functions. The type of facilities and their basic functions are summarized below.

- **Control Tower:** The 657-square foot (SF) control tower would provide space for personnel conducting training exercises and accommodate required electronics and communications equipment.
- **Range Operations and Storage Building:** The 800-SF operations and storage building would provide office space for range personnel and function as a storage area for range maintenance equipment, spare parts, tools, and supplies.
- **Ammunition Breakdown Building:** The 185-SF ammunition breakdown building would be used as an ammunition issue point for troops using the range. Troops would breakdown containerized small arms ammunition, load magazines, and issue for use in this building.
- **Latrines:** Approximately 330 SF of lavatory facilities would be constructed for troops and trainers using the MPMG.
- **Bleacher Enclosure:** The 726-SF bleacher enclosure area would provide protection to troops from the weather and extreme elements before and after training events. It would also act as a troop staging area, a place for observing training events, and an assembly area for personnel during lightning events.
- **Classroom Building:** The 800-SF classroom building would provide a location for the training unit to conduct pre- and post-training briefs and reviews of exercises. The classroom building would allow for 40 personnel including instructors at a time.
- **Covered Mess Shelter:** An 800-SF covered mess shelter would be constructed to provide an area for troop messing at the range site, including protection from the weather.
- **Fighting Positions:** Five fighting positions would be established on slightly elevated ground and designated with numbered markers. Fighting positions would encompass a combination of two-man and vehicle fighting positions in order to facilitate vehicle-mounted weapon firing.
- **Overflow Parking:** Parking space is not part of standard SAROCA; however, a 27,000-SF overflow parking space is needed to allow for adequate parking space at the installation. Personnel traveling to the range in privately owned vehicles are not allowed to park in the main range complex.

Facilities would be designed to a minimum life of 50 years and meet energy-efficient American Society of Heating, Refrigerating, and Air-conditioning Engineers 189.1 standards through improved building envelope and integrated building systems performance. Anti-terrorism/Force protection measures would be included in accordance with DoD minimum anti-terrorism standards (Unified Facilities Criteria [UFC] 4-010-01).

2.2.1.2 MPMG Range Utilities

Lighting requirements for the MPMG Range are prescribed in TC 25-8 and Army range design manuals. Red lenses or red lamps would be provided when required, in addition to standard lighting, to prevent interference with specialized equipment used during night training operations. Lighting for the various facilities could have both red and white lighting. White light is required for range set-up, emergencies, and clean-up. Red light is required during night training, so as not to impact Soldiers' night vision. Lighting would

be designed to minimize the potential for illuminating adjacent, non-range areas; and would be contained within the confines of the MPMG Range.

A standard design ground grid would be implemented to hardwire targetry on the MPMG Range per TC 25-8 requirements. Electrical power distribution would conform to the UFC 3-550-03FA.

No utilities occur on the site; however, water, electricity, and telecommunications would be extended to the MPMG Range from existing RMTC utility infrastructure.

2.2.1.3 MPMG Range Access and Maintenance Roads

Access to the MPMG Range would be provided by gravel roadways extending from the existing RMTC road network to minimize new impervious surfaces. Access roadways would be designed to support vehicles anticipated to use the range and would meet site-specific soil conditions. Maintenance roads would also be constructed of gravel, located around range perimeters to provide access to target emplacements for installation and maintenance operations. These roads would be designed to meet site-specific engineering requirements as part of the formal range design process following completion of the NEPA process. Existing internal roads that extend through the range fan would be gated off when the range is in use.

2.2.2 MPMG Range Operations

The MPMG Range is anticipated to be operational in FY 2025. The types of weaponry and ammunition proposed for use on the MPMG Range are listed in **Table 2-2**.

Table 2-2: Anticipated Weapons and Ammunition Usage

Weapon	Ammunition
Squad Automatic Weapon: M249	5.56 mm
Squad Automatic Weapon: NGSW	6.8 mm
Machine Guns: M60, M240B	7.62 mm
Machine Guns: M2, M3	0.50 caliber
Rifles: M24, M110,	7.62 mm
Rifles: XM2010	.300 Magnum
Rifles: MK22	338 Magnum
Grenade Launcher: MK19	40 mm TP

Under the Proposed Action, the SDZs for the MPMG Range would encompass 6,906 acres (see **Figure 2-1**). The SDZ is a mathematically-predicted area where a projectile will impact upon return to earth, either by direct fire or ricochet. The SDZ is the area extending from a firing point to a distance downrange based on the projectiles fired and weapon system used. It delineates that portion of the earth and the air above in which personnel and/or equipment may be endangered by ground weapons firing or demolition activities. The SDZ has specific dimensions for the expected caliber or the weapon being fired so that all projectile fragments are contained in this area. The standard dimensions for SDZs are found in DA PAM 385-63, *Range Safety* (DA, 2014). The SDZ for a range must be contained within the controlled boundaries of a training site for the range to be considered buildable and usable without a special waiver. When a firing range is active, no other training activities may take place within the SDZ of the active range. While the SDZ is not considered part of the range design, it is one of the determining factors of range location and

orientation. The AR ARNG proposes to configure the Proposed Action to allow common SDZs as much as possible without causing training conflicts (i.e., to allow all ranges to be used simultaneously, to the maximum extent possible).

The SDZs would be managed by the AR ARNG in accordance with DA PAM 385-63, which requires that all SDZs fall within lands controlled by the ARNG (DA, 2014). No land disturbance is proposed within the designated SDZ areas; therefore, no environmental impacts are expected to occur in the SDZs.

2.2.3 Aerial Door Gunnery Maneuver Training

Proposed aerial door gunnery maneuver training would occur approximately 1.5 miles from the MPMG Range (**Figure 2-1**) in accordance with DA PAM 385-63. Aerial door gunnery maneuver training would not include a physical range footprint as only temporary targets would be used for training activities. A Weapons Danger Zone (WDZ), which is similar to an SDZ, but for projectiles fired from aerial vehicles, would be designated based on the types of weapons and ammunition used (**Section 2.3.2.2**). Therefore, no land disturbance or construction activities would be required. Aerial door gunnery maneuver training is expected to commence in FY 2022.

2.2.3.1 Aerial Door Gunnery Maneuver Training Components

Aerial door gunnery maneuver training would occur along a 6,100-meter (3.79 miles) flight path and would include five firing areas. The AR ARNG would use targets currently within the Mortar Artillery Impact Area (e.g. old vehicle hulls, troop and vehicle silhouettes, and other equipment) and new temporary wooden or polymer targets placed in areas of the training course that are outside of the Mortar Artillery Impact Area (see **Figure 2-1**). **Table 2-3** summarizes the project components required for aerial door gunnery maneuver training.

Table 2-3: Proposed Components – Aerial Door Gunnery Maneuver Training

Component	Aerial Door Gunnery Maneuver Training

Training Course	• Five firing areas along a 6,100-meter route
	• Weapons Danger Zones (WDZ)
	  • Training Area (TA)-10: 26 Acres
	  • TA-11: 825 Acres
	  • TA-13: 622 Acres
	  • TA-14: 371 Acres

Total Targets	• Inside Impact Area (Dudded Training Area):
	  • Vehicle hulls
	  • Troop Silhouettes
	  • Vehicle Silhouettes
	• Outside of Impact Area (Non-Dudded Training Area):
	  • Troop Silhouettes
	  • Vehicle Silhouettes
	  • Mobile wooden or polymer targets

Table 2-3: Proposed Components – Aerial Door Gunnery Maneuver Training

Component	Aerial Door Gunnery Maneuver Training
SAROCA	• None

2.2.3.2 Aerial Door Gunnery Maneuver Training Operations

The types of weaponry and ammunition proposed for use for aerial door gunnery maneuver training are the same as those listed in **Table 2-2**, in addition to the M240H. Military helicopters that would be used during aerial door gunnery maneuver training include the UH 60 Black Hawk, UH-1Y Venom, CH-47 Chinook, MH-6 Little Bird, and the UH-72 Lakota.

Aerial door maneuver gunnery training would also require the designation of WDZs (see **Section 2.2.2** for more information on WDZs). Under the Proposed Action, the WDZs for aerial door gunnery maneuver training would encompass 2,924 acres. The WDZs would be managed by the AR ARNG in accordance with DA PAM 385-63, which requires that all WDZs fall within lands controlled by the ARNG (DA, 2014). No land disturbance is proposed within the designated WDZ areas; therefore, no environmental impacts are expected to occur in the WDZs.

The AR ARNG proposes to configure the MPMG Range and aerial door gunnery maneuver training to allow common WDZs as much as possible without causing training conflicts (i.e., to allow all ranges to be used simultaneously, to the maximum extent possible). The SDZs and WDZs for the two actions partly overlap, resulting in a total of approximately 8,636 acres of combined danger zones for the Proposed Action (see **Figure 2-1**). The proposed MPMG Range and aerial door gunnery maneuver training area WDZs overlay a portion of the Mortar Artillery Impact Area, Psyam Drop Zone, Range 29, and the Military Range 27 Demolition Area.

2.2.4 Military Training Operations and Usage at RMTC

2.2.4.1 Military Missions

The Proposed Action would not result in a change to the AR ARNG or RMTC military missions. However, it would allow for the AR ARNG to further meet its mission training objectives without traveling to facilities outside of the region. The AR ARNG has Federal and state missions. A brief description of these missions is provided below.

- **AR ARNG Mission:** The Federal mission is to maintain properly trained and equipped units, available for prompt mobilization for war, national emergency, or as otherwise needed. The ARNG is a partner with the Active Army and the Army Reserves in fulfilling the country's military needs. The AR ARNG state mission is to provide trained and disciplined forces for domestic emergencies or as otherwise provided by state law to ensure the protection of life and property and the preservation of public safety.
- **RMTC Mission:** RMTC provides personnel, training, and logistical and administrative support, and serves as a training base for improving individual Soldier skills, collective training, overall unit readiness, and other essential needs to valued customers.

2.2.4.2 RMTC Facility Usage

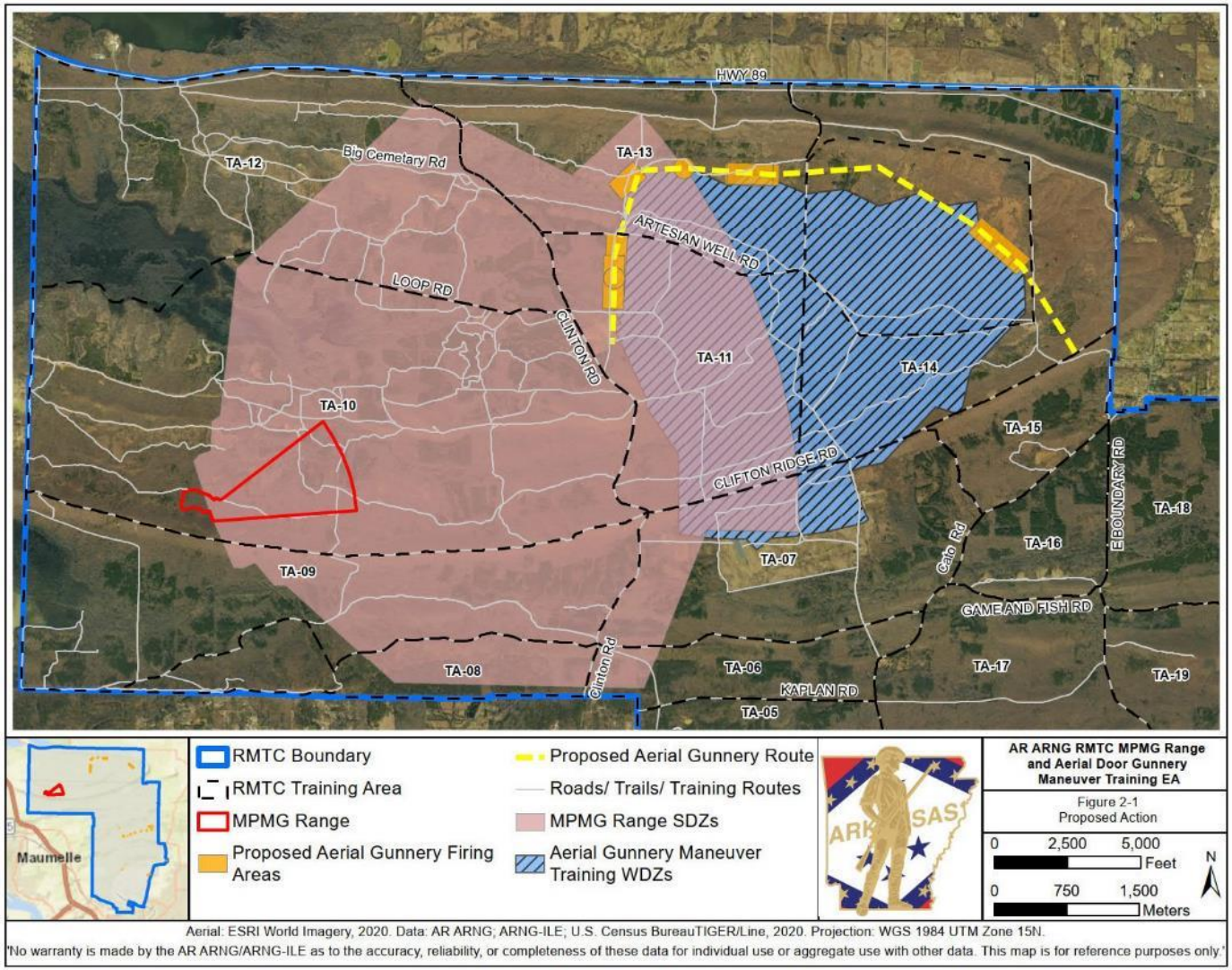
The MPMG Range and aerial door gunnery maneuver training course would be available to all ARNG units, and other DoD and civilian users as scheduling permits. A total of 428,616 man-days of training occurred

in FY 2019 at RMTC. Site usage was comprised of approximately 63 percent ARNG personnel, 17 percent other DoD personnel, and 20 percent non-DoD personnel. Usage in FY 2020 does not represent typical usage at RMTC and is not provided for comparison because of reduced activity and virtual drills conducted during the coronavirus COVID-19 pandemic.

Based on historical Range Facility Management Support System (RFMSS) data for RMTC and ARRM operational range training requirements deficits, it is anticipated that RMTC site usage could increase by up to 18.6 percent (or by up to 79,723 man-days) as a result of military personnel utilizing the MPMG Range. Peak usage would occur from April to August, during the main annual training cycle. Night training would occur approximately 2 to 3 days per week, from sundown to 2:00 AM, for a total of 150 days during the annual training cycle. Weapons qualification drills typically occur from March through October, but may occur at any time throughout the year.

Aerial door gunnery maneuver training would occur approximately 57 days of the year primarily during April to September and consist of day training and night training (1 to 2 days per week).

Figure 2-1. Preferred Action Alternative



2.3 Alternatives Considered

NEPA, CEQ regulations, and 32 CFR 651 require that all reasonable alternatives for the Proposed Action be explored and objectively evaluated. Alternatives that are eliminated from detailed study must be identified, along with a brief discussion of the reasons for eliminating them. For purposes of analysis, an alternative was considered reasonable only if it would enable the AR ARNG to accomplish the purpose of and need for the Proposed Action. "Unreasonable" alternatives would not enable the AR ARNG to meet the purpose of and need for the Proposed Action.

2.3.1 Alternatives Development (Screening Criteria)

Alternatives to meeting the purpose of and need for the Proposed Action were explored during project development. The AR ARNG developed and applied the following 13 criteria to screen and evaluate possible alternatives for the Proposed Action. The AR ARNG identified that a suitable site would meet the following requirements:

1. Be located within an existing AR ARNG-owned or -controlled facility to avoid land acquisition costs and/or schedule priority issues that arise on installations owned by other military service branches;
2. Avoid excessive travel times and costs for AR ARNG units by minimizing out-of-state travel;
3. Have a sufficient amount of land, preferably previously disturbed or cleared, to accommodate the range and support structures in accordance with TC 25-8;
4. Retain all range SDZs and WDZs within the installation's boundary on AR ARNG-owned or -controlled property per DA PAM 385-63 (DA, 2014);
5. Achieve a shared impact area with common SDZs and WDZs to the maximum extent possible;
6. Maximize concurrent operation, with a goal of concurrent training on all proposed ranges and training areas to maximize training use availability;
7. Be proximate to existing, related facilities within the installation, including the roadway network and buildings (i.e., logistical considerations);
8. Have reasonable access to necessary utility connections;
9. Be within areas with few existing known environmental constraints (i.e., notably wetlands and other waters, wooded areas, endangered or threatened species habitat, or cultural resources);
10. Be located at a site where new noise impacts or safety concerns to surrounding communities are minimized or avoided (e.g., residences);
11. Require minimal unexploded ordnance (UXO) clearance;
12. Ensure no net loss in the capacity of the AR ARNG or the installation to support the military mission and conduct training operations; and
13. Be compatible with other current and approved future land uses within the installation and the surrounding area, and the RMTC Executive Level Master Plan (AR ARNG, 2018a) and its goals and objectives.

Through application of the first two screening criteria and the evaluation process provided in **Section 2.3.3**, it became readily apparent to the AR ARNG that locating the MPMG Range and conducting aerial door gunnery maneuver training at RMTC was the only alternative capable of meeting these screening criteria.

Therefore, the subsequent screening criteria were used to identify proposed project siting within RMTC. Once RMTC was identified as the only viable solution, the AR ARNG undertook a rigorous siting analysis to identify potential range and training locations that could achieve the purpose of and need for the Proposed Action, as well as best meet the above screening criteria. **Table 2-4** provides a summary of the alternatives considered and their abilities to meet the screening criteria.

Table 2-4: Summary of Alternatives Considered

Screening Criteria (see Section 2.3.1)		Alternatives Considered and the Screening Criteria that would ***not*** be met				
		Preferred Action Alternative	**No Action Alternative**	**Use of Other Installation**	**Standard-Size MPMG Range**	**Alternate Location within RMTC**
		Section 2.3.2.1	**Section 2.3.2.2**	**Section 2.3.3.1**	**Section 2.3.3.2**	**Section 2.3.3.3**
1	Located within existing AR ARNG-owned or -controlled facility		✓	✓		
2	Avoid excessive travel times and costs for AR ARNG units		✓	✓		
3	Have sufficient amount of land to accommodate the required facilities				✓	
4	Retain SDZs and WDZs within the installation boundary				✓	✓
5	Achieve shared impact area with common SDZs and WDZs					✓
6	Maximize concurrent operations		✓	✓		✓
7	Proximate to existing, related facilities			✓		
8	Reasonable access to utility connections					
9	Have no or minimal environmental constraints				✓	✓

Table 2-4: Summary of Alternatives Considered

Screening Criteria (see Section 2.3.1)		Alternatives Considered and the Screening Criteria that would *not* be met				
		Preferred Action Alternative	No Action Alternative	Use of Other Installation	Standard-Size MPMG Range	Alternate Location within RMTC
		Section 2.3.2.1	Section 2.3.2.2	Section 2.3.3.1	Section 2.3.3.2	Section 2.3.3.3
10	Have no or minimal noise impacts to surrounding communities				✓	✓
11	Require minimal UXO clearance					
12	Ensure no loss in AR ARNG or RMTC capacity to support military mission		✓	✓		✓
13	Compatible with current and approved future land uses, and the RMTC Executive Level Master Plan			✓	✓	✓

2.3.2 Evaluated Alternatives

The EA will evaluate the potential environmental, cultural, socioeconomic, and physical effects of two alternatives to implementing the Proposed Action.

2.3.2.1 Preferred Action Alternative

Under the Preferred Action Alternative, the proposed five lane MPMG Range and aerial door gunnery maneuver training would be implemented as described in **Section 2.2**. The MPMG Range would comprise five 1,500-meter long lanes. The Preferred Action Alternative would be located within the northern portion of RMTC (see **Figure 2-1**). The proposed MPMG Range footprint is undeveloped, and all merchantable timber was harvested in 2019. SDZs and WDZs associated with the Proposed Action overlap a portion of the Mortar Artillery Impact Area, Psyam Drop Zone, Range 29, and the Military Range 27 Demolition Area.

This is the AR ARNG's Preferred Action Alternative because it best meets the screening criteria (**Section 2.3.1**) and effectively provides the best combination of land and resources to sustain quality military training and to maintain and improve readiness. This alternative provides many advantages including:

- Located within an existing AR ARNG facility, and therefore, no land acquisition costs would be required;
- Eliminates the need for AR ARNG units to travel unreasonable distances to meet mission and training requirements;
- Provides ample space/acreage to accommodate the range and associated facilities;
- Complies with range requirements per DA PAM 385-63, *Range Safety*;
- Located in an area with minimal safety concerns related to public access/property, airspace, or other installation training facilities;
- Compatible with current and future land uses, as well as the RMTC Executive Level Master Plan (AR ARNG, 2018a) and AR ARNG RCMP (AR ARNG, 2020b);
- Located in an area with minimal environmental concerns;
- Proximate to the roadway network, related facilities, and utility connections; and
- Places noise-producing operations further away from noise-sensitive areas within and adjacent to RMTC.

While the proposed MPMG Range is smaller than a standard-size MPMG Range, its implementation along with the use of the existing Range 19 would provide a full scope of MPMG training requirements for Soldiers on RMTC in accordance with the ARRM. No other configurations were identified that would better meet these criteria while achieving the purpose of and need for the Proposed Action. Components of the Preferred Action Alternative have been sited within the proposed MPMG Range to minimize and/or avoid potential impacts to known environmental resources. Under the Preferred Action Alternative, approximately 208 acres of land would be directly impacted by MPMG Range construction. MPMG Range support facilities and structures totaling approximately 15 acres for the SAROCA would also be constructed. The SDZs associated with the MPMG Range (6,906 acres) and the WDZ associated with the aerial door gunnery maneuver training (2,924 acres) would not be disturbed (see **Figure 2-1**).

2.3.2.2 No Action Alternative

While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative is carried forward to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required in CEQ Regulations (40 CFR Part 1502.14).The No Action Alternative reflects the status quo and serves as a benchmark against which the effects of the Proposed Action can be evaluated. With selection of the No Action Alternative, the Proposed Action would not be implemented and current operations at RMTC would continue. AR ARNG units in the region would continue to have to travel to FCJMTC to complete training and qualification requirements and maintain their units' readiness posture. Maintaining the status quo would result in impacts to troop morale, training, and efficient use of fiscal resources, and could potentially inhibit military personnel from receiving adequate training. Further, this alternative would limit the capability of the AR ARNG to carry out its assigned mission to provide adequate training facilities at RMTC.

2.3.3 Alternatives Eliminated from Further Discussion

The following alternatives were considered but dismissed from further analysis: (1) use a training site at another installation; (2) implement a standard-size MPMG Range; and, (3) construct the Proposed Action in different locations at RMTC. These alternatives did not meet one or more of the screening criteria

included in **Section 2.3.1**. **Table 2-3** provides a summary of the alternatives considered and their abilities to meet the screening criteria; rationales for dismissing these alternatives are summarized below.

2.3.3.1 Use of Other Installation

The AR ARNG considered utilizing a different installation, such as the Little Rock Air Force Base, to provide training facilities for AR ARNG units. AR ARNG units, however, would not have scheduling priority for training activities at US Air Force facilities, which would affect AR ARNG efficiency. Further, conducting training at an installation outside of RMTC would still incur travel costs and time. Use of other installations would affect RMTC's capacity to support the AR ARNG mission and would not comply with RMTC master plans. As sufficient land area is available at RMTC, the AR ARNG determined that establishment of a new training site at a different installation was neither feasible nor necessary. This alternative would not meet Screening Criteria #1, #2, #6, #7, #12, and #13, and was eliminated from further consideration.

2.3.3.2 Standard-Size MPMG Range

The standard-size MPMG Range per TC 25-8 comprises ten lanes, requiring more suitable land which is already a limited resource at RMTC. The standard-size range would require more ground disturbance which may result in substantial environmental impacts and increased noise impacts. In addition, the SDZs for a standard-sized range would not be entirely contained within the installation, resulting in a violation of AR 385-63 which requires all SDZs to remain within the installation boundary. This alternative does not meet Screening Criteria #3, #4, #9, #10, and #13, and was therefore dismissed from further evaluation.

2.3.3.3 Alternate Location of Range Footprints within RMTC

Siting the proposed MPMG Range and implementing aerial door gunnery maneuver training at alternate locations within RMTC was considered. Locations on the installation are limited, however, due to the size of the proposed MPMG Range and aerial door gunnery maneuver training course and their SDZs/WDZ. The SDZs and WDZs must stay within the RMTC boundary and the proposed configuration must be designed to minimize impacts to other ranges and training areas to the extent possible because no training can occur within the SDZs and/or WDZs when live-fire training is occurring. The Small Arms Impact Area was considered; however, it was too small to accommodate the MPMG Range. Conducting aerial door gunnery maneuver training in the Small Arms Impact Area would conflict with operation of a number of frequently used ranges. The MPMG Range and aerial door gunnery maneuver training course were also considered in an opposite configuration (east to west); however, this alternative was eliminated because of the proximity of the MPMG Range footprint and SAROCA to the Mortar Artillery Impact Area, in addition to the extent of grading required to construct this alternative. Therefore, an alternate location of the MPMG Range and aerial door gunnery maneuver training within RMTC would not meet Screening Criteria #4, #5, #6, #9, #10, #12, and #13 and was eliminated from further consideration.

2.4 Impacts Comparison Matrix for Proposed Alternatives

This EA evaluates the potential environmental, cultural, socioeconomic, and physical effects of two alternatives to implementing the proposed MPMG Range and aerial door gunnery maneuver training. A comparison of the environmental consequences of these alternatives is provided in **Table 2-5**.

Table 2-5: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Land Use and Cover	***Long-term, minor adverse impact*** to future land use from a decrease in the utility and use of training land at RMTC.	***Long-term, less-than-significant adverse impact*** on land cover from the conversion of unimproved to semi-improved grounds, and recreation from the reduction in public hunting availability; ***long-term beneficial impact*** on land use from maximized training value; ***no effect*** on aesthetics and visual resources.
Air Quality	No impact.	***Short-term, less-than-significant adverse impact*** on air quality and climate change from construction-related air emissions; ***long-term, beneficial impact*** on air quality and climate change from reduced vehicular emissions.
Noise	No impact.	***Short-term, less-than-significant adverse* impact** from construction noise; ***long-term, less-than-significant adverse impact*** from Zone II noise levels extending off-post.
Soils	No impact.	***Short-term, less-than-significant adverse impact*** from soil erosion and sedimentation during construction; ***long-term, less-than-significant adverse*** impact on soil erosion from increased impervious surfaces and training vehicle/equipment usage.
Water Resources	No impact.	***Short-term, less-than-significant adverse impact*** on surface water from inadvertent releases during construction; ***short-term, less-than-significant adverse impact*** on surface water quality from increased erosion and sedimentation; ***long-term, less-than-significant adverse impact*** on surface water quality from runoff during range operations; ***no impact*** on waters of the United States (WOUS) and floodplains from construction and operation of the MPMG Range as these resources would be avoided.
Biological Resources	No impact.	***Short- and long-term, less-than-significant adverse impact*** on vegetation communities from land conversion; ***short- and long-term, less-than-significant adverse impact*** on wildlife species, including migratory birds, from habitat loss and displacement; ***no effect*** on T&E species.

Table 2-5: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Cultural Resources	No impact.	***No effect*** on historic properties, as no eligible or unevaluated historic structures or archaeological sites have been identified within the construction footprint.
Environmental Justice	No impact.	***No adverse effect*** as the environmental justice community of concern would not be disproportionately impacted; ***potential short-term, beneficial impact*** on environmental justice from an increase in temporary employment.
Infrastructure	No impact.	***Short-term, less-than-significant adverse impact*** on utility service from line extensions and construction activities; ***short- and long-term, less-than-significant adverse impact*** on traffic and congestion from construction activities and increased facility usage.
Hazardous and Toxic Materials and Wastes	No impact.	***Short- and long-term, less-than-significant adverse impact*** from use, storage, and generation of HTMW during construction activities and range operations.

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SECTION 3: Affected Environment

This section specifically describes current baseline conditions within and in the vicinity of the proposed construction and operation of the Proposed Action, as appropriate, at RMTC in Pulaski and Faulkner Counties, Arkansas. **Section 4**, *Environmental Consequences*, identifies potential effects of the identified Project alternatives on each of the resource areas presented in this section. Regulatory framework for each of the technical areas is incorporated into this section. For purposes of this analysis, the SAROCA facilities are considered part of the proposed MPMG Range footprint.

3.1 Resources Eliminated from Further Analysis

Per 40 CFR Part 1501.7(a)(3), the CEQ recommends agencies identify and eliminate from detailed study any issues that are not significant or that have been covered in another environmental review, narrowing the discussion to a brief presentation of why they will not have a significant effect on the human environment, or providing a reference to their coverage elsewhere. The AR ARNG determined the Proposed Action would have no adverse impact on the following resources: geology and topography; groundwater; and socioeconomic conditions, including health and safety, and protection of children. The following sections discuss the reasons for eliminating these issues from further analysis in the EA.

3.1.1 Geology and Topography

RMTC is located in the Ouachita physiographic province, Fourche Mountains subdivision, which is distinguished by valley, hill, and ridge topography. RMTC topography is characterized by wooded, hilly terrain with ridges, stony slopes, and creek valleys at the foothills of the Ozark Mountains. The tallest elevation is approximately 590 feet above mean sea level (AMSL), and the lowest elevation is approximately 420 feet AMSL, resulting in a maximum topographic relief of approximately 170 feet (AR ARNG, 2012). Topographic conditions surrounding the Proposed Action area would not be altered for construction of the proposed MPMG Range and aerial door gunnery maneuver training; therefore, the Proposed Action would have no impact on topography.

The geology of the Fourche Mountains Level IV Ecoregion is characterized by quaternary colluvium and alluvium, folded and faulted Pennsylvanian sandstone and shale, as well as common occurrences of rock outcrops (USFS, 2015). Generally, Pulaski and Faulkner Counties occur in a low seismic hazard area and no active significant faults are known to extend through the subsurface geology at RMTC. Data from 2018 note the chance of potentially minor-damage ground shaking at less than 1 percent (USGS, 2018). No geologic hazards or active significant faults are known to occur within the MPMG Range's subsurface geology, nor the area in which aerial door gunnery maneuver training would take place. Further, there are no historic or active mines or mineral development activities at RMTC (The Diggings, 2021). In addition, Pulaski and Faulkner Counties have been designated by the United States Environmental Protection Agency (USEPA) as Zone 3, the lowest of three zones, for radon levels (USEPA, 2021a). Therefore, the Proposed Action would have no impact on local geology.

3.1.2 Groundwater

Groundwater comprises the subsurface hydrologic resources of the physical environment and is commonly used for potable water consumption, agricultural irrigation, and industrial applications. RMTC is underlain by the Ouachita Mountains aquifer. There are no major aquifers of economic or domestic importance underlying or adjoining RMTC. No active wells occur within the permanent MPMG Range footprint nor the temporary footprint required for aerial door gunnery maneuver training targets. Therefore, the Proposed Action would have no impact on groundwater resources. To minimize or avoid potential contamination from

HTMW, the AR ARNG would conduct all construction and operational activities in accordance with applicable local, state, and Federal regulations pertaining to hazardous waste management.

3.1.3 Socioeconomics

Overall usage at RMTC could increase up to 18.6 percent; however, the Proposed Action would not impact the overall long-term socioeconomic conditions of the region. An increase in local housing would not be anticipated as the proposed range training would not require Soldiers to remain at or in the vicinity of RMTC for extended periods. Additional demand could be placed on police and fire protection services, as well as for medical services, should an accident occur during training activities; however, existing medical and emergency service providers would have the capacity to meet these demands. Construction of the Preferred Action Alternative would generate temporary jobs to support the construction workforce and benefit the local economy by generating income, taxes, and revenue due to project-related spending and expenditure of wages. These effects would only occur over the course of the construction period; thus, benefits would have minimal effect in the context of the regional economy and no long-term changes would be expected. Socioeconomic conditions would not change in the long-term with implementation of the Proposed Action; therefore, these resources are dismissed from detailed analysis in this EA.

3.2 Location Description

RMTC is located in central Arkansas, approximately five miles north of the Little Rock/North Little Rock metropolitan area (see **Figure 1-1**). The majority of the installation lies in Pulaski County, with a small portion in the north extending into Faulkner County. The Proposed Action area would be located in the existing range complex area in the northern region of RMTC, approximately 1.1 miles from the western boundary, 0.4 mile from the southwestern boundary, 0.2 mile from the northern boundary, and 0.3 mile from the eastern boundary (**Figure 2-1**). The proposed MPMG Range is located within Training Area (TA) 10. Proposed aerial door gunnery maneuver training would take place within TA 11, TA 13, and TA 14.

3.3 Land Cover and Land Use

Land Use in the vicinity of RMTC includes urban and semi-urban development along the southern, southwestern, and southeastern installation border. There is also an area of private, undeveloped property along the southern installation border. The northern and northeastern boundary of RMTC is adjacent to State Highway 89 and is surrounded by a relatively undeveloped area. This area consists of woodlands interspersed with abandoned agricultural areas, which are currently used for hunting and associated recreational activities. RMTC shares boundaries with two Arkansas Game and Fish Commission (AGFC) management areas: the 2,040-acre Belle Slough Wildlife Management Area (WMA) located northwest of RMTC, and the 4,029-acre Camp Robinson Special Use Area (CRSUA) located north of RMTC (AR ARNG, 2018b). Belle Slough WMA is a popular birding location while CRSUA is maintained for wildlife habitat, the training and development of hunting dogs, and sport hunting. Most of the area immediately outside the western boundary of RMTC is residential development.

RMTC is used primarily for military training activities by the AR ARNG, DoD Reserve and Active components, and other federal, state, and civilian agencies, ranging from billeting and small arms ranges to light maneuver training. The 33,000-acre installation includes the 2,300-acre Cantonment Area, 1,200-acre Mortar Artillery Impact Area, and a 5,300-acre Small Arms Impact Area. The Cantonment Area is located in the southern most portion of RMTC and provides space for non-tactical uses, such as troop billeting, headquarters, medical centers, and major commands. The Mortar Impact Area is located within the northeast corner of the installation and receives munitions from artillery/mortar firing points located throughout the installation. The Small Arms Impact Area is located in the east central portion of the

installation and contains SDZs associated with existing small arms ranges. The remaining area is used primarily to support troop training, and includes bivouac sites, military training routes, drop zones, and artillery/mortar firing points.

RMTC contains extensive outdoor recreational opportunities, including fishing, trail-bike riding, and golfing, which primarily occur in the Cantonment Area, and hunting, which occurs in two designated areas on the installation. The 9,319-acre Camp Robinson Wildlife Management Area (CRWMA) spans the northern region of the installation and is available for public hunting. Currently, AR ARNG ensures that training activities are not scheduled in CRWMA during the AGFC's annual 3-day turkey hunt in April and 3-day deer hunt in November. All other hunting activities are allowed depending on training schedules. The 5,470-acre Camp Robinson Wildlife Management Program (CRWMP) area is located in the southern portion of the installation and only accessible to government employees (GMBC & Associates, 2007). Both the proposed MPMG Range and aerial door gunnery maneuver training would occur within the CRWMA.

The permanent MPMG Range footprint consists of undeveloped land; merchantable timber was harvested in 2019. The temporary aerial door gunnery maneuver training footprint is primarily undeveloped as well with the exception of the existing targets in the Mortar Artillery Impact Area. Land in the Proposed Action area is currently used for field training exercises in addition to recreational hunting.

Considering the present density of commercial and residential development adjacent to RMTC borders, coupled with the rapidly expanding population in the region, it is expected that regional development will continue within the next 10 to 20 years (AR ARNG, 2018a). Several developments are planned for the region, including the Northern Pulaski County East-West Connector Project, and expansion of the North Little Rock Municipal Airport (Simpson, 2020; Pulaski County, 2021). Several short- and long-term developments involving the construction of new facilities and infrastructure improvements are included in RMTC's Executive Level Master Plan and would be implemented once funded (AR ARNG, 2018a).

3.4 Air Quality

3.4.1 Ambient Air Quality

The ambient air quality in an area can be characterized in terms of whether it complies with the primary and secondary National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA), as amended, requires the USEPA to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS are provided for six principal pollutants called "criteria pollutants" (as listed under Section 108 of the CAA): carbon monoxide (CO); lead; nitrogen dioxide; ozone (O_3); sulfur dioxide; and particulate matter (PM), divided into two size classes of (1) aerodynamic size less than or equal to 10 micrometers (PM_{10}), and (2) aerodynamic size less than or equal to 2.5 micrometers ($PM_{2.5}$). The General Conformity Rule (40 CFR Part 51, Subpart W) requires Federal agencies to prepare written Conformity Determinations for Federal actions in or affecting NAAQS in non-attainment areas, except when the action is covered under the Transportation Conformity Rule or when the action is exempt because the total increase in emissions is insignificant, or *de minimis*.

The primary regulatory authority for air quality in Arkansas is the Arkansas Department of Energy and Environment, Division of Environmental Quality (ADEQ) – Office of Air Quality. Air quality in both Pulaski and Faulkner Counties is in "attainment" for all NAAQS (USEPA, 2021b).

3.4.2 Sensitive Receptors

Sensitive receptors include, but are not limited to, asthmatics, children, and the elderly, as well as specific facilities, such as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers.

The Proposed Action area is located within an active ARNG facility. The nearest sensitive receptors occur in the form of low-density residential communities approximately 1.1 miles south and 1.3 miles west of the permanent MPMG Range footprint; as well as a low density residential community approximately 0.5 mile to the north of the proposed aerial door gunnery maneuver training area.

3.4.3 Greenhouse Gases and Climate Change

The Army issued a policy *Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in Army National Environmental Policy Act Reviews* (2021) providing guidance on the inclusion of GHG emissions and Climate Change, as well as Social Costs, as part of the environmental baseline for NEPA analyses prepared in accordance with 32 CFR 651, *Environmental Analysis of Army Actions*.

Greenhouse gases (GHGs) are compounds that may contribute to accelerated climate change by altering the thermodynamic properties of the earth's atmosphere. GHGs consist of carbon dioxide (CO_2), methane, nitrous oxide, and fluorinated gases (USEPA, 2021c). Under the EPA Mandatory Reporting Rule (40 CFR Parts 86, 87, 89 et al.), facilities that emit 25,000 metric tons or more per year of carbon dioxide equivalent (CO2e) emissions must submit annual reports to the EPA.

This EA looks at GHG emissions as a category of air emissions. It also looks at issues of temperature and precipitation trends (climate change). This EA identifies the GHG emissions of the Proposed Action, including offsets and any carbon sequestration loss, and compares this to regional, state, and national emissions. GHG sources at RMTC are generally associated with natural gas/propane heating units, diesel-fired emergency generators, aircraft operations at the Army Aviation Support Facility (AASF), and vehicular activity. Muzzle blast from small arms fire also releases limited CO_2 emissions.

The Proposed Action is located in North Little Rock, where the average high temperature is 92°F (33.3 degrees Celsius [°C]) in the hottest months (July and August), and the average low temperature is 33°F (less than 1°C) in the coldest month (January). North Little Rock reports average annual precipitation of approximately 50 inches (127 centimeters) per year. The wettest month of the year is November with an average rainfall of 5.4 inches (13.7 centimeters) (US Climate Data, 2021).

The climate of Arkansas is changing. Unlike most of the US, Arkansas has not become warmer during the last 50 to 100 years, although annual rainfall has increased in much of the state. Throughout the southeastern United States, the amount of precipitation falling during heavy rainstorms has increased by 27 percent since the 1950s, and the trend toward increasingly heavy rainstorms is likely to continue. In the coming decades, the changing climate is likely to increase the risk of flooding and drought severity, resulting in negative impacts on aquatic ecosystems, agriculture, and forest cover in Arkansas. Warmer temperatures may also increase smog and result in health effects associated with air quality issues (USEPA, 2016).

3.5 Noise

3.5.1 Background

Noise is defined as unwanted sound and is typically any sound that is undesirable due to its interference with communications or other human activities and its ability to affect hearing. Noise may be intermittent or

continuous, steady or impulsive. Human response to noise varies depending on the sound pressure level, type of noise, distance from the noise source, sensitivity, and time of day.

Sound, within the range of human hearing is measured on a logarithmic scale, known as the decibel (dB). Because the human ear does not hear all frequencies equally, a frequency weighting system has been established. The A-weighted decibel scale (dBA) is used to reflect this selective sensitivity of human hearing to higher frequency sounds such as aircraft and ground transportation. The C-weighted decibel scale (dBC) is used for low-frequency events such as large arms and demolitions explosions.

The Army uses a system to divide noise into zones, each representing an area of increasing noise. AR 200-1 *Environmental Protection and Enhancement* implements Federal regulations associated with environmental noise from DA activities. Noise levels are established based on average day-night levels (DNL) of noise over 104 days for National Guard sites. There are three Noise Zones (I, II, and III), which correlate with increasing noise levels (AR ARNG, 2012):

- Noise Zone I – Areas in which the peak decibels are less than 87 dB for small arms, the A-weighted DNL (ADNL) is less than 65 dBA for aircraft, or the C-weighted DNL (CDNL) is less than 62 dBC for large arms and explosions. Noise Zone I is not depicted on noise contour maps, and is suitable for all types of land use.
- Noise Zone II – Areas where the peak decibels are between 87 and 104 dB for small arms, the ADNL is between 65 and 75 dBA for aircraft, or the CDNL is between 62 and 70 dBC for large arms and explosives. Land in this zone should generally be limited to activities such as manufacturing, warehousing, transportation, and resource protection. Noise-sensitive land uses are generally not recommended in Noise Zone II.
- Noise Zone III – Area where the peak decibels are greater than 104 dB for small arms, the ADNL is greater than 75 dBA for aircraft, or the CDNL is greater than 70 dBC for large arms and explosions. The noise level in this area is considered severe enough that no noise-sensitive uses are recommended.

Additionally, the more informal Land Use Planning Zone (LUPZ) is at the upper end of Noise Zone I and is defined by a CDNL of 57 to 62 dBC for large arms and explosions or an ADNL of 60 to 65 dBA for aircraft. The LUPZ is 5 dB lower than Noise Zone II, and noise-sensitive land uses are generally accepted in this area (AR ARNG, 2012). AR ARNG also identifies areas of High Complaint Risk and Moderate Complaint Risk based on potential peak sound level.

3.5.2 Current Noise Environment

RMTC implements and operates under the AR ARNG Statewide Operational Noise Management Plan (SONMP) (AR ARNG, 2012). The SONMP provides a methodology for analyzing exposure to noise associated with military operations and provides land use guidelines for achieving compatibility between the noise generated by the Army and the surrounding communities. The Army has an obligation to US citizens to recommend uses of land around its installations which will: (a) protect citizens from noise and other hazards; and (b) protect the public's investment in these training facilities (AR ARNG, 2012).

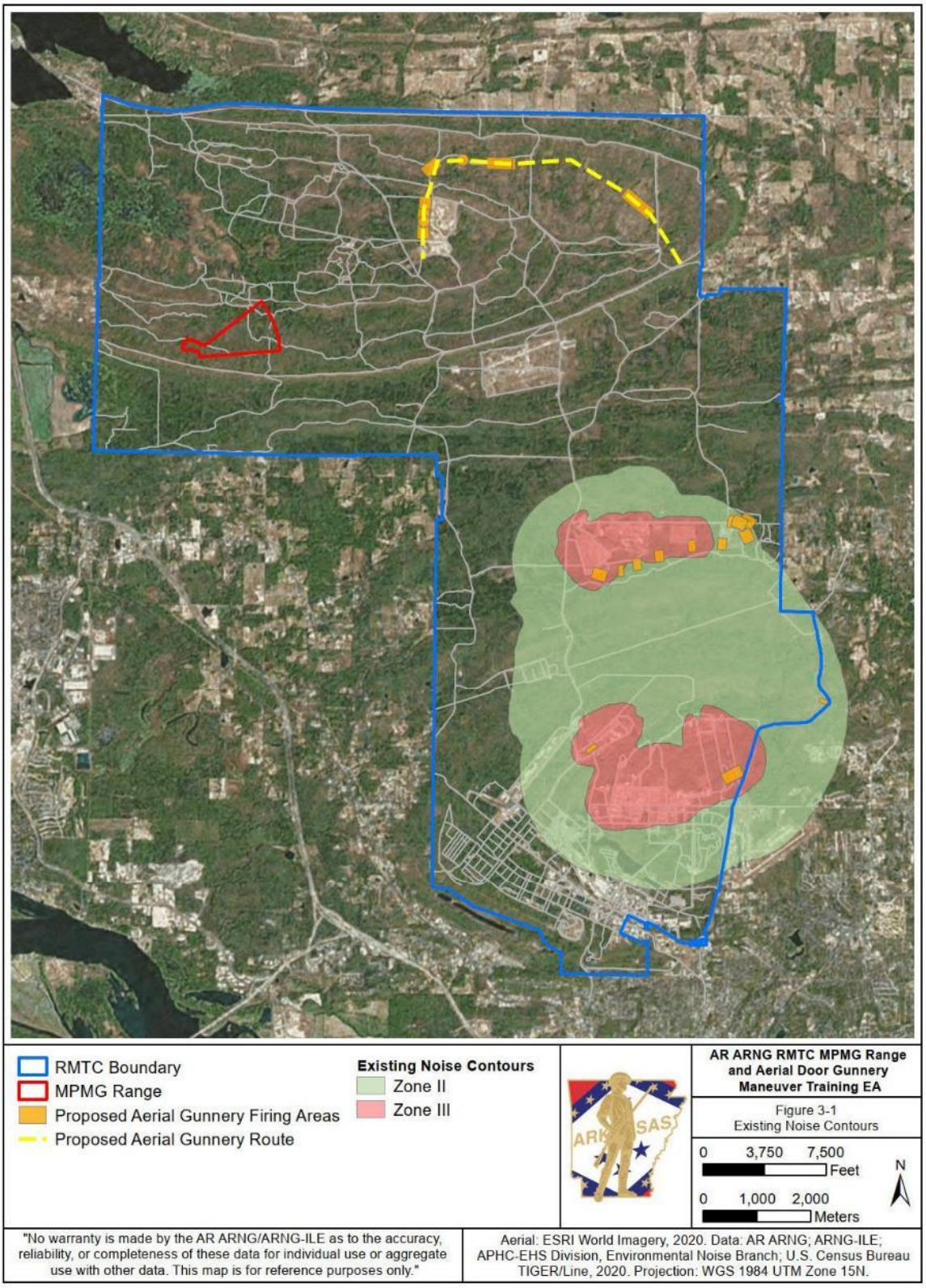
Noise-generating activities at RMTC include small caliber weapons (.50 caliber and below), demolition and large caliber weapons (20mm and greater), and aviation activity (**Figure 3-1**). Small caliber weapons noise remains relatively contained within RMTC boundaries, and is divided into fixed (includes live-fire activity) and non-fixed ranges (includes live-fire and non-live fire activity). Fixed small caliber ranges at RMTC include both Noise Zones II and III. Zone II extends beyond the eastern boundary, up to 1,400 meters (0.9

mile), into the City of Gibson and onto the North Little Rock Municipal Airport, and includes industrial and commercial land uses to the southeast and residential to the northeast. On-post, Zone II extends approximately 800 meters into the Cantonment Area, encompassing administrative, lodging, logistical, and warehouse buildings. Zone III extends approximately 300 meters (0.2 mile) beyond the eastern boundary of RMTC into undeveloped forest land. On-post, Zone III extends into an undeveloped area of the Cantonment Area (USAPHC, 2021).

Current demolition and large caliber weapons zones fully fall within the training center boundary at RMTC and include Noise Zones II, III, and the LUPZ. Demolition and large caliber weapons areas include both high and moderate complaint risk areas. The High Complaint Risk area is mostly contained within RMTC boundaries, and extends beyond the boundary into a few noise-sensitive land uses to the north. The Moderate Complaint Risk area that extends beyond RMTC boundaries in all directions, with the greatest extent occurring to the north and northeast, as well as southwest of the RMTC boundary to Interstate 40.

The AASF is located in the southwest corner of RMTC, and includes instruction and evaluation in several types of helicopter training. In addition, currently multiple aircraft (UH-60, UH-72, C-130) utilize the northern area of RMTC for various training missions, including low-level and drop zone flights. On average, helicopters fly 44 weeks per year and C-130 fixed-wing operate 40 weeks per year. Night training is limited to helicopter aircraft, and occurs up to 10:00 PM (during the summer months flights may occur up to 11:00 PM). Overall, helicopter operations at RMTC are not high enough to generate a Zone II or Zone III that extends beyond the end of the runway. For context, in a low-level flight route for a UH-60 at 200 feet above-ground level it would take over 200 daytime or over 32 nighttime flights in a 24-hour period to generate a Zone II (USAPHC, 2021). Sensitive noise receptors in the vicinity of the Proposed Action area are the same as those listed for air quality (**Section 3.4.2**).

Figure 3-1: Existing Noise Contours within the Proposed Action Area



3.6 Soils

Soil refers to unconsolidated materials overlying bedrock or other parent material. Soils typically are described in terms of their complex type, slope, physical characteristics, and relative compatibility or constraining properties with regard to particular construction activities and types of land use. Soils in the hot continental climate division are primarily Inceptisols, Ultisols, and Alfisols, which are rich in humus and moderately leached, with a distinct light-colored leached zone under the dark upper layer.

Four soil types occur within the permanent MPMG Range footprint and four soil types occur within the temporary footprint of the aerial door gunnery maneuver training area (**Figure 3-2**). A summary of these soil types is provided in **Table 3-1**. None of these soils are characterized as hydric. Approximately 62 percent of the proposed MPMG Range (127.3 acres) and 49 percent of the aerial door gunnery maneuver training firing area (68.5 acres) is designated as prime farmland (USDA NRCS, 2021b). These soils are categorized by Natural Resources Conservation Service (NRCS) based on underlying soil characteristics, which would be favorable for production of food, feed, forage, fiber, and oilseed crops. The Farmland Protection Policy Act (FPPA) (7 USC 4201 et seq.) of 1981 states that Federal agencies must "minimize the extent to which Federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses".

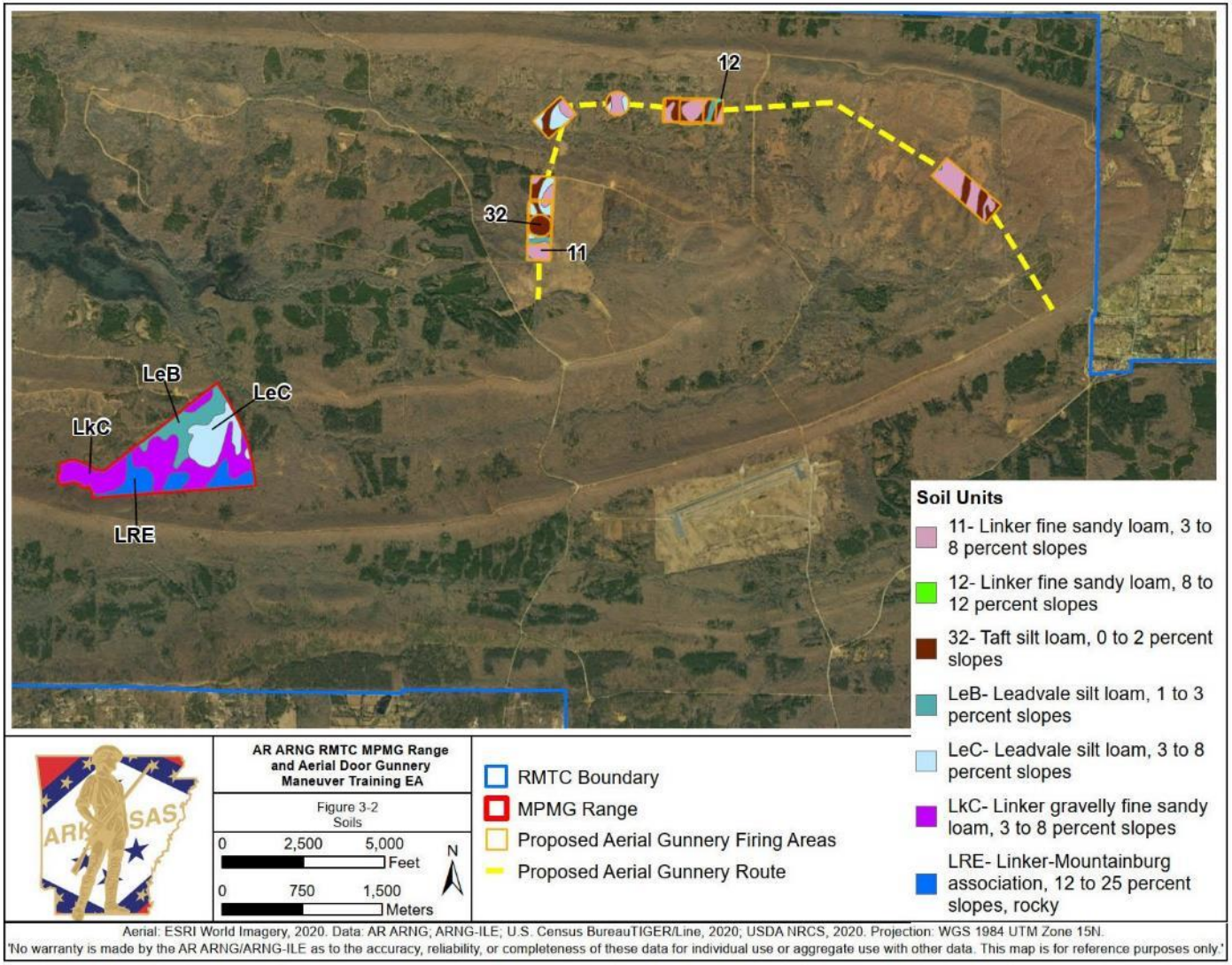
No activity would occur in the SDZs or WDZs; thus, soils would not be disturbed.

Table 3-1: Soil Map Units

Map Unit Symbol	Map Unit Name	Acres	Prime Farmland	Hydric
MPMG Range				
LkC	Linker gravelly fine sandy loam, 3 to 8 percent slopes	90.2	Yes	No
LeB	Leadvale silt loam, 1 to 3 percent slopes	37.1	Yes	No
LeC	Leadvale silt loam, 3 to 8 percent slopes	41.4	No	No
LRE	Linker-Mountainburg association, 12 to 25 percent slopes, rocky	39.6	No	No
Aerial Door Gunnery Maneuver Training Firing Areas				
11	Linker fine sandy loam, 3 to 8 percent slopes	61.6	Yes	No
12	Linker fine sandy loam, 9 to 12 percent slopes	< 0.01	No	No
32	Yorktown silty clay, 0 to 1 percent slopes	50.2	No	No
LeB	Leadvale silt loam, 1 to 3 percent slopes	6.9	Yes	No
LeC	Leadvale silt loam, 3 to 8 percent slopes	21.0	No	No

Source: (USDA NRCS, 2021b)

Figure 3-2: Soils



3.7 Water Resources

Water resources evaluated in this analysis include surface water and water quality, wetlands, floodplains, and groundwater occurring within the permanent and temporary footprints of the Proposed Action; no disturbance would occur in the SDZs or WDZs. ADEQ's Office of Water Quality establishes and enforces water protection standards, in accordance with the Clean Water Act (CWA), to manage the quality and quantity of water resources in Arkansas.

3.7.1 Surface Waters and Water Quality

Surface water resources consist of lakes, rivers, and streams, and are important for a variety of reasons including ecological, economic, recreational, aesthetic, and human health reasons. Stream water quality in the Fourche Mountains Level IV Ecoregion is typically exceptional, with very low nutrient, mineral, and biochemical water quality parameter concentrations. Due to the configurations of the underlying geologic formations, some drainages flow east to west, while others drain west to east. Surface waters in and surrounding the Proposed Action area drain westward into Grassy Lake (AR ARNG, 2018b) .

Approximately 0.4 mile (or 2,355.6 linear feet) of Lower Jim Creek and 0.1 acre of ponds occur within the proposed MPMG Range (**Figure 3-3**). Within the temporary footprint of the aerial door gunnery maneuver training area, 0.5 mile (2,839.7 linear feet) of Mile Creek and 0.2 mile (882.6 linear feet) of Upper Jim Creek are present.

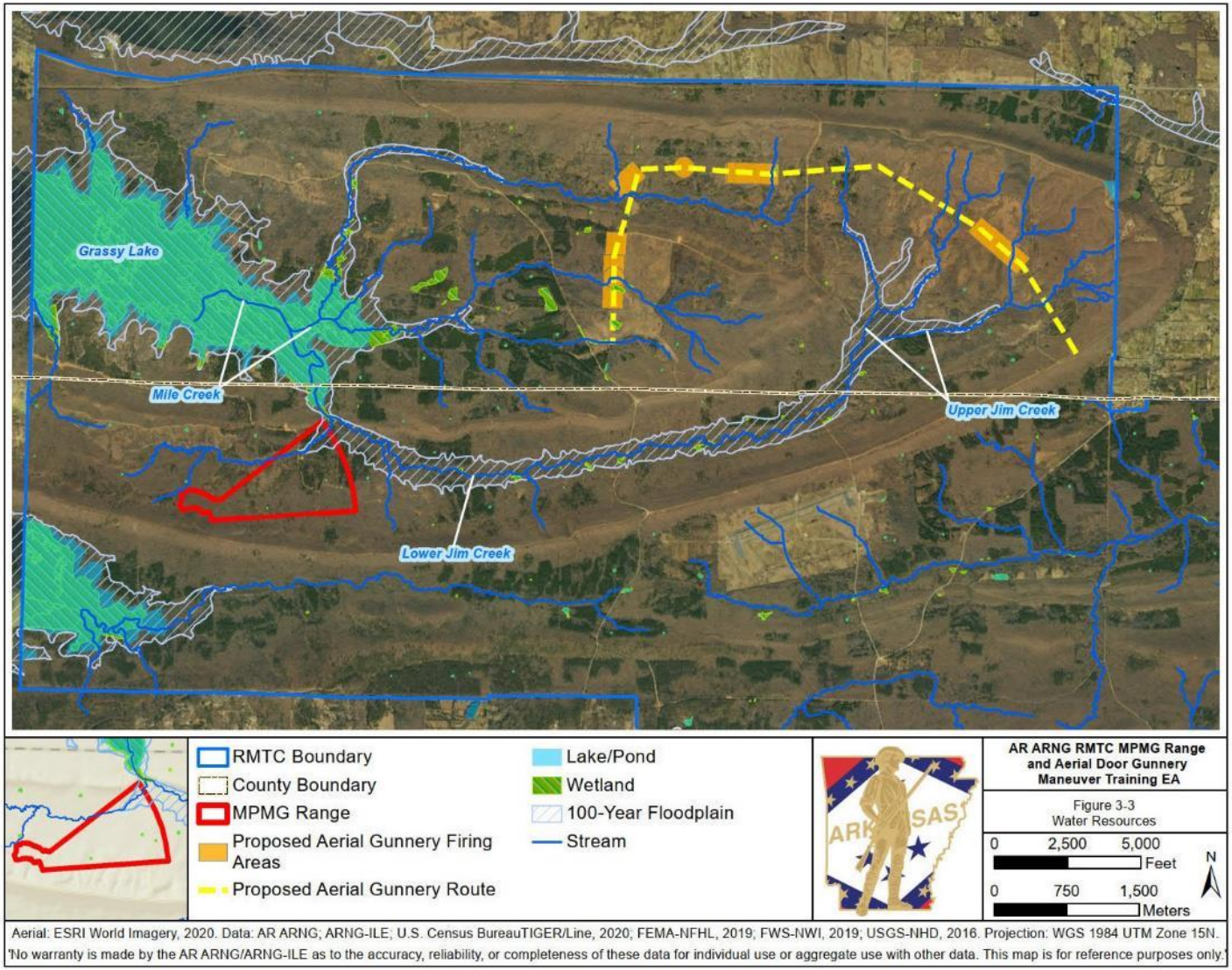
Section 303(d) of the CWA directs each state to identify and list impaired water bodies in which current required controls of a specified substance are inadequate to achieve water quality standards. Arkansas's most recent list of impaired waterbodies published in 2018 does not include any of the occurring surface waters within the permanent or temporary footprints of the Proposed Action as an impaired waterbody (ADEQ, 2018).

3.7.2 Floodplains

Floodplains are low-lying, relatively flat areas adjacent to streams, rivers, or lakes with potential for periodic or infrequent inundation due to rain or snow melt. In their natural vegetated state, floodplains slow the rate at which incoming overland flows reach the adjacent water body. Floodplains also function to recharge groundwater, maintain water quality, provide wildlife habitat, and provide recreational opportunities. The Federal Emergency Management Agency (FEMA) identifies flood-prone areas on Flood Insurance Rate Maps (FIRM). Base flood areas, or the 100-year floodplain, are delineated on FIRMs and indicate a 1 percent chance of flooding each year. EO 11988 *Floodplain Management* requires Federal agencies to assess the effects that their actions may have on floodplains and to consider alternatives to avoid adverse effects and incompatible development on floodplains.

Most of RMTC is within an area of minimal flood hazard; however, there is a large area of Zone A (100-year floodplain) and Zone AE (500-year floodplain, or 0.2 percent annual chance flood hazard), in the northwest portion of the installation where the Proposed Action area is located (**Figure 3-3**) (FEMA, 2021). Approximately 12.8 acres of 100-year floodplains are present within the proposed MPMG Range footprint. No 100-year floodplains occur where aerial door gunnery maneuver training would take place.

Figure 3-3: Water Resources



3.7.3 Wetlands

The USACE defines wetlands as "those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR Part 328). For an area to be classified as a wetland, three conditions must be present: (1) wetland hydrology; (2) hydric soil; and (3) hydrophytic vegetation. Areas that may be periodically wet, but that do not meet the requisite criteria, are not classified as wetlands. Wetlands serve a variety of functions including flood control, groundwater recharge, maintenance of biodiversity, wildlife habitat, recreational opportunities, and maintenance of water quality. Wetlands are protected as a subset of the waters of the US (WOUS) under Section 404 of the CWA. The term WOUS has broad meaning under the CWA and incorporates deep water aquatic habitats and special aquatic habitats (including wetlands). Section 401 of the CWA gives the state of Arkansas the authority to regulate, through the state's water quality certification program, proposed federally permitted activities that may result in a discharge to water bodies, including wetlands. AR Code § 8-4-206 (2017) sets forth provisions that give the ADEQ authorization to act as the state water pollution control agency.

EO 11990 (*Protection of Wetlands*) requires federal agencies to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the beneficial values of wetlands, as they are an important natural system because of the diverse biological and hydrologic functions they perform. These functions may include water quality improvement, groundwater recharge, pollution treatment, nutrient cycling, the provision of wildlife habitat and niches for unique flora and fauna, storm water storage, and erosion protection.

Three small wetlands encompassing a total of 0.1 acre occur within the proposed permanent MPMG Range footprint. Approximately 2.5 acres of wetlands occur in the temporary footprint of the aerial door gunnery maneuver training area (**Figure 3-3**).

3.8 Biological Resources

Biological resources include native or naturalized plants and wildlife and the habitats in which they occur. Special status biological resources are defined as plant and wildlife species listed as Federal or state threatened or endangered, or proposed as such, by the United States Fish and Wildlife Service (USFWS), AGFC, or Arkansas National Heritage Commission (ANHC). Biological resources of RMTC were analyzed in detail in the 2018 RMTC INRMP (AR ARNG, 2018b). The reader is referred to that document for further information.

3.8.1 Vegetation

A total of 24 vegetation communities occur at RMTC. Forests and woodlands cover the majority of the installation (84 percent), while scattered pockets of shrublands and grasslands occupy the remaining areas. The area in which the proposed MPMG Range would occur is mapped as forested; however, as previously noted, all merchantable timber was harvested in October 2019. The temporary footprint of the aerial door gunnery maneuver training area contains forest and prairie vegetation. While vegetation in the SDZs and WDZs is primarily forested, no disturbance would occur in these areas.

Non-native species are present at RMTC, particularly around the Cantonment Area and other areas that have experienced human disturbances (i.e., rights-of-way for roads). These species include, but are not limited to, privet (*Ligustrum spp.*), Japanese honeysuckle (*Lonicera japonica*), and autumn olive (*Eleagnus umbellate*) (AR ARNG, 2018b). RMTC implements an Invasive Species Management Program to reduce

or eliminate invasive species populations on the installation. Control efforts include both chemical and mechanical methods.

3.8.2 Wildlife

Numerous fauna surveys and other studies have been previously conducted at RMTC for amphibians and reptiles, birds, fish, aquatic macroinvertebrates, butterflies, and mammals (including bats). These surveys and studies are summarized in detail in the 2018 RMTC INRMP (AR ARNG, 2018b). In total, 31 species of mammals, 141 species of birds, 33 species of amphibians and reptiles, and 22 species of fish have been documented at RMTC. Further, seine and dip net sampling collected aquatic invertebrates representing 108 genera in 71 families. In addition, while terrestrial invertebrates have not been extensively studied at RMTC, surveys conducted in 2005 found 91 unique families. The reader is referred to the 2018 INRMP for a comprehensive list of wildlife species observed at RMTC (AR ARNG, 2018b).

3.8.3 Special Status Species

Special status species include T&E plants and animals that are federally or state-protected; bald eagles, as protected under the Bald and Golden Eagle Protection Act (BGEPA) of 1940); and migratory birds, as protected under the Migratory Bird Treaty Act (MBTA).

Federal status as a T&E species is derived from the Endangered Species Act (ESA) of 1973 (16 USC §1531 et seq.) and is administered by USFWS. They maintain a current list of federally endangered and threatened species, candidate species, and species of concern. Candidate species and species of concern designated by USFWS receive no statutory protection under the ESA.

At the state level, AGFC is responsible for the management and protection of all game and nongame wildlife in Arkansas, including rare and endemic species. They maintain a list of state protected species and specifies rules and regulations for permits to hunt or collect any wildlife in the state. ANHC gathers, categorizes and disseminates information on rare species and significant natural areas within the state of Arkansas (AR ARNG, 2018b).

3.8.3.1 Threatened and Endangered Species

The AR ARNG queried the USFWS Information for Planning and Consultation (IPaC) database on 12 April 2021 and identified the following federally listed species with the potential to occur in the Proposed Action area: endangered running buffalo clover (*Trifolium stoloniferum*), threatened eastern black rail (*Laterallus jamaicensis ssp. jamaicencis*), threatened piping plover (*Charadrius melodus*), and threatened red knot (*Calidris canutus rufa*) (USFWS, 2021). Based on previous biological surveys conducted at RMTC, no federally listed threatened or endangered species have been documented or are expected to occur in the Proposed Action area (AR ARNG, 2018b).

Similarly, none of the 13 state-listed threatened or endangered species with the potential to occur in Pulaski and Faulkner Counties are known to occur in the Proposed Action area based on previous biological surveys (ANHC, 2015; AR ARNG, 2018b).

Several state designated species of conservation concern (SOCCs) have been identified at RMTC. While these species may occur in the Proposed Action area, designation as a SOCC does not confer any special or regulatory status. SOCCs are identified for conservation focus under the State Wildlife Grant program. The reader is referred to the 2018 INRMP for a comprehensive list of SOCCs observed at RMTC.

3.8.3.2 Bald Eagles

The bald eagle (*Haliaeetus leucocephalus*) was removed from the ESA in 2007, but remains protected by the MBTA and BGEPA. Bald eagle habitat includes rivers, lakes, marshes, estuaries, and some seacoasts, where food can be found nearby, such as fish, waterfowl, turtles, rabbits, snakes, and other small animals and carrion (USFWS, 2007). Bald eagles have sporadically been observed flying over or perched in trees on the installation, but have not been observed residing or nesting on RMTC or adjacent areas. Suitable habitat potentially exists within the installation at Grassy Lake (near the Proposed Action area) and adjacent AGFC-managed properties (Camp Robinson Special Use Area to the north and Bell Slough WMA to the west of the installation) (AR ARNG, 2018b).

3.8.3.3 Migratory Birds

Migratory birds, as listed in 50 CFR Part 10.13, are ecologically and economically important to recreational activities, including bird watching, studying, feeding, and hunting, that are practiced by many Americans. The MBTA prohibits, unless permitted by regulations, the pursuit, hunting, take, capture, killing, or attempt to take, capture, kill, or possess any migratory bird included in the Migratory Bird Treaty, including any part, nest, or egg of any such bird (16 USC § 703). The AR ARNG is responsible under the MBTA (16 USC §703-712), 50 CFR Part 21, and EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*) to promote, support, and contribute to the conservation of migratory birds. Per 50 CFR Part 21.15, *Authorization of Take Incidental to Military Readiness Activities*, the DoD is authorized to incidentally take migratory birds in the course of military readiness activities, but with limitations. The AR ARNG must confer and cooperate with the USFWS to develop and implement appropriate conservation measures for actions that, determined through the NEPA process, may result in a significant adverse effect on a population of migratory bird species.

The IPaC database identified 11 migratory birds of concern with the potential to occur in the Proposed Action area. Based on previous biological surveys, eight of these species have been observed at RMTC: American kestrel (*Falco sparverius paulus*), bald eagle, eastern whip-poor-will (*Antrostomus vociferous*), Kentucky warbler (*Oporonis formosus*), prairie warbler (*Dendroica discolor*), prothonotary warbler (*Protonotaria citrea)*, red-headed woodpecker (*Melanerpes erythrocephalus*), and wood thrush (*Hylocichla mustelina*) (USACE, 2003; GBMC & Associates, 2005). Suitable habitat for migratory birds, such as upland and mixed forests, and savanna, is present within both the permanent and temporary footprints of the Proposed Action.

3.9 Cultural Resources

3.9.1 Overview

Cultural resources are historic properties as defined by the NHPA, cultural items as defined by NAGPRA, archaeological resources as defined by the Archaeological Resources Protection Act, sacred sites as defined by EO 13007 to which access is afforded under the American Indian Religious Freedom Act, and collections and associated records as defined by 36 CFR Part 79. NEPA requires consideration of "important historic, cultural, and natural aspects of our natural heritage." Consideration of cultural resources under NEPA includes the necessity to independently comply with the applicable procedures and requirements of other Federal and state laws, regulations, EOs, presidential memoranda, and army guidance. Cultural resources at RMTC are managed according to the AR ARNG ICRMP, which provides detailed guidelines and procedures to enable the AR ARNG to achieve regulatory compliance for identifying cultural resources, implementing protection and compliance actions, and consulting with internal and external stakeholders (AR ARNG, 2020a).

The NHPA of 1966, as amended (Public Law 89-665; 54 USC §300101 *et seq.*), establishes the policy of the Federal government to provide leadership in the preservation of historic properties and administer federally owned or controlled historic properties. Section 106 of the NHPA (54 USC §306108) requires Federal agencies to consider the effect an undertaking may have on historic properties; its implementing regulations, 36 CFR Part 800, describe the procedures for identifying and evaluating historic properties; assessing the effects of federal actions on historic properties; and consulting to avoid, reduce, or minimize adverse effects. As part of the Section 106 process, agencies are required to consult with the State Historic Preservation Office (SHPO). The Section 106 process requires each undertaking to define an Area of Potential Effect (APE). An APE is "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any properties exist…[and the APE] is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking" (36 CFR Part 800.16[d]). The Proposed Action is an undertaking as defined by 36 CFR Part 800.3, and the AR ARNG is required to comply with Section 106 of the NHPA.

3.9.2 Archaeological and Architectural Resources

Several Phase I archaeological surveys have been conducted at RMTC, covering approximately 21,186 acres. A total of 392 archaeological sites have been recorded, including 16 eligible for listing in the National Register of Historic Places (NRHP), 82 requiring additional evaluation, and 286 considered to be not eligible for listing in the NRHP. Eight historic cemeteries have been recorded as archaeological sites and are unevaluated.

No archaeological or historic resources have been identified within the proposed MPMG Range and aerial door gunnery maneuver training course. Two cemeteries, the Smith Cemetery and Psyam Cemetery, are present in the SDZ/WDZ, although neither is listed or eligible for listing in the National Register of Historic Places. The northern half of TA 11 within the SDZ/WDZ has not yet been surveyed; however, no land disturbance would occur in this area.

Lloyd England Hall is the only building at RMTC listed in the NRHP and is located approximately 6.4 miles south of the Proposed Action area in the Cantonment Area. In addition, RMTC contains one discontiguous historic district that is eligible for listing in the NRHP, the Native Stone Architecture Historic District. No contributing buildings, structures, or other potential historic districts occur within the Proposed Action area (AR ARNG, 2020a).

3.9.3 Native American Consultation

The AR ARNG consulted with 15 federally recognized American Indian tribes with ancestral lands in Arkansas regarding the existence of sacred sites and/or traditional cultural properties that might be a part of a larger cultural landscape, as required by the NHPA, EO 13007, EO 13175, Presidential Memorandum for Heads of Executive Departments and Agencies, and the Annotated Policy Document for DoD American Indian and Alaska Native Policy. The full list of consulted tribes is included in **Section 9.** There are no known resources of traditional, religious, or cultural significance at RMTC that might be part of a larger cultural landscape; however, consultation to identify and protect such resources is ongoing. A copy of the correspondence letters is included in **Appendix A**.

3.10 Environmental Justice

EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low Income Populations*, requires that Federal agencies conduct their programs, policies, and activities, that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons or populations from participation in, denying persons or populations

the benefits of, or subjecting persons or populations to discrimination under such programs, policies, and activities because of their race, color, or national origin. Potential environmental justice considerations are determined by comparing demographic and economic characteristics (minority population composition and poverty rates) within the study area to the same characteristics in the surrounding region.

The term "minority population" includes persons who identify as African American, Asian or Pacific Islander, Native American or Alaska Native, or Hispanic. A minority population exists where the percentage of minorities[2] in an affected area either exceeds 50 percent or is meaningfully greater than in the general population of the large surrounding area. **Table 3-2** presents regional demographics by race for the areas surrounding RMTC. Faulkner County has a lower minority percentage (17.8 percent) than the State of Arkansas (23.3 percent) and Pulaski County (43.5 percent), while North Little Rock has the highest minority percentage at 51.1 percent. With the North Little Rock minority population percentage above 50 percent, the Proposed Action area fits the definition of a minority population area.

Table 3-2: Regional Population by Race

Area	All Individuals	White (%)	Hispanic or Latino* (%)	Black or African American (%)	American Indian and Alaska Native (%)	Asian Alone (%)	Native Hawaiian and Other Pacific Islander Alone (%)	Other Race (%)	Two or More Races (%)
State of Arkansas	3,017,804	76.7	7.7	15.5	0.6	1.5	0.4	2.5	2.8
Faulkner County	122,416	82.2	4.0	11.4	0.4	1.3	0.1	2.0	2.5
Pulaski County	393,463	56.5	6.1	36.5	0.2	2.2	0.0	1.7	2.8
North Little Rock	66,282	48.9	4.6	44.7	0.3	0.9	0.0	1.7	3.5

*Persons of Hispanic or Latino origin may be of any race

Source: (US Census Bureau, 2019a; US Census Bureau, 2019b; US Census Bureau, 2019c; US Census Bureau, 2019d)

The US Census Bureau defines a "poverty area" as a census tract where 20 percent or more of the residents have incomes below the poverty threshold, and an "extreme poverty area" as one with 40 percent or more below the poverty level. The poverty rates for the state of Arkansas, Faulkner County, Pulaski County, and North Little Rock were all found to be below 20 percent (US Census Bureau, 2019a; US Census Bureau, 2019b; US Census Bureau, 2019c; US Census Bureau, 2019d).

While the North Little Rock minority population percentage was above 50 percent and fits the definition of a minority population area, the population within a 5-mile buffer of the Proposed Action does not meet the

[2] Minority populations consist of all non-white persons, plus Hispanic white persons.

definition of an environmental justice community per the USEPA's Environmental Justice Screening and Mapping Tool, which AR ARNG queried on 26 July 2021 (USEPA, 2021f).

3.11 Infrastructure

Existing infrastructure in the Proposed Action area includes range infrastructure (target berms, target supports, range control facilities) associated with the existing Range 27 and Range 29 as well as the Mortar Impact Area and Psyam Drop Zone. Two Helicopter Air Corridors transect the Proposed Action area (AR ARNG, 2018a). No utilities occur within the permanent or temporary footprints of the Proposed Action, as the property is generally undeveloped. The nearest electrical utilities are located near the All-American Drop Zone approximately 3.2 miles east of the MPMG Range footprint (see **Figure 1-2**). The nearest communications utilities are located in the southern portion of RMTC within the Cantonment Area (AR ARNG, 2018a).

RMTC has an extensive internal transportation system provided by various improved and unimproved roadways. Access to the installation is provided by two controlled access gates. The RMTC Executive Level Master Plan, published in 2018, rated RMTC's current transportation system as adequate (AR ARNG, 2018a). The primary access route to the MPMG Range footprint is from the main gate at the southernmost boundary of RMTC through the Cantonment Area to West Boundary Road or Cato Road. Multiple trails, military training routes, and roads occur throughout the Proposed Action area. The transportation systems outside of the installation that serve RMTC are in good condition and provide adequate access. RMTC is in close proximity to I-40, I-30, US 67/167, and several smaller highways.

The AASF operates an airfield for both fixed-wing and rotary aircraft, located in the south of RMTC in the Cantonment Area. Rotary aircraft are used on-post for low-level night vision training while fixed-wing aircraft are used primarily for personnel transport (AR ARNG, 2018b). Outside of the installation, the nearest public use airport is the North Little Rock Municipal Airport, approximately 6 miles from Proposed Action area and directly on the southeastern border of RMTC. This airport does not have a control tower and averages 88 flights per day (AirNav, 2021).

3.12 Hazardous and Toxic Materials and Wastes

HTMWs are generally defined as materials or substances that are dangerous or potentially harmful to human health and the environment (USEPA, 2020a). A comprehensive list of regulated hazardous substances is included in 40 CFR Part 302, which also identifies the threshold for release of these substances into the environment requiring notification to a federal and/or state government agency. Hazardous wastes are defined in 40 CFR Part 261.3 as any waste, not otherwise excluded by 40 CFR Part 261.4, that exhibit a hazardous characteristic (i.e., ignitable, corrosive, reactive, or toxic), or are specifically identified within 40 CFR Part 261.

No sources of HTMW occur within the proposed MPMG Range footprint or the temporary footprint of the aerial door gunnery maneuver training course. In addition, there are no toxic or flammable substances above threshold quantities managed at RMTC. Aboveground and underground storage tanks and mechanical shop areas that may present potential spill risks are confined to the Cantonment Area in the southern portion of RMTC.

The Resource Conservation and Recovery Act (RCRA) governs the management of solid and hazardous waste, including generation, transportation, recycling, treatment, storage, and disposal. RMTC currently operates under one active RCRA permit (ARD982552739) as a small quantity generator for hazardous waste for activities associated with vehicle and other equipment maintenance and repair (USEPA, 2021d).

No violations have been recorded in the last five years (USEPA, 2021e). AR ARNG maintains a Spill Prevention Control and Countermeasure Plan (SPCCP) for RMTC that includes a Hazardous Waste Contingency Plan. These plans identify potential sources of pollution, Best Management Practices (BMPs) to limit this potential, procedures to respond to pollution events, and procedures to handle hazardous materials.

The USACE Huntsville Center completed a survey of UXO and Munitions and Explosives of Concern (MEC) within the proposed MPMG footprint on 25 January 2020. No dud producing targets, small arms debris, flares, range-related debris, or berms were observed. This survey found the MPMG Range footprint to be a low risk area for UXO/MEC exposure (USACE, 2020).

SECTION 4: Environmental Consequences

4.1 Introduction

This section describes the potential effects of implementing the Proposed Action and alternatives, as well as BMPs and/or mitigation measures that would reduce the level of identified impacts. The AR ARNG considers BMPs integral to implementation of the Preferred Action Alternative and are not considered separate from the Proposed Action. Mitigation measures are defined as project-specific requirements (not routinely implemented by the AR ARNG) necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels. Under the Preferred Action Alternative, no significant impacts would be anticipated; therefore, no mitigation measures would be required. For more information on BMPs refer to **Section 4.12**. Definitions of key terms used throughout **Section 4** are provided in **Section 7**.

4.2 Land Use and Cover

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on land use or cover:

- Alternative would conflict with, divide, or substantially change existing on- or off-post land use or land cover.
- Alternative would conflict with the goals and objectives of the RMTC's Master Plan.
- Alternative would limit the capability of the AR ARNG to carry out its assigned mission to provide adequate training facilities at RMTC.

4.2.1 Preferred Action Alternative

Under the Proposed Action Alternative, a ***long-term, less-than-significant adverse*** impact on land cover would result from new impervious surfaces associated with the SAROCA facilities. The AR ARNG would construct gravel access and maintenance roads to minimize impervious surfaces. Aside from the SAROCA facilities, the MPMG Range footprint would remain as maintained grasslands (semi-improved grounds). The change in land cover would be relatively small in comparison to the remaining land. No change to land cover would result from implementing aerial door gunnery maneuver training, or in the SDZ/WDZs, as no land disturbance would occur in these areas.

Implementation of the Preferred Action Alternative would result in ***long-term, beneficial impacts*** from improving the training use, capability, and value of the training land at RMTC. The Preferred Action Alternative would further increase the utility of the Proposed Action area by converting the land to directly support required AR ARNG training. The Proposed Action was sited to maximize the training value and use of the installation with minimal land use conflicts. Further, the Preferred Action Alternative is not anticipated to conflict with on- or off-base land uses and is identified within the installation's current Executive Level Master Plan (October 2018) as well as the AR ARNG RCMP. The design and location of the Preferred Action Alternative are consistent with the objectives of both the Executive Level Master Plan and the AR ARNG RCMP (AR ARNG, 2018a; AR ARNG, 2020b).

Encroachment from future regional development is not anticipated. The AR ARNG would ensure that the Preferred Action Alternative is compatible with the surrounding area and region, and continue coordination with local planning authorities and community representatives as appropriate. The Preferred Action Alternative would have no effect on aesthetics and visual resources. The Proposed Action area is located within an active ARNG training site. Furthermore, lighting would adhere to requirements prescribed in TC

25-8 and Army range design manuals and would be designed to minimize the potential for illuminating adjacent, non-range areas.

Long-term, less-than-significant adverse impacts would occur to recreation, specifically public hunting, at RMTC. Implementation of the Preferred Action Alternative could result in a minor reduction of public hunting opportunities at the CRWMA, as the proposed MPMG Range and aerial door gunnery maneuver training would occupy or occur in the CRWMA. However, the AR ARNG would continue to coordinate with the AGFC to ensure no training activities are scheduled during annual hunts, as they currently do for other training activities within the CRWMA. Public use of the CRWMA for other hunting activities would depend on the MPMG Range and aerial door gunnery maneuver training schedules, same as current expectations of using the CRWMA. Therefore, no significant changes to public expectations of hunting availability would occur. While there may be fewer opportunities for hunting at the CRWMA with increased training activities at RMTC, this does not present a substantial loss compared to current conditions, as the amount of recreational areas available on- and off-site would be sufficient in providing alternative recreational opportunities to account for days when the CRWMA cannot be used. No impacts to recreational activities outside of the Proposed Action area would be anticipated.

4.2.2 No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented; the proposed MPMG Range would not be constructed and aerial door gunnery maneuver training would not be conducted. Existing land use, land cover conditions, and recreational facilities would remain the same. AR ARNG units would continue to undergo extensive travel to FCJMTC to conduct required MPMG and aerial door gunnery maneuver training. As a result, this alternative would prevent the AR ARNG from providing adequate training facilities at RMTC, thereby reducing the utility and use of training land at RMTC, as well as conflicting with the goals and objectives identified in RMTC's Executive Level Master Plan. Therefore, implementation of the No Action Alternative would result in a ***long-term, minor adverse*** impacts to future land use.

4.3 Air Quality and Climate

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on air quality and climate:

- Alternative would cause an exceedance of the NAAQS and/or require a conformity analysis.
- Alternative would substantially increase GHG emissions or airborne fugitive dust.
- Alternative would increase health risks for nearby sensitive receptors.

4.3.1 Preferred Action Alternative

Construction of the Preferred Action Alternative would result in ***short-term, less-than-significant adverse*** impacts on air quality. Construction activities would temporarily generate fugitive dust from land disturbance and travel on unpaved surfaces, and criteria pollutants (e.g., volatile organic compounds [VOCs] and nitrogen oxides [NO_x; as precursors of O3], CO, and PM_{10} and $PM_{2.5}$) from use of diesel-powered and gas-powered construction equipment. The construction workforce commute would also contribute to a short-term increase in emissions. Air quality impacts resulting from construction activities would be confined to the MPMG Range footprint, as no land disturbance activities would occur in the SDZ/WDZs or along the aerial door gunnery maneuver training route. Impacts would be localized to the construction site and immediate surroundings, and cease once construction has been completed. The nearest sensitive receptor, a residential community, is located approximately 1.1 miles south of the MPMG Range footprint. Impacts on sensitive receptors are not expected as construction-related air emissions would be limited by time and

duration of construction activities and any dust generated by equipment and/or construction activities would fall rapidly with a short distance from the construction site. Further, the surrounding forested area would also limit the distance that fugitive dust would travel. The AR ARNG would further reduce construction-related air quality impacts by implementing BMPs identified in **Section 4.12**.

No long-term adverse impacts are expected from operation of the Proposed Action. Currently AR ARNG units are already conducting MPMG and aerial door gunnery maneuver training at FCJMTC. As such, the Proposed Action would not result in new or increased emissions at a state or national level. Increased emissions at the regional (county) level due to increased site usage and training activities would not be significant enough to affect the attainment status for Faulkner and Pulaski counties. BMPs identified in **Section 4.12** would be implemented during training activities to minimize operational emissions to the extent practicable.

Using the same methodology as the USEPA's Simplified Greenhouse Gas Emissions calculator by multiplying fuel consumption by an emission factor, the AR ARNG calculated the estimated peak GHG emissions from construction of the Proposed Action would be 460.2 tons per year (tpy) of CO_2 (**Appendix C**). While construction and land clearing activities would increase GHG emissions, these activities would be temporary and only last for the duration of construction. Further, these emissions would remain localized and would not be significant enough to affect climate change trends at a regional, state, national, or even global scale. The Proposed Action would not exacerbate environmental conditions already resulting from climate change (e.g., increased precipitation, flooding). Similarly, the changing climate would not exacerbate air quality impacts resulting from the Proposed Action.

In addition, a quantitative analysis was not conducted for operational GHG emissions as operation of the Proposed Action would not result in new or increased emissions compared to baseline levels; therefore, there would be no long-term GHG emissions. The USEPA and other federal agencies use estimates of the social cost of carbon (SC-CO_2) to determine a value of the climate impacts of rulemakings. The Preferred Action Alternative, however, would not yield any social costs of carbon as there would be no long-term increase in CO_2 emissions.

Conversely, the Proposed Action may reduce GHG emissions from mobile sources in the long-term because Soldiers would no longer have to travel as far to FCJMTC to meet their training requirements. RMTC's location in the central region of the state would allow for better access to units and shorter travel distances. In addition, RMTC currently provides carbon sequestration on an annual basis through maintenance of forest land. Short-term emissions from the Preferred Action Alternative would not be substantial as this would represent only 6.7 percent of the annual carbon sequestered in the forests at RMTC (6,785 tons) and only 0.03 percent of the lifetime sequestration (1.3 million tons). As such, the release of CO_2 from construction of the Proposed Action would be mitigated in one month based on just the annual sequestration of GHG provided by the forested land at RMTC.

The Preferred Action Alternative would result in ***short-term, less-than-significant adverse impacts*** on GHGs and climate change from construction of the MPMG Range, and ***long-term, beneficial impacts*** from reduced vehicular travel to FCJMTC.

4.3.2 No Action Alternative

Selecting the No Action Alternative would result in no change in air quality. This alternative involves maintaining existing environmental conditions through current operational controls. The AR ARNG would continue its current use of fossil fuels for mobile and temporary sources. Because the number and type of

activities would remain consistent with baseline conditions, ***no impacts*** on air quality would occur under the No Action Alternative.

4.4 Noise

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on noise:

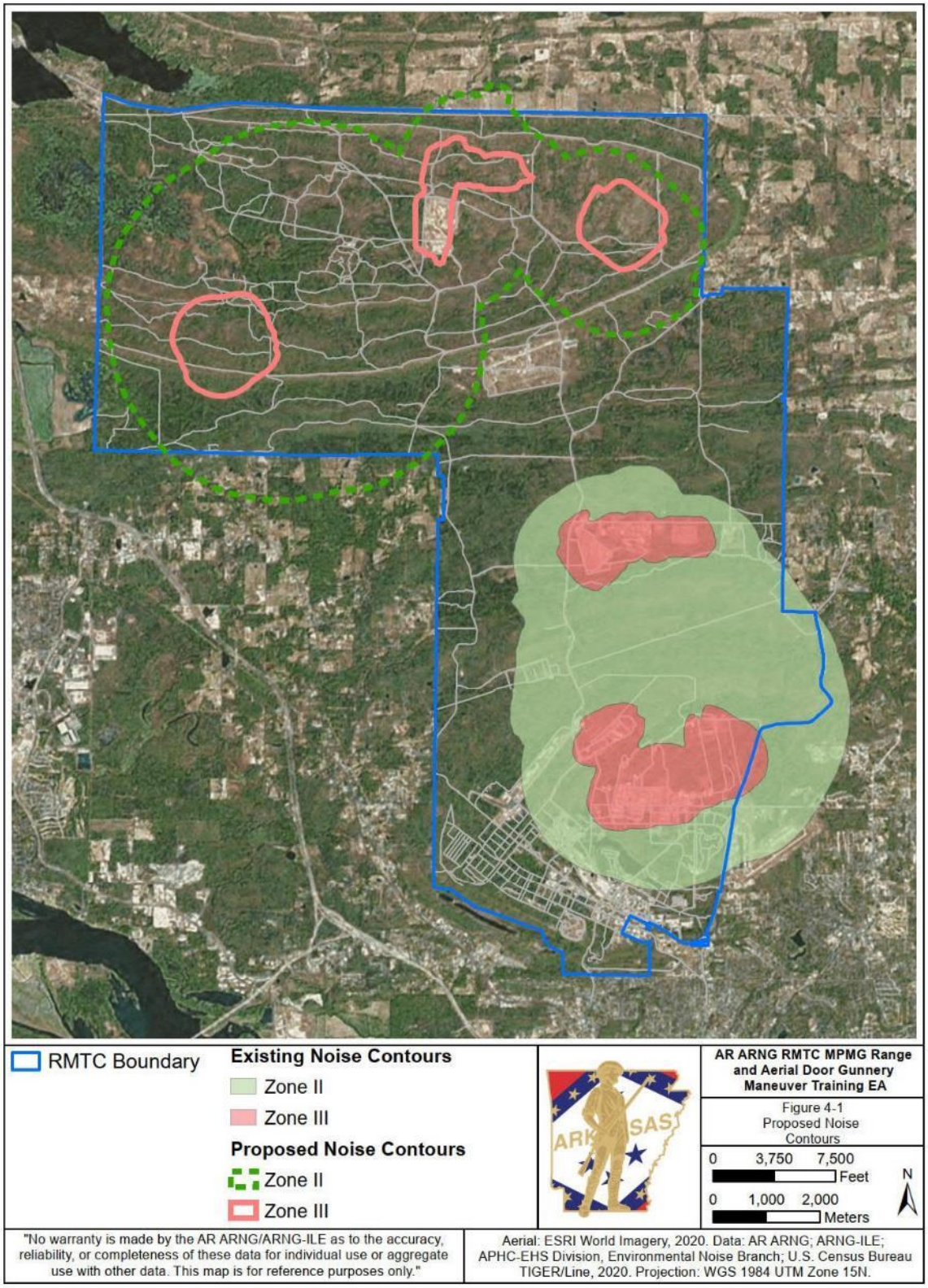
- Alternative would create a Zone III boundary that extends off-base during favorable weather conditions.
- Alternative would include routine activities that result in a Zone II that extends off-base.
- Alternative would substantially increase noise resulting from traffic.
- Alternative would result in substantial disruptions to nearby sensitive receptors.

4.4.1 Preferred Action Alternative

Under the Preferred Action Alternative, there would be ***short-term, less-than-significant adverse impacts*** on the local noise environment. Noise generating sources during land disturbance activities would be confined to the MPMG Range footprint and would be associated primarily with standard construction and maintenance equipment. Construction workers commuting to and from the work site or delivering materials would increase noise levels as well. Typically, peak noise levels within 50 feet of active construction areas and material transportation routes would be considered “striking” or “very loud,” comparable to peak crowd noise at an indoor sports arena. At approximately 200 feet, peak noise levels would be loud, approximately comparable to a garbage disposal or vacuum cleaner at 10 feet. At 0.25 mile, construction noise levels would generally be quiet enough to be considered insignificant, although transient noise levels may be noticeable at times. No sensitive receptors occur within 0.25 mile of the MPMG Range footprint; the nearest is 1.1 miles from away. However, residential communities adjacent to RMTC may experience increased noise from construction equipment and material being transporting to the site. The AR ARNG would implement BMPs identified in **Section 4.12** to limit noise impacts during construction activities.

The United States Army Public Health Center (USAPHC) conducted a noise assessment of the Proposed Action. Results are summarized in a report dated April 2021 and included in **Appendix B**. The assessment found that under the Preferred Action Alternative, Zone III generated from small arms activity would remain within the RMTC boundary. However, the proposed MPMG Range and aerial door gunnery maneuver training would generate Zone II areas that extend beyond the installation boundary (**Figure 4-1**). These areas encompass multiple residential neighborhoods. In addition, aircraft operating along the aerial door gunnery maneuver training flight route would likely be audible in the areas north of the installation boundary; however, noise exposure levels from the majority of projected aircraft would correlate with low annoyance potential.

Figure 4-1: Proposed Noise Contours



Citizens within the Zone II areas may find range activity noticeable and distinct, and there is a moderate risk of the AR ARNG receiving noise-related complaints. However, peak noise levels above 130 dB, subjectively defined as very loud or possibly startling, would not extend beyond the RMTC boundary. Training activities would occur in accordance with the AR ARNG SONMP; significant long-term noise impacts would not be expected. In addition, the AR ARNG would provide public notification of upcoming training events, particularly for .50 caliber activity. Currently, the AR ARNG Public Affairs Office (PAO) issues out noise alerts to the local media regarding firing noises exceeding small arms firing levels. All noise complaints currently go through either the PAO during business hours or are taken by Range Control during off hours. The PAO records the complaint in the AR ARNG Environmental Complaint database, and then contacts the person who made the complaint to discuss the issue and determine if steps can be taken to reduce likelihood of another similar incident (AR ARNG, 2012). Additional noise testing would be performed by the USAPHC once the MPMG Range and aerial door gunnery maneuver training are implemented and under full training (weapons firing) conditions in order to determine the actual Zone II locations. Following this testing, pending USAPHC recommendation, additional minimization measures, such as constructing noise barriers, would be considered if necessary. Therefore, the Preferred Action Alternative would result in ***long-term, less-than-significant adverse impacts*** on the local noise environment.

4.4.1 No Action Alternative

Under the No Action Alternative, the proposed MPMG Range would not be constructed and aerial door gunnery maneuver training would not be implemented; therefore, noise levels at RMTC would remain at current levels. ***No impacts*** on the noise environment would occur.

4.5 Soils

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on soils:

- Alternative would substantially increase potential occurrences of erosion or sedimentation.
- Alternative would subject new areas to training activities that would result in substantial changes to soils (i.e., impact area for explosions).

4.5.1 Preferred Action Alternative

No effect to soils would occur within the SDZs or WDZs as no ground disturbance is required in these areas. Construction of the proposed MPMG Range and installation of temporary targets for aerial door gunnery maneuver training would result in ***short-term, less-than-significant adverse*** impacts on soils. Construction within the 223-acre permanent MPMG Range footprint would remove vegetative cover, disturb the soil surface, and compact the soil. In addition, approximately 139 acres of soils within the temporary aerial gunnery maneuver training area may be temporarily disturbed or compacted from the placement and removal of temporary targets. Soils would then be susceptible to erosion by wind and surface runoff. More frequent erosion events would increase sedimentation in surface runoff. Projects that result in soil disturbance of one acre or more require a National Pollutant Discharge Elimination System (NPDES) permit from ADEQ. Further, the AR ARNG would prepare a detailed, site-specific Erosion and Sediment (E&S) Control Plan to minimize impacts on soils, including requirements such as:

- Install and monitor erosion-prevention controls such as silt fences and water breaks, sedimentation basins, filter fences, sediment berms, interceptor ditches, straw bales, rip-rap, and/or other sediment control structures; re-spreading stockpiled topsoil; and seeding/revegetating areas temporarily cleared of vegetation.

- Retain trees to the maximum extent possible.
- Plant and maintain soil-stabilizing vegetation on disturbed areas other than bare earth training areas.
- Use native vegetation to revegetate disturbed soils.
- Comply with the RMTC SPCCP and ensure all field personnel are trained in spill response.

The AR ARNG would implement BMPs identified in **Section 4.12** to minimize soil impacts during ground disturbance activities.

While approximately 62 percent of the Proposed Action area contains prime farmland soils, the existing area is not used for agricultural purposes. Further, the Proposed Action would be exempt from FPPA compliance as it involves construction for national defense purposes (USDA NRCS, 2021a). In a response letter dated 4 May 2021, NRCS stated that the Proposed Action would not affect Prime Farmland because of its location on a military installation (see **Appendix A)**. Therefore, no impacts to prime farmland would occur.

Operation of the Preferred Action Alternative would result in ***long-term, less-than-significant adverse impacts*** on soils. Military training operations and equipment and vehicle use at the MPMG Range and for aerial door gunnery maneuver training could cause minimal erosion impacts. However, vehicles would stay on designated roads and bare soils would be revegetated. With implementation of the E&S Control Plan and BMPs during site development and operation, soil erosion, runoff, and resulting sedimentation would be minimized to the extent practicable.

4.5.2 No Action Alternative

Under the No Action Alternative, the proposed MPMG Range would not be developed and aerial door gunnery maneuver training would not be implemented; therefore, ***no impacts*** on soils would occur in the Proposed Action area. Current soil conditions at RMTC would persist.

4.6 Water Resources

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on water resources:

- Alternative would increase flooding in the Proposed Action area due to changes in drainage patterns or construction in the 100-year floodplain.
- Alternative would substantially alter the quantity or quality of surface water.
- Alternative would result in a net loss of wetland acreage or substantially degrade existing wetland quality.
- Alternative would substantially alter the quantity or quality of groundwater.

4.6.1 Preferred Action Alternative

The Preferred Action Alternative would result in ***short-term, less-than-significant adverse impacts*** on surface water and water quality. **No impacts** on floodplains or wetlands would occur. The AR ARNG would implement BMPs identified in **Section 4.12** to minimize or avoid impacts on water resources to the extent practicable.

4.6.1.1 Surface Waters and Water Quality

Potential impacts to surface water could occur from inadvertent release of contaminants during construction of the MPMG Range and operation of the MPMG Range and aerial door gunnery maneuver training. Such contaminants could include fuel and other petroleum products or liquids from vehicle and equipment use. **Section 4.12** discusses potential pollution (i.e., from chemicals, fuels, etc.) impacts attributable to the Preferred Action Alternative, and identifies BMPs that minimize potential impacts to ***less-than-significant*** levels.

As discussed in **Section 4.5.1**, construction activities that result in soil disturbance (e.g., clearing, grading, or excavation) of 1 acre or more of total land require a NPDES General Permit for Construction Activities. The AR ARNG would develop a site-specific Storm Water Pollution Prevention Plan (SWPPP) and comply with the E&S Control Plan to minimize impacts from surface water runoff. As such, short-term adverse impacts to surface water quality during construction would be maintained at ***less-than-significant*** levels through implementation of BMPs and adherence to permit conditions

4.6.1.2 Floodplains

As discussed in **Section 3.7.2**, 12.8 acres of the proposed MPMG Range footprint are within the 100-year floodplain. The floodplain encroachment would occur at one 1,500-meter lane. One Stationary Armor Target would be placed in or around this area, which would not require any construction. Given that only a small area of floodplain would be impacted by the MPMG Range footprint relative to the total floodplains occurring in the Proposed Action area (2 percent), and no new structures would be constructed in this area, downstream flood hazards would not be increased or newly created. No floodplains occur within the area in which proposed aerial door gunnery maneuver training would occur. Therefore, ***no impacts*** on floodplains would be anticipated from the proposed MPMG Range.

4.6.1.3 Wetlands

Construction of the proposed MPMG Range would not result in any direct impacts to WOUS occurring in the proposed MPMG Range construction footprint. Only a small amount of WOUS occur in the area of disturbance (0.1 acre of wetlands, 0.4 acre of ponds, and 0.4 mile of streams). The AR ARNG would avoid these features during construction. Further, no ground disturbance would occur for the implementing aerial door gunnery maneuver training, and temporary targets would not be placed in WOUS. Therefore, the Proposed Action would have ***no effect*** on WOUS aside from potential less-than-significant impacts on surface water quality as discussed above.

The AR ARNG would implement BMPs identified in **Section 4.12** to minimize or avoid impacts on water resources to the extent practicable.

4.6.2 No Action Alternative

Under the No Action Alternative, the proposed MPMG Range and aerial door gunnery maneuver training would not be implemented. ***No impacts*** would occur to water resources; conditions in and near the Proposed Action area would remain as described in **Section 3.7**.

4.7 Biological Resources

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on biological resources:

- Alternative would convert or degrade existing rare habitats not currently managed in a conservation plan.

- Alternative would convert or degrade a substantial amount of existing habitat.
- Alternative would result in substantial mortality of wildlife.
- Alternative would adversely affect populations of federally or state-listed threatened or endangered species.

4.7.1 Preferred Action Alternative

Under the Preferred Action Alternative, there would be ***short- and long-term, less-than-significant adverse impacts*** on vegetation, wildlife, and special status species. ***No impacts*** on T&E species would occur.

4.7.1.1 Vegetation

The AR ARNG previously converted a total of 223 acres of vegetation as part of a state initiative to support construction of the proposed MPMG Range. As a result, all trees in the MPMG Range footprint are already felled; remaining tree stumps and shrubs would be converted to grassland. While this conversion would be a permanent impact, it represents only 4 percent of total woodlands at RMTC, and would thus be negligible in relation to the overall vegetation composition at RMTC. No vegetation disturbance would be required for proposed aerial door gunnery maneuver training or in the SDZs or WDZs. The AR ARNG would conduct construction and operational activities in accordance with management guidelines outlined in the RMTC INRMP; native species would be used to the extent practicable when revegetating land disturbed by construction. Impacts to vegetation would be ***short- and long-term, less-than-significant adverse***.

4.7.1.2 Wildlife

Wildlife in the Proposed Action area would sustain both ***short- and long-term, less-than-significant adverse impacts***, primarily associated with construction disturbance (e.g., noise, vibrations, and increased human presence). During construction activities, wildlife species would be expected to vacate the Proposed Action area; less mobile species (i.e., small mammals, reptiles, amphibians) could potentially suffer loss of life during initial construction activities. All merchantable timber has already been harvested from the proposed MPMG Range footprint. In the long-term, firing operations and human presence during training events would disturb nearby wildlife. Given the relatively small area of disturbance compared to available undeveloped land within RMTC, and that the Proposed Action area is currently used for other training activities, impacts on wildlife would not be significant.

4.7.1.3 Special Status Species

As discussed in **Section 3.8.3,** no federally or state-listed T&E species occur at RMTC. Therefore, the Preferred Action Alternative would have ***no effect*** on T&E species. The AR ARNG initiated consultation with the USFWS on 21 April 2021 to request concurrence on this determination. The USFWS concurred with this determination on 26 April 2021 (see **Appendix A**).

While suitable habitat for bald eagles potentially exists near the Proposed Action area, the species has not been observed residing or nesting on RMTC or adjacent areas. Any stray individuals that occur in the Proposed Action area would only occur in passing. Therefore, ***no adverse effect*** to bald eagles is anticipated under the Preferred Action Alternative.

The AR ARNG is responsible under the MBTA, 50 CFR 21, and EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*) to promote and protect the health and integrity of migratory birds. As described in **Section 3.8.3**, eight migratory birds of concern have been observed in the Proposed Action area. Land disturbing activities may directly impact migratory birds and other ground nesting birds during the breeding season due to potential stressors, such as the use of heavy machinery and increased noise.

However, given the temporary nature of construction activities and that trees in the proposed MPMG Range footprint have already been felled, adverse effects would be ***less-than-significant***. Individual birds would be anticipated to leave during land clearance activities to avoid construction disturbance. Further, construction activities would be scheduled to occur, to the extent feasible, outside the breeding season or late in the breeding season. Per 50 CFR Part 21.15, the DoD is authorized to incidentally take migratory birds in the course of military readiness activities, but with limitations. Impacts to migratory birds as a result of the Proposed Action would not cause a significant adverse impact on any population of migratory bird species.

Potential ***long-term, less-than-significant adverse*** effects to migratory birds could occur during operation of the Preferred Action Alternative. Proposed training activities could have the potential to injure or kill migratory birds, but the likelihood of birds being struck during operational activities is considered low and would be incidental. Individual birds may temporarily relocate from the Proposed Action area during training exercises to other suitable habitat within RMTC due to disturbance from noise and/or human presence. However, these birds would likely return upon completion of the training exercises due to the sporadic nature of these events. To minimize potential impacts to migratory birds and special status species, operational activities would be conducted in accordance with the current RMTC INRMP and the Memorandum of Understanding (MOU) between the DoD and USFWS (see **Appendix D**). The AR ARNG would also incorporate bird protection measures into the Proposed Action, by assessing bird-window collision deterrence options during the design phase of the SAROCA facilities, and by ensuring any power lines needed to support the Proposed Action are designed to prevent bird electrocutions. Range maintenance would be conducted outside the breeding season (generally April to August), to the extent feasible. In the event that proposed training activities start a fire on the firing points, the fire would be extinguished in accordance with existing range management rules before it reaches adjacent natural areas.

4.7.2 No Action Alternative

Under the No Action Alternative, the proposed MPMG Range would not be developed and proposed aerial door gunnery maneuver training would not be conducted; current biological conditions at RMTC would persist. Therefore, ***no impacts*** to biological resources would occur.

4.8 Cultural Resources

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on cultural resources:

- Alternative would degrade, or cause neglect of, an archaeological site, NRHP-listed or –eligible resource, or cemetery that could not be mitigated through a Memorandum of Agreement (MOA) with the SHPO.
- Alternative would degrade, or decrease access to, cultural resources of value to federally recognized Native American tribes that could not be mitigated through a MOA with the SHPO and tribes.

4.8.1 Preferred Action Alternative

The Preferred Action Alternative is anticipated to have ***no effects*** on historic properties, as no eligible or unevaluated historic structures or archaeological sites have been identified within the permanent MPMG Range footprint, where ground disturbance would occur. While two cemeteries are present in the SDZ/WDZ, these cemeteries would not be directly targeted during live fire activities and neither is listed or eligible for listing on the NRHP. The AR ARNG initiated consultation with the Arkansas Historic Preservation Program (AHPP) via email on 21 April 2021. On 28 October 2021, AHHP determined that no historic

properties would be affected by this undertaking. The AR ARNG also initiated consultation with Native American tribes in accordance with NEPA, NHPA, DoDI 4710.02, and AR 200-1. To date, no sacred, religious, cultural, or traditional resources have been identified by the Native American tribes that would be affected by the Preferred Action Alternative. A list of tribes contacted and copies of correspondence letters are included in **Appendix A**.

Should archaeological materials or human remains be inadvertently discovered during ground disturbing activities, all work would immediately cease, and the proper authorities would be contacted in accordance with the AR ARNG ICRMP.

4.8.2 No Action Alternative

Under the No Action Alternative, the MPMG Range and aerial door gunnery maneuver training would not be pursued; thus, ***no impacts*** to historic, archaeological, or tribal resources would occur.

4.9 Environmental Justice

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on environmental justice populations:

- Alternative would cause socioeconomic impacts that disproportionately affect low-income or minority populations.

4.9.1 Preferred Action Alternative

Under the Preferred Action Alternative, ***no adverse effects*** to environmental justice communities would be anticipated. While North Little Rock is considered a potential environmental justice community of concern due to a minority population greater than 50 percent, the population with in a 5-mile buffer of the Proposed Action area does not meet the definition of an environmental justice community per the USEPA's Environmental Justice Screening and Mapping Tool (USEPA, 2021f). Potential adverse impacts from air emissions or water discharge associated with construction of the Preferred Action Alternative would generally be confined to the MPMG Range footprint, or dissipate within a short distance of the construction site. Similarly, construction noise generated under the Preferred Action Alternative would be temporary and further buffered by the dense forests surrounding the MPMG Range. Training operations and any associated disturbances would be primarily confined within the boundaries of RMTC, and the AR ARNG would provide public notification of upcoming training events. Therefore, environmental justice communities of concern would not be disproportionately affected by the Preferred Action Alternative.

Construction of the Preferred Action Alternative may result in ***short-term, beneficial effects*** on environmental justice communities due to creation of temporary employment opportunities in the construction industry. However, the extent of this benefit would be dependent upon the degree to which minority or low-income persons are employed in these activities.

4.9.2 No Action Alternative

There would be ***no impacts*** on environmental justice under the No Action Alternative. Existing conditions at and surrounding RMTC would remain as is.

4.10 Infrastructure

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on infrastructure or transportation:

- Alternative would increase traffic such that it exceeds the capacity of local roadways.

- Alternative would restrict civilian airspace use outside the scope of any existing agreements with the FAA.
- Alternative would alter utilities such that demand exceeds supply or capacity, or would cause substantial alterations to existing utility systems.

4.10.1 Preferred Action Alternative

Short-term, less-than-significant adverse impacts on traffic may occur during construction of the Preferred Action Alternative. The transport of construction equipment and construction vehicles could temporarily increase traffic congestion, both on RMTC and in the surrounding area. However, transportation networks both on RMTC and in the immediate vicinity are in good condition and construction traffic is not anticipated to cause a noticeable effect. No major road improvements would be necessary to accommodate the Preferred Action Alternative. Gravel access roadways constructed to facilitate access to the MPMG Range would extend from the existing RMTC road network and be designed to meet site-specific soil conditions. Range operations would result in ***long-term, less-than-significant adverse*** impacts to traffic. Increased site usage would result in a local increase in the number of drivers on the road at or near RMTC. This increase, however, would not be noticeable in the context of the major transportation routes in vicinity and only occur on training days. Construction of the overflow parking lot would ensure adequate parking space for range users. Further, transportation networks on and surrounding RMTC are currently adequate to handle additional long-term vehicle traffic.

No effects to the on- or off-post airports or aviation operations would occur as a result of the Preferred Action Alternative. Implementation of aerial door gunnery maneuver training would increase use of the AASF, as rotary aircraft would take off from this facility to undergo training. However, this increase would be minor and would not interfere with or alter current airport operations, as aerial door gunnery maneuver training would only occur during approximately 57 days over the span of a year. Aircraft operations would remain in the aerial door gunnery maneuver training course only or in the flight path between the AASF and the proposed training course. The Preferred Action Alternative would not interfere with or alter current airport operations. Current airspace restrictions in place would continue to be implemented and followed.

Short-term, less-than-significant adverse impacts on utilities may occur during construction of the Preferred Action Alternative. Water, electricity, and telecommunications would be extended to the MPMG Range from existing RMTC utility infrastructure. Potential service disturbances could occur during utility connections. However, these disruptions would be temporary and avoided to the extent practicable. Utility extensions would follow existing rights-of-way and AR ARNG would obtain and adhere to all required permits before any utility extensions commence. Local service providers would have capacity to meet projected increased utility use. Required utilities for operating the Preferred Action Alternative would not exceed existing supply or capacity at RMTC.

4.10.2 No Action Alternative

Under this alternative, the proposed MPMG Range and aerial door gunnery maneuver training would not be implemented. Utility infrastructure and traffic and transportation at RMTC would remain the same as current conditions. ***No impacts*** would occur.

4.11 Hazardous and Toxic Materials and Wastes

The Preferred Action Alternative and No Action Alternative were evaluated against the following significance criteria to determine if they would result in a significant impact on HTMW:

- Alternative would substantially increase generation of, or exposure of the public to, hazardous substances.
- Alternative would substantially increase the presence of hazardous substances in the environment (i.e., contamination).
- Alternative would substantially restrict the use of property due to hazardous waste, materials, or potential site remediation requirements.

4.11.1 Preferred Action Alternative

Under the Preferred Action Alternative, ***short-term, less-than-significant adverse*** impacts associated with HTMW would be anticipated due to construction activities. Operation of construction vehicles and equipment would create the potential for discharge, spills, and contamination of commonly used products, such as diesel fuel, gasoline, oil, antifreeze, and lubricants. Even without major release events, multiple minor releases could have potential adverse effects to the environment within the vicinity of the proposed MPMG Range. Any hazardous materials discovered, generated, or used during construction would be handled and disposed of in accordance with applicable local, state, and Federal regulations. The RMTC SPCCP, which identifies potential sources of pollution, BMPs to limit potential releases, procedures to respond to pollution events, and procedures to handle hazardous materials, would be followed during construction. While the proposed MPMG Range footprint was found to be a low risk area for UXO and MEC, explosive hazards can exist anywhere on a military installation. In the event that UXO/MEC is encountered during construction, an UXO/MEC expert would be contacted immediately for safe handling and removal.

Operation of the Preferred Action Alternative would result in ***long-term, less-than-significant adverse*** impacts associated with HTMW. Range maintenance and training activities would create the potential for discharge and spills of HTMW. New facilities would comply with all applicable standard operating procedures and management plans related to the storage, handling, and disposal of HTMW. The AR ARNG would adhere to all applicable provisions of RMTC's SPCCP during operation of the Proposed Action. Any impacts or potential accidental releases of HTMW during range operations would be handled in accordance with all applicable safety regulations to minimize potential impacts to the extent practicable.

4.11.2 No Action Alternative

Implementation of the No Action Alternative would have ***no effect*** with respect to HTMW at RMTC. The AR ARNG SPCCP would continue to be implemented.

4.12 Best Management Practices

Per established protocols, procedures, and requirements, the AR ARNG would implement BMPs and satisfy all applicable regulatory requirements in association with the Proposed Action. BMPs are practices regularly implemented by the AR ARNG and are included as components of the Preferred Action Alternative, as appropriate. BMPs are different from "mitigation measures," which are defined as project-specific requirements (not routinely implemented by the AR ARNG) necessary to reduce potentially significant adverse environmental impacts to less-than-significant levels. Under the Preferred Action Alternative, no significant impacts would be anticipated; therefore, no mitigation measures are required to reduce potentially significant adverse impacts.

Land Use and Cover. The AR ARNG would minimize ground disturbance to the extent practicable to minimize land disturbance while still providing adequate space to conduct the required training activities.

Air Quality. The AR ARNG would ensure dust control associated with construction of the proposed MPMG Range is conducted in accordance with ADEQ – Office of Air Quality guidelines. Available methods include

application of water, soil stabilizers, or vegetation; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-movement activities during high wind conditions. To minimize dust generated by vehicles and equipment on unpaved surfaces, the AR ARNG would maintain an appropriate operating speed. In addition, the AR ARNG would shut down equipment when not in use, repair and service equipment in accordance with the regular maintenance schedule recommended, and clean off excess soil from equipment before leaving the construction zone to prevent off-site transport. These dust-reducing measures will be briefed to the construction contractor responsible for implementing these activities. The AR ARNG's on-site construction manager would be responsible for bringing air quality issues, if they arise, to the AR ARNG for resolution.

Noise. The following standard BMPs would be implemented by the AR ARNG, as appropriate, to limit noise impacts during construction: (1) Stationary equipment and material transportation routes would be located as far away from sensitive receivers as practicable; (2) Equipment would be operated per manufacturer's recommendations, and noise-generating heavy equipment would be shut down when not needed; and, (3) Construction personnel would be directed to operate equipment in the quietest manner practicable (e.g., speed restrictions, retarder brake restrictions, engine speed restrictions, etc.). The AR ARNG would make sure these noise-reducing measures are briefed to the contractor or Soldiers responsible for implementing these activities. The AR ARNG's on-site construction manager would be responsible to bring noise issues, if they arise, to the AR ARNG for resolution. This information would be incorporated into construction contracts. During range operations, training activities would occur in accordance with the AR ARNG SONMP. The AR ARNG would provide public notification of upcoming training events and continue implementing its current noise complaint protocol. Additional noise testing would be performed by the USAPHC once the MPMG Range and aerial door gunnery maneuver training are operational and under full training conditions in order to determine additional minimization measures, if necessary.

Soils. The AR ARNG would prepare a detailed, site-specific E&S Control Plan to address all earth-disturbance aspects of the Proposed Action. The E&S Control Plan would include standard BMPs, such as specific guidelines and engineering controls to address anticipated erosion and resultant sedimentation impacts from establishing and operating the proposed MPMG Range. The AR ARNG would implement the following measures: install and monitor erosion-prevention measures such as silt fences and water breaks, sedimentation basins, filter fences, sediment berms, interceptor ditches, straw bales, rip-rap, and/or other sediment control structures; re-spread stockpiled topsoil; and seed/revegetate areas temporarily cleared of vegetation with native vegetation.

Water Resources. Project activities that result in soil disturbance (e.g., clearing, grading, or excavating) of 1 acre or more require a NPDES permit from ADEQ. Long-term surface water protection during training operations would be accomplished by implementing stormwater BMPs, maintaining vegetative cover, and implementing the RMTC SPCCP.

Biological Resources. The AR ARNG would limit ground disturbing activities during the establishment of the proposed MPMG Range to the extent feasible. When revegetating, the AR ARNG would use native plant species to the maximum extent practicable. Long-term land management and training operations would be conducted in accordance with the RMTC INRMP. To minimize potential impacts associated with vegetation removal, land clearing activities would be scheduled to occur, to the extent feasible, outside the migratory bird breeding season or late in the breeding season. Further, SAROCA facilities and power lines would be designed in a manner to incorporate bird protection measures to the extent feasible, such as bird-window collision deterrence options and bird electrocution prevention measures.

Cultural Resources. Should archaeological materials or human remains be inadvertently discovered during ground disturbing activities, all work would immediately cease, and the proper authorities would be contacted in accordance with the AR ARNG ICRMP.

Infrastructure. The AR ARNG would minimize heavy construction vehicle and equipment movement during peak rush hour on the installation. Coordination with RMTC personnel would occur as needed. The AR ARNG would also obtain necessary approvals and permits for extension or installation of utility services.

HTMW. During construction and operation of the proposed MPMG Range and implementation of aerial door gunnery maneuver training, the AR ARNG would handle or dispose of all generated or used HTMW in compliance with the RMTC SPCCP. In the event that UXO/MEC is encountered during construction, an UXO/MEC expert would be contacted immediately for safe handling and removal.

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SECTION 5: Comparison of Alternatives and Conclusions

5.1 Comparison of the Environmental Consequences of the Alternatives

This EA has evaluated the potential environmental, socioeconomic, and cultural effects of the AR ARNG's proposal to construct and operate the proposed MPMG Range and implement aerial door gunnery maneuver live fire exercises as detailed in **Section 2.2**. Two alternatives were evaluated: Preferred Action Alternative and No Action Alternative. A comparison of the environmental consequences of these alternatives is provided in **Table 5-1**.

Table 5-1: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Land Use and Cover	***Long-term, minor adverse impact*** to future land use from a decrease in the utility and use of training land at RMTC.	***Long-term, less-than-significant adverse impact*** on land cover from the conversion of unimproved to semi-improved grounds, and recreation from the reduction in public hunting availability; ***long-term beneficial impact*** on land use from maximized training value; ***no effect*** on aesthetics and visual resources.
Air Quality	No impact.	***Short-term, less-than-significant adverse impact*** on air quality and climate change from construction-related air emissions; ***long-term, beneficial impact*** on air quality and climate change from reduced vehicular emissions.
Noise	No impact.	***Short-term, less-than-significant adverse*** **impact** from construction noise; ***long-term, less-than-significant adverse impact*** from Zone II noise levels extending off-post.
Soils	No impact.	***Short-term, less-than-significant adverse impact*** from soil erosion and sedimentation during construction; ***long-term, less-than-significant adverse*** impact on soil erosion from increased impervious surfaces and training vehicle/equipment usage.

Table 5-1: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Water Resources	No impact.	***Short-term, less-than-significant adverse impact*** on surface water from inadvertent releases during construction; ***short-term, less-than-significant adverse impact*** on surface water quality from increased erosion and sedimentation; ***long-term, less-than-significant adverse impact*** on surface water quality from runoff during range operations; ***no impact*** on WOUS and floodplains from construction and operation of the MPMG Range as these resources would be avoided.
Biological Resources	No impact.	***Short- and long-term, less-than-significant adverse impact*** on vegetation communities from conversion activities; ***short- and long-term, less-than-significant adverse impact*** on wildlife species, including migratory birds, from habitat loss and displacement; ***no effect*** on T&E species.
Cultural Resources	No impact.	***No effect*** on historic properties, as no eligible or unevaluated historic structures or archaeological sites have been identified within the construction footprint.
Environmental Justice	No impact.	***No adverse effect*** as the environmental justice community of concern would not be disproportionately impacted; ***potential short-term, beneficial impact*** on environmental justice from an increase in temporary employment.

Table 5-1: Alternatives Comparison Matrix

Technical Resource Area	No Action Alternative	Preferred Action Alternative
Infrastructure	No impact.	***Short-term, less-than-significant adverse impact*** on utility service from line extensions and construction activities; ***short- and long-term, less-than-significant adverse impact*** on traffic and congestion from construction activities and increased facility usage.
Hazardous and Toxic Materials and Wastes	No impact.	***Short- and long-term, less-than-significant adverse impact*** from use, storage, and generation of HTMW during construction activities and range operations.

5.2 Conclusions

The evaluation performed within this EA concludes there would be no significant adverse impact to the natural or social environment as a result of implementing the Proposed Action; therefore, an EIS is not needed to support the implementation of the Proposed Action, and a FNSI is appropriate. The Preferred Action Alternative was determined by the AR ARNG to provide the best combination of land and resources to sustain quality military training and to maintain and improve the units' readiness postures. The No Action Alternative would not fulfill the purpose of and need for the Proposed Action. It would limit the capability of the AR ARNG to carry out its assigned mission to provide adequate training facilities, and would jeopardize the proficiency and military readiness of the AR ARNG and other military entities that require a MPMG Range and aerial door gunnery maneuver training. As such, this EA recommends implementation of the Preferred Action Alternative.

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SECTION 7: Glossary

100-Year Flood – A flood event of such magnitude that it occurs, on average, every 100 years; this equates to a one percent chance of it occurring in a given year.

Ambient – The environment as it exists around people, plants, and structures.

Aquifer – An underground geological formation containing usable amounts of groundwater which can supply wells and springs.

Archaeological Resource – Any material of human life or activities that is at least 100 years of age and is of archaeological interest (32 CFR Part 229.3(a)).

Area of Potential Effect – The geographical area within which the undertaking may cause changes in the character of or use of historic properties, if any such properties exist. The area may change according to the regulation under which it is being applied and should be established in coordination with consulting parties.

Asbestos – Incombustible, chemical-resistant, fibrous mineral forms of impure magnesium silicate used for fireproofing, electrical insulation, building materials, brake linings, and chemical filters. Asbestos is a carcinogenic substance.

Attainment Area – Region that meets the NAAQS for a criteria pollutant under the CAA.

Bedrock – The solid rock that underlies all soil, sand, clay, gravel and loose material on the earth's surface.

Best Management Practices (BMPs) – Regulatory compliance methods, measures, or practices to minimize adverse effects.

Contaminants – Any physical, chemical, biological or radiological substances that have an adverse effect on air, water or soil.

Council on Environmental Quality (CEQ) – An Executive Office of the President composed of three members appointed by the President, subject to approval by the Senate. Each member shall be exceptionally qualified to analyze and interpret environmental trends; to appraise programs and activities of the Federal government. Members are to be conscious of and responsive to the scientific, economic, social, aesthetic, and cultural needs of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

Criteria Pollutants – The CAA of 1970 required the USEPA to set air quality standards for common and widespread pollutants in order to protect human health and welfare. There are six "criteria pollutants": ozone, carbon monoxide, sulfur dioxide, lead, nitrogen dioxide, and PM.

Cultural Resources – Historic properties as defined by the NHPA; cultural items as defined by NAGPRA; archaeological resources as defined by Archeological Resource Protection Act; sites and sacred objects to which access is afforded under American Indian Religious Freedom Act; and collections and associated records as defined in 36 CFR Part 79. Included are: traditional cultural properties and objects; archaeological sites; historic buildings, structures, and districts; and localities with social significance to the human community.

dBA – “A-weighted” non-impulse noise measurement in decibels, weighted to match human hearing frequency response.

Decibel (dB) – A unit of measurement of sound pressure level.

Elevation – Raising a building and placing it on a higher foundation so the first or lowest floor is above flood levels.

Emission – A release of a pollutant.

Endangered Species – Any species which is in danger of extinction throughout all or a significant portion of its range.

Environmental Assessment (EA) – An EA is a publication that provides sufficient evidence and analysis to show whether a proposed system would adversely affect the environment or be environmentally controversial.

Erosion – The wearing away of the land surface by detachment and movement of soil and rock fragments through the action of moving water and other geological agents.

Floodplain – The relatively flat area or lowlands adjoining a river, stream, ocean, lake, or other body of water that is susceptible to being inundated by floodwaters.

FONSI – Finding of No Significant Impact, a NEPA document.

Fugitive Dust – Particles light enough to be suspended in air, which are not caught in a capture or filtering system. For this document, this refers to particles put in the air by moving vehicles and air movement over disturbed soils at construction sites.

Groundwater – Water found below the ground surface. Groundwater may be geologic in origin and as pristine as it was when it was entrapped by the surrounding rock or it may be subject to daily or seasonal effects depending on the local hydrologic cycle. Groundwater may be pumped from wells and used for drinking water, irrigation and other purposes. It is recharged by precipitation or irrigation water soaking into the ground. Thus, any contaminant in precipitation or irrigation water may be carried into groundwater.

Hazardous Substance – Hazardous materials are defined within several laws and regulations to have certain meanings. For this document, a hazardous material is any one of the following:

- Any substance designated pursuant to section 311 (b)(2) (A) of the CWA.
- Any element, compound, mixture, solution or substance designated pursuant to Section 102 of Comprehensive Environmental Response, Compensation and Liability Act.
- Any hazardous materials or waste as defined under the Resource Conservation and Recovery Act (RCRA).
- Any toxic pollutant listed under Toxic Substances Control Act.
- Any hazardous air pollutant listed under Section 112 of CAA.
- Any imminently hazardous chemical substance or mixture with respect to which the USEPA Administrator has taken action pursuant to Subsection 7 of Toxic Substances Control Act. The term does not include: 1) Petroleum, including crude oil or any thereof, which is not otherwise specifically listed or designated as a hazardous substance in a above. 2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). c. A list of hazardous substances is found in 40 CFR Part 302.4.

Hazardous Waste – A solid waste, which when improperly treated, stored, transported or disposed of poses a substantial hazard to human health or the environment. Hazardous wastes are identified in 40 CFR Part 261.3 or applicable foreign law, rule, or regulation (see also solid waste).

Hazardous Waste Storage – As defined in 40 CFR Part 260.10, ". . . the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere."

Historic Property – Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on, the National Register of Historic Places, including artifacts, records, and material remains related to such a property or resource.

Historic Resources – Any real or personal property, record, or lifeway. Includes: historic real property such as archaeological and architectural places, monuments, designed landscapes, works of engineering or other property that may meet the criteria for inclusion in the NRHP; historic personal property such as any artifact or relic; historic records to include any historical, oral historical, ethnographic, architectural, or other document that provides a record of the past; and community resources/lifeways to include any resource that a community or interested group ascribes cultural value (references to historic real or personal property such as natural landscapes and cemeteries; references to real property such as vistas or viewsheds; or, references to the nonmaterial such as certain aspects of folk life, cultural or religious practices, languages, or traditions).

Jurisdictional Wetland – Areas that meet the wetland hydrology, vegetation, and hydric soil characteristics, and have a direct connection to the Waters of the United States. These wetlands are regulated by the USACE.

Listed Species – Any plant or animal designated as a State or Federal threatened, endangered, special concern, or candidate species.

Mitigation – Measures taken to reduce adverse impacts on the environment.

Mobile Sources – Vehicles, aircraft, watercraft, construction equipment, and other equipment that use internal combustion engines for energy sources.

Monitoring – A process of inspecting and recording the progress of mitigation measures implemented.

National Ambient Air Quality Standards – Nationwide standards set up by the USEPA for widespread air pollutants, as required by Section 109 of the CAA. Currently, six pollutants are regulated by primary and secondary NAAQS: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. NEPA – United States statute that requires all Federal agencies to consider the potential effects of Proposed Actions on the human and natural environment.

Non-attainment Area – An area that has been designated by the USEPA or the appropriate State air quality agency as exceeding one or more national or State ambient air quality standards.

Particulates or Particulate Matter – Fine liquid or solid particles such as dust, smoke, mist, fumes or smog found in air.

Pollutant – A substance introduced into the environment that adversely affects the usefulness of a resource.

Sensitive Receptors – Include, but are not limited to, asthmatics, children, and the elderly, as well as specific facilities, such as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers.

Soil – The mixture of altered mineral and organic material at the earth's surface that supports plant life.

Threatened Species – Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Topography – The relief features or surface configuration of an area.

Toxic Substance – A harmful substance which includes elements, compounds, mixtures, and materials of complex composition.

Undertaking – "An undertaking is a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; those requiring a Federal permit, license, or approval; and those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency" (36 CFR Part 800.16{y]).

Waters of the United States include the following: (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (2) All interstate waters including interstate wetlands. (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.

Watershed – The region draining into a particular stream, river, or entire river system.

Wetlands – Areas that are regularly saturated by surface or groundwater and, thus, are characterized by a prevalence of vegetation that is adapted for life in saturated soil conditions. Examples include swamps, bogs, fens, marshes and estuaries.

Wildlife Habitat – Set of living communities in which a wildlife population lives.

SECTION 8: List of Preparers

Arkansas Army National Guard

Deputy Chief of Staff Engineering / Environmental Branch

Camp J. T. Robinson

N. Little Rock, AR 72199-9600

Mr. Douglas J. Ernst, Environmental Section Deputy Chief

Lieutenant Colonel Matthew C. Leimberg, Operations and Plans Branch Chief and Range Management Authority

Ms. Deanna Holdcraft, Cultural Resources Manager

Mr. Nicholas Goforth, Natural Resources Manager

Mr. Dalton Hills, GIS Manager

AECOM Technical Services, Inc.

12420 Milestone Center Drive, Suite 150

Germantown, MD 20876

Name	Role	Degree	Years of Experience
Jennifer Warf	Project Manager, EA review and oversight	M.S. in Environmental Studies B.A in Zoology	19
Charlene Wu	Preparation of EA sections	Master of Environmental Management B.S. in Environmental Science & Policy	8
Ben Obenland	Preparation of EA sections	B.S. in Environmental Science & Policy	2
Blair Jenet	Preparation of maps and figures; GIS	M.A. Environmental Science B.A. Environmental Science	5

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SECTION 9: Agencies and Individuals Consulted

Federal Agencies

US Army Corps of Engineers
Little Rock District
Planning and Environmental Division
P.O. Box 867
Little Rock, AR 72203-0867
SWLPLN@usace.army.mil

US Environmental Protection Agency
Region 6
1201 Elm Street, Suite 500
Dallas, TX 75270
POC: David W. Gray, Acting Regional Administrator
Gray.david@epa.gov

US Fish & Wildlife Service
Arkansas Ecological Services Field Office
110 S. Amity Road
Suite 300
Conway, AR 72032
POC: Pedro Ardapple-Kindberg, Biologist - Section 7 Consultation
Pedro_Ardapple-Kindberg@fws.gov

USDA Natural Resources Conservation Service
Federal Building, Room 3416
700 W. Capitol Ave.
Little Rock, AR 72201
POC: Mike Sullivan, State Conservationist
michael.sullivan2@usda.gov

State Agencies

Arkansas Game and Fish Commission
Environmental Coordination Division
2 Natural Resources Drive
Little Rock, Arkansas 72205
POC: Jennifer Sheehan, Chief
Jennifer.sheehan@agfc.ar.gov

Arkansas Natural Heritage Commission
1100 North Street
Little Rock, AR 72201
POC: Cindy Osborne, Data Manager/Environment Review Coordinator
cindy.osborne@arkansas.gov

Arkansas Historic Preservation Program
1100 North Street
Little Rock, AR 72201
POC: Scott Kaufman, Deputy State Historic Preservation Officer
Scott.Kaufman@arkansas.gov

Arkansas Department of Energy & Environment
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317
POC: Michelle Gillham, Environmental Program Coordinator
gillham@adeq.state.ar.us

Local Agencies / Organizations

Pulaski County Planning & Development
3200 Brown St
Little Rock, AR 72204
POC: Jim Cranor, Plans Review Coordinator
jcranor@pulaskicounty.net

City of Conway Planning & Development
1111 Main Street
Conway, AR 72032
POC: Beth Sketoe, Planner
Beth.Sketoe@conwayarkansas.gov

North Little Rock Airport
8200 Remount Rd. #1
North Little Rock, AR 72118
POC: Clay Rogers, Director
CRogers@NLR.AR.Gov

Bill and Hillary Clinton National Airport
1 Airport Road
Little Rock, AR 72202
POC: Shane Carter, Director of Public Affairs and Governmental Relations
scarter@clintonairport.com

Native American Tribes

Absentee Shawnee Tribe
2025 South Gordon Cooper Drive
Shawnee, OK 74801
405-275-4030
POC: Ms. Devon Frazier, THPO
106NAGPRA@astribe.com

Alabama-Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883
405-452-3987
POC: Samantha Robison, THPO
aqhpo@mail.com *(prefers hard copy)*

Cherokee Nation of Oklahoma
P.O. Box 948
Tahlequah, OK 74465
918-453-5000
POC: Elizabeth Toombs, THPO
elizabeth-toombs@cherokee.org

Coushatta Tribe of Louisiana
P.O. Box 818
Elton, LA 70532
318-709-8488
POC: Ms. Linda Langley, THPO / Raynella Fontenot
rdfontenot@coushatta.org

Eastern Shawnee Tribe of Oklahoma
P.O. Box 350
Seneca, MO 64865
918-666-2435
POC: Mr. Brett Barnes, THPO
bbarnes@estoo.net

Jena Band of Choctaw Indians
P.O. Box 14
Jena, LA 71342
318-992-1205
POC: Ms. Alina J. Shively, THPO
ashively@jenachoctaw.org

Kialegee Tribal Town
P.O. Box 332
Wetumka, OK 74883
405-452-3413
POC: Mr. Brian Givens, Mekko
Brian.givens@kialegeetribe.net

Mississippi Band of Choctaw Indians
P.O. Box 6257
Choctaw, MS 39350
601-656-5251
POC: Mr. Kenneth Carleton, Tribal Archaeologist
kcarleton@choctaw.org

Muscogee (Creek) Nation of Oklahoma
P.O. Box 580
Okmulgee, OK 74447
918- 732-7733
POC: Corain Low-Zepeda, THPO
section106@mcn-nsn.gov

Osage Nation
P.O. Box 779
Pawhuska, OK 74056
918-287-5671
POC: Dr. Andrea Hunter, THPO / Mr. Jess Hendrix, Deputy THPO
jess.hendrix@osagenation-nsn.gov

Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363
918-542-4694
479-442-7576
POC: Mr. Everett Bandy, THPO
ebandy@quapawtribe.com

Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884
405-303-2852
POC: Mr. David Franks, THPO
Franks.d@sno-nsn.gov

Shawnee Tribe of Oklahoma
P.O. Box 189
Miami, OK 74355
918-542-2441
POC: Ms. Tonya Tipton, THPO
tonya@shawnee-tribe.com

Thlopthlocco Tribal Town
P.O. Box 188
Okemah, OK 74859
405-220-2185
POC: Mr. Galen Cloud, THPO
thpo@tttown.org

United Keetoowah Band of Cherokee Indians in Oklahoma
P.O. Box 746
Tahlequah, OK 74465
918-456-6533
POC: Whitney Warrior, Director Historic Preservation
wwarrior@ukb-nsn.gov

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Appendix A – Agency Coordination and Native American Consultation

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Appendix B – US Army Public Health Command Operational Noise Consultation for Proposed Multi-Purpose Machine Gun Range and Aerial Door Gunnery Range at Robinson Maneuver Training Center, Arkansas

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Appendix C – Greenhouse Gas Emissions Analysis

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Appendix D – Memorandum of Understanding between the US Department of Defense and the US Fish and Wildlife Service to Promote the Conservation of Migratory Birds

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