Final
Environmental Assessment

Programmatic Environmental Assessment
Cantonment Area Master Plan at Fort Campbell
USACE Contract: W912QR-14-D-0001
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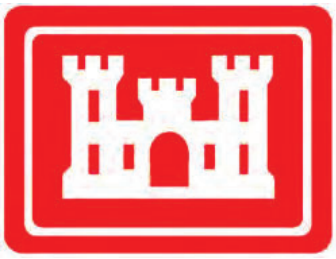

Prepared for:

U.S. Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King, Jr. Place,
Louisville, Kentucky 40202

Revision 00; September 2020

CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW
COMPLETION OF INDEPENDENT TECHNICAL REVIEW

The Alliant/APTIM team has completed a review of the **FINAL Programmatic Environmental Assessment (PEA) for the Cantonment Area Master Plan at Fort Campbell, Kentucky**. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing USACE policy.

All comments resulting from the independent technical review have been resolved.

William H. Scoville, PE, PMP, Aptim Federal Services, LLC
Independent Technical Review Team Leader

September 28, 2020
Date

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

All concerns resulting from the independent technical review of the deliverable have been fully resolved.

Paul Shipp, PG, Alliant Corporation
Program Manager

September 28, 2020
Date

Final
FINDING OF NO SIGNIFICANT IMPACT
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
CANTONMENT AREA MASTER PLAN
FORT CAMPBELL, KENTUCKY
September 2020

The National Environmental Policy Act (NEPA) of 1969, 42 U.S. Code (USC) Section 4321 et seq., requires federal agencies to consider potential environmental impacts prior to undertaking a course of action. NEPA is implemented through the Council on Environmental Quality (CEQ) regulations, 40 Code of Federal Regulations (CFR) Parts 1500-1508, and within the Army's NEPA regulation, 32 CFR Part 651, *Environmental Analysis of Army Actions*. In accordance with these regulations, the Army has prepared a Programmatic Environmental Assessment (PEA), which is incorporated by reference in this Finding of No Significant Impact (FNSI), to consider environmental effects of construction, operation, and maintenance of Master Plan projects in the Cantonment Area at Fort Campbell, Kentucky.

The PEA is intended to facilitate NEPA compliance for routine infrastructure projects within the Cantonment Area, which consists of eight individual Area Development Plans (ADPs) (i.e., distinct areas within the Cantonment Area). The ADPs are linked to the 2018 Capital Investment Strategy (CIS) for Fort Campbell. The CIS ties all projects to one central document. These documents are collectively referred to as the "Master Plan" in the EA. The PEA presumes the continued implementation of the extensive and on-going Fort Campbell environmental management program. As a result of established environmental processes that have occurred at Fort Campbell, it is no longer necessary to address historically common and repetitive impacts with additional Environmental Assessments (EAs)/FNSIs for individual action items, which are executed daily throughout the entire installation. For example, ground-disturbing activities that remove vegetative cover for extended periods of time due to construction, demolition, renovation, and/or automobile traffic activities that are to occur on a daily basis are being monitored at Fort Campbell to avoid erosion and deposition of sediment into the downstream watershed. Therefore, the PEA, if implemented, would identify, document, and evaluate effects of applying standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area.

1. Proposed Action

The Proposed Action would employ standardized operating practices for routine renovation, demolition, and construction Master Plan projects in the Cantonment Area. Compliance with installation environmental management plans and corresponding environmental laws and regulations would be accomplished for all Cantonment Area development projects.

2. Alternatives

The PEA analyzes three alternatives including a No Action alternative. The goal of the programmatic approach is to streamline the NEPA process for Master Plan-related projects within the Cantonment Area by providing sufficient detail about environmental impacts on resources to enable Fort Campbell to tier off of this PEA, as appropriate. Alternatives considered and analyzed in the PEA include:

- **Alternative A: Implement All Master Plan Projects (Proposed Action).** Fort Campbell would implement all short-range (0 to 5 years), mid-range (5 to 16 years), and long-range (16 to 25 years) Master Plan projects described in each of the eight ADPs. This alternative captures the wide range of projects represented in the Master Plan. The general types of construction, renovation, and demolition projects described in the individual ADPs are summarized by planning district in Table 1.

Table 1. Types of Projects Planned in Each Area Development Plan

Area Development Plan:	ARSOAC	CAAF	Sabre	Clarksville Base	Cole Park	Screaming Eagle	SOAR	Town Center
Planned Action								
Construction:								
Building	X	X	X		X	X	X	X
Hangar	X	X	X				X	
Roads		X		X	X	X	X	X
Parking Areas	X		X	X	X	X		X
Sidewalk					X			
Airfield Ramp Extension		X						
Access Control Point	X	X	X	X			X	
Trail System				X	X	X		X
Bridges				X	X			
Other (e.g., retention ponds, displays, memorials)	X	X	X		X	X	X	X
Recreational Areas				X	X			X
Repavement – Roads				X				
Repavement – Runway, Ramps		X						
Expansion – Road		X		X	X	X		X
Improvements – Road						X		
Re-align or Re-route – Road			X		X			X
Replacement – Bridge				X				
Standardize Access Control Point		X						
Renovation / Modernization:								
Building					X		X	X
School				X				
Hangar	X	X					X	
Modernization - Hangar	X						X	
Demolition:								
Building	X	X	X		X	X	X	X
Hangar		X						
Road		X						X
Parking Areas					X			
Bridge				X				
Underground Storage Tank					X			
Other		X	X	X	X	X		
Other:								
Preservation of Historic Bunkers				X				
Provision of Solar Energy				X				
Landscaping / Revegetation					X	X		X
Acquisition of Land / Easements		X						

Notes:
ARSOAC – Army Special Operations Aviation Command
CAAF – Campbell Army Airfield
SOAR – Special Operations Aviation Regiment

- **Alternative B: Short-Range and Mid-Range Projects.** Similar to Alternative A, this alternative differs in that it only includes the short-range (0 to 5 years) and mid-range (5 to 16 years) projects described in each ADP. As the estimated timeframe for the long-range projects extends from 16 to 25 years, the

project timelines and discretionary funding from Congress are uncertain. By that time, the Cantonment Area PEA would need to be updated to reflect changes in conditions and priorities at Fort Campbell. Therefore, the long-range (16 to 25 years) projects are not included in Alternative B.

- **No Action.** The No Action serves as a baseline against which impacts of a proposed action and alternatives can be evaluated. Under the No Action alternative, implementation of Master Plan projects would not occur in Fort Campbell's Cantonment Area. Baseline conditions would remain the same for NEPA review and discrete environmental impact analysis would continue for each individual project as described in detail in each of the eight ADPs and summarized in Table 1. The No Action alternative would result in generation of duplicative environmental analysis documentation and initiation of public notification procedures.

3. Summary of Environmental Effects

No significant impacts are anticipated as a result of the Army's Preferred Alternative (Alternative A) or any of the alternatives analyzed in the PEA. A summary of impact ratings for each alternative is presented in Table 2 for each resource area analyzed (note: resource areas are referred to as Valued Environmental Components [VECs]).

Table 2. Summary of Impact Rating for Each Alternative Analyzed

Valued Environmental Component (VEC)	Alternative A Implement All Master Plan Projects	Alternative B Short-Range and Mid-Range Projects	Alternative C No Action
Air Quality	Minor	Minor	No Impact
Airspace	No Impact	No Impact	No Impact
Cultural Resources	Project-Specific	Project-Specific	No Impact
Noise	Significant but Mitigable	Significant but Mitigable	No Impact
Earth Resources	Significant but Mitigable	Significant but Mitigable	No Impact
Biological Resources	Significant but Mitigable	Significant but Mitigable	No Impact
Water Resources	Less than Significant	Less than Significant	No Impact
Facilities	Beneficial	Beneficial	Significant but Mitigable
Socioeconomics	Beneficial	Beneficial	Significant but Mitigable
Utilities	Beneficial	Beneficial	No Impact
Land Use	Negligible	Negligible	No Impact
Hazardous Materials/Waste	No Impact	No Impact	No Impact
Storage Tanks	No Impact	No Impact	No Impact
Traffic/Transportation	Minor	Minor	Minor
Solid Waste	Minor	Minor	No Impact
Environmental Justice	No Impact	No Impact	No Impact
Safety and Occupational Health	Minor	Minor	No Impact

Impacts are largely anticipated to be minimized through avoidance and through implementation of environmental procedure measures. Impact avoidance could include: selection of a proposed site alternate location; how the project site is designed; and when construction activities are scheduled. Environmental protection measures to decrease impacts could include: implementing Best Management Practices (BMPs) to reduce and minimize impacts associated with stormwater runoff, erosion, sedimentation, and pollutants during construction; maintaining construction vehicles and equipment; ensuring adequate and ecosystem-appropriate vegetation and/or gravel cover at post-construction sites; and ensuring appropriate safety equipment use by construction and maintenance workers.

4. Public Review and Interagency Coordination

The PEA and FNSI were made available for public, agency, and tribal review on March 3, 2020, when a Notice of Availability (NOA) was published in the following newspapers for a 30-day review period: *The Leaf Chronicle*, *Stewart County Standard*, *Kentucky New Era*, and *Cadiz Record*. In addition, a copy of the draft PEA was made available for review at the following public libraries: Clarksville-Montgomery County Library, Christian County Library, Robert F. Sink Library, John L. Street Library, and Stewart County Public Library. The initial public review period was subsequently interrupted by library closures due to the COVID-19 pandemic. The Montgomery County Mayor directed the library to close on March 19, 2020. Hopkinsville-Christian County Library closed on March 17, 2020. The two smaller libraries closed around mid-March. In addition, Executive Orders to "stay-at-home" were issued by the Governors of Kentucky and Tennessee on March 25, 2020 and March 30, 2020, respectively. To address the truncated review period, a second NOA for a 30-day period was published on June 10, 2020 on the Fort Campbell web site and a third NOA for a 21-day review period was published on July 21, 2020 in *The Leaf Chronicle* and *Kentucky New Era* newspapers. For both review periods, the Draft PEA and FNSI were made available on the Fort Campbell web site and in the public libraries listed above. No comments were received from the general public during any of these periods; however, responses to requests for consultation were received from seven agencies. The NOAs from each review period and a summary of the outcome of consultation efforts with pertinent agencies are included in Appendix A of the PEA.

5. Conclusion

Based on a review of the PEA, which is incorporated by reference, and in accordance with requirements of NEPA, the Council on Environmental Quality regulations, and Army Regulation 32 CFR Part 651 et seq., and after careful review of potential impacts, I have concluded that no significant environmental impacts are anticipated to result from implementation of the Proposed Action and any of the alternatives. Consequently, I have also concluded an environmental impact statement is not required and will not be prepared.

The decision is based on potential environmental and socioeconomic impacts associated with the Proposed Action and alternatives, as analyzed in the PEA. My decision complies with legal requirements and has been made after taking into account all submitted information and considering a full range of reasonable alternatives.

ORIGINAL SIGNED **10/26/2020**

JEREMY D. BELL
COL, SF
Commanding

Date

COVER SHEET

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT
CANTONMENT AREA MASTER PLAN
FORT CAMPBELL, KENTUCKY

Responsible Agency: Fort Campbell Directorate of Public Works (DPW)

Affected Location: Fort Campbell, Kentucky

Proposed Action: Implementation of standard practices for construction, demolition, and general maintenance projects prescribed in the Fort Campbell Cantonment Area Master Plan.

Report Designation: Final Programmatic Environmental Assessment (PEA)

Written comments and inquiries regarding this document should be directed to Directorate of Public Works, Environmental Division, Building 871, Bastogne Avenue, Fort Campbell, Kentucky, 42223-5130.

Abstract: The DPW is proposing to identify, document, and evaluate the effects of implementing standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area. The PEA would provide and maintain adequate support infrastructure for soldiers and their families as well as civilian personnel and retirees at Fort Campbell. To accomplish this goal, standardized operating practices for routine renovation, demolition, and construction Master Plan projects in the Cantonment Area would be implemented. The analysis in the PEA considers Alternative A (Proposed Action), Alternative B, and Alternative C (No Action), and will aid in determining whether a Finding of No Significant Impact is justified or whether an Environmental Impact Statement is needed.

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Tables

Figures

Appendices

Acronyms

ABN	Airborne
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos-Containing Material
ACQR	Air Quality Control Regions
ACS	American Community Survey
ADP	Area Development Plan
AF	Air Force
AIRFA	American Indian Religious Freedom Act
Alliant	Alliant Corporation
APE	Area of Potential Effect
APTIM	Aptim Federal Services, LLC
APZ	Accident Potential Zone
AQCR	Air Quality Control Region
AR	Army Regulation
ARPA	Archaeological Resources Protection Act
ARRP	Army Radon Reduction Program
ARSOAC	Army Special Operations Aviation Command
AFSWP	Armed Forces Special Weapons Program
AST	Above-ground Storage Tank
ATFP	Anti-Terrorism/Force Protection
BCC	Bird Species of Conservation Concern
Bhate	Environmental Associates, Inc.
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
BRAC	Base Realignment and Closure
C&DD	Construction & Demolition Debris
CAA	Clean Air Act
CAAF	Campbell Army Airfield
CDNL	C-weighted Day-night Sound Level
CDP	Census-Designated Place
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CIS	Capital Investment Strategy
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CRPM	Cultural Resources Management Program
CWA	Clean Water Act
CX	Categorical Exclusion
CZ	Clear Zone
dB	Decibel
dBA	A-weighted Sound Level Measurement
DNL	Day-night Average A-weighted Sound Level
DoD	Department of Defense
DPW	Directorate of Public Works
EA	Environmental Assessment
EIFS	Economic Impact Forecast System
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
ENMP	Environmental Noise Management Plan
EO	Executive Order
EPSC	Erosion Prevention/Sediment Control
ESA	Endangered Species Act
ESMC	Endangered Species Management Component
ESOHC	Environmental Safety and Occupational Health Council
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FNSI	Finding of No Significant Impact
FORSCOM	U.S. Army Forces Command
ft	Feet
FY	Fiscal Year
GHG	Greenhouse Gas
GIS	Geographical Information System
GWP	Global Warming Potential
HAP	Hazardous Air Pollutant
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HUD	U.S. Department of Housing and Urban Development
IAW	In Agreement With
ICRMP	Integrated Cultural Resources Management Plan
ICUZ	Installation Compatible Use Zone
IDG	Installation Design Guide
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
INRMP	Integrated Natural Resources Management Plan
IPS	Installation Planning Standard
IRAA	Indoor Radon Abatement Act
ISCP	Installation Spill Contingency Plan
ISWM	Integrated Solid Waste Management
KAR	Kentucky Administrative Regulation
KDEP	Kentucky Department for Environmental Protection
KY	Kentucky
LBP	Lead-based Paint
LCTA	Land Condition Trend Analysis
LQG	Large Quantity Generator

MACT	Maximum Achievable Control Technology
µg/m^3	micrograms per cubic meter
mg/m^3	milligram per cubic meter
mgd	Million Gallons per Day
MOA	Military Operations Area
MS4	Municipal Separate Storm Sewer System
MSA	Metropolitan Statistical Area
MSDS	Material Safety Data Sheet
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NAF	Non-Appropriated Funds
NAGPRA	National American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH_3	Ammonia
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NO_x	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O_3	Ozone
OMA	Operations and Maintenance Army
OPA	Oil Pollution Act
OPPA	Oil Pollution Prevention Act
OSHA	Occupational Safety and Health Administration
OWS	Oil/Water Separator
PA	Programmatic Agreement
Pb	Lead
PCB	Polychlorinated Biphenyl
pCi/L	picocuries per liter
PEA	Programmatic Environmental Assessment
$PM_{2.5}$	Particulate Matter with an Aerodynamic Particle Size Less Than 2.5 Micrometers
PM_{10}	Particulate Matter with an Aerodynamic Particle Size Less Than 10 Micrometers
POL	Petroleum, Oil, and Lubricants
ppb	parts per billion
ppm	parts per million
PPOC	Pollution Prevention Operations Center
RCRA	Resource Conservation and Recovery Act
REC	Record of Environmental Consideration
ROI	Region of Influence
RLA	Recycling and Local Assistance
RONA	Record of Non-Applicability
SAAF	Sabre Army Airfield
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SDWA	Safe Drinking Water Act
sf	Square Feet
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SOAR	Special Operations Aviation Regiment
SOP	Standard Operating Procedure
SPCCP	Spill Prevention, Control, and Counter Measures Plan
SUA	Special Use Airspace
SWK	South Western Kentucky Economic Development Council
SWM	Solid Waste Management
SWMP	Stormwater Management Plan
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution Prevention Plan
T&E	Threatened and Endangered
TDEC	Tennessee Department of Environment and Conservation
TN	Tennessee
tpy	tons per year
TSCA	Toxic Substances Control Act
TVA	Tennessee Valley Authority
UAS	Unmanned Aircraft Systems
UAV	Unmanned Aerial Vehicle
UFC	Unified Facilities Criteria
UIC	Underground Injection Control U.S. United States
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USC	United States Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service
USI	U.S. Infrastructure, Inc.
UST	Underground Storage Tank
UXO	Unexploded Ordnance
VEC	Valued Environmental Component
VOC	Volatile Organic Compound
WQPM	Water Quality Program Manager
WWTP	Wastewater Treatment Plant

1.0 Purpose and Need for Action

1.1 Introduction

This Programmatic Environmental Assessment (PEA) has been prepared under the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] Section 4321 et seq.), the Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Army's NEPA regulation (32 CFR Part 651), Environmental Analysis of Army Actions. In general, the CEQ regulations require that prior to implementing any major action, the federal agency must evaluate the proposal's potential environmental effect as well as notify and involve the public in the agency decision-making process.

This PEA is being prepared for the Fort Campbell Directorate of Public Works (DPW), under contract with the U.S. Army Corps of Engineers (USACE). The Proposed Action being evaluated is implementation of standard practices for construction, demolition, and general maintenance projects as prescribed in the Fort Campbell Cantonment Area Master Plan (hereafter referred to as "Master Plan projects" in this PEA). The Cantonment Area Master Plan describes multiple actions to occur over extended time periods; therefore, the goal of this programmatic approach is to streamline the NEPA process for Master Plan-related projects within the Cantonment Area by providing sufficient detail about environmental impacts on resources to enable Fort Campbell to tier off of this PEA, as appropriate.

NEPA establishes procedural requirements for all federal government agencies for proposed agency action. The CEQ and the Army's NEPA regulation provide the Army regulatory requirements for implementing NEPA. NEPA directs federal agencies to evaluate and incorporate an understanding of the environmental impacts of its proposed actions into its decision-making processes, and to disclose the effects of its proposed actions to the public and officials who must make decisions concerning the proposal.

In accordance with 32 CFR Section 651.14(c)(1), "Army agencies are encouraged to analyze actions at a programmatic level for those programs that are similar in nature or broad in scope." CEQ regulations encourage the use of programmatic documents, when appropriate, accompanied by "tiered" supplemental documents that focus on site-specific issues, eliminating unnecessary

duplicative site-specific analyses and would eliminate repetitive discussions of the same issues; in this case, the similar environmental impacts of routine Master Plan projects for most resource areas for the Cantonment Area. Supporting this concept, CEQ issued its final *Effective Use of Programmatic NEPA Reviews* guidance on December 18, 2014 (CEQ 2014).

The purpose of this PEA is to programmatically analyze anticipated impacts from routine Master Plan projects within the Cantonment Area at Fort Campbell. Site-specific considerations would require an appropriate level of supplemental NEPA analysis and documentation. In some cases, it may be determined that a Record of Environmental Consideration (REC) would be appropriate, citing this PEA, other NEPA documents, and/or an Army Categorical Exclusion (CX). In other cases, the Army may anticipate further analysis would be required to meet site-specific NEPA requirements. If so, tiering off the site-specific environmental analysis from this PEA is expected to enable development of a site-specific analysis focused on those resource areas that the proposed site(s) where site-specific considerations require additional analysis of potential impacts.

1.2 Background

Cantonment Area development initiatives at Fort Campbell have been designed to meet requirements set forth by the Army's Integrated Global Presence and Basing Strategy, Army Modular Force, and the Army Campaign Program (U.S. Army Environmental Command [Army] 2017). Together, these initiatives require renovation, maintenance, demolition, and construction activities within Fort Campbell's Cantonment Area to support the increase in troop strength and performance. This PEA assesses the operational maintenance and new development actions within the Cantonment Area in support of this requirement and in conjunction with the Fort Campbell Master Plan.

Fort Campbell supports the third largest military population in the Army and the seventh largest in the Department of Defense (DoD). The Fort Campbell Garrison serves as the host command for all units in Fort Campbell as part of the Installation Management Command's Readiness Directorate. Fort Campbell is home to the Screaming Eagles of the 101st Airborne Division (Air Assault). In addition, Fort Campbell hosts the 160th Special Operations Aviation Regiment

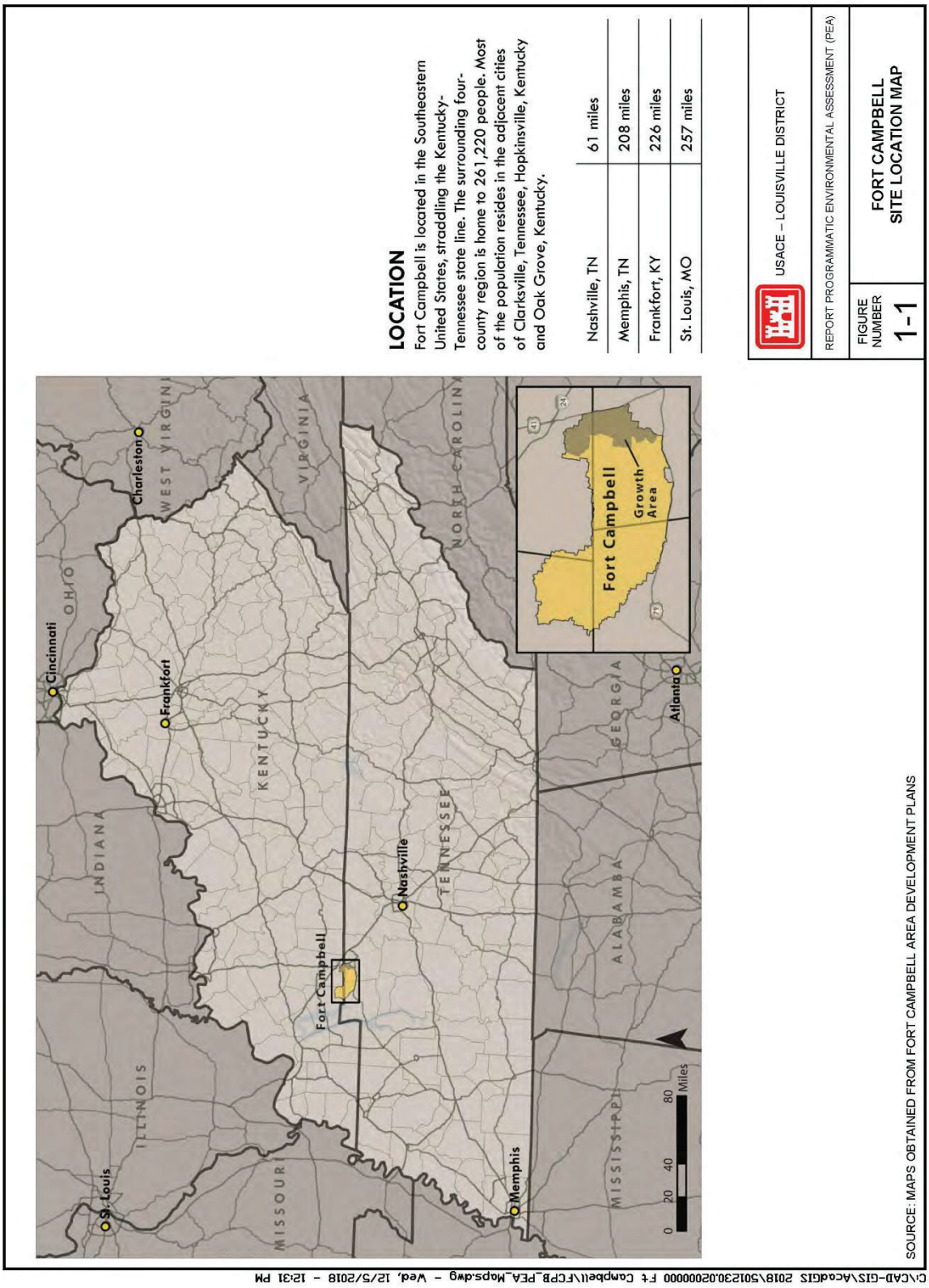
(SOAR), 5th Special Forces Group, 52nd EOD Group, the Sabalauski Air Assault School, and numerous other support team elements.

The 101st Airborne Division (Air Assault) provides our Nation with an unmatched expeditionary Air Assault capability to conduct forcible entry and other worldwide unified land operations in support of combatant commanders. Primary weapons systems are the Air Assault qualified infantry soldier, Apache helicopter, Hellfire Missile System, Mark 19 Grenade Launcher, and 105-mm Howitzer, TOW Antitank Missile, and Avenger Missile System.

Fort Campbell's primary mission is to advance combat readiness of the 101st Airborne Division and non-divisional units posted at the installation through training, mobilization, and deployment. Deployable military resources include combat equipped soldiers, tactical vehicles, weapons and ammunition, and logistical equipment to sustain thousands of soldiers in a tactical environment for an extended period of time.

To fulfill its mission to advance combat readiness, Fort Campbell maintains 48 live-fire ranges, 3 high-impact areas, 51 training areas, 5 drop zones, 93 artillery firing points, 51 maneuver areas, a special operations training center, and two airfields. Campbell Army Airfield (CAAF) is the Army's largest airfield, covering 2500 acres and once served as a secondary landing site for the National Aeronautics & Space Administration and the space shuttle (Army 2017).

Fort Campbell is a 106,700-acre military installation located between Hopkinsville, Kentucky (KY) and Clarksville, Tennessee (TN) and straddles the Tennessee/Kentucky state line (**Figure 1-1**). The Cantonment Area occupies approximately 14,000 acres traversing in a north-south direction along the eastern part of the installation (**Figure 1-2**). The Cantonment Area encompasses 40 percent of its land-mass within Christian County, KY and the remaining 60 percent within Montgomery County, TN. The Cantonment Area contains seven distinct planning


LOCATION
Fort Campbell is located in the Southeastern United States, straddling the Kentucky-Tennessee state line. The surrounding four-county region is home to 261,220 people. Most of the population resides in the adjacent cities of Clarksville, Tennessee, Hopkinsville, Kentucky and Oak Grove, Kentucky.
Nashville, TN 61 miles
Memphis, TN 208 miles
Frankfort, KY 226 miles
St. Louis, MO 257 miles
Cincinnati
Charleston
Frankfort
Nashville
Memphis
St. Louis
Atlanta
Fort Campbell
Growth Area
OHIO
INDIANA
ILLINOIS
KENTUCKY
WEST VIRGINIA
VIRGINIA
TENNESSEE
NORTH CAROLINA
GEORGIA
ALABAMA
MISSISSIPPI
MISSOURI
0 20 40 80 Miles
USACE – LOUISVILLE DISTRICT
REPORT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)
FIGURE NUMBER 1-1
FORT CAMPBELL SITE LOCATION MAP
SOURCE: MAPS OBTAINED FROM FORT CAMPBELL AREA DEVELOPMENT PLANS
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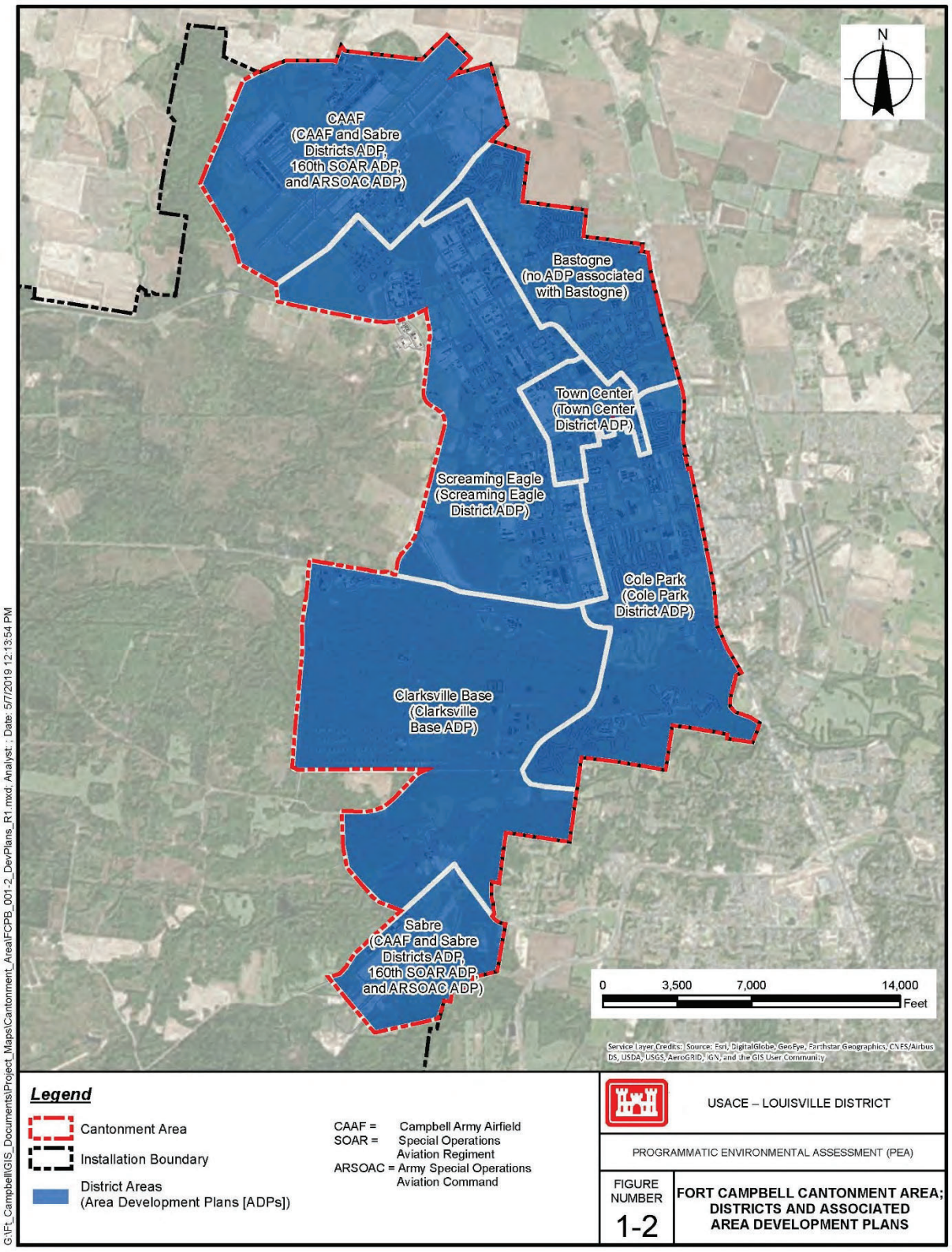
N
CAAF
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
Bastogne
(no ADP associated with Bastogne)
Town Center
(Town Center District ADP)
Screaming Eagle
(Screaming Eagle District ADP)
Cole Park
(Cole Park District ADP)
Clarksville Base
(Clarksville Base ADP)
Sabre
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
0 3,500 7,000 14,000
Feet
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Legend
Cantonment Area
Installation Boundary
District Areas
(Area Development Plans [ADPs])
CAAF = Campbell Army Airfield
SOAR = Special Operations Aviation Regiment
ARSOAC = Army Special Operations Aviation Command
USACE – LOUISVILLE DISTRICT
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)
FIGURE NUMBER 1-2
FORT CAMPBELL CANTONMENT AREA; DISTRICTS AND ASSOCIATED AREA DEVELOPMENT PLANS
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districts shown on **Figure 1-2**; **Table 1-1** presents a brief summary and goals identified for each district, which are described in Area Development Plans (ADPs).

Table 1-1. Fort Campbell Cantonment Area Development Plans

District/ADP Name	Acreage	Goal
Army Special Operations Aviation Command (ARSOAC)	248 – 160th SOAR Compound	To organize, equip, train, resource, and employ Army Special Operations Aviation Forces worldwide in support of contingency missions and warfighting commanders ("Night Stalkers") (USACE 2013). The ADP includes the 160th SOAR Compound, a portion of Old Clarksville Base, and the Sabre Army Airfield.
Campbell Army Airfield (CAAF) and Sabre	2,385 – CAAF 801 – Sabre	To be the premier location for tactical aviation and unmanned aerial systems training capable of supporting the next generation of Army Aviation (USACE 2017a).
Clarksville Base	3,676	To preserve green space for recreation, respect the history, and improve infrastructure for future development (USACE 2017b).
Cole Park	2,230	To provide an interconnected Army community integrating modern facilities with nature and greenways that promotes a healthy lifestyle and a family culture (USACE 2016).
Screaming Eagle	2,968	To provide enduring facilities, an interconnected transportation network, and a campus-like environment that supports mission readiness and honors the legacy of the 101st Airborne Division (USACE 2015a).
160th Special Operations Aviation Regiment (SOAR)	Part of ARSOAC	To provide global force protection and mission readiness for the DoD and other government agencies (USACE 2017c). The ADP focuses on projects associated with the CAAF.
Town Center	432	To create an enduring and iconic destination for the Fort Campbell community that provides a mix of leisure and support services in a safe, comfortable, and walkable environment that promotes the heritage of the 101st Airborne Division (USACE 2015b).

ADPs have been completed for each district that documents and communicates each district's (except Bastogne) plans for regulated growth and sustainable development of facilities supporting their missions at Fort Campbell. It is noted that an ADP has not yet been developed for the Bastogne planning district. The ADPs, integrated with other companion installation plans and guides, such as the Fort Campbell Master Plan and Installation Design Guide (IDG), provide the way ahead for future facility development, arrangement, and management to occur over time. These ADPs are linked to the Capital Investment Strategy (CIS) for Fort Campbell (USACE 2018). The CIS ties all projects into one central document. These documents are collectively referred to as the "Master Plan" in this EA.

Land use in the Cantonment Area, administered by the Directorate of Public Works, Master Planning Division, is described in **Table 1-2**.

Table 1-2. Land Use in the Cantonment Area

Land Use Category	Description
Airfield Operations	Sabre and CAAF, aircraft maintenance and painting, pre- and post-flight logistic operations involving personnel and equipment, and actual flight line improvements.
Administration	Military and civilian workforce complexes (e.g., desktop type engineering, accounting/purchasing, logistics, and various Command directorates).
Community Facilities	Commissary, fire station, child development, chapel, banks, convenience stores, and gas stations.
Family Housing	Housing complexes, religious education facilities, middle and high school facilities, and special education center.
Unaccompanied Personnel Housing	Barracks, training facilities, multi-purpose recreation center, and wellness centers.
Plant Maintenance	Installation roads and grounds facilities, building maintenance and construction facilities, water, sewer, natural gas, and electrical service distribution system.
Military Support	Army vehicle and track-vehicle maintenance facilities, and the associated training, equipment fueling operations, and military motor pool.
Medical	Hospital, outpatient care facilities, Red Cross Support Center, and associated dispensaries.
Outdoor Recreation	Youth and adult activity fields, physical fitness courses, golf course, and wildlife restoration projects (e.g., stream/pond/lake, wetlands revitalization, food plots, horse and hiking trails).
Supply Storage	On-post railroad network and storage facilities supporting various Cantonment Area operations for the 20,000 plus military-civilian community stationed at Fort Campbell.
Training	Military classrooms and assimilated module training.

Source: Fort Campbell 2004

This PEA is intended to facilitate NEPA compliance for routine infrastructure projects within the Cantonment Area. It presumes the continued implementation of the extensive and on-going Fort Campbell environmental management program. As a result of established environmental processes that have occurred at Fort Campbell, it is no longer necessary to address historically common and repetitive impacts with additional environmental assessments (EAs)/Findings of No Significant Impact (FNSIs) for individual action items referenced in the ADPs/Master Plan, which are executed daily throughout the entire installation. For example, ground disturbing activities that remove vegetative cover for extended periods of time due to construction, demolition, renovation, and automobile traffic activities occur on a daily basis and direct and indirect effects are being monitored to avoid erosion and deposition of sediment into the downstream watershed.

The NEPA, which is implemented through the CEQ, is a federal law that requires the analysis of potential environmental impacts associated with proposed federal actions prior to the action being taken. The intent of NEPA is for federal agencies to make informed decisions based on identification of potential environmental consequences and to take appropriate actions to protect,

restore, or enhance the environment. The process for implementing NEPA is outlined in 40 CFR §§ 1500-1508, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act.

A decision on whether to proceed with the proposed action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, Fort Campbell is guided by statutes, regulations, and Executive Orders (EO) that establish standards and provide guidance on environmental and natural resources management and planning.

Many of these authorities are addressed in various sections throughout this PEA when relevant to particular environmental resources and conditions. The full text of many of these laws, regulations, and EOs is available in various on-line locations, and include: https://www.gpo.gov/fdsys/ and https://www.whitehouse.gov/briefing-room/presidential-actions/executive-orders.

1.3 Purpose of the Action

The purpose of the Proposed Action is to enhance the mission of the U.S. Army to defend and protect the United States and its interests at home and abroad. The purpose of the PEA is to identify, document, and evaluate the effects of implementing standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area.

1.4 Need for the Action

The need for the Proposed Action is to provide and maintain adequate support infrastructure for the soldiers and their families assigned to Fort Campbell. In order to accomplish this goal, constant operation, repair, maintenance, minor and major alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and minor alterations to land within the Cantonment Area are required.

1.5 Objectives of the PEA

The objectives of the PEA are as follows:

- Analyze proposed implementation as normal execution of standard practices for Master Plan projects (such as renovation, demolition, and construction) in the Cantonment Area.

- Evaluate the operation, repair, maintenance, and alteration of existing public or private structures, facilities, topographical features, and mechanical equipment; new construction of structures, facilities, equipment, or topographical features, and minor alterations to land within the Cantonment Area.

- Facilitate NEPA compliance for routine Master Plan-related infrastructure projects within the Cantonment Area.

- Presume the continued implementation of the extensive and on-going Fort Campbell environmental management program.

As the result of established environmental processes, programs listed above are executed daily throughout the entire installation. Therefore, it would no longer be necessary to address historically common and repetitive impacts with additional EA/FNSIs.

1.6 Cooperating Agency and Intergovernmental Coordination / Consultations

The NEPA requirements help ensure environmental information is made available to the public during the decision-making process and prior to an action's implementation. The Intergovernmental Coordination Act and EO 12372, *Intergovernmental Review of Federal Programs*, requires federal agencies to cooperate with and consider territorial and local views when implementing a federal proposal.

As mandated by 40 CFR 1501.4(b), "The agency shall involve environmental agencies, applicants, and the public, to the extent possible, in preparing assessments required by Section 1508.9(a)(1)", Army's undertaking this PEA, and public involvement is required as part of the analysis process. For this PEA, public involvement includes notifying local, state, and federal agencies, elected officials, and the public about the Proposed Action and alternatives; soliciting agency and public comments on the PEA analysis, and ultimately informing the public of the Army's conclusions and findings.

1.6.1 Cooperating Agency

No cooperating agencies were identified for the preferred alternative described in this PEA.

1.6.2 Interagency and Intergovernmental Coordination and Consultations

In compliance with NEPA, Fort Campbell notified relevant stakeholders about the Proposed Action. Intergovernmental consultation was conducted with the following agencies:

Agencies

- Tennessee Department of Environment and Conservation (TDEC)
- Tennessee Wildlife Resources Agency
- Kentucky Department for Environmental Protection (KDEP)
- Kentucky Department of Fish and Wildlife Resources
- Clarksville-Montgomery Regional Planning Commission
- City of Oak Grove – Public Works
- Hopkinsville-Christian County Planning Commission
- U.S. Fish and Wildlife Service (USFWS) – Kentucky Ecological Services Field Station
- USFWS – Tennessee Ecological Services Office
- U.S. Army Corps of Engineers – Nashville District; Louisville District and other USACE districts may be involved with the Proposed Action.
- U.S. Environmental Protection Agency – Region 4
- Tennessee Historic Commission – State Historic Preservation Office (SHPO)
- Kentucky Heritage Council – SHPO

Fort Campbell regularly consults with Federally Recognized Native American Tribes on issues of concern; however, it was determined that this PEA does not include any specific actions. Therefore, the Tribes will not be contacted until specific projects are designed and proposed.

The notification process provided these stakeholders with the opportunity to cooperate with Fort Campbell and provide comments regarding the Proposed Action. The comments received from coordination with these agencies are presented in **Appendix A** of this PEA. Responses to the comments are also summarized in a matrix in **Appendix A**.

A Notice of Availability (NOA) for the Draft PEA and FNSI was published in the following newspapers on March 3, 2020 initiating a 30-day public review period:

Newspapers

- The Leaf Chronicle – Clarksville, TN
- Stewart County Standard – Dover, TN
- Kentucky New Era – Hopkinsville, KY
- Cadiz Record – Cadiz, KY

To facilitate public review, a hard copy of the Draft PEA and FNSI was also made available in each of the following public libraries:

Public Libraries

- Clarksville-Montgomery County Library – Clarksville, TN
- Christian County Library – Hopkinsville, KY
- Robert F. Sink Library – Fort Campbell, KY
- John L. Street Library – Cadiz, KY
- Stewart County Public Library – Dover, TN

The initial public review period was subsequently interrupted by library closures due to the COVID-19 pandemic. The Montgomery County Mayor directed the library to close on March 19, 2020. Hopkinsville-Christian County Library closed on March 17, 2020. The two smaller libraries also closed around mid-March. In addition, Executive Orders to "stay-at-home" were issued by the Governors of Kentucky and Tennessee on March 25, 2020 and March 30, 2020, respectively.

To address the truncated review period, a second NOA for a 30-day period was published on June 10, 2020 on the Fort Campbell web site and a third NOA for a 21-day review period was published on July 21, 2020 in *The Leaf Chronicle* and *Kentucky New Era* newspapers. For both review periods, the Draft PEA and FNSI were made available on the Fort Campbell web site and in the public libraries listed above. No comments were received from the general public during any of these periods; however, responses to requests for consultation were received from seven agencies. The NOAs from each review period and a summary of the outcome of consultation efforts with pertinent agencies are included in **Appendix A** of the PEA.

2.0 Description of the Proposed Action and Alternatives

2.1 Proposed Action

Fort Campbell proposes to implement standardized operating practices for routine renovation, demolition, and construction Master Plan projects in the Cantonment Area at Fort Campbell. Compliance with installation environmental management plans and corresponding environmental laws and regulations would be accomplished for all Cantonment Area developmental projects.

Environmental impacts to valued environmental components (VECs) associated with routine Cantonment Area construction activities have been demonstrated to be recurrent. VECs are defined as fundamental elements of the physical, biological or socioeconomic environment, including air, water, soil, terrain, vegetation, wildlife, fish, birds or land use that may be affected by a proposed project. Effects and compliance actions related to standard construction activities normally encompass the multiple VECs listed in **Table 2-1**:

Table 2-1. Valued Environmental Components (VECs) Associated with Master Plan Projects

VEC	Definition
Air Quality	Air pollutant emission types and sources (from building/structure demolition, excavation, vehicle exhaust emissions, land development activities, and restoration and construction labors) that add to existing pollutant quantities, or those that require new reporting or permitting actions. Air pollutant emission types and sources include but are not limited to spray booths, abrasive blasters, boilers, generators, hot water heaters, and other fuel burning equipment.
Airspace	Army transformations that result in short-and –long tern direct or indirect adverse effects to the use of installation air space. Would be dependent on deployment exercises, routine training exercises of varying intensities, and the increased use of new technology systems such as the incorporation of unmanned aerial vehicles, (UAVs) to Fort Campbell Brigade Combat Teams.
Cultural Resources	Any prehistoric, archaeological, or historic site, structure, district, artifact, or other physical evidence of human activity considered important to a culture, subculture, or community of scientific, traditional, or religious basis. This includes Native American burial sites and other cultural resource management sites of interest.
Noise	Noise abatement construction designs within areas of unacceptable auditory levels.
Soils / Earth Resources	Ground disturbing activities that remove vegetative cover for extended periods of time due to construction, demolition, renovation, and automobile traffic activities. Indirect effects must be monitored to avoid the erosion and deposition of sediment into the downstream watershed.
Biological Resources	Vegetation, wildlife, migratory birds of conservation concern, and sensitive species are biological resources that must be considered during developmental actions occurring within the cantonment area of the installation, in addition to the conservation efforts of the habitat utilized by these biological resources.
Water Resources	Impacts to jurisdictional wetlands or watershed on the installation from cantonment area development actions including reduction in surface water quality from non-point construction activities, storm water detainment actions, sewer and water systems, and karst/sinkhole diversion and abatement in relation to the quality of water resources including the streams, lakes, groundwater, and wetlands located within the installation.

VEC	Definition
Facilities	Any DoD owned permanent, semi-permanent, or temporary commercial, institutional, or training property including but not limited to: structures, buildings, or areas that may be restored, developed, constructed, or demolished, and that are established or installed within the cantonment area of Fort Campbell.
Socioeconomics	Includes any impact on relationships and interactions of social and economic components on Fort Campbell military installation due to implementation of restoration, construction, and demolition projects within the cantonment area.
Utilities	DoD regulated public services such as providing gas, water, electricity, telecommunications, and transportation to the Fort Campbell cantonment area in regard to implementation of potential restoration, construction, and demolition projects associated with operational maintenance.
Land Use	Includes issues related to real estate acquisition, property encroachment, excess land and facility transfer, and changes to land use within the cantonment area of the installation. Developmental actions would moderate adverse effects on land use and cover within the cantonment area of Fort Campbell.
Hazardous Materials/Waste	Asbestos containing material related to abatement (removal of non-friable shingles, linoleum, and other associative adhesives), radon abatement in new structures, and hazardous materials generated by construction or construction related activities would be disposed of properly.
Storage Tanks	Aboveground and underground storage tanks (emergency generators and off-road vehicles/equipment fueling stations) registration and spill contingencies/containment.
Traffic / Transportation	The conditions of the road and rail transportation systems within the boundary of Fort Campbell military installation and DoD owned property. Traffic and transportation may be affected during maintenance, site preparation, restoration, demolition activities, as well as during and after the potential construction of new structures and facilities.
Solid Waste	Solid waste management units (SWMU) affected by proposed site developments that require state concurrence or further studies.
Environmental Justice	Human health or environmental effects to minority or low-income populations, communities or children in the area.
Safety and Occupational Health	Potential to jeopardize the health and safety to installation personnel as well as the surrounding public resulting from physical changes in the work environment, demolition and construction activities, introduction of demolition and construction-related risks.

Source: Army 2017

2.2 Screening Criteria

To be considered a viable alternative and carried forward for analysis in this PEA, the alternative must be suitable for decision making, capable of implementation, and sufficiently satisfactory with respect to meeting the purpose of and need for an action. The NEPA regulations define reasonable alternatives as economically and technically feasible and show evidence of common sense. As the goal of this programmatic approach is to streamline the NEPA process for proposed Master Plan projects within the Cantonment Area, the following screening criteria also apply, at a minimum, to projects whose NEPA documentation tier from this PEA:

- **Mission Compatibility**: Master Plan projects must be compatible with Fort Campbell military missions. Site development and maintenance within the Cantonment Area may not adversely impact current or future military training, testing, or operation activities.

- **Aesthetic Compatibility**: Master Plan projects must be compatible with views, neighborhoods, and historic areas in each of the Cantonment Area districts.

- **Environmental Factors**: Master Plan projects must allow acceptable accommodation of cultural resources and sensitive natural resources and should have minimal environmental constraints. For example, when considering project locations for new construction within the Cantonment Area, avoid, if possible, project sites with threatened and endangered species, protected archaeological and historic resources, Native American sacred sites, wetlands, floodplains, or other sensitive environmental resources.

- **Compliance with Federal Mandates and DoD or Army Goals**: Master Plan projects within the Cantonment Area must enhance compliance with government mandates and DoD and Army goals and objectives.

2.3 Detailed Description of the Alternatives

This section describes Alternative A (Proposed Action), Alternative B, and the No Action alternative. The Proposed Action analyzed in this PEA would meet the selection standards of providing a means of implementing normal execution of Master Plan projects in the Cantonment Area.

2.3.1 Alternative A – Implement All Master Plan Projects (Proposed Action)

Fort Campbell proposes to implement standardized operating practices for routine Master Plan projects in the Cantonment Area. These projects include all short-range (0 to 5 years), mid-range (5 to 16 years), and long-range (16 to 25 years) projects as described in each ADP. Implementation of the Proposed Action would allow for a streamlined process and would presume the continued implementation of the extensive and on-going Fort Campbell environmental management program. Compliance with installation environmental management plans, corresponding environmental laws and implementing regulations would be accomplished for all Cantonment Area Master Plan projects. An illustrative list of threshold environmental laws that provide a basis for the installation environmental management program is as follows:

- Safe Drinking Water Act (SDWA)
- Clean Air Act (CAA)
- Resource Conservation & Recovery Act (RCRA)
- Clean Water Act (CWA)
- Endangered Species Act (ESA)
- Migratory Bird Treaty Act

- National Historic Preservation Act (NHPA)
- Superfund Amendment and Reauthorization Act (SARA)
- Toxic Substance and Control Act (TSCA)
- Oil Pollution Act (OPA)
- Installation Compatible Use Zone (ICUZ)
- NEPA

Incorporating by reference numerous environmental documents that previously analyzed the impacts associated with functionally equivalent actions, this PEA considers the impacts of this proposal. As discussed above, environmental management programs are institutionalized at Fort Campbell and provide a high level of assurance regarding compliance with applicable environmental laws, regulations, and policies.

This alternative captures the wide range of projects represented in the Master Plan. The general types of construction, renovation, and demolition projects described in the individual ADPs for the Cantonment Area are summarized by planning district in **Table 2-2**.

2.3.2 Alternative B – Implement Short-Range and Mid-Range Projects

Alternative B is similar to the Proposed Action in that it includes the short-range (0 to 5 years) and mid-range (5 to 16 years) projects described in each ADP. As the estimated timeframe for the long-range projects extends from 16 to 25 years, the project timelines and discretionary funding from Congress are uncertain. By that time, this PEA would also need to be updated to reflect changes in conditions and priorities at Fort Campbell. Therefore, the long-range projects are not included in Alternative B.

2.3.3 Alternative C – No Action

The No Action alternative serves as a baseline against which the impacts of the proposed action and alternatives can be evaluated. Under the No Action alternative, the implementation of the Master Plan projects would not occur in the Cantonment Area at Fort Campbell. Baseline conditions would remain the same for NEPA review and discrete environmental impact analysis would continue for each individual project in each of the seven Cantonment Area districts.

Table 2-2. Types of Projects Planned in Each Area Development Plan

Area Development Plan:	ARSOAC	CAAF	Sabre	Clarksville Base	Cole Park	Screaming Eagle	SOAR	Town Center
Planned Action								
Construction:								
Building	X	X	X		X	X	X	X
Hangar	X	X	X				X	
Roads		X		X	X	X	X	X
Parking Areas	X		X	X	X	X		X
Sidewalk					X			
Airfield Ramp Extension		X						
Access Control Point	X	X	X	X			X	
Trail System				X	X	X		X
Bridges				X	X			
Other (e.g., retention ponds, displays, memorials)	X	X	X		X	X	X	X
Recreational Areas				X	X			X
Repavement – Roads				X				
Repavement – Runway, Ramps		X						
Expansion – Road		X		X	X	X		X
Improvements – Road						X		
Re-align or Re-route – Road			X		X			X
Replacement – Bridge								
Standardize Access Control Point		X		X				
Renovation / Modernization:								
Building					X		X	X
School				X				
Hangar	X	X					X	
Modernization - Hangar	X						X	
Demolition:								
Building	X	X	X		X	X	X	X
Hangar		X						
Road		X						X
Parking Areas					X			
Bridge				X				
Underground Storage Tank					X			
Other		X	X	X	X	X		
Other:								
Preservation of Historic Bunkers				X				
Provision of Solar Energy				X				
Landscaping / Revegetation					X	X		X
Acquisition of Land / Easements		X						

Although the No Action alternative would eliminate unavoidable adverse, short- and long-term impacts associated with the Proposed Action, the No Action alternative would not satisfy selection standards established for this project, resulting in generation of duplicative environmental analysis documentation and initiation of public notification procedures.

2.4 Alternatives Eliminated from Further Consideration

Using the selection standards based on the Army's criteria presented in Section 2.2, two alternatives were considered for the Cantonment Area Master Plan but were eliminated from consideration early in the planning process. The alternatives included the following:

Annua1 NEPA Documentation

An annually generated EA was given consideration. An annual document would have addressed all the proposed Fort Campbell Cantonment Area military construction activities as submitted within a proposed budgetary schedule for the upcoming Fiscal Year (FY). While numerous infrastructure projects are submitted for funding consideration, congressional appropriation is indeterminate. Given the uncertain nature of funding, inadequate compliance with the NEPA analysis process is presumptive.

Five-Year NEPA Documentation

A second alternative considered but eliminated was to prepare an EA that analyzes proposed Cantonment Area Master Plan projects for a five-year period. However, this action would not resolve the concern articulated above (i.e., extended timelines and discretionary congressional funding for military construction). An EA generated every five years would involve evolving project descriptions and inevitably conflict with compliant achievement of the NEPA analysis process. For these reasons, five-year development of EAs is not practicable and was eliminated from further consideration.

2.5 Summary of VEC Rating

The Proposed Action is the only reasonable alternative that meets the minimum requirements identified in Section 2.2. The CEQ regulations, however, require an analysis of the No Action alternative for all actions. **Table 2-3** presents a summary of VEC impact ratings resulting from implementation of each alternative.

NEPA requires the federal government to consider environmental impacts on social, cultural, economic, and natural resources from proposed actions. In conjunction with U.S. Army's Policy 32 CFR Part 651, Army Regulation (AR) 200-1 implements federal, state, and local

environmental laws and DoD policies.

All activities proposed within the Cantonment Area (including those submitted by military units) are required to submit FC Form 200-1 to the NEPA Program Manager/NEPA Program Coordinator to ensure compliance. Activities include but are not limited to: soil excavation; ground beautification or modifications; construction; renovation, maintenance, or demolition or buildings, motor pools or structures.

The submitted FC Form 200-1 is evaluated by the NEPA Coordinator/Program Manager. Certain activities may qualify for a Categorical Exclusion (CX), for activities previously determined to be of no significant environmental impact and project may proceed as described. (NOTE: Certain CX categories still require further environmental analysis, in other words a Record of Environmental Consideration (REC).

For projects requiring additional analysis a FC Form 200-2, REC, will be initiated. The proponent may be contacted for additional information and/or further action. The coordinator/program manager will decide if a REC (FC Form 200-2) is required. The NEPA Program Coordinator will distributes the request to DPW Environmental Programs (air quality, forestry, cultural resources, hazardous waste, water quality, wildlife, etc.) to determine environmental effects and recommend the necessary course of action to meet compliance (Fort Campbell 2018a). Completed RECs detail environmental requirements. Project proponents must keep the REC in project records and are responsible for adhering to specified environmental requirements.

Some projects are of such magnitude that a REC may not be sufficient. The NEPA Program Manager will evaluate the action against existing Programmatic Environmental Assessments and Environmental Impact Statements that the proposed action may be tiered off to still initiate a REC. Programmatic NEPA documents can group common actions together and minimize the effort required to construct an individual document for each activity. Actions outside of the scope of existing programmatic NEPA documents will be evaluated for significant impact(s). If no significant impact is anticipated an Environmental Assessment (EA) will be initiated. If the

action poses a significant impact, an Environmental Impact Statement (EIS) would be initiated. Annual development of EAs is not practicable and was eliminated from further consideration.

Table 2-3. Summary of Valued Environmental Component Impact Rating for Each Alternative

Valued Environmental Component	Alternative A Implement All Master Plan Projects	Alternative B Implement Short-Range and Mid-Range Projects	Alternative C No Action
Air Quality	Minor	Minor	No Impact
Airspace	No Impact	No Impact	No Impact
Cultural Resources	Project-Specific	Project-Specific	No Impact
Noise	Significant but Mitigatable	Significant but Mitigatable	No Impact
Earth Resources	Significant but Mitigable	Significant but Mitigable	No Impact
Biological Resources	Significant but Mitigable	Significant but Mitigatable	No Impact
Water Resources	Significant but Mitigatable	Significant but Mitigatable	No Impact
Facilities	Beneficial	Beneficial	Significant but Mitigable
Socioeconomics	Beneficial	Beneficial	Significant but Mitigable
Utilities	Beneficial	Beneficial	No Impact
Land Use	Negligible	Negligible	No Impact
Hazardous Materials/Waste	No Impact	No Impact	No Impact
Storage Tanks	No Impact	No Impact	No Impact
Traffic/Transportation	Minor	Minor	Minor
Solid Waste	Minor	Minor	No Impact
Environmental Justice	No Impact	No Impact	No Impact
Safety and Occupational Health	Minor	Minor	No Impact

3.0 Affected Environment and Environmental Consequences

This section presents a consolidated discussion of the affected environment (baseline environmental conditions) within the Cantonment Area at Fort Campbell and the environmental and socioeconomic impacts anticipated as a result of the implementation of the alternatives. The baseline for Alternative A (Proposed Action) is considered the installation's current condition in 2019 to include the implementation of the Cantonment Area Master Plan decisions that have been made, but not yet implemented.

This PEA provides decision makers, regulatory agencies, and the public with information on the environmental and socioeconomic impacts that could result from the implementation of Fort Campbell's Cantonment Area Master Plan. This information will allow decision makers to review the environmental and socioeconomic impacts of the alternatives and select one. It will also enable the Army to make informed decision in coming years as they perform routine Cantonment Area construction projects. As they do so, they will determine whether future actions are sufficiently covered by this EA and whether supplementation is necessary.

Valued Environmental Component Impact Ratings

This PEA adopts an analytic methodology similar to that used in the *Environmental Assessment to Analyze Standard Practices for Construction Projects in the Cantonment Area* (Fort Campbell 2004) and the *Environmental Assessment for the Cantonment Area Master Plan at Fort Campbell* (June 2017). The Army utilized the process in the Army's *NEPA Analysis Guidance Manual* (2007) for evaluating impacts to each environmental media area or VEC for the routine construction projects in the Cantonment Area. Through coordination with installation staff and subject matter experts at Fort Campbell, VEC ratings were identified and verified, and are described in this section. VEC ratings are the basis for determining whether the impact is significant or not. VEC ratings range from beneficial to significant:

- ***Beneficial*** – A positive net impact.
- ***No Impact/Negligible*** – An environmental impact that could occur but would be less than minor and might not be perceptible.

- ***Minor*** – While impacts would be perceptible, it would clearly not be significant.

- ***Less than Significant*** – An impact that is not significant but is readily apparent. Additional care in following standard procedures, or applying precautionary measures to minimize adverse impacts, may be called for.

- ***Significant but Mitigable*** – A significant impact anticipated, but the Army can put management actions or other mitigation measures in place to reduce impacts to less than significant.

- ***Significant*** – An adverse environmental impact, which, given the context and intensity, violates or exceeds regulatory or policy standards or otherwise exceeds the identified threshold. The significant impact, however, cannot be mitigated with practical means to a level below significant.

A summary of VEC impact ratings for each alternative is presented in **Table 2-3**. Additional installation site-specific analyses will be conducted, if required, to address actions necessary to implement routine construction Master Plan project decisions. This would be appropriate given the extended duration and numerous decisions that this PEA is designed to support. Implementation of some of these decisions may require site-specific follow-on NEPA analysis to evaluate local siting considerations and other environmental issues.

Valued Environmental Components and Thresholds of Significant

The Army uses standardized methodology to complete NEPA analysis. The discussion that follows provides an overview description of each VEC evaluated in this document and provides a discussion of thresholds of significance.

To maintain consistent evaluation of impacts in this PEA, thresholds of significance were established for each resource area. The Army developed these thresholds to take into account substantive environmental regulations and ensure an objective analysis of anticipated impacts. Although some thresholds have been so designated based on legal or regulatory limits or requirements, others reflect some discretionary judgment on the part of the Army. Quantitative and qualitative analyses have been used, if appropriate, in determining whether, and the extent to which, a threshold is exceeded.

It should be noted that significance is a matter of context and intensity. Loss of a small number of trees in an arid area with few trees could be significant while loss of the same number of trees in a forested area might not be significant. Any variation in the significance criteria is set out in the discussion of impacts for specific locations.

An impact may trigger one of these thresholds, but mitigation could reduce the impact to less-than-significant. Also, note that regions of influence (ROI) may vary at installations because of specific circumstances. In addition, the context of the affected environment at a given installation may mean that a site-specific threshold is applicable.

The following is description of each VEC, affected environment at Fort Campbell and the ROI, and environmental consequences of implementing each alternative.

3.1 Air Quality

3.1.1 Description of the Resource

Air quality is regulated by the U.S. Environmental Protection Agency (USEPA) per the CAA under 42 USC § 7401 et seq. The CAA established National Ambient Air Quality Standards (NAAQS) to protect public health and welfare and to regulate emissions of hazardous air pollutants. The NAAQS established ambient air quality regions. Air quality at a given location is a function of several factors, both naturally-occurring and manmade, including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmosphere stability, temperature, presence or absence of inversions, and topography.

The CAA and USEPA delegated responsibility for ensuring compliance with NAAQS to the states and local agencies. Each state or local agency is required to develop air pollutant control programs and promulgate regulations that focus on meeting NAAQS and maintaining healthy ambient air quality levels. These programs are detailed in State Implementation Plans (SIPs) that must be approved by USEPA. A SIP is a compilation of regulations, strategies, schedules, and enforcement actions designed for a state to achieve and maintain compliance with all NAAQS.

Any changes to the compliance schedule or plan (e.g., new regulations, emissions budgets, controls) must be incorporated into the SIP and approved by the USEPA.

The CAA requires that the USEPA promulgate general conformity regulations. These regulations are designed to ensure that federal actions will conform to the state SIP so as not to impede local efforts to achieve or maintain attainment with the NAAQS. The General Conformity Rule found in 40 CFR 93 requires a conformity determination for all federal actions located in nonattainment or maintenance areas for NAAQS unless otherwise exempted. Maintenance areas are defined as areas that were once designated as nonattainment and have since been re-designated in 40 CFR Part 81 to attainment, meeting the provisions of Section 107(d)(3)(E) of the CAA and have a maintenance plan approved under Section 175A of the CAA. Federal actions may be assumed to conform if total indirect and direct project emissions are below *de minimis* levels presented in 40 CFR 93.153. Threshold levels (in tons of pollutant per year) depend upon the nonattainment or maintenance area status that USEPA has assigned to a region for each NAAQS. Once the net change in nonattainment or maintenance area pollutants are calculated, the federal agency must compare them to the *de minimis* thresholds to verify if a conformity determination is required.

According to USEPA's General Conformity Rule (40 CFR Part 51, Subpart W), any proposed federal action that has the potential to cause violations in a NAAQS nonattainment or maintenance area must undergo a conformity analysis. If net annual emissions from a proposed project remain below applicable local thresholds for Conformity, a CAA Conformity Determination is not required. If a CAA Conformity Determination is required, a Record of Non-Applicability (RONA) must be prepared. If management action or project emissions of one or more of the criteria pollutants were to exceed applicable local thresholds for Conformity, a CAA Conformity Determination would be required to determine of emissions conform to the approved SIP.

The NAAQS are established for criteria pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 microns in diameter (PM_{10}), particulate matter equal to or less than 2.5 microns in diameter

($PM_{2.5}$), and lead (Pb). NAAQS represent the maximum levels of background pollution with an adequate margin of safety to protect public health and welfare.

The criteria pollutant O_3 is not usually emitted directly into the air but is formed in the atmosphere by photochemical reactions involving sunlight and previously-emitted pollutants or "O_3 precursors." These O_3 precursors consist primarily of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) that are directly emitted from a wide range of emissions sources. For this reason, regulatory agencies attempt to limit atmospheric O_3 concentrations by controlling NO_x and VOC pollutants (also identified as reactive organic gases).

The USEPA has recognized that particulate matter emissions can have different health affects depending on particle size and, therefore, developed separate NAAQS for coarse particulate matter PM_{10} and fine particulate matter $PM_{2.5}$. The pollutant $PM_{2.5}$ can be emitted from emission sources directly as very fine dust and/or liquid mist or formed secondarily in the atmosphere as condensable particulate matter typically forming nitrate and sulfate compounds. Precursors of condensable $PM_{2.5}$ can include SO_2, NO_x, VOC, and ammonia (NH_3). Secondary (indirect) emissions vary by region depending upon the predominant emission sources located within the area. The state air agency considers these sources when determining which precursors are considered significant for $PM_{2.5}$ formation and identified for ultimate control.

Table 3-1 presents the primary and secondary NAAQS criteria pollutants. Areas are classified as attainment if they meet the NAAQS for a criteria pollutant and non-attainment if they exceed the NAAQS. Army installations can be located in both attainment and non-attainment areas. Fort Campbell is currently in attainment area for ozone, $PM_{2.5}$, and PM_{10}.

In addition to the criteria pollutants, USEPA regulates listed hazardous air pollutants (HAPs). USEPA has established National Emission Standards for Hazardous Air Pollutants (NESHAPs). USEPA regulates emissions of listed HAPs using source categories that must meet maximum achievable control technology (MACT) standards to demonstrate compliance.

Table 3-1. National Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Standard Value [6]		Standard Type
Carbon Monoxide (CO)			
8-hour average	9 ppm	(10 mg/m^3)	Primary
1-hour average	35 ppm	(40 mg/m^3)	Primary
Nitrogen Dioxide (NO_2)			
Annual arithmetic mean	0.053 ppm	(100 µg/m^3)	Primary and Secondary
1-hour average[1]	0.100 ppm	(188 µg/m^3)	Primary
Ozone (O_3)			
8-hour average[2]	0.070 ppm	(137 µg/m^3)	Primary and Secondary
Lead (Pb)			
3-month average[3]		0.15 µg/m^3	Primary and Secondary
Particulate < 10 micrometers (PM_{10})			
24-hour average[4]		150 µg/m^3	Primary and Secondary
Particulate < 2.5 micrometers ($PM_{2.5}$)			
Annual arithmetic mean[4]		12 µg/m^3	Primary
Annual arithmetic mean[4]		15 µg/m^3	Secondary
24-hour average[4]		35 µg/m^3	Primary and Secondary
Sulfur Dioxide (SO_2)			
1-hour average[5]	0.075 ppm	(196 µg/m^3)	Primary
3-hour average[5]	0.50 ppm	(1,307 µg/m^3)	Secondary

Notes:

1 In February 2010, USEPA established a new 1-hr standard at a level of 0.100 ppm, based on the 3-year average of the 98th percentile of the yearly distribution concentration, to supplement the existing annual standard.

2 Final rule signed October 1, 2015 and effective December 28, 2015. The previous (2008) O_3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O_3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards. In March 2008, the USEPA revised the level of the 8-hour standard to 0.075 ppm based on the 3-year average of the annual fourth-highest daily maximum 8-hour concentration.

3 In November 2008, USEPA revised the primary lead standard to 0.15 µg/m^3. USEPA revised the averaging time to a rolling 3-month average, not to be exceeded.

4 In December 2012, USEPA revised the level of the annual $PM_{2.5}$ primary standards to 12 µg/m^3 and retained the secondary level of the annual $PM_{2.5}$ standard at 15 µg/m^3 and retained the level of the existing 24-hour $PM_{2.5}$ standard. With regard to primary standards for particle generally less than or equal to 10 µm in diameter (PM_{10}), USEPA retained the 24-hour standard and revoked the annual PM_{10} standard.

5 In June 2010, USEPA established a new 1-hr SO_2 standard at a level of 75 parts per billion (ppb), based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The USEPA also revoked both the existing 24-hour and annual primary SO_2 standards.

6 Parenthetical value is an approximately equivalent concentration for CO, NO_2, O_3 and SO_2.

ppb = parts per billion; µg/m^3 (micrograms per cubic meter)
ppm = parts per million; mg/m^3 (milligrams per cubic meter)

Other reporting includes greenhouse gases (GHGs), which are chemical compounds in the earth's atmosphere that allow incoming short-wave solar radiation but absorb long-wave infrared radiation re-emitted from the earth's surface, trapping heat in the atmosphere. The accumulation of GHGs in the atmosphere naturally helps regulate the earth's temperature but is believed to contribute to global climate change as defined by USEPA. Most studies indicate that the earth's climate has warmed over the past century due to increased emissions of GHGs, and that human activities affecting emissions to the atmosphere are likely an important contributing factor. A warmer climate is expected to increase the risk of heat-related illnesses and death, worsen conditions for air quality, allow some diseases to spread more easily, and increase the frequency

and strength of extreme events (such as floods, droughts, and storms) that threaten human health and safety.

GHGs can include water vapor, carbon dioxide (CO_2), methane, nitrous oxide, O_3, and several hydrocarbons and chlorofluorocarbons. Each GHG has an estimated global warming potential (GWP) value, which is a function of its atmospheric lifetime and its ability to absorb and radiate infrared energy emitted from the earth's surface. The GWP of an individual GHG provides a relative basis for calculating its CO_2 equivalent (CO_2e), the amount of CO_2 equivalent to the emissions of that gas. The CO_2 has a GWP of 1, and is therefore, the standard by which all other GHGs are measured and compared. Facilities evaluating their baseline GHG emissions consider both direct and indirect emissions. Indirect GHG emissions are the result of facility activities that cause other entities to emit GHGs (i.e., electricity usage). Specific sources are required to report certain GHG annual emission levels to the USEPA under 40 CFR part 98 mandatory GHG reporting regulations.

3.1.2 Affected Environment

The climate of the region is characterized by hot humid summers and cool winters with mean high temperatures in July and January of 89 and 45 degrees Fahrenheit (°F), respectively. Prevailing winds are southerly throughout the year, with the exception of February and October when the direction turns northerly. The winter months are the wettest, with precipitation averaging about 5 inches in January, February, and March. Overall, the average annual precipitation is approximately 49 inches and is generally well distributed over the year. Extremely strong winds are not common in the region, with average wind speeds ranging from 4 to 9 miles per hour (Fort Campbell 2013).

Air Quality Control Regions (AQCRs) are federally designated areas that are required to meet and maintain federal ambient air quality control standards. Regions may include nearby locations of the same state or nearby states that share the same air pollution problems. Areas that lie within the AQCRs are regulated under the authority of the CAA and may be designated by the USEPA as attainment or nonattainment. These designated areas within the AQCR are required to comply with the NAAQS. Through the CAA, Congress has stated that the prevention and

control of air pollution belongs at the state and local level. Within Kentucky, the Kentucky Department for Environmental Protection (KDEP), Division for Air Quality administers the CAA on behalf of the USEPA. The portion of Fort Campbell in Kentucky is located within the Paducah-Cairo Interstate AQCR (USEPA 2019). Within Tennessee, the TDEC, Division of Air Pollution administers the CAA. The portion of Fort Campbell in Tennessee is located within the Middle Tennessee Intrastate AQCR (USEPA 2019).

Typical Army installation activities governed by the CAA include: use, maintenance and inspection of vehicles; operation of boilers; some training activities; air emissions monitoring fuel storage and distribution; surface coating and use of ozone depleting chemicals; and prescribed burns. Industrial point sources of criteria pollutants and VOCs in the four-county region surrounding Fort Campbell currently include a steam plant, a printing company, metals facilities, and a quarrying company. Fort Campbell is considered a major source under the Title V program.

Title V of the CAA Amendments of 1990 requires states and local agencies to implement permitting programs for major stationary sources. A major stationary source is a facility (e.g., plant, base, or activity) that has the potential to emit more than 100 tons annually of any one criteria air pollutant, 10 tons per year (tpy) of a HAP, or 25 tpy of any combination of HAPs. However, lower pollutant-specific "major source" permitting thresholds may apply in certain nonattainment areas. For example, the Title V permitting threshold for an "extreme" O_3 nonattainment area is 10 tpy of potential VOC or NO_x emissions. The overall purpose of the Title V permitting rule is to establish regulatory control over large, industrial-type activities and monitor their impact on air quality.

Air pollutant emissions are generated at Fort Campbell mainly through combustion of fossil fuels (heating plants and motorized vehicles). Lesser contributions are made from paint spray booth, woodworking shops, welding, transfer vapor emission, storage tanks, road dust emissions, road paving, stationary internal combustion engines, degreasing, pesticide/herbicide applications, wildfires and prescribed burning, aircraft dust during takeoffs and landings, and dust from training activities and firing ranges, All nonexempt stationary emission sources within the

installation are regulated under an air quality permit program administered by both Kentucky and Tennessee environmental agencies. Additional information regarding permit requirements is provided in the KDEP response letter (**Appendix A**). Emission rates for lesser contributing sources are well below major source trigger thresholds. Should these sources exceed major source thresholds, Fort Campbell would be required to modify its Title V permit.

Fort Campbell is located in an attainment area for the ozone, $PM_{2.5}$, and PM_{10} NAAQS. As long as Fort Campbell remains in an attainment area, the General Conformity Rule is not applicable to projects proposed for the Cantonment Area.

3.1.3 Environmental Consequences

The environmental consequences to local and regional air quality conditions near a proposed federal action are determined based on the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. For the purposes of this PEA, the impact in NAAQS "attainment" areas would be considered significant if the net increases in pollutant emissions from the federal action would result in any one of the following scenarios:

- Cause or contribute to a violation of any national or state ambient air quality standard
- Expose sensitive receptors to substantially increased pollutant concentrations
- Exceed any Evaluation Criteria established by a SIP

Conformity is determined through issuance of a RONA, which establishes that the requirements of the general conformity rule do not apply to a specific action or through analysis of the action to establish that any pollutants of concern will not exceed limits. As stated previously, Fort Campbell is currently in an attainment area for ozone, $PM_{2.5}$, and PM_{10} Therefore, a conformity determination would not be required. Contractors are required to contact the Fort Campbell Environmental Division, Air Quality Program, prior to project commencement to determine if construction or operating permits are required

3.1.3.1 Alternative A

During Cantonment Area Master Plan construction and demolition, potential air quality impacts could result from dust carried offsite and combustion emissions from construction equipment. Impacts could also occur from generation of fugitive dust and combustion emissions from

construction equipment. As shown in **Table 2-2**, general types of Master Plan projects that could potentially impact air quality include:

- Construction
- Demolition
- Renovation
- Landscaping

Primary risks from blowing dust particles relate to human health and human nuisance values. Fugitive dust can contribute to respiratory health problems and create an inhospitable working environment. Fugitive dust deposits on surfaces can be a nuisance to those living or working downwind.

Measures to reduce or eliminate fugitive dust emission include the following:

- ***Sprinkling/Irrigation*** – Sprinkling the ground surface with water until moist is an effective dust control practice for haul roads and other traffic routes that can be applied to any site. When suppression methods involving water are used, care should be exercised to minimize over-watering to prevent transport of mud onto adjoining roadways, which ultimately could increase dust. Mechanical removal of mud from tires would be implemented, if necessary. Debris from paved surfaces would be removed to minimize and prevent re-suspension.

- ***Vegetative Cover*** – In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. Vegetation provides coverage to surface soils and slows wind velocity at the ground surface, thus reducing the potential for dust to become airborne.

- ***Vehicle Cover*** - Open-bodied trucks would be covered during the transport of material.

- ***Delivery Routes*** - Material and equipment delivery routes would be planned to minimize contact of dust with nearby occupants.

- ***Mulching*** – Mulching is a quick and effective method to prevent dust in recently-disturbed areas.

Additional information regarding fugitive emissions was provided by KDEP in their response letter for this PEA (**Appendix A**).

Specific comments are provided in the response letters from TDEC and KDEP (**Appendix A**). It is noted that all open burning is prohibited on Fort Campbell per Fort Campbell Regulation 420-24, Chapter 8, Section 12. This includes burning that would have been exempt from state regulations on open burning. The only burning that is allowed is prescribed burning conducted by Forestry or Range Control.

It is also noted that Fort Campbell is now in an attainment area for ozone. There is no longer a requirement for information from the equipment and trucks used on the construction sites to perform General Conformity Rule emission calculations.

For projects involving asbestos, the Kentucky Division for Air Quality briefly outlined the regulations for Asbestos Standards and Requirements for Asbestos Abatement Entities. This information can be found in the KDEP response letter in **Appendix A**.

Substantial changes in air quality from the baseline conditions are not expected with implementation of the Proposed Action. As stated in Section 3.1.2, Fort Campbell is currently in an attainment area for ozone, $PM_{2.5}$, and PM_{10}. Therefore, a conformity determination would not be required for the proposed projects under the Cantonment Area Master Plan. Fugitive dust would increase in the immediate area during construction or demolition, but impacts would be temporary and less than significant. Dust abatement measures discussed above would limit the direct and secondary creation of dust. Additionally, no new permanent sources or air emissions would be created by the Proposed Action because projects in this PEA would be related to routine construction and demolition Master Plan projects.

Specific recommendations and requirements for Tennessee and Kentucky are provided in response letters from TDEC and KDEP, respectively (**Appendix A**). In addition, individual projects would be evaluated for applicable state and local regulations based on specific project activities and location.

Minor impacts would be expected from implementation of Alternative A because this alternative assumes implementation of all Cantonment Area Master Plan projects, which includes short-

range (0 to 5 years) projects, mid-range (5 to 16 years) projects, and long-range (16 to 25 years) projects as described in each ADP. However, not all projects would be implemented at the same time, in the same year, and in the same area at Fort Campbell. Due to government funding processing procedures and timelines, it is not possible to determine which projects would be funded and in which FY; therefore, the potential for a change in attainment status and need for conformity determination in the future is not known. Individual Master Plan project details (i.e., Cantonment Area Master Plan project drawings/plans/maps) have not been drafted. Therefore, a project review would be recommended when project details become available.

3.1.3.2 Alternative B

Alternative B would result in similar impacts as presented for Alternative A because short-range and mid-range Master Plan projects would be implemented.

3.1.3.3 Alternative C

Alternative C would have no impact on air quality because there would be no increase in emissions over baseline conditions.

3.2 Airspace

3.2.1 Description of the Resource

The Federal Aviation Administration (FAA) manages airspace within the U.S. and its territories. The FAA recognizes the military's need to conduct certain flight operations and training within airspace that is separated from that used by commercial and general aviation.

Airspace is defined in vertical and horizontal dimensions and by time. Airspace is a finite resource that must be managed to achieve equitable allocation among commercial, general aviation, and military needs. The FAA has established various airspace designations to protect aircraft while operating near and between airports and while operating in airspace identified for defense-related purposes. Flight rules and air traffic control procedures govern safe operations in each type of designated airspace. Military operations are conducted within designated airspace and follow specific procedures to maximize flight safety for both military and civil aircraft.

Controlled airspace defines the different types of airspace and dimensions within which air traffic control services is provided to instrument-flight-rules flights and visual-flight-rules flights in accordance with the airspace classification. Airspace classifications are defined as (FAA 2019):

- ***Class A***. Occurs from 18,000 feet (ft) above mean sea level (MSL) to 60,000 ft above MSL. Flight operations in this airspace are in accordance with regulations pertaining to instrument-flight-rules flights. This airspace is dominated by commercial aircraft using jet routes between 18,000 and 45,000 ft above MSL.

- ***Class B***. Occurs from the surface to 14,500 ft above MSL around the Nation's busiest airports. Before operating in this airspace, pilots must contact controlling authorities and receive clearance to enter the airspace. Aircraft operating within Class B airspace must be equipped with specialized electronics that allow air traffic controllers to accurately track aircraft speed, altitude, and position.

- ***Class C***. Occurs from the surface to 4,000 ft above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower, are serviced by a radar approach control, and meet specified levels of instrument-flight-rules operations or passenger enplanements. Aircraft operating within this airspace must be equipped with a two-way radio and an operable radar beacon transponder with automatic altitude reporting equipment. Aircraft may not operate below 2,500 ft above the surface within 4 nautical miles of the primary airport of a Class C airspace area at an indicated airspeed of more than 200 knots (230 miles per hour).

- ***Class D***. Occurs from the surface to 2,500 ft above the airport elevation (charted in MSL) surrounding those airports that have a control tower. Class D airspace encompasses a 5-statute mile radius from the airport. Unless authorized otherwise by air traffic control, aircraft must be equipped with a two-way radio. Aircraft may not operate below 2,500 ft above the surface within 4 nautical miles of the primary airport of a Class D airspace area at an indicated airspeed of more than 200 knots (230 miles per hour).

- ***Class E***. Any controlled airspace not designated as Class A, B, C, or D airspace; includes designated federal airways, portions of the jet route system, and area low routes. Federal airways have a width of 4 statute miles on either side of the airway centerline and occur between altitudes of 700 ft above ground level and 18,000 ft above MSL but may have a floor located at ground level nontowered airfield. No specific equipment is required to operate within Class E airspace.

- ***Class G***. Uncontrolled portion of airspace that has not been designated as Class A, B, C, D, or E airspace. Air traffic control does not have authority over operations within uncontrolled airspace. Primary users of Class G airspace are visual-flight-rules general aviation aircraft.

- ***Special Use***. This airspace permits activities that either must be confined because of their nature or require limitations on aircraft that are not a part of those activities. Prohibited Areas and Restricted Areas are regulatory Special Use Airspace (SUA). SUA is established in Federal Aviation Regulation Part 73 through the rule-making process of the Administrative Procedures Act (5 USC 551-702). Warning Areas, Military Operations Areas (MOAs), Alert Areas, and Controlled Firing Areas (CFAs) are non-regulatory SUA. The FAA may designate these types of SUA without resort to the procedures demanded of the Administrative Procedures Act.

3.2.2 Affected Environment

Fort Campbell actions that have the potential to impact the region's airspace include but are not limited to the following: deployment exercises; routine training exercises of varying intensities; and/or increased use of new technology systems such as incorporation of unmanned aerial vehicles (UAVs) to the Fort Campbell Brigade Combat Teams. None of these actions are associated with Master Plan construction projects planned for the Cantonment Area.

3.2.3 Environmental Consequences

A significant impact would be one that led to a violation of FAA administration regulations that undermines aviation safety or results in substantial infringement of private or commercial flight activity.

3.2.3.1 Alternative A

Alternative A would have no impact to airspace because Master Plan projects in the Cantonment Area would not impact any FAA-defined controlled airspace in the Fort Campbell region.

3.2.3.2 Alternative B

Alternative B would result in the same impacts to airspace as identified for Alternative A. Therefore, no impacts to airspace would be expected as a result of implementation of Alternative B.

3.2.3.3 Alternative C

Alternative C would have no impact on airspace because there would be no impact to any FAA-defined controlled airspace in the Fort Campbell region.

3.3 Cultural Resources

3.3.1 Description of the Resource

A detailed description of cultural resources at Fort Campbell is provided in the *Integrated Cultural Resource Management Plan* (ICRMP; Fort Campbell 2012a), and is incorporated into this PEA by reference. The ICRMP is Fort Campbell's primary guidance document for the management of cultural resources on the Fort Campbell Military Reservation, Kentucky and Tennessee. This ICRMP articulates how all applicable legislation, Department of Defense regulations, legal requirements, and existing Programmatic Agreements (PAs) are implemented. It also addresses how Fort Campbell staff will coordinate with external regulatory bodies and other stakeholders. Finally, this ICRMP was prepared to address Department of the Army (DA) and Department of Defense (DoD) requirements for an ICRMP and to provide Fort Campbell command and staff with a tool for managing a range of cultural resources across the installation.

Cultural resources management procedures are defined in Army Regulation 200-1, *Environmental Protection and Enhancement,* Headquarters, Department of the Army. In addition, cultural resources are defined by Headquarters Department of the Army in AR 200-4, *Cultural Resources Management*, as:

- Historic Properties – Buildings, structures, and districts, and other features defined by AR 200-1 and protected through the National Historic Preservation Act (NHPA);
- Archaeological Resources – Archaeological sites as defined and governed by the Archaeological Resources Protection Act (ARPA), AR 200-1, and the NHPA;
- Cultural Items – Traditional Cultural Properties (as defined in the NHPA and as described in National Register Bulletin 38), and sites and artifacts associated with Native American graves (as defined and governed by the Native American Graves Protection and Repatriation Act (NAGPRA);
- Native American Sacred Sites – as identified EO 13007 and the in the American Indian Religious Freedom Act (AIRFA); and
- Collections of artifacts and records pertaining to them as directed in 36 CFR 79

Fort Campbell has two PAs that are applicable to the Master Plan projects in this PEA. These PAs pertain to operations, maintenance, and development operations and extend to December 31,

2019. The *Programmatic Agreement Among the United States Army, The State Historic Preservation Officer of Kentucky and the State Historic Preservation Officer of Tennessee regarding the Operation, Maintenance, and Development of The Fort Campbell Army Installation at Fort Campbell, Kentucky* (Effective January 2009) covers undertakings across the installation. The *Programmatic Agreement Between Fort Campbell and the Tennessee State Historic Preservation Office Regarding Development, Construction and Operations at Clarksville Base Historic District* (Effective January 2009) is for development undertakings within the Clarksville Base Historic District.

3.3.2 Affected Environment

On July 16, 1941, the federal government announced the selection of the Clarksville-Hopkinsville area as one of 14 locations for the installation of new military training facilities in the United States. Within one year's time, over 106,000 acres of land was purchased for the future military installation. Development of the installation began in February 1942 with the removal of hundreds of families and the demolition of homesteads, farm houses, and even entire communities. Camp Campbell opened on July 1, 1942 (Fort Campbell 2012a).

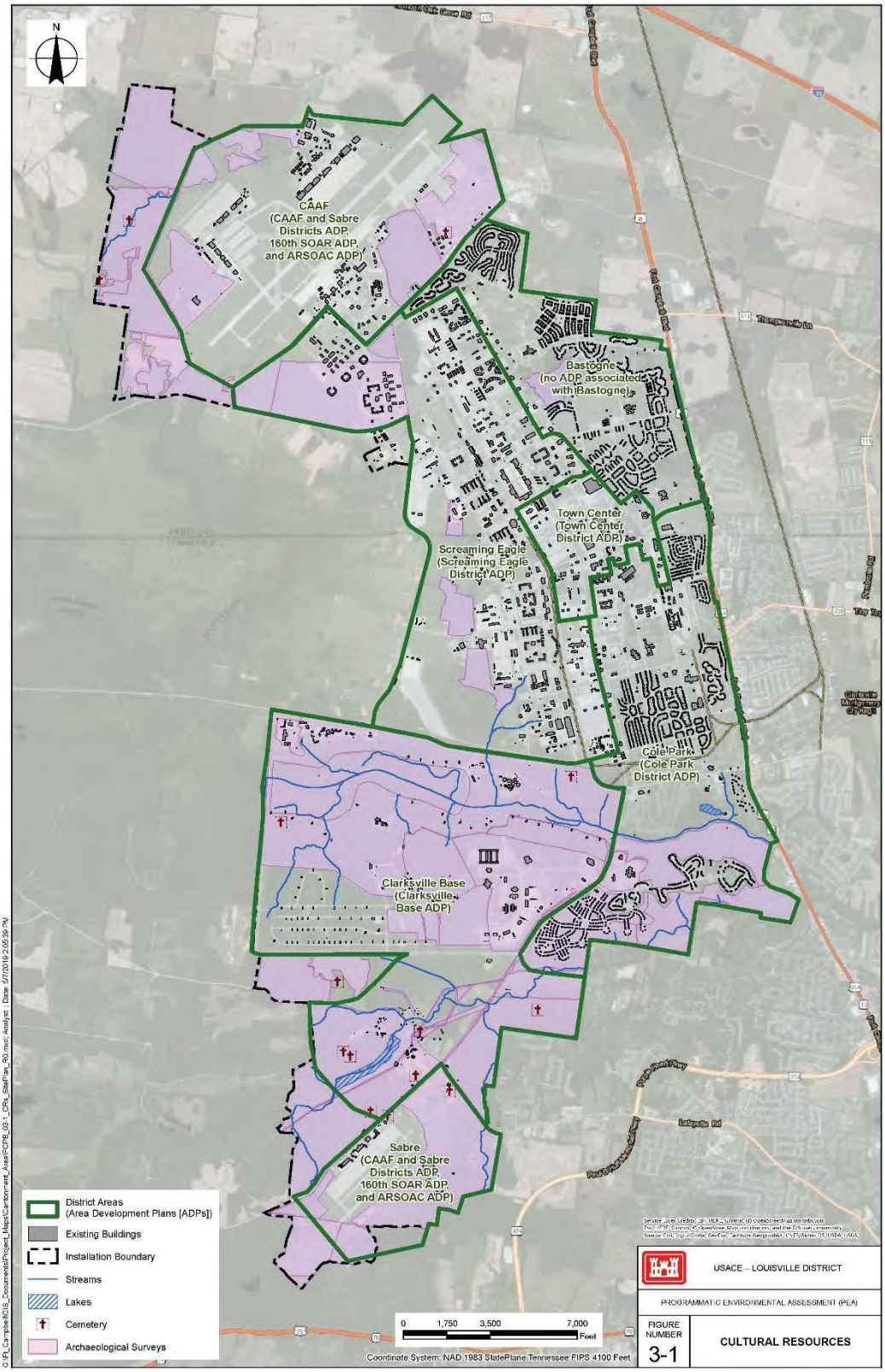
A total of 1,621 archaeological sites have been identified within the installation's boundaries. To date, 1,226 of these sites have formal determinations of eligibility with concurrence from appropriate SHPO. Of this total, 31 sites have been determined eligible for the NRHP (Fort Campbell 2012a). As a requirement of the PA, sites lacking formal eligibility determinations require Section 106 Consultations with appropriate SHPOs prior to the initiation of proposed undertakings.

Inventory of cultural resources is a requirement under Section 110 of the National Historic Preservation Act. The Cultural Resources Management Program (CRMP) at Fort Campbell maintains an extensive Geographic Information System (GIS) database to keep track of archaeological sites, historic sites, historic buildings, and cemeteries across the installation. This database organizes site information in a format that can be queried for various tasks, such as project review and assessment.

The proposed action is located in the Cantonment Area, which currently encompasses approximately 14,000 acres on the east portion of the Fort Campbell (**Figure 3-1**). The Cantonment Area serves as the "city" portion of Fort Campbell and is classified as light industrial, supporting the majority of the Post's activities including: schools, shopping, recreation, residential neighborhoods, barracks complexes, and community facilities. Major land/space utilization includes airfield operations (Sabre Army Airfield and Campbell Army Airfield), administration, community facilities, family housing, unaccompanied personnel, facilities maintenance, military support, medical, outdoor recreation, supply storage, and training. In consideration of the general land use within the Cantonment Area, typical activities associated with developed land are anticipated to continue in the future.

The PA regarding the operation, maintenance, and development of Fort Campbell (2019a) broadly covers undertakings across the installation. The PA outlines the stipulations for satisfying the Army's Section 106 responsibilities for all individual undertakings of the program. For each undertaking, the proponent of the undertaking works in consultation with the Fort Campbell CRM to determine the area(s) of potential effects (APEs) as defined in 36 CFR 800.16d and assesses whether prior efforts for identification of historic properties are adequate in accordance with guidelines established by each SHPO. If identification efforts with the APEs are adequate and there are historic properties or properties considered eligible for listing in the NRHP, Fort Campbell will assess whether the undertaking is likely to cause adverse effects and whether mitigation measures are necessary. The determinations and documentation are submitted to the appropriate SHPO for review.

Fort Campbell is also required to provide the SHPO and the Advisory Council on Historic Preservation (ACHP) an annual report on or before January 1 of each year summarizing activities carried out under the terms of the PA. These reports include a list of projects and program activities reviewed for possible effects to historic properties, determinations of effect concluded under this PA, a summary of mitigation or treatment measures implemented or still pending to address the effects of undertakings, and a summary of consultation activities and views of the SHPO and interested parties where appropriate. The annual report is available for public inspection.


N
CAAF
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
Bastogne
(no ADP associated with Bastogne)
Town Center
(Town Center District ADP)
Screaming Eagle
(Screaming Eagle District ADP)
Cole Park
(Cole Park District ADP)
Clarksville Base
(Clarksville Base ADP)
Sabre
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
District Areas
(Area Development Plans [ADPs])
Existing Buildings
Installation Boundary
Streams
Lakes
Cemetery
Archaeological Surveys
0 1,750 3,500 7,000
Feet
Coordinate System: NAD 1983 StatePlane Tennessee FIPS 4100 Feet
USACE – LOUISVILLE DISTRICT
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)
FIGURE NUMBER
3-1
CULTURAL RESOURCES

Historic Properties

Historic Buildings are characterized by being at least 50 years old, or older, from the current year. The buildings of interest in this PEA include facilities classified as World War II temporary buildings, residences originally constructed as part of the Capehart and Wherry Housing programs (Unaccompanied Personnel Housing), and structures that were used as Cold War weapons and ammunition storage. All these buildings are more than 50 years old and are considered through nation-wide Program Comments that allows the demolition and alteration of these remaining building types at Fort Campbell. Architectural evaluations at Fort Campbell are on-going.

According to the Fort Campbell cultural resources database, most of the aboveground structures more than 50 years old have been evaluated with concurrence of the eligibility listing in the NRHP by the appropriate SHPO (Fort Campbell 2012a). The following structures have been determined to be *Eligible* for listing in the NRHP with concurrence by the appropriate SHPO:

- Facility 1541 (Durrett House)
- Facility 5001 (Parish House/CG Quarters)
- Facility 6081 (Childers' House)
- Enoch Tanner (Wickham) Statue
- State Line Marker (15CH0291 and 40SW0836).
- Lincoln Elementary School

There is only one NRHP-*Eligible* historic district at Fort Campbell (the Clarksville Base Historic District). Clarksville Base was established during the Cold War as a naval weapons storage site that stored weapons and weapon components, including early generation nuclear weapons and components. Clarksville Base was one of the earliest naval weapons storage facilities established by the Armed Forces Special Weapons Project (AFSWP). Consultations between the Tennessee Historical Commission and Fort Campbell determined that Clarksville Base is eligible for the National Register of Historic Places as a historic district through associations with the Cold War under Criterion A, a significant and distinguishable entity whose components may lack individual distinction (Fort Campbell 2012a).

Fort Campbell has a PA with the Tennessee SHPO to specifically address development, construction, and operations at the Clarksville Base Historic District (CBHD) (Fort Campbell 2019b). The APE for the proposed developments within the CBHD is the entire area of the CBHD including both the development area and the preservation area within the district.

With respect to operations of the former Clarksville Base, The Master Planning Branch confers with the Cultural Resources Program staff no less than twice each calendar year to review the status of all construction or improvement projects planned or potentially considered for placement in the CBHD. For undertakings that pose potential effects to CBHD as a whole and to contributing elements of the district and located in a preservation area, the PA has stipulated standard treatments. The CRM program and the Master Planning Branch documents each project affecting the CBHD or its contributing elements. The documentation is retained in the project planning files.

Regarding effects on historic properties within CBHD but not associated with operations of the former Clarksville Base, the proponent of each undertaking works in consultation with the Fort Campbell CRM to determine the APE and assess whether prior efforts for identification of historic properties are adequate in accordance with guidelines established by the Tennessee Historical Commission. If identification efforts with the APEs are adequate and there are historic properties or properties considered eligible for listing in the NRHP, Fort Campbell will assess whether the undertaking is likely to cause adverse effects and propose mitigation measures if necessary. The determinations and documentation are submitted to the Tennessee SHPO for review.

In addition, each calendar year by the anniversary of the effective date of the PA, Fort Campbell provides a report including a list and description of the undertakings initiated within the CBHD. The report includes maps of areas affected by the undertakings and the corresponding documentation. The annual report also summarizes the efforts to complete the general mitigation measures if any of the measures are incomplete at the time Fort Campbell compiles the report.

Archaeological Sites

There are 31 archaeological sites at Fort Campbell currently eligible for listing in the NRHP. Some of these eligible sites, including sites that contain human remains, are within the expanded areas of the Cantonment Area and in the Clarksville Base.

Phase I surveys and Phase II site evaluations at Fort Campbell are on-going. It is noted that there are several locations on Fort Campbell that are excluded from further archaeological inventory because they have been heavily disturbed and/or unsafe for survey (Fort Campbell 2016a). **Figure 3-1** depicts the locations of archeological surveys (shaded purple) that have been conducted within the planning districts addressed in this PEA.

Cemeteries

During construction of the installation, many graves and cemeteries were relocated off-post. However, a large number remain today and are under Army protection. Approximately 170 historic-era cemeteries are thought to remain and numerous attempts to locate them on maps have occurred since 1941. Currently, the CRMP has identified 131 of these historic era cemeteries, which are fenced and marked in GIS. Fort Campbell has an ongoing program to identify historic cemeteries. Improvements to the inventory of cemeteries on the installation have continued since 2002. As shown in **Figure 3-1**, several cemeteries are scattered throughout the planning districts addressed in this PEA, primarily in the outer reaches and low tracked areas.

Native American Sacred Sites

EO 13175, *Consultation and Coordination with Indian Tribal Governments*, directs federal agencies to coordinate and consult with Native American tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. Consistent with EO 13175, DoD Instruction 4710.02, *Interactions with Federally-Recognized Tribes*, federally recognized tribes that are historically affiliated with lands in the vicinity of a Proposed Action have been invited to consult on proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to interested tribes. The tribal consultation process is distinct from NEPA consultation or the interagency coordination process, and it requires separate notification of all relevant tribes. The timelines for tribal consultation are

also distinct from those of other consultations. The Cultural Resources Program Manager is designated as Fort Campbell's Tribal Liaison Officer and serves as the government-to-government contact concerning tribal affairs.

EO 13007, Indian Sacred Sites, directs "each executive branch agency with statutory or administrative responsibility for the management of federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies shall maintain the confidentiality of sacred sites." Currently, there are no recorded sacred sites on Fort Campbell, although the installation has several sites that contain Native American burials. Since this class of cultural resource is defined by Indian Tribes, and no Tribes have come forward to designate a sacred site on Fort Campbell, the CRMP needs to take no action at this time.

In addition, there are no recorded Traditional Cultural Properties (TCPs) on Fort Campbell. The TCPs are historic properties and, if present, are protected under the NHPA. Given the number of historic cemeteries, the potential for historic landscapes, and the range of prehistoric sites, it is possible that TCPs might be present. Since this class of cultural resource is generally defined by Indian Tribes or groups that descend from historic communities, and no such groups have come forward to designate a traditional cultural site on Fort Campbell, the CRMP needs to take no action at this time.

3.3.3 Environmental Consequences

As summarized in Table 2-2, the proposed action for the Cantonment Area collectively consists of wide range of Master Plan projects involving construction, demolition, renovation, reconfiguration, and other development activities. There would be potential impacts to cultural resources in the Cantonment Area, particularly in the Clarksville Base Historic District. These impacts would be reduced through the protocols and procedures specified in the ICRMP and PAs (Fort Campbell 2012a, 2019a, 2019b).

Fort Campbell primarily uses NEPA review as a clearing house for all projects within the

installation. A critical part of the NEPA process is reviewing projects for potential effects to historic properties. The REC is an Army process for internal review of proposed projects in accordance through NEPA. The REC requires multiple disciplines to review projects to determine and comment on potential impacts.

The CRMP is part of the review process. The REC form provides the vehicle for initiating CRMP review of undertakings on Fort Campbell, and compliance of actions with the relevant cultural resource requirements that govern activities at the installation. Most frequently, proposed undertakings are reviewed internally, in accordance with the Operations Programmatic Agreement (Fort Campbell 2016a). The RECs usually have no effect to historic properties or can be modified by the proponent, through coordination with the CRMP, to avoid effects to historic properties. As described in the PA, there are specific undertakings that are excluded from review. There are also undertakings that do not require Section 106 review on Fort Campbell under certain Stipulations outlined in the OPs PA. These actions can be categorized as "routine undertakings." Some examples of exempt undertakings would involve roadway, parking lot, and firebreak repair, resurfacing, or reconstruction that takes place within the previously maintained roadway or parking lot surfaces. Another example would be routine maintenance of cemeteries within the Clarksville Base Historic District.

Adverse impacts on cultural resources would be determined by Fort Campbell in consultation with the State Historic Preservation Officer, interested public, and Federally Recognized Native American Tribes as appropriate. Adverse effects will be resolved in accordance with 36 CFR 800 through a formally negotiated Memorandum of Agreement.

The Tennessee SHPO found that this PEA adequately addresses potential effects to historic properties (**Appendix A**). Undertakings would continue to be reviewed under the existing programmatic agreements between SHPO and Fort Campbell.

3.3.3.1 Alternative A

As individual undertakings for the Master Plan projects have not yet been submitted for review, the impacts to cultural resources from these actions have not yet been evaluated. All future

construction, demolition, or ground-disturbing activities will require an environmental review to include cultural resources. An in-depth review of each individual project will be conducted for each project in accordance with the policies and procedures in place at the time.

Buildings

The Master Plan anticipates multiple years of projected plans and architectural evaluations will need to be on-going. As buildings reach 50 years of age, the requirement to evaluate them for listing in the NHRP comes into effect. The buildings that will reach the 50-year threshold during the lifetime of this PEA are neither enumerated nor evaluated. As a result, it is not known at this time what significant structures or districts are present or could be impacted. Newly evaluated buildings/districts will be incorporated into the review.

Archaeological Sites

As previously noted, there are several locations on Fort Campbell that are excluded from further archaeological inventory because they have been heavily disturbed and/or unsafe for survey (Fort Campbell 2016a). It is noted, however, that the exclusions for survey requirements are only for the Cantonment Area as currently defined in the existing agreements. The exemption was agreed upon because of previous historic disturbance in the area. Future expansion will not be covered by this exemption. The new Cantonment Area expansion does not have the same level of previous disturbance and will not follow the guidelines. Any areas outside of the existing excluded areas will require a Cultural Resource Phase I Survey.

During implementation of Master Plan projects under Alternative A, there is also the potential for previously unknown archaeological resources to be discovered. On a project-specific basis, however, the required protocols and appropriate consultation would be initiated in the event cultural items, human remains, or graves were discovered during project activities. Activities at the location of the discovery would cease until the Fort Campbell DPW Cultural Resources Program Manager has assessed the discovery and determined the appropriate course of action, in compliance with the installation's ICRMP. Specific procedures for discovery of remains or graves are also provided by TDEC (**Appendix A**).

3.3.3.2 Alternative B

Alternative B could result in similar cultural resources impacts to those identified for Alternative A. In addition, any potential impacts to previously unknown cultural sites would be alerted to the Fort Campbell Directorate of Public Works Cultural Resources Program Manager for assessment and appropriate course of action in compliance with the installation's ICRMP and Section 106 of the NHPA.

3.3.3.3 Alternative C

Alternative C would have no effect on cultural resources because the Cantonment Area Master Plan would not be implemented.

3.4 Noise

3.4.1 Description of the Resource

Noise is an undesirable sound that interferes with communication, is intense enough to damage hearing, or is annoying. Human response to noise varies according to the source type, characteristics of the source, distance between source and receptor, receptor sensitivity, and time of day. Noise is measured in decibels (dB) with zero being the least perceptible sound to more than 130 dB at which noise becomes a health hazard. A weighted scale has been developed to more accurately reflect what the human ear perceives because the human ear is more sensitive to certain ranges of the sound spectrum. These measurements are adjusted into units referred to as A-weighted decibels (dBA).

Sensitivity to noise varies by time of day, with receptors being more sensitive at night. According to AR 200-1, ambient noise measurements are normally adjusted by adding 10 dB to actual measurements between the hours of 2200 and 0700 to reflect this sensitivity. Decibel levels adjusted by 10 are known as day-night decibel measurements (DNL). Averaging noise levels over a protracted time period does not generally adequately assess the probability of noise complaints coming from receptors in the nearby community. Therefore, the risk of noise complaints from large caliber impulsive noise resulting from testing and training activities (e.g., machine gun, mortars, demolition events), in terms of either peak sound pressure level or C-weighted day night level (CDNL) must also be assessed.

Major goals of the Army's noise program include:

- Control operational noise to protect the health and welfare of on- and off-post people.
- Reduce community annoyance from operational noise to the extent feasible, consistent with Army training and materiel testing mission requirements.
- Actively engage local communities in land use planning in areas subject to high levels of operational noise and a high potential for noise complaints.

Construction activities can generate noticeable levels of noise. A single item of construction equipment can generate noise levels from 80 to 90 dBA at a distance of 50 ft from the source. Numerous equipment items operating concurrently can produce relatively high noise levels within several hundred feet of an active construction site. Locations more than 1,000 ft from construction sites seldom experience significant levels of construction noise (Fort Campbell 2004).

Military vehicles use a mix of public roads, on-post roads, and military vehicle trails. Vehicle type and speed influence noise levels produced. Vehicle speeds are relatively low on unpaved roads during vehicle maneuvers. Noise levels generated by High Mobility Multipurpose Wheeled Vehicle (HMMWV) and two-axle military trucks are comparable to noise produced from medium trucks (about 65 to 70 dBA at 50 ft). Multi-axle heavy trucks would generate noise levels comparable to other heavy-duty trucks (about 78 to 80 dBA at 50 ft). On average, peak noise levels drop by 15 dBA at a distance of 500 ft from the travel path (Fort Campbell 2004).

3.4.2 Affected Environment

Major noise sources at Fort Campbell include aircraft activities, small arms training, and a large caliber weapons firing range. Most training activities are restricted to Monday through Friday hours of 0700 to 2000 hours. Aircraft activity is the prime contributor to noise impacts. Helicopter activity at the installation is relatively extensive based on typical inbound and outbound airport traffic.

Since 1992, Fort Campbell has been operating from noise contours and management policies set

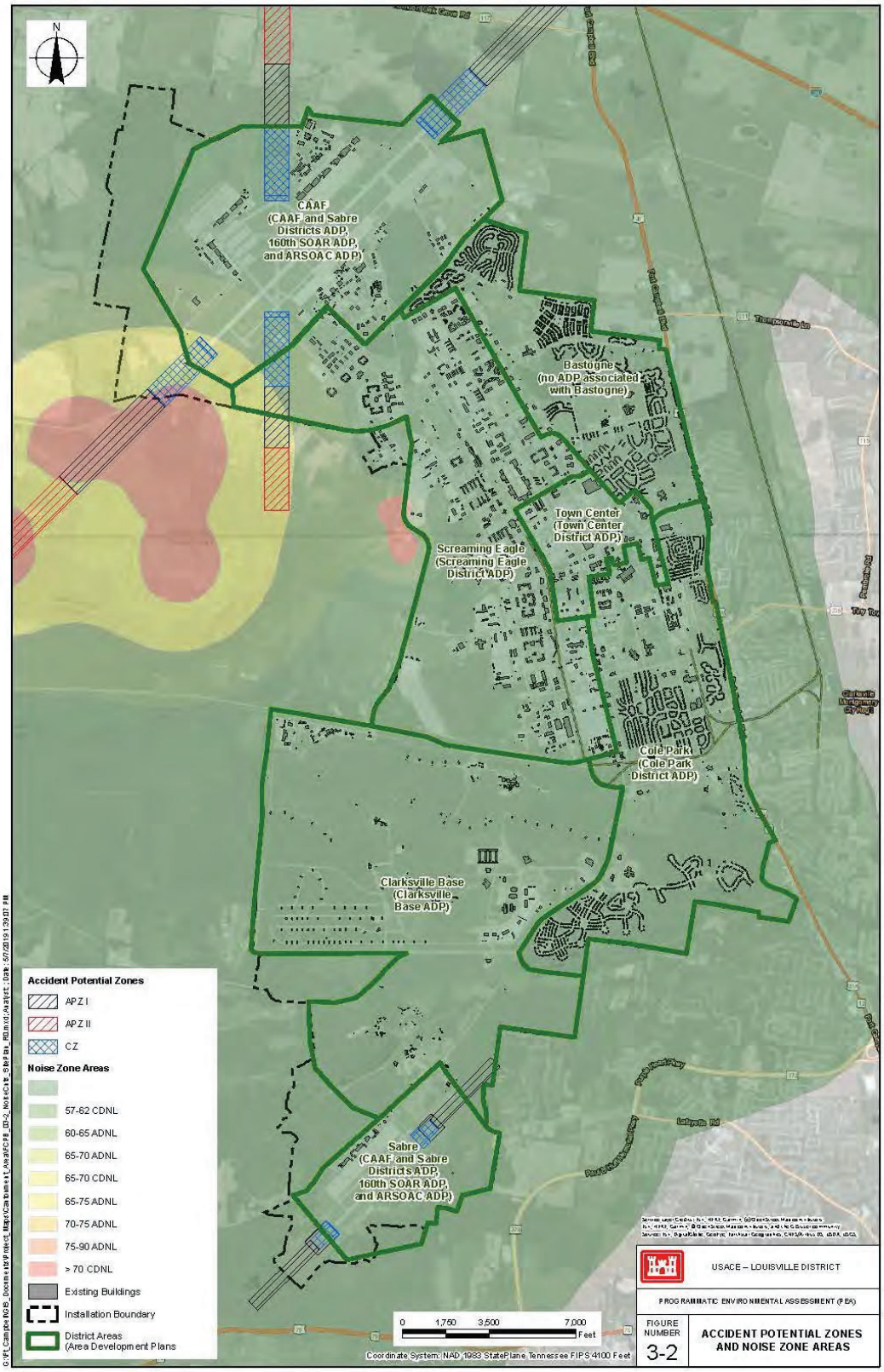
forth under its ICUZ study. Under the ICUZ program, there are three primary noise zones. Zone I is compatible with the most sensitive land uses. Zone II is normally compatible with noise-sensitive land uses and includes the Average Busy Day that provides Fort Campbell a more defined zone to better predict possible complaints and meet public demand for a better description of what will exist during a period of increased operations (e.g., emergency troop deployment). Zone III is compatible with noise-sensitive land uses.

The ICUZ program is intended to reduce the potential for aircraft mishaps in populated areas and as a result, Fort Campbell has altered basic flight patterns to avoid heavily populated areas. In addition, airfield safety zones have been established to minimize the number of people who would be injured or killed in the event of an aircraft mishap. Three safety zones are designated at the end of all active runways: Clear Zone (CZ), Accident Potential Zone (APZ) I, and APZ II. **Figure 3-2** presents the CZ, APZ, and noise zones within the Cantonment Area.

The CZ represents the most hazardous area; APZs are outside of the CZ. APZ I is located immediately beyond the CZ and has a high potential for accidents. APZ II is immediately beyond APZ I and has measurable potential for accidents. While aircraft accident potential in APZs I and II does not necessarily warrant land acquisition by the Army, land use planning and controls are strongly encouraged for the protection of the public. Compatible land uses are specified for these zones.

Fort Campbell published an Environmental Noise Management Plan (ENMP) in 2000. The ENMP provides a written plan for current and future noise management at Fort Campbell. The ENMP incorporates baseline with the existing 1992 ICUZ study elements along with a strategic guide to implement noise education, complaint management, noise and vibration mitigation, and noise abatement procedures. The ENMP implements better channels of interaction and is intended to capture the maximum feasible operational capacity of the airfield and support programmatic objectives between Fort Campbell and neighboring civilian communities and organizations.

Within the limits of accuracy of the model itself, it was meant to provide a good-faith “worst-


N
CAAF
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
Bastogne
(no ADP associated with Bastogne)
Town Center
(Town Center Distfict ADP)
Screaming Eagle
(Screaming Eagle District ADP)
Cole Park
(Cole Park District ADP)
Clarksville Base
(Clarksville Base ADP)
Sabre
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
Accident Potential Zones
APZ I
APZ II
CZ
Noise Zone Areas
57-62 CDNL
60-65 ADNL
65-70 ADNL
65-70 CDNL
65-75 ADNL
70-75 ADNL
75-90 ADNL
> 70 CDNL
Existing Buildings
Installation Boundary
District Areas
(Area Development Plans
0 1,750 3,500 7,000 Feet
Coordinate System: NAD 1983 StatePlane Tennessee FIPS 4100 Feet
USACE – LOUISVILLE DISTRICT
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)
FIGURE NUMBER 3-2
ACCIDENT POTENTIAL ZONES AND NOISE ZONE AREAS

case" baseline for the surrounding communities' zoning and land-use decisions, thus limiting encroachment and preserving the capacity of the installation to host additional flying missions. Because the Maximum Mission Scenario noise contours have been, and are currently, used for noise compatibility planning around the installation, these contours are used as the baseline for the noise analysis in this EA.

The baseline contours represent existing conditions to which the potential noise levels from proposed Cantonment Area Master Plan construction projects can be compared. The entirety of the Cantonment Area, with the exception of the western portion of CAAF and Screaming Eagle, are located outside the 65 DNL contour lines. A small portion of the western edge of CAAF and Screaming Eagle are located within a noise contour range of 65 to 70 DNL (**Figure 3-2**).

3.4.3 Environmental Consequences

Noise impact analyses typically evaluate potential changes to existing noise environments that would result from implementation of a proposed action. Potential changes in the noise environment can be beneficial (i.e., if they reduce the number of sensitive receptors exposed to unacceptable noise levels), negligible (i.e., if the total area exposed to unacceptable noise levels is essentially unchanged), or adverse (i.e., if they result in increased noise exposure to unacceptable noise levels).

3.4.3.1 Alternative A

Less than significant impacts from noise would be expected from implementation of most Master Plan projects under Alternative A. Impacts would have a temporary effect on the noise environment during construction, demolition, and/or renovation of Cantonment Area Master Plan projects. Noise impacts would be experienced by workers directly involved in construction activities, and Fort Campbell personnel and residents working and living in buildings near construction sites could experience increased noise levels during these activities. Noise effects to construction workers would be minimized by adhering to health and safety regulations.

Noise impacts from construction activities would likely remain comparable to current conditions as on-going construction projects continue to be performed within the Cantonment Area. The

current frequency and activities of aviation training activities, a contributor of noise at the installation, would not be anticipated to change, as aviation units would not be impacted by Master Plan decisions. Fort Campbell's existing noise contours would not be anticipated to change as a result of implementation of Alternative A. Therefore, there would be less than significant impacts from noise.

As discussed in Section 3.2.2, the ENMP incorporates ICUZ baseline noise conditions and provides a written plan for current and future noise management at Fort Campbell. Under Alternative A, the ENMP would continue to implement channels of interaction and programmatic objectives between Fort Campbell and neighboring civilian communities and organizations. This PEA is intended to address the implementation of standard practices for construction, demolition, and general maintenance projects. It is noted, however, that one of the projects in the Sabre District involves extending the runway by 2,000 feet. This action may require a noise analysis to confirm whether the noise contours were still within the Maximum Mission Scenario. In addition, land would be acquired to accommodate the runway extension, which could potentially change the clear zone and APZs. These potential impacts would be evaluated in a separate EA.

3.4.3.2 Alternative B

Alternative B would result in similar noise impacts to those identified for Alternative A. Less than significant impacts from noise would be minimized by workers adherence to health and safety regulations.

3.4.3.3 Alternative C

Alternative C would not result in any noise impacts over existing baseline conditions.

3.5 Earth Resources

3.5.1 Description of the Resource

Geological resources consist of the earth's surface and subsurface materials. Topography pertains to the general shape and arrangement of a land surface, including its height and the position of its natural and human-made features.

Geology is the study of the earth's composition and provides information on the structure and configuration of surface and subsurface features. Hydrogeology extends the study of the subsurface to water-bearing structures. Hydrogeological information helps in the assessment of groundwater quality and quantity and its movement.

Soils are the unconsolidated materials overlying bedrock or other parent material. Soils typically are described in terms of their complex type, slope, and physical characteristics. Differences among soil types in terms of their structure, elasticity, strength, shrink-swell potential, and erosion potential affect their abilities to support certain applications or uses.

3.5.2 Affected Environment

Topography and Geology

Fort Campbell is located near the boundary of the Lexington Plain of southwestern Kentucky and the Highland Rim Plateau of northwestern Tennessee. The installation is within the Western Highland Rim, which surrounds the Pennyroyal Plateau. The Pennyroyal Plateau is underlain primarily by bedrock of the Mississippian age. The bedrock dips uniformly and gently to the north-northeast at a slope of approximately 15 ft per mile. The uppermost formation on Fort Campbell is the Ste. Genevieve Limestone, which overlies St. Louis Limestone. Beneath these formations are the older Warsaw Limestone, Fort Payne Chert, and Chattanooga Shale. The depth to bedrock ranges from 7 to 98 ft, with the exception of outcrops along the slopes of Little West Fork Creek in the southeastern portion of Fort Campbell.

Topography on Fort Campbell is gently rolling, with the exception of a comparatively flat area along the eastern boundary and approximately 5,000 acres of steep, highly dissected, hilly land along the western boundary. Elevations range from 397 ft above sea level south of the Cantonment Area where Little West Fork Creek exits the installation, to 718 ft above sea level in the Saline Creek area on the western portion of the installation. Slopes generally range from very gently to as steep as 70 percent in some stream valleys. Within Clarksville Base, the topography is level to gently sloping ground located above the slope from Little West Fork Creek.

Limestone formations throughout Fort Campbell, including the Cantonment Area and Clarksville Base, are prone to solution weathering and have contributed to the numerous sinkholes and subterranean drainage systems that have developed. **Figure 3-3** presents surveyed locations of sinkholes within the Cantonment Area.

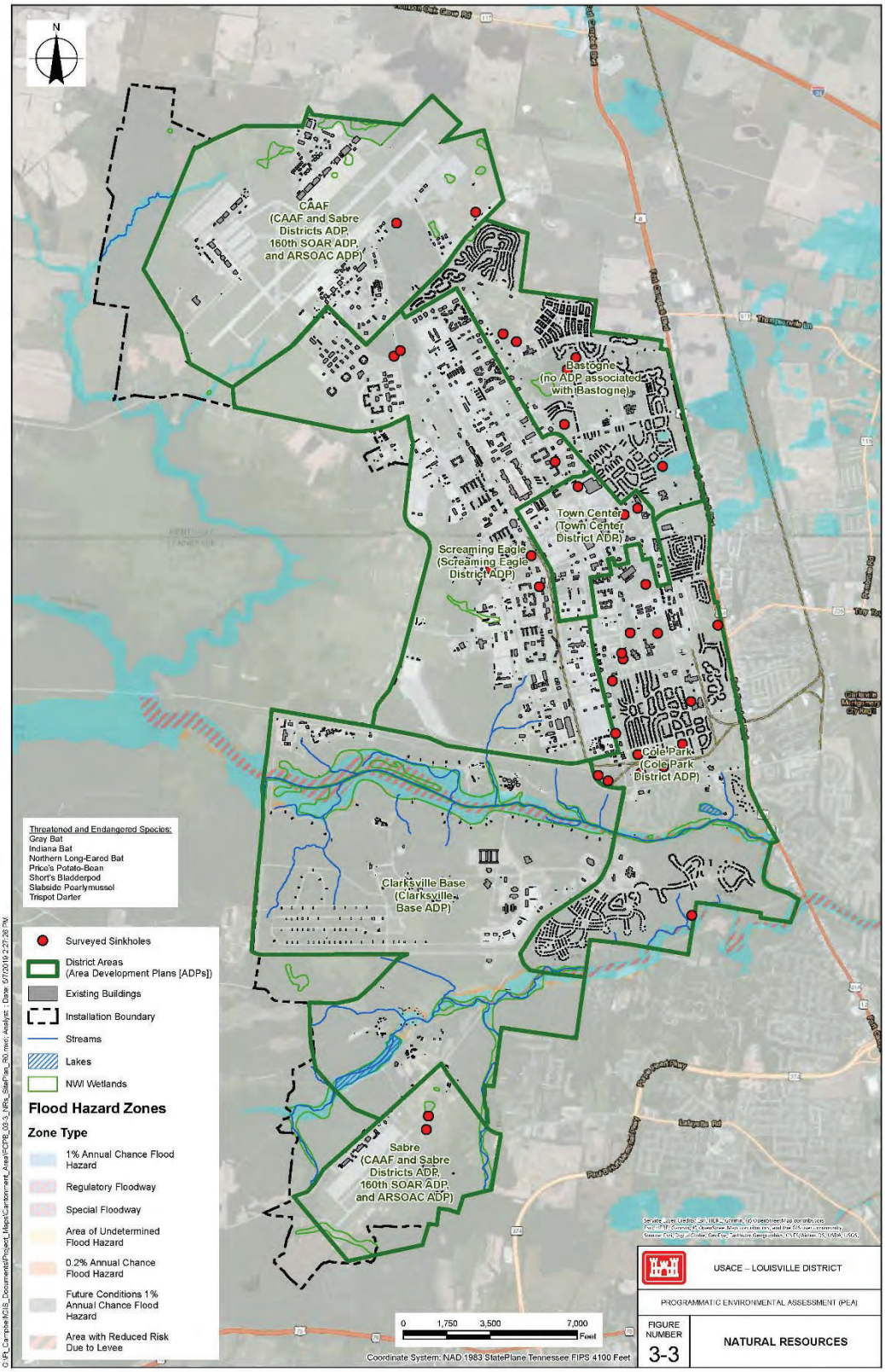
The karst terrain of the installation influences groundwater hydrology. Water seeping through jointing patterns in the roofs of these underground channels collapse and form sinkholes. Most of the lower lands contain collapse basins and sinkholes, which typically do not contain water. Numerous sinkholes are located in the southeast and northern portions of the installation (Fort Campbell 2013). For example, "Old" Clarksville Base is characterized by karst geology. Numerous sinkhole features have been identified across the 2,600-acre area.

Soils

The U.S. Department of Agriculture (USDA) soil map for Fort Campbell identifies 30 soil mapping units on the installation. Major soil associations include: Pembroke-Crider, Nicholson, and Dickson-Mountview (Fort Campbell 2013). Pembroke-Crider soils are found in areas identified as barrens on the eastern portion of the installation. Nicholson soils are found on ridges, plateaus, and slopes adjacent to streams. Dickson-Mountview soils are fond on gently rolling plains that constitute the majority of the installation.

Fort Campbell soil formation indicates the potential for erosion for over half of the soils on the installation is moderate to severe. Most problems associated with soil erosion on Fort Campbell result from the removal of vegetation (Army 2017).Cantonment Area soils are generally classified as Udarents-Urban Land, which exist in urbanized areas and are generally covered by commercial, industrial, or high-density residential development. The highly disturbed nature of these soils, typically caused by cutting, filling, or other anthropologic activities, has resulted in a blending of several soil types and characteristics.

The potential for erosion varies with topographic conditions and includes both disturbed urban land complex soils and natural loams. Bare soil leads to erosion, creation of gullies and rills, and increased sediment load in streams. Erosion can render land unsuitable for training and


N
CAAF
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
Bastogne
(no ADP associated with Bastogne)
Town Center
(Town Center District ADP)
Screaming Eagle
(Screaming Eagle District ADP)
Cole Park
(Cole Park District ADP)
Clarksville Base
(Clarksville Base ADP)
Sabre
(CAAF and Sabre Districts ADP, 160th SOAR ADP, and ARSOAC ADP)
Threatened and Endangered Species:
Gray Bat
Indiana Bat
Northern Long-Eared Bat
Price's Potato-Bean
Short's Bladderpod
Slabside Pearlymussel
Trispot Darter
Surveyed Sinkholes
District Areas (Area Development Plans [ADPs])
Existing Buildings
Installation Boundary
Streams
Lakes
NWI Wetlands
Flood Hazard Zones
Zone Type
1% Annual Chance Flood Hazard
Regulatory Floodway
Special Floodway
Area of Undetermined Flood Hazard
0.2% Annual Chance Flood Hazard
Future Conditions 1% Annual Chance Flood Hazard
Area with Reduced Risk Due to Levee
0 1,750 3,500 7,000 Feet
Coordinate System: NAD 1983 StatePlane Tennessee FIPS 4100 Feet
USACE – LOUISVILLE DISTRICT
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)
FIGURE NUMBER 3-3
NATURAL RESOURCES

impassable by vehicles. Sediment in streams may affect water flow and the survival of aquatic organisms.

3.5.3 Environmental Consequences

Protection of unique geological features, minimization of soil erosion, and the siting of facilities in relation to potential geologic hazards are considered when evaluating potential impacts of a proposed action on geological resources. Impacts can be avoided or minimized if proper construction techniques, erosion control measures, and structural engineering design are incorporated into project development.

Effects on geology and soils would be adverse if the action alters the lithology, stratigraphy, and geological structure that control groundwater quality, distribution of aquifers and confining beds, and groundwater availability; or change the soil composition, structure or function within the environment.

Projects disturbing between 5,000 square feet (sf) and 1 acre of soil will generally require a Stormwater Pollution Prevention Plan (SWPPP), which would include BMPs to reduce and minimize impacts associated with stormwater runoff, erosion, sedimentation, and pollutants. Projects over 5,000 square feet must meet the requirements of the Energy Independence Security Act (EISA) Water Quality Requirements and consider utilization of Low Impact Development.

All projects regardless of size fall under construction BMPs required under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit. For projects 1 acre or greater, SWPPPs and application for coverage under the state NPDES Construction General Permit must be submitted to the appropriate regulatory agency (Fort Campbell 2018b). New Development and Redevelopment projects over 1 acre are required to meet runoff reduction and water quality treatment during post construction required by the MS4 Permits for either Kentucky or Tennessee. Stormwater runoff diverted into certain subsurface treatment systems or sinkholes will require Underground Injection Control (UIC) Permits. Many sinkholes in the cantonment area are currently designated as UICs.

Disturbance to soils from routine construction projects within the Cantonment Area would be expected. During construction, heavy equipment would be used to move and compact soils and remove debris in construction and paved areas. Site preparation for new structures and paved areas would require clearing and grading.

Erosion Prevention/Sediment Control (EPSC) and grading plans required as part of the SWPPP would be prepared to identify site grading, drainage patterns, and runoff velocities affecting receiving waters. These plans would provide information regarding beginning and ending of excavation activities, establish the degree and length of finished slopes, specify the disposal of excess material, and the necessity of obtaining borrow material. Berms, diversions, sediment control, erosion control, and other stormwater practices would be incorporated into EPSC plans for land disturbing activities. Disturbed areas would be kept to the minimum necessary to complete the work and would be confined to the final site boundaries.

3.5.3.1 Alternative A

Alternative A could have significant but mitigable impacts to soils resulting from construction activities. Soils could be significantly altered as a result of soil excavation at planned construction sites; however, the applicable permits would be obtained and BMPs would be implemented based on site-specific conditions to reduce impacts by applying the following management actions: sediment barriers (silt fence, rock check dams), temporary detention basins, grade stabilization with seed and mulch, and geotextile slope stabilization. Soil disturbance could also result in increased erosion potential from loss of groundcover and exposure of bare soils to precipitation and runoff;. Potential temporary impacts to soils would be controlled and avoided through the use of appropriate BMPs and soil stabilization/revegetation techniques following construction activities.

The presence of karst terrain, including sinkholes, in the Cantonment Area would affect the design and construction of Master Plan planned facilities. As much of Fort Campbell is prone to sinkhole formation, construction projects sited in sinkhole topography would be required to address sinkhole related issues by designing facilities that address instability associated with development in this topography. The presence of karst features limits development and is

typically avoided for building construction unless special design for foundations and stormwater management are included. The karst terrain at Fort Campbell allows stormwater to infiltrate the surface along fractures and sinkholes. For example, the 160th SOAR Compound contains two sinkholes located between the CAAF runway and the helicopter parking area. These sinkholes have been repaired to act as temporary stormwater management facilities (USACE 2013). This location is not considered a Class 5 UIC. The Old Clarksville Base also consists of karst terrain and numerous sinkholes. The Cantonment area contains 21 modified sinkholes/Class 5 UICs on the Tennessee side and 14 on the Kentucky side to manage stormwater runoff.

In addition, in accordance with the conservation standards in the ESMC of the INRMP (Fort Campbell 2013), pesticides, fertilizers, and other chemicals would not be applied into or within 100 ft of sinkholes or other karst features. Similarly, actions such as refueling vehicles or other activities with the potential for spills would be conducted at least 100 ft from sinkholes.

3.5.3.2 Alternative B

Alternative B would result in similar impacts to soils as for Alternative A; however, impacts would be reduced by implementing site-specific BMPs.

3.5.3.3 Alternative C

Alternative C would have no impact on earth resources over current conditions because soil erosion frequency and severity through sedimentation and precipitation would remain mitigable and managed by adherence to the *Fort Campbell Stormwater Management Plan* EPSC requirements (Fort Campbell 2018b) at individual construction sites.

3.6 Biological Resources

3.6.1 Description of the Resource

Although the Cantonment Area occupies approximately 14,000 acres of the total Fort Campbell installation, it contains the vast majority of the development and is considered the "city" section of the facility. Despite the fact that the Cantonment Area is relatively developed compared with the remainder of the installation, a wide range of natural resources still remain and are an important part of the ecology and aesthetics of the area. As such, a number of environmental laws that regulate impacts to these resources apply. A comprehensive list of environmental laws

is found in Appendix B of the INRMP. These regulations include:

- Sikes Act (16 USC 670a – 670o)
- Clean Water Act (CWA), Sections 401 and 404 (33 USC 1251-1387) 1341,1344
- Protection of Wetlands (EO 11990)
- Endangered Species Act (ESA) (16 USC 35)
- Responsibilities of Federal Agencies to Protect Migratory Birds (EO 13186)
- Migratory Bird Treaty Act (MBTA) (16 USC 703-711)
- Bald and Golden Eagle Protection Act (668-668d)
- Fish and Wildlife Coordination Act (16 USC 661-666c)
- National Environmental Policy Act (NEPA) (42 USC 4321 – 4347)
- Council on Environmental Quality (40 CFR 1500-1508)

In accordance with the Sikes Act, DoD, and ARs and guidance, other Federal laws, and Fort Campbell regulations, Fort Campbell developed an Integrated Natural Resources Management Plan (INRMP), which was prepared cooperatively with the USFWS, the Tennessee Wildlife Resources Agency, and the Kentucky Department of Fish and Wildlife Resources. The INRMP is the primary tool for the management of natural resources on the installation and describes natural resources management activities between the years 2014 and 2018. Ultimately, it provides a foundation from which to build the program beyond the year 2018. This Plan implemented the Army Strategy for the Environment that integrates environmental values into the military mission to sustain readiness, improve the soldier's quality of life, strengthen community relationships, and provide sound stewardship of resources. The INRMP integrates the following separate component natural resources management plans for Fort Campbell:

- Range Complex Master Plan (2017)
- Forest Management Plan (2015)
- Integrated Wildland Fire Management Plan (2007)
- Integrated Pest Management Plan (2017)
- Endangered Species Management Component (2017)
- Bald Eagle Management Plan (2018)
- Watershed Management Plan (2017)
- Grassland Management Plan (2017)
- Migratory Bird Management Strategy (2017)
- Fish and Wildlife Management Plan (2017)
- Integrated Training Area Management 5-year Work Plan (2017)
- Fort Campbell Stormwater Management Plan (August 2018)
- Urban Forest Management Plan (2008)

3.6.2 Affected Environment

Vegetated Communities

Predominant plant communities found within Fort Campbell include hardwood forests (approximately 36,800 acres), pine plantations (approximately 10,500 acres), and grasslands (approximately 13,000 acres). Much of the remaining vegetated area is comprised of agricultural land (approximately 6,000 acres) and jurisdictional wetlands (approximately 760 acres) (Fort Campbell 2013).

Fort Campbell is part of the Western Mesophytic Forest Region. This ecotonal region includes a variety of forest community types, depending upon specific site conditions. Mesophytes such as beech (*Fagus grandifolia*), sugar maple (*Acer saccharum*), and tulip popular (*Liriodendron tulipifera*) are the dominant tree type along the mesic slopes while the majority of the other forested areas are dominated by oaks. Fort Campbell also includes barrens, upland wet woods, and alluvial forests. The Cantonment Area consists of urbanized vegetative communities similar to the local cities of Hopkinsville, Kentucky and Clarksville, Tennessee. Mowed lawns and planted trees and shrubs mostly prevail throughout the Cantonment Area. The extreme north and south regions of the Cantonment Area consist of woodlots that support common tree species of hickory, oak, beech, yellow poplar, maple, elm, and pine plantations.

Fort Campbell has one of the largest remaining native grasslands east of the Mississippi River (Fort Campbell 2013). Native grasslands are recognized by many as one of the most imperiled ecosystems in North America and provide vital habitat for one of the nation's most threatened group of wildlife, grassland birds. Grassland habitat management at Fort Campbell and bird use of those habitats were studied from 1999 through 2003. Over 100 species of birds use grasslands at Fort Campbell for breeding, in winter, and as migration stopover habitat. Since 1938, about 70 percent or 48,000 acres, of Fort Campbell's grassland has reverted to forest; approximately 13,000 acres were planted to pine and 35,000 acres were reverted to forest through natural plant succession (Fort Campbell 2013). Grassland areas continue to decrease as a result of gradual encroachment by trees and shrubs. Small pockets of grasslands and barrens are found within the Cantonment Area.

Wetlands

Along with forested areas and grasslands, wetlands comprise another vegetated habitat type found throughout Fort Campbell. Wetlands includes lakes, rivers, streams, swamps, marshes, or similar areas that develop between open water and dry land. These sites are a valuable natural resource improving water quality, reducing flood and storm damage, providing wildlife habitat, supporting hunting and fishing activities, and providing educational and aesthetic promise.

Based on USFWS National Wetland Inventory (NWI) data, approximately 3,700 acres of potential wetlands are located on the installation with palustrine and lacustrine habitats being the most dominate types of wetlands present. Most wetland areas are located near perennial streams and creeks in low-lying areas (Army 2017). Depressions formed in karst areas on Fort Campbell are also potential wetland sites. Minimal wetlands occur within the Cantonment Area and are located in the extreme north and south regions. These wetlands have been identified primarily northeast of CAAF in the northern region of the Cantonment Area and south and west of Sabre in the southern region of the Cantonment Area. Limited field surveys for wetlands have been conducted since the late 1990's but have not been continued due to the high cost (Fort Campbell 2013).

In 2000, Fort Campbell coordinated with the Natural Resource Conservation Service (NRCS) to conduct wetland delineations throughout the installation. The locations of potential wetlands were mapped using digital photographs (USACE 1987). All potential wetlands thought to be "jurisdictional" were submitted for a jurisdictional determination by the USACE, Nashville District. A total of 398 wetlands, totaling approximately 682 acres, were identified on Fort Campbell. All identified wetlands were mapped using Global Positioning System technology; wetland locations and boundaries are maintained in a geographic information system mapping database. Most wetlands on Fort Campbell are palustrine (Fort Campbell 2013). The Cantonment Area includes discrete wetland areas, as shown in **Figure 3-3**.

Vegetated buffers of 100 ft are maintained around all jurisdictional wetlands. Where it is determined that a wetland has, or could have, significant habitat value, or where current activities adjacent to a wetland are causing noticeable adverse impacts on the habitat, buffers of greater

than 100 ft may be established. Activities within buffer zones are limited to those which would cause little or no impact on, or disturbance to, the wetland.

Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat detention, and erosion protection. Wetlands are protected as a subset of the "the waters of the United States" under Section 404 of the CWA.

The term "waters of the United States" has a broad meaning under the CWA and besides navigable water, incorporates deepwater aquatic habitats and 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).

The Supreme Court heard oral arguments in October 2017 on the issue of whether jurisdiction to hear challenges to the Waters of the United States under the Clean Water Rule lies with the federal district courts (as numerous states, industry groups, and environmental organizations contend) or with the federal appeals courts, as the USACE and the USEPA contend. The Clean Water Rule became effective in August 2015 (a regulatory publication by the USEPA and USACE to clarify water resource management in the U.S. under a provision of the CWA of 1972), but in October 2015 a federal court blocked the rule's implementation nationwide. The legal question of which federal court (district or appeals) should review the challenges to the Clean Water Rule remain in limbo. As such, the USEPA and USACE submitted a proposal to move the effective date of the Clean Water Rule from August 2015 to February 6, 2020.

The Clean Water Rule is currently stayed nationwide as the result of an order issued by the Sixth Circuit, which also ruled that jurisdiction to hear challenges to the Clean Water Rule lies with the federal appeals courts, not the federal district courts. An appeal of that jurisdictional determination is currently pending before the Supreme Court, where the administration argued in

favor of affirming the decision. The USEPA and USACE proposed rule would delay the effective date of the Clean Water Rule until at least 2020 (USEPA 2018b).

Under the ESA (16 USC 1536), an "endangered species" is defined as any species in danger of extinction throughout all or a large portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future.

The USFWS also maintains a list of species considered to be candidates for possible listing under the ESA. Although candidate species receive no statutory protection under the ESA, the USFWS has attempted to advise government agencies, industry, and the public that these species are at risk and might warrant protection under the Act.

Fish and Wildlife

The mixture of natural habitat types on Fort Campbell supports a diverse group of game and non-game wildlife and fish. Fort Campbell has conducted surveys to identify the presence of mammals, birds, fish, amphibians, reptiles, and insects on the installation (Fort Campbell 2013). Most wildlife and fish species on the installation are locally common and are not provided protection under federal or state laws, except those state laws governing wildlife collection and hunting. The exceptions are migratory birds and species that are federally listed as threatened or endangered.

Mammals

At least 40 species of mammals have been recorded and/or documented on Fort Campbell (Fort Campbell 2013). Mammals inhabiting the installation include species typically found in forest and grasslands in the region, including bats (e.g. *Myotis* spp., *Lasiurus* spp.), beaver (*Castor canadensis*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*) bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), and coyote (*Canis latrans*). Small game species on the installation include coyote, gray fox, groundhog (*Marmota monax*), opossum (*Dasypus novemcinctus*), eastern cotton tail (*Sylvilagus floridanus*), raccoon, gray squirrel (*Sciurus carolinensis*) and fox squirrel (*Sciurus niger*). The white-tailed deer (*Odocoileus virginianus*) is the only large game mammal hunted recreationally on the installation (Fort Campbell 2013).

Birds

Nearly 200 species of birds have been recorded on Fort Campbell. The installation supports diverse groups of songbirds, game birds, waterfowl, wading birds, and raptors. In 2005, Fort Campbell developed the *Migratory Bird Management Strategy: a conservation strategy for protecting and managing migratory birds on Fort Campbell, Kentucky*. Fort Campbell annually conducts point count surveys to comply with EO 13186 by evaluating trends in the diversity of migratory songbirds (Fort Campbell 2013).

Reptiles and Amphibians

Baseline inventories for amphibians and reptiles were conducted beginning in 1993. Results of these surveys have identified five species of turtles, 4 species of lizards, 16 species of snakes (including two venomous species), 13 species of salamander, and 13 species of frogs and toads (Fort Campbell 2013). Generally, the species of reptiles and amphibians identified on Fort Campbell are relatively common and abundant in the region.

Fish

Surveys for fish conducted in Fort Campbell streams and lakes between 1994 and 2007 indicate approximately 60 fish species are present on the installation (Fort Campbell 2013). Some of the most common fishes identified in these surveys include stonerollers (*Campostoma oligolepis*), creek chubs (*Semotilus atromaculatus*), scarletfin shiners (*Lythrurus fasciolaris*), southern redbelly daces (*Phoxinus erythrogaster*), northern hogsuckers (*Hypentelium nigricans*), banded sculpins (*Cottus carolinae*), blackspotted topminnows (*Fundulus olivaceus*), bluegills (*Lepomus macrochirus*), longear sunfishes (*Lepomis megalotis*), fantail darters (*Etheostoma flabellare*), and Mamequit darters (*Etheostoma* sp. cf. *spectabile*). Although the summer temperatures of the streams remain cool enough (i.e., high 50s to low 60s degrees Fahrenheit) to support rainbow trout during the hottest times of the summer, it is unlikely that overall habitat conditions are suitable for sustaining a population of trout year-round (Fort Campbell 2013).

Invertebrates

Surveys for adult larval and/or pupal aquatic insects have been conducted in most major streams within the installation for adult aquatic insects in 2004 (Fort Campbell 2013). The survey of

adult aquatic insects conducted in 2004 is one of the most comprehensive surveys of caddisflies from a single, large geographic area. Over 100 species of caddisflies have been identified from the survey, including several new state records for both Kentucky and Tennessee.

A survey for freshwater mussels was conducted during September 1999 (Fort Campbell 2013). Portions of Saline, Piney Fork, Little West Fork, and Fletcher's Fork creeks were surveyed. Portions of the Cantonment Area is encompassed within this survey area. Seven taxa were recorded during the survey. Many of the streams on Fort Campbell do not provide suitable habitat for mussel fauna due to factors including intermittent flows, unstable substrate, and sediment deposition. The reach of the Little West Fork that occurs on Fort Campbell provides the most stable habitat characteristics observed during the survey. Additionally, immediately downstream from the tributary, the Fort Campbell wastewater treatment facility discharges into Little West Fork Creek. No live mussels were observed downstream of the wastewater treatment plant (Fort Campbell 2013).

Protected Species

Fort Campbell supports a wide variety of protected flora and fauna based on field biological surveys and reported historical sightings of endangered, threatened, rare, and special concern species of plants and animals. The total installation-wide diversity of protected biota includes:

- 29 species belonging to 25 genera of vascular plants
- 2 species belonging to 2 genera of amphibians
- 3 species belonging to 3 genera of reptiles
- 19 species belonging to 19 genera of birds
- 7 species belonging to 4 genera of mammals

Sightings of these protected species has been in most cases identified to more remote/undisturbed portions of Fort Campbell and not in the Cantonment Areas (Fort Campbell 2013).

The Army is required to protect all federally-listed threatened and endangered (T&E) species on its lands, per DoDI 4715.03, Natural Resources Conservation Program, and the Endangered Species Act of 1973. Endangered species are defined as those species that are at risk of extinction in all or a significant portion of their range. Threatened species are those that could be

listed as endangered in the near future if declines in populations or available habitats continue. Critical habitat is a term used under ESA to define a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that may be needed for its recovery.

Fort Campbell does not currently contain any federally designated threatened or endangered critical habitat. The Army's requirement to protect T&E species can have a direct effect on land use and management. The presence of T&E species can: 1) limit land uses, including training activities, 2) result in direct conflicts with the military mission, 3) require added financial and personnel resources to take affirmative action on behalf of listed species, and 4) involve state and federal wildlife agencies in Army land use decision-making (Fort Campbell 2013).

Even though the presence of T&E species can affect the military mission, the Army's stated vision for the conservation of T&E species is that the Army will be a national leader in proactive conservation of threatened and endangered species and the ecosystems upon which they depend as an integral part of its mission. This vision statement clearly indicates the Army's leadership commitment in the protection of T&E species on military lands; however, with the continuing increase in the number of listed species, the Army will likely have additional species to manage. To meet military objectives, the Army must first know what species occur on their lands, and then look at ways to lessen potential problems (Fort Campbell 2013). In order to address this issue, in 1996 a survey package went to all Army installations with the potential for T&E species. In the survey, installations were asked about their Federally Threatened, Endangered, Proposed, and Candidate species known to reside on, or contiguous to, the installation. The survey results, as provided by Fort Campbell, indicated that 13 T&E species were documented within the boundaries of the installation ("onsite") or known to occupy, or otherwise use, habitat adjacent to an installation ("contiguous"), which may be affected by installation military activities and land management practices.

Since the time of the survey, an additional species known to occur within Fort Campbell, the Northern Long-Eared Bat, was designated as threatened by the federal government in 2015.

Collectively, 14 federally-listed species found within or adjacent to Fort Campbell are comprised of clams, mammals, birds, a plant, and a reptile (**Table 3-2**).

Table 3-2. List of Threatened and Endangered Species Present Onsite or Contiguous at Fort Campbell

Scientific Name	Common Name	Status	Category	Onsite or Contiguous
Apios priceana	Price's Potato Bean	Threatened	Plant	Contiguous
Dromus dramas	Dromedary Pearly Mussel	Endangered	Clam	Contiguous
Epioblasma walkeri	Tan Riffleshell	Endangered	Clam	Contiguous
Falco peregrinus	Peregrine Falcon	Endangered(S/A)*	Bird	Onsite
Haliaeetus leucocephalus	Bald Eagle	Threatened	Bird	Onsite
Lampsilis abrupta	Pink Mucket Pearly Mussel	Endangered	Clam	Contiguous
Myotis grisescens	Gray Bat	Endangered	Mammal	Onsite
Myotis sodalis	Indiana Bat	Endangered	Mammal	Onsite
Myotis septentrionalis	Northern Long-Eared Bat	Threatened	Mammal	Onsite
Nerodia erythrogaster neglecta	Copperbelly Water Snake	Threatened	Reptile	Contiguous
Obovaria retusa	Ring Pink Mussel	Endangered	Clam	Contiguous
Plethobasus cooperianus	Orange-foot Pimple Back Pearly Mussel	Endangered	Clam	Contiguous
Pleurobema plenum	Rough Pigtoe	Endangered	Clam	Contiguous
Quadrula fragosa	Winged Mapleleaf Mussel	Endangered	Clam	Contiguous

*S/A- Similarity of Appearance. A species that closely resembles a threatened or endangered species may be given the federal status of the species it resembles.

The most notable protected species documented on Fort Campbell are the federally-endangered gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), and the northern long-eared bat (*Myotis septentrionalis).* These species migrate between their summer habitat and hibernation caves (hibernacula). No hibernacula have been found on Fort Campbell. Streams and other open water sources are frequently used as bat forage areas on Fort Campbell. Suitable summer habitat for both species of bat is limited to the installation's wooded stream corridors and scattered wood lots in the more remote areas in the western part of Fort Campbell. No part of Fort Campbell has been designated as critical habitat for these species.

Gray Bat

The gray bat is the largest member of the genus *Myotis* in the eastern United States. Gray bats inhabit caves year-round, but the species is limited to few caves that provide a narrow range of microclimate conditions. Approximately 95 percent of the known gray bat population hibernates in only nine caves. Forested corridors between caves and foraging areas are important to the survival of gray bats.

Fort Campbell monitors for the presence of bats and provides yearly reports to the USFWS. As part of their monitoring effort, Fort Campbell staff monitors migratory patterns and evaluates habitat enhancement possibilities to facilitate recovery of these species. Results of extensive mist net surveys indicate gray bats forage on the installation from April through September. A total of 436 gray bats were captured during mist net surveys conducted between 1999 and 2011. Most perennial and some intermittent streams on Fort Campbell provide suitable foraging habitat for gray bats.

Indiana Bat

The Indiana bat occurs in most of the eastern half of the United States and has been recorded throughout Kentucky and Tennessee. Indiana bats hibernate in caves for the winter, and roost under exfoliating bark and in dead trees (snags) in the summer months. Forest habitat is essential to the survival of the Indiana bat. Indiana bats utilize forested areas as roosting and foraging habitat in the spring, summer, and fall.

Bat monitoring efforts at Fort Campbell have resulted in a number of Indiana bat observations. During late 1998, one adult male and one juvenile male were captured on the installation in mist nets over Casey and Saline Creeks (Fort Campbell 2013). Between 1999 and 2001, installation-wide summer mist net surveys were conducted for 240 net-nights for the purpose of confirming presence of the Indiana bat. No Indiana bats were captured during that time. In June 2002, the capture of an adult male Indiana bat over Piney Fork Creek established the first summer record on Fort Campbell (Fort Campbell 2013). During mist net surveys conducted between 10 and 25 June 2003, another adult male Indiana bat was captured over Casey Creek on the installation (Fort Campbell 2013). In July 2011, the capture of a single adult male Indiana bat marked the first species record since 2004 during a mist-netting study (Fort Campbell 2013).

In 2008, Fort Campbell biologists began conducting annual acoustic surveys for Indiana bats. Evidence from intensive surveys suggests presence of Indiana bats on Fort Campbell is sporadic and infrequent. According to records maintained by the Indiana Bat Recovery Team, Fort Campbell is located near the periphery of this species' summer range, where Indiana bat populations are likely to be small and scattered.

Northern Long-eared Bat

The Northern Long-eared bat was listed as a threatened species under the Endangered Species Act in May 2015. Historical data shows that Northern Long-eared bats occur on Fort Campbell; however, recent bat monitoring efforts did not target this species considering they have only recently been listed. The bat is considered a tree dwelling bat during the summer months and is sensitive to tree/forest removal. Like the Indiana bat, Northern Long-eared bats hibernate in caves and mines in winter, and roost under tree bark and in crevices of snags in the summer.

Bird Species of Conservation Concern

Bird species of conservation concern (BCC) have been identified at Fort Campbell. The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under ESA of 1973." BCC 2008 is the most recent effort to carry out this mandate.

The list of BCC birds was developed by the North American Bird Conservation Initiative with species that occur on Fort Campbell listed for the Central Hardwoods Region, a region that includes 26 species of concern. Fort Campbell has identified 22 of those 26 species occurring on the installation (**Table 3-3**), with 13 of the BCC species known to breed on Fort Campbell. BCC species have been documented throughout the rear training areas.

3.6.3 Environmental Consequences

Biological resources that could be impacted by the proposed project include vegetation, wildlife, threatened and endangered species, and wetlands. Evaluation criteria for impacts on biological resources are based on:

- Importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource;
- Proportion of the resource that would be affected relative to its occurrence in the region;
- Sensitivity of the resource to the proposed activities; and
- Duration of ecological ramifications.

The impacts on biological resources would be adverse if species or habitats of high concern are negatively affected over relatively large areas.

Table 3-3. Bird Species of Conservation Concern Occurring at Fort Campbell

Common Name	Scientific Name
Bachman's Sparrow	*Aimophila aestivalis*
Henslow's Sparrow	*Ammodramus henslowii*
Le Conte's Sparrow	*Ammodramus leconteii*
Short-eared Owl	*Asian flammeus*
Smith's Longspur	*Calcarius pictus*
Eastern Whip-poor-will	*Caprimulugus voiciferus*
Sedge Wren	*Cistothorus platensis*
Cerulean warbler	*Dendroica cerulea*
Prairie Warbler	*Dendroica discolor*
Rusty Blackbird	*Euphagus carolinus*
Peregrine Falcon	*Falco peregrines*
Bald Eagle	*Haliaeetus leucocephalus*
Worm-eating Warbler	*Helmitheros vermivorus*
Wood Thrush	*Hylocichla mustelina*
Loggerhead Shrike	*Lanius ludovicianus*
Red-headed Woodpecker	*Melenerpes erythrocephalus*
Kentucky Warbler	*Oporornis formosus*
Bewick's Wren	*Thyromanes bewickii*
Solitary Sandpiper	*Tringa solitaria*
Buff-breasted Sandpiper	*Tryngites subruficollis*
Blue-winged Warbler	*Vermivora pinus*
Bell's Vireo	*Vireo bellii*

Source: Fort Campbell Avian Ecologist

Impacts are also considered adverse if disturbances cause reductions in population size or distribution of a species of high concern.

As a requirement under the ESA, federal agencies must provide documentation that ensures that agency actions do not adversely affect the existence of any threatened or endangered species. The ESA requires that all federal agencies avoid "taking" threatened or endangered species (which includes jeopardizing threatened or endangered species habitat). Section 7 of the ESA establishes a consultation process with USFWS that ends with USFWS concurrence or a determination of the risk of jeopardy from a federal agency project.

The following agencies were contacted regarding the Proposed Action:

- Tennessee Department of Environment and Conservation
- Tennessee Wildlife Resources Agency

- Kentucky Department for Environmental Protection
- Kentucky Department of Fish and Wildlife Resources
- USFWS – Kentucky Ecological Services Field Station
- USFWS – Tennessee Ecological Services Office
- USACE – Nashville Office
- USEPA – Region 4

Responses are included in **Appendix A**. The USFWS – Tennessee Ecological Services Office concluded that the requirements of the Endangered Species Act of 1973 (the Act), as amended, are fulfilled. Obligations under the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action (USFWS response letter**,** **Appendix A**).

For additional information on federally or state listed species and natural communities, the Kentucky Nature Preserves provided information on the Kentucky Biological Assessment Tool for obtaining Standard Occurrence Reports on a project-specific basis (KDEP response letter, **Appendix A**).

In addition, the Endangered Species Management Component (ESMC) of the INRMP (Fort Campbell 2013) provides guideline for management activities on Fort Campbell that are designed to conserve listed species on the installation. The ESMC is designed in coordination with the USFWS to integrate conservation and management of listed species. This document also includes conservation standards that apply to all activities.

3.6.3.1 Alternative A

Direct impacts to flora and fauna would result from construction and demolition activities. Indirect impacts would be associated with the loss of habitat. Although most projects will occur on previously disturbed sites, some projects may result in the conversion of undeveloped land to facilities, roads, and any other associated landscaped area. Land clearing and grading at project locations would result in the loss of vegetation, and potentially result in loss or injury to fauna in

the project area. Impacts would be expected to plant resources as a result of implementing Alternative A due to the frequency of the vegetation types within the Cantonment Area.

Wildlife habitat within the improved areas of the Cantonment Area is limited due to fragmentation by existing facilities, roads, and impervious surfaces. Most animals would avoid areas adjacent to construction zones during construction and demolition activities and return after project completion. In addition, current land use would not change and the proposed Master Plan construction activities would not be in proximity to any threatened or endangered species identified on post. Therefore, noise-related impacts from proposed demolition or construction-related activities would be short-term. Potential impacts would be minimal because they would be mitigated.

Implementation of Master Plan projects involving tree removal would be reviewed on a project-by-project basis. Impacts to habitat for sensitive species would be expected to be minimal because impacts would be mitigated. Should clearing extend into the summer, birds with established nests in trees adjacent to construction areas and gray or Indiana bats roosting in trees adjacent to the construction areas could be disturbed. The Endangered Species Program would evaluate tree removal activities proposed anywhere on the installation and provide recommendations for conserving habitat for endangered species and other wildlife.

Wildlife reproduction would not be affected from construction site preparation because tree trimming and/or removal would be mitigated as determined in consultation with USFWS. As there would likely be no direct mortality to adult birds or bats, these species would be able to breed in the future and any disruption of normal reproduction would be temporary. Direct impacts would not threaten the continued existence of these species.

Potential impacts to wetlands/streams and/or jurisdictional waters would also be mitigated by measures taken to off-set impacts to these resources. For example, any sediment or other pollutants leaving the construction site could potentially have a negative effect on gray and Indiana bats. Aggressive, site-specific storm water controls would be implemented to control potential storm water runoff and prevent sediment and other pollutants from reaching open water

bodies on Fort Campbell. By preventing sediment from entering Raccoon Branch Creek and other streams, indirect effects on gray and Indiana bats would be negligible.

3.6.3.2 Alternative B

Alternative B would result in similar biological resources impacts as Alternative A. However, impacts would not be significant because mitigation measures would be implemented.

3.6.3.3 Alternative C

Alternative C would have no impact on biological resources.

3.7 Water Resources

3.7.1 Description of the Resource

Water resources include groundwater, surface water, and floodplains. Evaluation of water resources examines the quantity and quality of the resource and its demand for various purposes.

Groundwater

Groundwater consists of the subsurface hydrologic resources and is an essential resource often used for potable water consumption, agricultural irrigation, and industrial applications. Groundwater can be described in terms of its depth from the surface, aquifer or well capacity, water quality, surrounding geologic composition, and recharge rate.

Surface Water

Surface water resources consist of lakes, rivers, and streams. Storm water is an important component of surface water systems because of its potential to introduce sediments and other contaminants that could degrade lakes, rivers, and streams. Storm water flows, which may be exacerbated by high proportions of impervious surfaces associated with buildings, roads, parking lots, and airfields are important to the management of surface water. Storm water systems convey precipitation away from developed sites to appropriate receiving surface waters. Higher densities of development require greater degrees of storm water management because of the higher proportions of impervious surfaces that occur from buildings, parking lots, and roadways.

Floodplains

Floodplains are areas of low-level ground present along rivers, stream channels, or coastal waters and might be subject to periodic or infrequent inundation due to rain or melting snow. Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which identifies the 100-year floodplain as the area that has a one percent chance of inundation by a flood event in a given year (FEMA 2019).

Executive Order 11988, *Floodplain Management*, requires federal agencies to determine whether a proposed action would occur within a floodplain and typically involves consultation of appropriate FEMA Flood Insurance Rate Maps. Executive Order 11988 directs federal agencies to avoid floodplains unless the agency determines that there is no practicable alternative. Where the only practicable alternative is to site in a floodplain, a specific step-by-step process must be followed to comply with EO 11988 outlined in the FEMA document *Further Advice on EO 11988 Floodplain Management*.

3.7.2 Affected Environment

Groundwater

Groundwater occurs at Fort Campbell in the subsoil and underlying limestone. Groundwater recharge occurs through precipitation, which averages 50.75 inches per year. The subsoil is generally low in permeability but can yield large amounts of water where it is sufficiently thick. Substantial quantities of groundwater are located in solution cavities in the underlying limestone. There are shallow and deep aquifers under Fort Campbell. The shallow aquifer is recharged by sinkholes. Thirty-five improved sinkholes/Class 5 UICs infiltrate some of the stormwater runoff in the Cantonment Area. Inventories of the Class 5 UICs are maintained in Kentucky and Tennessee. Groundwater discharges from the bedrock aquifer primarily to surface water at springs or as seepage along surface streams. Groundwater may cycle back underground and return to the aquifer. The deep aquifer is associated with Boiling Spring, Quarles Spring, and Blue Spring.

Potable water is supplied to Fort Campbell by Boiling Spring, an artesian water source located approximately 2.5 miles west of the southern portion of the Cantonment Area. The Boiling

Spring aquifer has natural barriers to contamination from onsite and offsite sources and is, therefore, a source of consistently high-water quality. It is noted, however, that additional information from KDEP indicates there has been observed connectivity between karst surface features within the Cantonment Area and the Boiling Springs Basin. The nature of karst aquifers and demonstrated activity within the Cantonment Area could influence water quality. This discussion is presented in Attachment A of the KDEP response letter (**Appendix A**).

Surface Water

Surface water systems of Fort Campbell consist of 422 stream miles and four small manmade lakes at scattered locations. Major streams are perennial with substrates ranging from unconsolidated sediments to cobble (Fort Campbell 2013). The installation is divided into three watersheds: Little West Fork Creek, Saline Creek, and Casey Creek. All watersheds drain to the Cumberland River/Lake Barkley, either to the south, west, and northwest, located approximately 89 miles south of the installation and flows into the Ohio River.

Little West Fork Creek watershed is composed of 297 stream miles that drain approximately 66 percent of the surface runoff of the installation, including the Cantonment Area. Water flow is in an easterly direction toward a confluence with the West Fork of the Red River. The main stem of Little West Fork Creek is located south of the Cantonment Area. Little Fork Creek was channelized in the 1950s. Headwater streams in and near the Cantonment Area are small intermittent water bodies with stable channels (Fort Campbell 2013).

Peak flows occur from December through April, and then gradually recedes to the low flow period between August and October. Stream flow during dry periods is maintained by springs (Fort Campbell 2013). There is a strong connection between surface waters and groundwater on Fort Campbell. Because of the karst terrain, streams may exhibit losing characteristics (flow lost to groundwater) and gaining reaches (groundwater discharge increases stream flow). Where caves are present and connected to a stream by karst, surface streams can disappear underground. Subsequently, these streams can, and often do, reappear in another location as a spring. Disappearing streams are more likely to occur during drought conditions in late summer and early fall when the water table drops (Fort Campbell 2013).

Surface water quality is moderately impacted by installation activities. The amount of sedimentation in streams resulting from erosion ranges from moderate to severe, as determined by the loss of rocky substrates in streams through burial by sediments. Sedimentation is the most serious water quality threat at Fort Campbell. Steps being implemented to minimize water quality degradation include cessation of grading bare soil firebreaks twice yearly, allowing development of vegetative cover to hold the soil and aggressive enforcement of erosion controls requirements on construction projects in the Cantonment Area. Sediment accumulation data has been collected at several locations as part of the Land Condition Trend Analysis (LCTA) program. Results indicate sedimentation has been affecting biotic communities and compromising the aquatic systems at Fort Campbell (Army 2017).

Saline Creek and Casey Creek watersheds drain the northwest portion of the post, which encompasses training areas and ranges.

The Fort Campbell Storm Water Management Plan (SWMP) and the Comprehensive SWPPP Summary Documents provide descriptions of storm drainage areas and associated outfalls, potential storm water pollution sources, and material management approaches to reduce potential storm water contamination. The SWMP covers all areas and non-industrial activities within the limits of Fort Campbell. Storm water protection for industrial activities is covered in the Kentucky and Tennessee Comprehensive SWPPP Summary Documents, supported by site-specific industrial activity SWPPPs.

The SWMP addresses the specific storm water management requirements of Fort Campbell's municipal NPDES General Permit, while the SWPPP addresses the requirements of the industrial NPDES Permits TN Multi-Sector General Permit and KYR00 Permit.

The SWPPP and SWMP provide specific BMPs to prevent surface water contamination from activities such as construction, storing and transferring of fuels, storage of coal, use of deicing fluids, storage and use of lubrication oils and maintenance fluids, solid and hazardous waste management, and use of deicing chemicals. Implementation of the following BMPs reduce the likelihood of pollutants entering the Fort Campbell storm system from construction activities: silt

fences, sediment basins, rock check dams, temporary seeding, storm drain inlet protection, and dust control.

Fort Campbell operates in compliance with the CWA and SDWA permits. The installation develops, implements, and enforces a stormwater management program designed to reduce the discharge of pollutants to the maximum extent practicable to protect water quality. The program implements control measures, including illicit discharges (dumping), construction site stormwater runoff control, and post-construction stormwater management in new development and redevelopment. Certain activities on the installation must also meet compliance with the Tennessee and Kentucky NPDES General Permits for Industrial Activities. Installation staff, tenants, activities, contracting offices, and contractors must comply with all the requirements outlined in CAM REG. 200-1, Section 13r and the Fort Campbell Stormwater Management Plan and Checklist. Fort Campbell Stormwater Program staff conducts inspections of site activities as needed to ensure compliance with CWA permits (Fort Campbell 2018a).

An individual Clean Water Act Section 401 Water Quality Certification may be required for this project (KDEP response letter, **Appendix A**). It is noted, however, that individual 401 Water Quality Certification may only apply to drainage off the northern portion of the CAAF. In addition, under Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the U.S. (33 CFR Part 328). Therefore, projects that involve work in these waters may require a Department of the Army Section 404 permit (USACE response letter, **Appendix A**).

Floodplains

Floodplains are designated and mapped by the Federal Flood Insurance Program, which is administered by FEMA. Official floodplain maps prepared by FEMA delineate intermediate regional flood zones or land surface areas having the capacity of being inundated by a flood having an average frequency of occurrence once in 100 years. Based on review of Christian County, Kentucky and Montgomery County, Tennessee flood maps, the majority of the Cantonment Area is located in Zone C (area of minimal flooding) while the southern portion of the Cantonment Area, to the north and northeast of former Lake Taal, lies within Zone A (100-

year flood). However, Little West Fork Creek traverses through Zone A in this area and also includes a confluence of former Lake Taal discharge waters. A deep gorge (up to 50 ft in elevation) exists in this portion of the Cantonment Area and where Little West Fork Creek travels through prior to exiting the Cantonment Area.

3.7.3 Environmental Consequences

Evaluation criteria for water resources impacts are based on water availability, quality, and use; existence of floodplains; and associated regulations. Impacts would be significant if proposed activities result in one or more of the following:

- Reduces water availability or supply to existing users
- Overdrafts groundwater basins
- Exceeds safe annual yield of water supply sources
- Affects water quality adversely
- Endangers public health by creating or worsening health hazard conditions
- Threatens or damages unique hydrologic characteristics
- Violates established laws or regulations adopted to protect water resources

Groundwater and surface water systems that surround Fort Campbell are closely interconnected. Potential runoff contaminants from construction activities that could impact surface water quality could also impact groundwater quality. Therefore, they are analyzed together.

Storm water runoff in urban areas is one of the leading sources of water pollution in the U.S (USEPA 2018a). In December 2007, Congress enacted the Energy Independence and Security Act (EISA) establishing strict stormwater runoff requirements for federal development and redevelopment projects. Section 438 of EISA requires federal agencies to develop and redevelop facilities with a footprint that exceeds 5,000 sf in a manner that maintains or restores the pre-development site hydrology to the maximum extent technically feasible. Federal agencies can comply using a variety of storm water management practices often referred to as “green infrastructure” or “low impact development” practices, including reducing impervious surfaces and using vegetative practices, porous pavements, cisterns and green roofs (USEPA 2018a).

3.7.3.1 Alternative A

Under Alternative A, routine development projects in the Cantonment Area would have the potential to impact surface and groundwater resources. Impacts could be intensified where groundwater has a more immediate impact from sinkholes (karst topography). The KDEP Division of Water recommended the development of a Groundwater Protection Plan for the protection of groundwater resources in these areas (**Appendix A**). Construction activities would result in temporary soil disturbance and loss of vegetative cover. These activities could result in modified surface water runoff patterns from the sites or impact water quality through transport of sediment and soil-bound pollutants. Increased runoff from unvegetated sites could result in hydrologic impacts, such as channelization and erosion. Based on the relatively brief amount of time the soil would be exposed from construction to re-vegetation of the site, infiltration or precipitation may increase slightly and the impact of the release of construction-related materials (i.e., in the event of a minor spill) would be minimal to the upper water bearing zone below the surficial layer. As prescribed in conservation standards in the ESMC of the INRMP (Fort Campbell 2013), a vegetative cover on the side slopes of sinkholes and a 100-ft vegetated buffer around the sinkholes would be maintained.

Impacts on surface water quality from Cantonment Area construction projects would be minimized by implementing BMPs to control excessive soil erosion, runoff, and minor spills. Development would comply with EISA 438, which requires post-development hydrology be returned to pre-development hydrology "to the maximum extent technically feasible".

The state of Tennessee requires a Notice of Intent (NOI) and SWPPP for NPDES Stormwater Construction Permits filed with the TDEC for all projects disturbing one or more acres. BMPs relative to potential soil impacts and onsite stormwater controls would reduce or eliminate runoff from the construction sites to avoid impacts to nearby waters. In addition, Fort Campbell enforces construction stormwater control through its coverage under the state MS4 Permits, specifically the Minimum Control Measure "Construction Site Stormwater Runoff Pollutant Control". Details regarding the BMPs required under both permits are provided in the SWMP. The municipal NPDES SWMP specifically requires implementation of construction site runoff controls, where applicable, to reduce the likelihood of pollutants entering the Fort Campbell

storm sewer system from construction activities. Examples include silt fencing, rock check dams, temporary seeding, storm drain inlet protection, sediment traps/ponds and dust control. Additional BMPs include placement of 50-foot stream buffers as needed (TDEC response letter, **Appendix A**). State MS4 requirements under the "Permanent Stormwater Management at New Development and Redevelopment" Minimum Control Measure, including low impact development, would apply in project design. The addition of impervious surfaces through the construction of new buildings, roads, and paved lots could result in increased stormwater runoff. The design of buildings, paved lots, and roads would include permanent stormwater controls, such as detention areas and infiltration areas, designed to minimize and eliminate the effects of increased runoff.

Similar regulations for stormwater management are in place for those projects that would be undertaken within the areas of Fort Campbell that are located in Kentucky. Construction work that would disturb more than one acre requires a discharge permit for stormwater runoff. The permit is also required for smaller sites that are part of a larger, common plan of development. An NOI would be filed on-line with the KDEP. The KY Division of Water generally approves coverage in seven days. Operators of construction sites are required to implement stormwater controls and develop stormwater pollution prevention plans. Stormwater controls are based on BMPs, such as diversion ditches, sediment traps/ponds, erosion control mats, covered storage areas, and good housekeeping practices.

As noted in Section 3.5.3, any construction project disturbing greater than 1 acre of soil would require the developer/site operator (Corps of Engineers, Fort Campbell Garrison, or contractor) to obtain stormwater permitting coverage under the NPDES General Storm Water Permit for Construction Activities, which is also known as the Construction General Permit (CGP). This requires the contractor to develop an NOI for coverage under the CGP and a SWPPP for the construction site. These documents must be approved by the Water Quality Program Manager (WQPM) prior to submittal. Coverage under the CGP must be granted to the contractor prior to breaking ground on any project with soil disturbance greater than 1 acre. These procedures ensure that the permittee fulfills the responsibilities outlined in the CGP throughout the duration of the project.

Any identified long-term minor adverse impacts that could occur due to increases in impervious surfaces resulting from routine construction projects located in previously vegetated areas would be minimized by permanent stormwater controls, including low impact development, and by designing surface water/storm water systems to flow away from the facility/infrastructure (i.e., drainage systems).

According to EO 11988, *Floodplain Management*, any new construction in the regulatory floodplain must apply accepted flood protection to reduce the risk of flood-associated damages; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains.

3.7.3.2 Alternative B

Alternative B would result in similar impacts to water resources as described for Alternative A; however, impacts would be expected to be less because only short- and mid-range Cantonment Area Master Plan projects would be implemented. Minor impacts on surface water quality resulting from construction activities would implement BMPs to prevent soil erosion, runoff, and minor spills and to comply with EISA 438.

3.7.3.3 Alternative C

Alternative C would have no impact on water resources over current conditions.

3.8 Facilities

3.8.1 Description of the Resource

Army real property includes lands, facilities, and infrastructure. Facilities are the buildings, structures, and other improvements that support the Army's mission. Infrastructure is the combination of supporting systems that enable the use of land and resident facilities.

Infrastructure consists of the systems and physical structures that enable a population in a specified area to function. Infrastructure is wholly synthetic, with a high correlation between the type and extent of infrastructure and the degree to which an area is characterized as "urban" or developed. The availability of infrastructure and its capacity to support growth are generally regarded as essential to economic growth of an area. Although there is no national consensus as

to what constitutes infrastructure, the following reflect the principal elements most often associated with the term: water systems, wastewater systems, stormwater systems, solid waste management, energy, traffic and circulation, transportation systems, and communication systems.

Adding soldiers to an installation could create a need for new facilities, requiring construction and the impacts that would accompany it, and possibly renovation of historic buildings. Reducing strength could mean that excess facilities would be demolished or receive less maintenance. It could also mean that infrastructure use would decrease, and this could cause problems for certain systems. For instance, water pipe systems often require a certain flow for optimum operation.

Significant impacts would occur if the capacity of current infrastructure or available space could not support the Proposed Action or if violation of regulatory limits occurs.

3.8.2 Affected Environment

The Cantonment Area encompasses roughly 14,000 acres. Facilities within the Cantonment Area are inclusive of, but not limited to: any buildings or structures that are associated with military and civilian workforce complexes, airfield operations, community facilities, facility housing units, religious, educational, recreational, storage, transportation, and training complexes.

3.8.3 Environmental Consequences

This section identifies potential impacts to facilities that might result from implementation of the Master Plan.

3.8.3.1 Alternative A

Alternative A would have an overall beneficial impact on the Cantonment Area resulting from improved lands, facilities, and infrastructure upgrades due to routine Master Plan construction projects.

3.8.3.2 Alternative B

Alternative B would also have a beneficial impact on the Cantonment Area resulting from improved lands, facilities, and infrastructure upgrades due to short- and mid-range Master Plan construction projects.

3.8.3.3 Alternative C

Alternative C could have a significant but mitigable impact on Cantonment Area facilities; however, upgrades to facilities and infrastructure that could be delayed due to the streamlined NEPA process that the PEA would provide could be mitigated by individual NEPA EAs and/or CX for Cantonment Area construction-related projects.

3.9 Socioeconomics

3.9.1 Description of the Resource

Socioeconomics is the relationship between economics and social elements such as population levels and economic activity. Factors that describe the socioeconomic environment represent a composite of several interrelated and nonrelated attributes. There are several factors that can be used as indicators of economic conditions for a geographic area, such as demographics, median household income, unemployment rates, percentage of families living below the poverty level, employment, and housing data. Data on employment identify gross numbers of employees, employment by industry or trade, and unemployment trends. Data on industrial, commercial, and other sectors of the economy provide baseline information about the economic health of a region.

3.9.2 Affected Environment

Demographics. Metropolitan statistical areas are geographic entities defined by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. A metro area contains a core urban area of 50,000 or more of a population. Each metro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core (U.S. Census Bureau [Census] 2017a).

The U.S. Census Bureau defines the entirety of the Fort Campbell population as "Fort Campbell North Census-Designated Place" (CDP). A CDP is a populated area that generally includes one officially designated but currently unincorporated small community for which the CDP is named (Census 2019a). For the statistics presented in this section and in the following Environmental Justice section, the "Fort Campbell North CDP" statistical area (which only includes the Fort Campbell military installation) will be simply referenced as "Fort Campbell."

The Bureau of Labor Statistics (BLS) defines the Fort Campbell and surrounding areas as the Clarksville Metropolitan Statistical Area (MSA). The Clarksville MSA is a four-county region comprised of Montgomery and Stewart Counties in Tennessee and Christian and Trigg Counties in Kentucky.

The two primary urban centers nearest Fort Campbell are Clarksville, Tennessee, approximately 8 miles southeast of Fort Campbell, and Hopkinsville, Kentucky, approximately 17 miles north of Fort Campbell. The Cantonment Area is situated along the eastern edge of the Fort Campbell installation. Sixty percent of the Cantonment Area is situated in Montgomery County, Tennessee while the remaining 40 percent is situated in Christian County, Kentucky; both portions being part of the larger Clarksville MSA. The reported population for Clarksville MSA in 2018 was 289,792, a reported increase of 1.67 percent from 2017. **Table 3-4** presents the comparison of population data from 2010 to 2017 for the regions surrounding Fort Campbell (2017 is the most-recent data).

Table 3-4. 2010 and 2017 Population Data Comparison

State / Region	Population 2010	Population 2017	Population Change (Percent)
Fort Campbell	13,685	13,600	-0.621
Clarksville, Tennessee	132,929	147,771	+11.165
Hopkinsville, Kentucky	31,577	31,741	+0.519
Clarksville MSA	261,619	285,042	+8.953

Source: Census 2017b, Census 2019b

As shown in **Table 3-4**, the community of Clarksville, Tennessee has experienced significant growth since 2010. This community's growth is also attributed to the significant population increase for which the Clarksville MSA has also noted significant growth for the same period.

Clarksville's growing economy can be attributed to industries such as agriculture, construction, education, entertainment, health care and retail. Major employers in the region include the City of Clarksville, Montgomery County Government, Tennova Healthcare (employs approximately 1,200 professionals), the Clarksville-Montgomery County School System (serves more than 33,000 students in 39 schools), Austin Peay State University (current enrollment more than 10,000 students), and Industrial employers like Agero, Akebono, Convergys, Jostens Printing & Publishing, Google, Hankook, LG, and Trane Co. (Fort Campbell 2019c).

As shown in **Table 3-4**, Fort Campbell's on-post population has remained relatively unchanged since 2010 as has the Hopkinsville, Kentucky population over the past 7 years.

Employment Characteristics. Fort Campbell provides a major source of employment in the four-county region employing a reported 26,841 personnel and 4,469 civilians (South Western Kentucky Economic Development Council [SWK] 2019). In addition, Fort Campbell awards numerous contracts every year to local businesses. For example, DoD spent $342 million in contracts related to Fort Campbell in FY15, of which $149 million were with Kentucky vendors. Boeing Sikorsky dominated the list of vendors, accounting for three-fourths of all contracts with Kentucky organizations (Coomes et al 2016).

Table 3-5 presents a comparison of unemployment rates for 2010 and November 2018 for regions surrounding Fort Campbell. Unemployment rates for November 2018 indicated the rate for the state of Tennessee was similar to the U.S. average while the state of Kentucky unemployment rate was the highest of all regions analyzed at 4.5 percent (BLS 2019). The Clarksville MSA (3.8 percent) and state of Tennessee (3.6 percent) rates were significantly unchanged from the U.S. average (3.5 percent) unemployment rate in November 2018 (BLS 2019). However, when compared to the 2010 unemployment rates, all regions surrounding Fort Campbell reported a significant improvement in the employment of its citizens since 2010.

Table 3-5. 2010 and 2018 Unemployment Rates Comparison

State / Region	Unemployment Rate 2010 (Percent)	Unemployment Rate 2018 (Percent)	Unemployment Change (Percent)
U.S.	9.6	3.5	-63.542
State of Tennessee	9.7	3.6	-62.887
Clarksville MSA	9.9	3.8	-61.616
State of Kentucky	10.5	4.5	-57.143

Source: BLS 2011a, BLS 2011b, BLS 2019

3.9.3 Environmental Consequences

This section identifies potential economic and social impacts that might result from the proposed project. The methodology for the economic impact assessment is based on the Economic Impact Forecast System (EIFS) developed by the DoD in the 1970s to efficiently identify and address the regional economic effects of proposed military actions (EIFS 2001). The EIFS provides a standardized system to quantify the impact of military actions, and to compare various options or alternatives in a standard, non-arbitrary approach.

The EIFS assesses potential impacts on four principal indicators of regional economic impact: business volume, employment, personal income, and population. As a "first tier" approximation of effects and their significance, these four indicators have proven very effective. The methodology for social impacts is based on the Guidelines and Principles for Social Impact Assessment, developed by an inter-organizational committee of experts in their field (National Oceanic and Atmospheric Administration [NOAA] 1994).

Proposed Master Plan projects at Fort Campbell would have an adverse impact with respect to the socioeconomic conditions in the surrounding MSA if it would:

- Change the local business volume, employment, personal income, or population that exceeds the MSA's historical annual change; and/or
- Negatively affect social services or social conditions, including property values, school enrollment, county or municipal expenditures, or crime rates.

3.9.3.1 Alternative A

Alternative A would have a beneficial impact on the local workforce from employment opportunities and beneficial impacts on the local economy from revenue generated by routine

and on-going Master Plan construction projects at Fort Campbell. Alternative A would not involve changes in off-post land use; therefore, no impacts on social conditions would be expected. Long-term beneficial impacts to Fort Campbell's primary mission of advancing combat readiness would result from the installation's ability to streamline the NEPA process for Cantonment Area Master Plan-related projects.

3.9.3.2 Alternative B

Alternative B would result in similar impacts to socioeconomics as those presented for Alternative A. Beneficial impacts would be expected on the local workforce and on the local economy from revenue generated by on-going short- and mid-range Master Plan construction projects. Long-term beneficial impacts to Fort Campbell's primary mission of advancing combat readiness would also result from the streamlined NEPA process for Cantonment Area construction projects as a result of implementing short- and mid-range Master Plan projects.

3.9.3.3 Alternative C

Alternative C could result in significant but mitigable impacts to existing socioeconomic resources. Fort Campbell's continuing operations represent a beneficial source of regional economic activity. While the demand for public services and local school spaces by the dependents of military personnel living on post would continue at current levels, the need for socioeconomic resources such as housing, public and social services, public schools, public safety, and recreational activities on-post would be anticipated as future Cantonment Area Master Plan projects. The no action alternative would result in the lack of a streamlined NEPA process for routine and on-going construction projects in the Cantonment Area, which could result in multiple, individual, and timely NEPA projects. The Army could implement management actions to minimize impacts.

One management action would be to prepare a CX for individual Cantonment Area construction-related projects off similar Fort Campbell projects with completed and documented NEPA analyses. The CX may require a REC, which is a signed statement submitted with project documentation that briefly documents an Army action has received environmental review. The management action of preparing a CX and possibly a REC would lessen the impact to

socioeconomic resources because Cantonment Area construction projects would continue to be implemented; however, the NEPA process would be handled in a different manner from the prescribed PEA, would be more time-consuming, and would be based on an individual project-by-project determination.

A second management action would be to defer issues with subsequent tiered NEPA analyses for individual projects in the Cantonment Area. Deferring issues allows an agency to not fully address certain issues in a PEA, but rather discuss fully in subsequent tiered NEPA analysis. Tiering refers to an approach where federal agencies first consider the broad, general impacts of proposed program, plan, policy, or large scope project, or at the early stage of a phased proposal, and then consider subsequent, narrower decision focused reviews. Tiering has the advantage of not repeating information that has already been considered at the programmatic level so as to focus and expedite the preparation of tiered NEPA review(s).

3.10 Utilities

3.10.1 Description of the Resource

Utilities furnish an everyday necessity to the public at large and include provisions of electricity, natural gas, water, telecommunication service, wastewater management services, solid waste management service (non-hazardous), and other essentials. Utility plant operators and maintenance personnel are required to meet applicable federal, state, local or host nation certification requirements for the state or host nation in which they are located. Depending on the service provided, the facilities will also have specific statutory and regulatory requirements for design and operation.

Army policy is to provide safe, reliable, efficient, and life cycle cost-effective utility services that promote the health and welfare of the Soldier, civilians, family members, contractors, and retirees; and that provide the capability for garrisons to accomplish assigned missions. Utilities are typically managed to meet other related Army goals. Examples include cost and environmental impact reductions. All military construction, renovation, and demolition projects have a goal of diverting a minimum of 50 percent of construction and demolition debris (C&DD) waste (determined by weight) from landfills.

The primary regulation guiding utilities management of Army installations is AR 420-1, with environmentally-related components also addressed in AR 200-1. Various installation management plans addressing utilities guide installation development, operations, and maintenance of applicable infrastructure systems. An example discussed in AR 200-1 is storm water management plans. Examples discussed in AR 420-1 include installation utilities management plans, water resource management plans, and integrated solid waste management plans. Utilities-related management plans may also be required by the government for contractor operations.

Some installations have their own facilities for generating electricity, providing drinking water, treating and discharging waste water, managing solid waste, and providing natural gas. These facilities also have associated distribution and/or collection systems. Most installations rely on utility providers in the nearby community.

3.10.2 Affected Environment

Potable Water

Potable water is supplied to Fort Campbell from the Boiling Springs aquifer, which has a potential yield of 24.65 million gallons per day (mgd) and is treated in a rapid sand filter treatment plant. The Drinking Water System is owned, operated, and maintained by a contractor, currently Jacobs-CH2M Hill. The Red River pipeline is no longer operable. The alternate potable water source is a redundant water line near Gate 7 from the Hopkinsville, KY Water Environment Authority. The installation's potable water storage system consists of the following elevated steel storage tanks: one 0.25 million gallon; one 1.0 million gallon; and three 0.5 million gallon. Total water storage capacity at Fort Campbell is 2.75 million gallons. Current use of potable water ranges between 4 and 5 mgd (Fort Campbell 2013).

Sanitary Sewer and Wastewater Systems

Sanitary wastewater at Fort Campbell is treated on post at the Wastewater Treatment Plant (WWTP) located on the Clarksville Base. The WWTP is owned, operated, and maintained by a contractor, currently Jacobs-CH2M Hill. The current daily load ranges from approximately 3.9 to 5.4 mgd with a rated capacity to effectively treat 8.0 mgd. The influent receives domestic

waste and discharges associated from oil/water separators (OWS) that are in-line with vehicle/equipment wash racks and maintenance areas. Treated effluent from the WWTP is discharged into Little West Fork Creek.

The wastewater and potable water treatment facilities are under the state of Tennessee regulatory jurisdiction. The state of Kentucky has limited jurisdiction pertinent to the associated distribution and collection system lineage that crosses boundary lines.

Energy Systems

Electrical power is supplied by the Tennessee Valley Authority (TVA) through the Edgoten substation and the Screaming Eagle substation. The transmission lines currently serving the installation have the capacity to serve the installation during peak demand. In the incident of power loss, emergency power is available to operate the potable water treatment plant, Boiling Springs aquifer pumping station, WWTP, some of the wastewater lift stations, and several other major facilities (Fort Campbell 2013). The Screaming Eagle substation is designed to provide an alternate and totally redundant source of electrical power.

Natural gas is supplied primarily by the Clarksville Gas and Water Department. There is an installation-wide gas distribution system throughout Fort Campbell (Fort Campbell 2013). Energy service to the unmanned aircraft systems (UAS) facilities and aircraft maintenance hangars would be provided through the expansion of the systems supported by TVA and the Clarksville Gas and Water Department.

3.10.3 Environmental Consequences

Impacts to utilities would be considered significant if the Army actions were to cause long-term or frequent impairment of utility service to critical services (e.g., hospitals), military mission operations, and local communities, homes, or businesses. The ROI for this resource area is the installation and immediate surrounding communities.

3.10.3.1 Alternative A

A beneficial impact to Cantonment Area utilities would result from implementation of Alternative A because services currently provided to the Cantonment Area would continue to be provided but would continually be upgraded to meet the expected future growth of the installation. The operator for each utility would obtain the number of people planned in the development in order to specifically calculate the loads. Temporary interruption in utility service would occur during construction/renovation at select and individual locations in the Cantonment Area; however, service interruption would be temporary and would cease upon project completion. Use of existing utility trenches is encouraged whenever possible.

3.10.3.2 Alternative B

Similar to Alternative A, implementation of Alternative B for short- and mid-range Master Plan projects would result in a beneficial impact to Cantonment Area utilities because utilities would continually be upgraded to meet future demand.

3.10.3.3 Alternative C

Under Alternative C, there would be no change to the current utility service or utility demand. Therefore, there would be no impact on utilities.

3.11 Land Use

3.11.1 Description of the Resource

The U.S. contains a wide variety of ecosystems that are dynamic and natural complexes of living organisms interacting with each other and with their associated non-living environment. DoD has adopted the policy that land use practices and decisions be based on scientifically sound conservation procedures and techniques that follow ecosystem management principles. Land use refers to real property classifications that indicate either a natural condition (i.e., natural/scenic, conservation, preservation, unimproved, undeveloped) or human activity types (i.e., residential, commercial, industrial, agricultural, institutional, recreational).

Land use planning objectives are two-fold: 1) ensure orderly growth and 2) ensure compatible uses among adjacent property parcels. Tools supporting land use planning include written master plans/management plans and zoning regulations. In appropriate cases, the locations and

extent of proposed actions need to be evaluated for their potential effects on project sites and adjacent land uses. The foremost factor affecting a proposed action in terms of land use is its compliance with any applicable land use or zoning regulations.

Master planning of Army installations is guided by UFC 2-100-01, Installation Master Planning. There are 12 general land use classifications used by Army planners: airfields, maintenance, industrial, supply/storage, administration, training/ranges, unaccompanied personnel housing, family housing, community facilities, medical, outdoor recreation, and open space. Management plans, policies, ordinances, and regulations determine allowable use types or protect specifically designated or environmentally sensitive uses.

The Army serves as a steward to millions of acres of land. A typical Army installation consists of training lands, which often includes bombing and gunnery ranges, and a cantonment area made up of administrative buildings, housing, maintenance facilities, and other infrastructure typical of developed areas.

3.11.2 Affected Environment

The Cantonment Area at Fort Campbell has been developed into a wide variety of land uses that comprise elements necessary for a complete urban-style community. As a result of historical Base Realignment and Closure (BRAC) transformation actions, a combination of redevelopment, development, and expansion has occurred within the Cantonment Area districts.

The Fort Campbell Cantonment Area occupies approximately 14,000 acres along the eastern portion of the installation and encompasses 40 percent of its land mass within Christian County, Kentucky, with the remaining 60 percent occupying Montgomery County, Tennessee. Land use is classified as the following types within the Cantonment Area: residential, commercial, industrial, institutional, open space, vacant/agricultural, and airports.

There are various indoor and outdoor recreation opportunities across the installation. These facilities include a golf course, campgrounds, a bowling center, swimming pools, and gymnasiums. Hunting and fishing are also common activities on post.

To support the mission of Fort Campbell, land use compatibility assures future development will not interfere with future missions. Development planning carefully considers impacts of future facilities on training and deployment areas within the Cantonment Area.

Fort Campbell's *Real Property Vision Plan* identified five distinct planning goals that would guide future plan development. Objectives were established for each goal, which are used to develop metrics against which future projects can be evaluated (Fort Campbell 2012b). Fort Campbell's vision plan goals include:

1. ***Enduring, Adaptable, Sustainable Installation*** – Create environments with compact development that incorporate historic preservation and respect the existing natural resources.

2. ***Supports Mission Readiness and Power Projection Capabilities*** – Acknowledge the primacy of the installation's mission by ensuring protection and preservation of the airfield, designing efficient mission campuses and maintaining a road system that supports mission requirements.

3. ***Campus-Like Environments*** – Create mission and support areas that define and develop public spaces, integrate mixed-use facility types, and provide connected, tree-lined sidewalks and pathways.

4. ***Well Connected, Safe, Healthy, Active Communities*** – Provide an installation plan that supports multi-modal transportation and connected campuses, and develop a trail system linking green infrastructure.

5. ***Strong Sense of Place*** – Define a welcoming environment with great public spaces and architectural themes that convey a unifying character and are contextually compatible.

Installation Planning Standards (IPS) capture Fort Campbell's guidelines for development of sustainable and efficient facilities. IPS provide a clear set of guidelines to ensure that the installation's vision and planning objectives for development are achieved (Fort Campbell 2018c). Land use surrounding Fort Campbell is compatible with the installation's operations.

3.11.3 Environmental Consequences

Potential impacts on land use are based on the level of land use sensitivity in areas affected by a proposed action and compatibility of proposed actions with existing conditions. A land-use impact would be adverse if it met the following criteria:

- Inconsistency or noncompliance with existing land use plans or policies
- Precluded the viability of existing land use
- Precluded continued use or occupation of an area
- Incompatibility with adjacent land use to the extent that public health or safety is threatened
- Conflict with planning criteria established to ensure the safety and protection of human life and property

3.11.3.1 Alternative A

Changes to land use could occur under Alternative A if additional land has to be converted to use for training or if land currently used for administrative buildings is converted to another use when buildings are demolished. Such changes would be reflected through changes to the Master Plan. Therefore, negligible effects on land use would be expected because less than minor effects would be noticed within the Cantonment Area districts and would likely not be perceptible. Therefore, there would be no significant impacts to land use.

3.11.3.2 Alternative B

Similar to Alternative A, negligible effects on land use would be expected because any minor changes to land use within the Cantonment Area would likely not be perceptible in the overall urban-style community setting. Therefore, there would be no significant impacts to land use.

3.11.3.3 Alternative C

Alternative C would not change the current level of impacts on general land use and, therefore, would have no impact on land use over current conditions.

3.12 Hazardous Materials / Waste

3.12.1 Description of the Resource

Hazardous material is defined as any substance with physical properties of ignitability, corrosivity, reactivity, or toxicity that might cause an increase in mortality, serious irreversible illness, and incapacitating reversible illness, or that might pose a substantial threat to human health or the environment. Hazardous waste is defined as any solid, liquid, contained gaseous, or semi-solid waste; or any combination of wastes that pose a substantial present or potential hazard to human health or the environment.

Evaluation of hazardous materials and wastes focuses on underground storage tanks (USTs) and aboveground storage tanks (ASTs) and the storage, transport, and use of pesticides and herbicides, fuels, and petroleum, oils, and lubricants. Lead-based paint (LBP) is also regulated as a hazardous waste. Evaluation might also extend to generation, storage, transportation, and disposal of hazardous wastes when such activity occurs at or near the project site of a proposed action. In addition to being a threat to humans, the improper release of hazardous materials and wastes can threaten the health and well-being of wildlife species, botanical habitats, soil systems, and water resources. In the event of release of hazardous materials or wastes, the extent of contamination varies based on type of soil, topography, and water resources.

Special hazards are those substances that might pose a risk to human health but are not regulated as contaminants under the hazardous waste statutes. Included in this category are asbestos, radon, polychlorinated biphenyls (PCBs), and unexploded ordnance (UXO). The presence of special hazards or controls over them may affect or be affected by implementation of Master Plan projects. Significant impacts would occur when substantial additional risk to human health or safety would be attributable to Army actions.

Hazardous materials and waste issues are defined and governed by such statutes as CERCLA, as amended by SARA, TSCA, and the Solid Waste Disposal Act as amended by RCRA. In general, both hazardous materials and wastes include substances that, because of their quantity, concentration, physical, chemical, or infectious characteristics, might present substantial danger to public health or welfare or the environment when released or otherwise improperly managed. A list of Superfund sites identified in the project area is provided in the response letter from KDEP (**Appendix A**). One hazardous waste site is also identified in the project area on the installation and is provided in the KDEP response letter (**Appendix A**). The other waste site on the list is not located on Fort Campbell.

Fort Campbell's goal is to meet EO 13514, "*Federal Leadership in Environmental, Energy, and Economic Performance*" (replaced in 2015 by EO 13693, "*Planning for Federal Sustainability in the Next Decade*"). EO 13514 requires military installations to meet a 60 percent C&DD diversion rate for construction and demolition projects that occur on an installation. In order to

achieve the 60 percent diversion goal, reclamation and recycling would have to be considered. Contractors who have experience with demolition projects at Fort Campbell have worked with nonprofit organizations to divert items from structures prior to demolition. Similar reclamation and recycling processes could be handled with Master Plan demolition projects.

Bi-County Landfill is the nearest C&DD landfill, located approximately 3.5 miles from the Sabre District. Bi-County Landfill is an 85-acre facility that operates on 101st Airborne Road, north of US Highway 79.

3.12.2 Affected Environment

Hazardous Materials

Fort Campbell's hazardous waste streams result from site operations and maintenance of aircraft, vehicles, buildings, grounds maintenance, and various other equipment on the installation. The waste streams include: spent cleaning solvents, waste oils, spent fuels, corrosion/descaling liquids, and waste paints. Also incorporated into the hazardous waste stream is the management of hospital waste and UXO.

Fort Campbell is a large quantity generator (LQG) of hazardous waste as defined under RCRA. However, Fort Campbell currently does not treat, store, or dispose onsite any RCRA-regulated hazardous wastes. All hazardous wastes generated onsite are collected and processed through a centrally located hazardous waste management facility, the Pollution Prevention Operation Center (PPOC). The PPOC program enhances combat readiness and establishes regulatory compliance and inventory management procedures for all hazardous materials used during industrial work processes on Fort Campbell. The PPOC provides a single point of accountability for classification, chemical analysis, manifesting, bulking, labeling, and tracking of all on-post waste for off-post disposal (Fort Campbell 2018a).

Personnel at hazardous waste generation points contact the PPOC to schedule a waste pickup. PPOC personnel collect the material on location within 72 hours. Product screening has been established to minimize material disposal. These procedures coupled with dedicated PPOC personnel have enabled Fort Campbell to reduce hazardous waste disposal quantities and related

costs by more than 80 percent since 1992. The PPOC manages used antifreeze for the installation, providing on-site testing and recycling to manage a serviceable product that meets all military specifications at a reduced cost. The PPOC also provides management for used petroleum, oil, and lubricants (POLs). Used POLs generated at the unit or management level are collected, assessed, stored, and sent for recycling.

Nearly all activities on Fort Campbell use HAZMAT, which are essentially those items requiring a Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS). Quality managers are responsible for properly maintaining HAZMAT to minimize safety hazards, prevent spills, and reduce hazardous waste generation. MSDS/SDS are initially provided to units when the HAZMAT locker is set up, and if new product is introduced to the locker, and MSDS/SDS is provided (Fort Campbell 2018a).

Asbestos

AR 200-1, *Environmental Protection and Enhancement* and AR 420-1, *Army Facilities Management*, outline strategies for an installation asbestos management program; design of the asbestos management plan for Fort Campbell is consistent with these regulations. The asbestos management plan maintains a permanent record on the status and condition of asbestos-containing material (ACM) known to be in the Fort Campbell facility inventory. The asbestos management plan established control procedures to include identification, abatement activities, cleanup, and disposal of asbestos in Fort Campbell facilities (Fort Campbell 2016b).

Fort Campbell has an overall extensive asbestos management, inventory/tracking, and surveillance program. A number of older structures contain ACM (i.e., pipe insulation, linoleum flooring, mastic, wallboard, coating, roofing material, and paneling). Asbestos is regulated by the USEPA with the authority promulgated under Occupational Safety and Health Administration (OSHA) 29 USC 669, et seq. Section 112 of the CAA regulates emissions of asbestos fibers to ambient air. USEPA policy is to leave asbestos in place if disturbance or removal could pose a health threat.

Federal Regulation 40 CFR 61 requires the USEPA or authorized state agencies be notified of asbestos removal projects. The Kentucky Department for Environmental Protection, Division of Air Quality and the Tennessee Division of Air Pollution Control, Asbestos NESHAP Program are designated as authorized state agencies. Both state agencies promulgated regulations implementing their respective Asbestos Control Programs. Kentucky requires that it be notified before any asbestos project (exceptions: non-friable repairs and maintenance, emergency repairs and maintenance, and ordered demolitions) according to their regulation, 401 Kentucky Administrative Regulation (KAR) 58:025. Tennessee requires that it be notified in advance when any regulated ACM is removed in agreement with (IAW) Chapter 1200-03-11-02 of their Hazardous Air Contaminants Amendment. Notifications will include the type of work and amount of ACM to be removed (Fort Campbell 2016b).

The DPW Maintenance Division is responsible for ensuring the Environmental Division receives NESHAP forms on in-house projects and adequate advanced notice to meet regulatory notification requirements. The *Fort Campbell Asbestos Management Plan* additionally outlines procedures for training, recordkeeping, quality control/quality assurance, abatement management, and maintenance (Fort Campbell 2016b).

Asbestos information is to be continually updated until all known ACM is removed from facilities known to contain ACM. The management plan provides for primary documentation of the cumulative results of the facility asbestos control program, its oversight and credibility.

ACM collected throughout the installation is containerized, inventoried, and disposed of within a designated area of the Fort Campbell solid waste landfill, which is inspected by state regulators (Fort Campbell 2004). Demolition of existing facilities within the Cantonment Area would not be determined until later in the project planning process. Demolition crews would then be notified of the potential to encounter ACM; only trained/certified personnel would be involved in the removal.

Lead

The Residential Lead-Based Paint Hazard Reduction Act of 1992, Subtitle B, Section 408 (commonly called Title X), passed by Congress on October 28, 1992, regulates the use and disposal of LBP on federal facilities. Federal agencies are required to comply with applicable federal, state, and local laws relating to LBP activities and hazards. Demolition of existing facilities within the Cantonment Area would not be determined until later in the project planning process.

The Department of Army's LBP program establishes responsibility and standards for identification and control of LBP and lead-containing dust in "target facilities." The design of the *Fort Campbell Lead-Based Paint Management Plan* is consistent with regulations set forth in AR 2001 and AR 420-1. The *Fort Campbell Lead-Based Paint Management Plan* maintains a permanent record on the status and condition of all LBP in all Operations and Maintenance Army (OMA) target facilities and other facilities in the Fort Campbell inventory. The plan is currently under revision and any major revisions made to the plan will replace in-house functions with contract/credit card actions as the DPW in-house asbestos and LBP Maintenance Teams have been recently discontinued (Fort Campbell 2016b).

According to the Fort Campbell TSCA Program Manager, the OMA Buildings and Survey Status list will be updated as part of the LBP plan revision. However, most buildings at Fort Campbell have been surveyed for LBP since the last plan was updated in 2014 and the list is expected to decrease due to building demolitions and the unlikelihood of new LBP being discovered (except as may be expected/discovered during pre-demolition/pre-renovation inspections).

Radon

The U.S. Congress passed the Indoor Radon Abatement Act of 1988 (IRAA). The IRAA declares the national goal to be "that the air within buildings in the United States should be as free of radon as the ambient air outside the buildings". In response to IRAA, the U.S. Department of Army established the Army Radon Reduction Program (ARRP) under AR 200-1 with the stated intent of assessing all Army facilities worldwide for elevated radon potential. After this was completed, the U.S. Army Environmental Hygiene Agency decentralized the

ARRP program and made the implementation of the program the responsibility of each Army facility. In 1997, the U.S. Army published *Environmental Protection and Enhancement*, which clarified the Army's radon program objectives and added the requirement to disclose radon results to facility managers.

The *Fort Campbell Radon Management Plan* summarizes current radon policies and provides role and responsibility guidance for the implementation of radon resistant new construction, testing, mitigation, and radon system maintenance activities within OMA buildings located at Fort Campbell. As such, Fort Campbell policy states all occupied OMA buildings must have an initial radon test; if testing within a building indicates the presence of elevated radon, the building should be mitigated in accordance within ARRP mitigation guidelines. In addition, periodic retesting of OMA buildings should also be performed to safeguard occupants from elevated radon exposure (Fort Campbell 2010).

Fort Campbell requires all construction to include passive ventilation if elevated radon exists within an OMA building. This requirement mandates all structures have vents in crawlspaces and basement areas to prevent capture of radon and prevent accumulation of potentially harmful concentrations. Cantonment Area facilities would comply with this requirement and any occupants of facilities would not be at risk of exposure to potentially harmful levels of radon.

According to the Fort Campbell TSCA Program Manager, radon levels at Fort Campbell are above the USEPA recommendation of 4 pCi/L; therefore, an active radon testing and mitigation program is on-going at Fort Campbell for abatement in OMA buildings.

PCBs

According to the Fort Campbell TSCA Program Manager, Fort Campbell has no known PCB items. There were no known PCB containing transformers remaining at the time the outdoor electrical service was privatized and transferred and there are no PCB storage areas on Fort Campbell. Additionally, two to three annual PCB inspections have been conducted annually the past 10 years with no reported PCBs, according to the TSCA Program Manager; there is no formal Fort Campbell PCB management plan.

3.12.3 Environmental Consequences

Impacts to hazardous material management would be considered adverse if the federal action resulted in noncompliance with applicable federal and state regulations, or increased the amounts generated or procured beyond current Fort Campbell waste management procedures and capacities.

Impacts on pollution prevention would be considered adverse if the federal action resulted in worker, resident, or visitor exposure to these materials, or if the action generated quantities of these materials beyond the capability of current management procedures. Impacts on hazardous materials/waste would be considered adverse if a federal action disturbed (or created) contaminated sites resulting in negative effects on human health or the environment. As part of the review process, KDEP presented information on those facilities and sites that the Kentucky Division of Waste Management currently has in its database. Contact information for further data or for reporting evidence of illegal disposal or releases is provided in the KDEP response letter (**Appendix A**).

3.12.3.1 Alternative A

Hazardous Materials / Waste

Products containing hazardous materials would be procured and used during Cantonment Area Master Plan construction projects. It is anticipated that the quantity of products containing hazardous materials used during these activities would be minimal and their use would be of short duration and would cease upon project completion. Contractors would be responsible for the management of hazardous materials, which would be handled in accordance with federal and state regulations.

It is anticipated that the quantity of hazardous wastes generated from proposed Cantonment Area construction-related projects would be similar in nature with the baseline condition waste streams. Cantonment Area Master Plan projects would not impact Fort Campbell's hazardous waste management program. Hazardous waste would be handled, stored, transported, disposed of, or recycled in accordance with the Fort Campbell Hazardous Waste Management Plan.

If the actual diversion rate for C&DD falls too far below the requirement for 60 percent, there could be impacts because C&DD would continue to fill up the landfills and reduce capacity. Due to the number of landfills in the area available for C&DD waste; however, impacts to the capacities of the landfills in the area would be expected to be minimal.

Asbestos, Lead, Radon

No impact would be expected from ACM, LBP, or radon materials because the *Fort Campbell Asbestos Management Plan*, *Fort Campbell Lead-Based Paint Management Plan*, and the *Fort Campbell Radon Management Plan* would be followed as guidance documents for the management of any of these hazardous materials identified during Cantonment Area Master Plan projects. If any of these materials are encountered during Cantonment Area Master Plan projects, the above-mentioned plans would be consulted (e.g., items removed, abated, mitigated) and any impacts that could occur would be less than minor and would not be perceptible. If asbestos, lead paint and/or other contaminants would be encountered during this project, the appropriate agencies would be contacted for proper disposal and closure (KDEP response letter, **Appendix A**).

3.12.3.2 Alternative B

No impacts would be expected to hazardous waste/materials, ACM, LBP, or radon. It is anticipated that the quantity of hazardous materials and wastes procured and generated from proposed Cantonment Area construction-related projects would be similar in nature with the baseline condition waste streams. Cantonment Area Master Plan projects would not impact Fort Campbell's hazardous waste management program. Hazardous waste would be handled, stored, transported, disposed of, or recycled in accordance with the Fort Campbell Hazardous Waste Management Plan. Additionally, ACM, LBP, and Radon Management Plans would be followed as guidance documents for the management of any of these hazardous materials identified during Cantonment Area Master Plan projects.

3.12.3.3 Alternative C

Alternative C would have no impact on hazardous materials storage or waste generation over current conditions.

3.13 Storage Tanks

3.13.1 Description of the Resource

RCRA and the Oil Pollution Prevention Act (OPPA) 40 CFR 112 are the primary regulations governing POL storage tanks and spill management. These regulations protect the environment and the nation's navigable waters and natural resources from potential hazards from an AST/UST leak. Under these regulations, ASTs/USTs must be equipped with secondary containment, cathodic/corrosion protection, leak detection systems, and monitoring systems.

The Army's AST/ UST program must comply with federal and state requirements and standards to protect public health and the environment. Tanks are required to be equipped with measures to prevent spills. As owners and operators of tanks, the Army is responsible for performing routine container inspections, keeping records, and maintaining records for a minimum of 3 years (Army 2019).

3.13.2 Affected Environment

Stored fuels present a potential threat to the environment, which is mitigated at Fort Campbell through a Spill Control and Counter Measure Plan (SPCCP). The SPCCP describes practices used to minimize the potential for stored fuel spills, prevent spilled materials from migrating off post, and ensure that the cause of any spill is corrected. The Fort Campbell Installation Spill Contingency Plan (ISCP) describes emergency planning, notification, and spill response practices. Collectively, the SPCCP, with a focus on spill prevention, and the Facility Response Plan (FRP), with a focus on spill response, makes up the ISCP and provides a comprehensive strategy for preventing stored fuel releases to the environment.

Numerous ASTs and USTs are located within the Cantonment Area. The Fort Campbell Tank Program maintains the complete listing of USTs. Installation or removal of storage tanks, transformers, and/or hydraulic systems as part of Master Plan projects would be coordinated through the Fort Campbell Environmental Division, Compliance Branch. Operational maintenance activities in the Cantonment Area would include spill containment measures to prevent accidental release of POLs and other hazardous substances to the environment. Waste POLs would be collected, recycled to the extent practicable, and disposed of at appropriate off-

post facilities. Solvents, cleaning agents, and other substances would be used during routine operational maintenance and during construction/demolition activities. These materials would be used and disposed of in accordance with Fort Campbell policy. All new facilities and structures would be designed to direct runoff through an OWS to prevent surface water and groundwater contamination.

The Fort Campbell Fire Department is the first responder if spilled materials present a fire hazard, may reach a waterway, or present a situation beyond the capability of the spilling activity to control and clean up the spilled material.

Any relocation or removal of AST or UST assets as part of Master Plan projects in the Cantonment Area would meet all regulatory requirements and procedures for compliance.

3.13.3 Environmental Consequences

Impacts to public health or the environment would be considered adverse if the storage tank assets or Army program resulted in noncompliance with applicable federal and state regulations.

3.13.3.1 Alternative A

No short- or long-term impacts to storage tanks would be expected because the installation or removal of any storage tanks related to any short-, mid-, or long-range Master Plan projects would be coordinated through the Fort Campbell Environmental Division Compliance Branch.

3.13.3.2 Alternative B

No short- or long-term impacts to storage tanks would be expected because the installation or removal of any storage tanks related to any short- or mid-range Master Plan projects would be coordinated through the Fort Campbell Environmental Division Compliance Branch.

3.13.3.3 Alternative C

Alternative C would have no impact on storage tanks over current conditions.

3.14 Traffic/Transportation

3.14.1 Description of the Resource

Transportation systems are the organized means of moving people and commodities. Principal transportation systems include commercial air carriers, waterway and maritime shipping, railroads, and trucking. Movement of people by privately owned vehicles on a local or regional scale is related to traffic and circulation. The smooth flow of traffic and adequacy of on-post and off-post road networks to move people efficiently contribute materially to the quality of the human environment in the vicinity of the installation. Installation activities can cause, or adversely affect traffic congestion, or can occur in locations with an inadequate or only marginally adequate supporting road network.

There are three major transportation systems at Fort Campbell: road, air, and rail. Fort Campbell spans four counties, Trigg County, Christian County, Stewart County, and Montgomery County. The city center and downtown area of Clarksville is approximately 12 miles from the installation. Interstate 24 (I-24) is just north of the post and traverses the region in a northwest-southeast direction. US 41A is a four-lane highway that parallels I-24 in a northwest-southeast direction and is adjacent to the eastern boundary of the installation. Fort Campbell's Main Gate (Gate 4) is accessible from US 41A. US Highway 79 runs east and west along the southern border of the installation. State Highway 120 borders the western edge. Within the installation, numerous paved roads support the transportation system within the Cantonment Area. The rear area is accessed by a system of rural roads and firebreaks.

Fort Campbell has both fixed- and rotary-wing airfield facilities. The CAAF is capable of handling all U.S. Air Force (USAF) airlift assets. Golden Eagle, a Forward Landing strip is also capable of handling both C-130 and C-17 aircraft. Rotary-wing aircraft use the CAAF, Destiny Heliport, Sabre Army Airfield, and numerous landing zones located throughout the training areas. These facilities allow Fort Campbell to meet operational deployments and mobilization in minimal time. Remote landing strips for rotary-wing aircraft are scattered throughout the eastern portion of the installation.

Fort Campbell has a rail spur and railhead connecting at Hopkinsville, Kentucky and the CSX Transportation rail system.

3.14.2 Affected Environment

The affected environment includes the transportation network within and around the Cantonment Area. The current process for reviewing projects (and traffic-related impacts) is initially done through the Installation Siting Process and as part of the design submittal review process for major construction projects on post (i.e., MILCON projects). There have not been any detailed traffic/transportation analysis or studies conducted individually for any of the ADPs, according to the DPW Master Plans Division.

3.14.3 Environmental Consequences

Traffic impacts could include congestion and delays on public roadways and key access points within the near the Cantonment Area project construction sites. Impacts on traffic and transportation are evaluated for their potential to disrupt or improve existing levels of service.

3.14.3.1 Alternative A

Short-term minor impacts to traffic would be expected in and around Master Plan Cantonment Area construction and demolition sites. However, disruption impacts to traffic would be short in duration and would cease upon project completion. No long-term impacts to traffic or transportation in the Cantonment Area would be expected as a result of Alternative A.

3.14.3.2 Alternative B

Traffic and transportation impacts would for Alternative B would be similar to Alternative A.

3.14.3.3 Alternative C

Alternative C would have no impact on traffic and transportation over existing conditions.

3.15 Solid Waste

3.15.1 Description of the Resource

Solid waste is regulated under federal, state, and local laws. RCRA is the federal act that governs the collection, treatment, storage, and disposal of solid waste. Solid waste management

is primarily concerned with the availability of landfills to support a population's residential, commercial, and industrial needs, and the quantity of solid waste associated with a proposed action. Alternative means of waste disposal may involve waste-to-energy programs or incineration. Recycling programs for various waste categories (e.g., glass, metal, paper) reduce reliance on landfills for disposal.

3.15.2 Affected Environment

In accordance with AR 420-1, *Army Facilities Management*, Army solid waste policies are based on the concept of Integrated Solid Waste Management (ISWM) principles. Planning for ISWM is designed to minimize the initial input to the waste stream through source reduction, reducing the volume of the waste stream requiring disposal through re-use and recycling, and finally disposing of solid waste through the effective combination of composting, incineration, or landfill treatment. Full implementation of the ISWM concept and the coordinated evaluation of all elements of the solid waste stream from source generation to disposal will result in an effective installation SWM program.

Solid wastes generated from this project would be disposed of at a permitted facility. Nonhazardous waste generated at Fort Campbell is disposed of through a variety of means:

- All sanitary waste is collected by a refuse contractor and transported to a regional landfill for disposal.
- One convenience center is operated by the refuse contractor for disposal and separation of recyclable materials; located at the west end of Airborne Street.
- A Recycle Center is operated by Non-Appropriated Fund (NAF) personnel to process and sell recyclable materials; located on Desert Storm Road south of Airborne Street.
- The C&DD Landfill is operated by Roads and Grounds for the disposal of construction/demolition debris and is located north of US 79 on 101st Airborne Road.

A list of solid waste sites identified in the project area is provided in the response letter from KDEP (**Appendix A**). There are no Recycling and Local Assistance (RLA) tracked open dumps within the project area (**Appendix A**). Numerous regulated Solid Waste Management Units (SWMUs) are located in and around the Cantonment Area. Eight SWMUs sites and four OWSs have been identified within the Cantonment Area; all SWMUs and OWSs have No Further

Action status from the TDEC. Therefore, any future actions occurring within the footprint of these SWMU and/or OWS sites would not require additional coordination or approval from the TDEC.

3.15.3 Environmental Consequences

Fort Campbell would not meet requirements under EO 13514 (as modified by EO 13693) if the alternatives result in the diversion rate of Fort Campbell's C&DD waste to be below 60 percent. The diversion rate is the percentage of nonhazardous solid waste that is diverted from entering a disposal facility. Impacts would be minimized by developing a C&DD Waste Management Diversion Plan, which would be submitted for approval. The plan must evaluate all diversion options and make good-faith efforts to achieve the highest diversion rate within the project schedule and budget (Fort Campbell 2018a).

3.15.3.1 Alternative A

Minor impacts to solid waste would result from new facilities and paved areas and demolition debris would be generated during replacement and/or renovation of existing facilities and structures within the Cantonment Area. Materials generated would be recycled to the greatest extent practicable with remaining materials sent to Bi-County Landfill or the Fort Campbell Landfill for disposal.

Recycling processes at Fort Campbell include grinding and reuse of concrete; therefore, the quantity of wastes generated from the disposal of demolition debris would not add to the exceedance of the capacity of the landfill system or appreciably shorten the projected 80-year life expectancy of the on-post C&DD landfill.

3.15.3.2 Alternative B

Solid wastes generated from this project would be disposed of at a permitted facility. Alternative B would result in similar minor impacts to solid waste as a result of new facilities construction and demolition-related short- and mid-range Master Plan projects in the Cantonment Area. However, impacts would be not be significant because materials would be recycled at either the on-post C&DD landfill or the nearest off-post C&DD landfill.

3.15.3.3 Alternative C

Alternative C would have no impact to the current solid waste generation and disposal practices within the Cantonment Area at Fort Campbell.

3.16 Environmental Justice

3.16.1 Description of the Resource

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires that all federal agencies address the effects of policies on minorities and low-income populations and communities, and to ensure that there would be no disproportionately high and adverse human health or environmental effects to minority or low-income populations or communities in the area.

The CEQ guidance states that "minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographical analysis."

Minority populations are defined as: Alaskan Native, American Indian, Black, Native Hawaiian, Pacific Islander, or persons of Hispanic origin. A low-income population is defined as persons living below the poverty threshold as determined by the Census Bureau. A youth population is defined as children under 18 years.

Low-income status was based upon comparing the income of the proposed project site and larger study area residential population to the U.S. Census Bureau Poverty Threshold. The CEQ guidelines do not specifically state the percentage considered meaningful in the case of low-income populations. The definition of "low income populations" is defined by U.S. Department

of Housing and Urban Development (HUD) as populations where "50 percent or greater are low-income individuals."

3.16.2 Affected Environment

A screening analysis using U.S. Census Bureau racial and economic information catalogued by Demographic Profile 5-Year Estimates for the years 2013 through 2017 was reviewed using the American Community Survey (ACS) economic and demographic and housing estimates to identify low income and minority populations living in the vicinity of Fort Campbell and in the larger geographic region.

The Cantonment Area is included in Census Tracts 9801, 2015.01, 2015.02, 2015.03, and 1014 (Census 2010). The west portion of the Fort Campbell installation is included in Tracts 9801 and 9802. Surrounding communities are included in numerous census tracts in the four-county region that includes Christian and Trigg Counties in Kentucky and Montgomery and Stewart Counties in Tennessee.

Table 3-6 presents a comparison of Fort Campbell economic, demographic, and housing characteristics to surrounding communities using 5-Year ACS census tract estimates. The first eight census tracts presented include data tabulated from Fort Campbell residents within the Cantonment Areas (note: Christian County Tract 9801, Trigg County Tract 9802, and Stewart County Tract 9802 reported no data).

Fort Campbell

Tract 1014 (portions of Cole Park, Town Center, and Screaming Eagle) reported the largest on-post total population (6,587 persons) while Tract 9801 (Clarksville Base/Sabre) reported the smallest population (277 persons). However, the entire on-post population for Tract 9801 reported being employed by the Armed Forces (100 percent). The remaining on-post census tracts (Tract 2015.01, 2015.02, and 2015.03) reported a total population of 13,600. Therefore, for the reporting period 2013 through 2017, the reported estimated population for the five on-post census tracts was reported to be 20,464 persons. Tract 2015.01 (north Bastogne) and Tract 1014 (Cole Park/Town Center/south Screaming Eagle) reported the highest population counts for

children under the age of 18 at 2,502 and 2,554, respectively. The entire on-post population for children under 18 for the reporting period of 2013 through 2017 was estimated at 6,834 for the five census tracts combined (Census 2019c).

Table 3-6. Fort Campbell Economic, Demographic, and Housing Characteristics Compared to the Surrounding Communities Using Census Bureau 5-Year Estimates

Census Tract Number	Location / Area	Characteristic	Estimates and Percentages	
			Estimate	Percent
Cantonment Area / Fort Campbell				
2015.01 Christian	N Bastogne	Total Population	5,229	(X)
		Male	2,739	52.4
		Female	2,490	47.6
		Under 18	2,502	(X)
		Employed	744	26.3
		Unemployed	160	5.7
		Armed Forces	1,000	35.4
		White	3,443	65.8
		Black	949	18.1
		Hispanic	941	18.0
		Mexican	470	9.0
		Median Age	20.8	(X)
		Under Poverty Threshold – Families	(X)	12.0%
		Median Household Income (dollars)	42,125	(X)
2015.02 Christian	E Bastogne	Total Population	4,111	(X)
		Male	2,098	51.0
		Female	2,013	49.0
		Under 18	1,778	(X)
		Employed	600	25.1
		Unemployed	144	6.0
		Armed Forces	859	36.0
		White	2,943	71.6
		Black	640	15.6
		Hispanic	736	17.9
		Mexican	500	12.2
		Median Age	21.3	(X)
		Under Poverty Threshold – Families	(X)	13.9
		Median Household Income (dollars)	36,933	(X)
2015.03 Christian	N Screaming Eagle	Total Population	4,260	(X)
		Male	4,084	95.9
		Female	176	4.1
		Under 18	0	(X)
		Employed	12	0.3
		Unemployed	0	0.0
		Armed Forces	4,248	99.7
		White	3,009	70.6
		Black	684	16.1
		Hispanic	493	11.6
		Mexican	242	5.7
		Median Age	22.0	(X)
		Under Poverty Threshold – Families	(X)	--

Census Tract Number	Location / Area	Characteristic	Estimates and Percentages	
			Estimate	Percent
		Median Household Income (dollars)	--	(X)
1014 Montgomery	Cole Park / Town Center / S Screaming Eagle	Total Population	6,587	(X)
		Male	3,723	56.5
		Female	2,864	43.5
		Under 18	2,554	(X)
		Employed	873	20.8
		Unemployed	214	5.1
		Armed Forces	2,169	51.7
		White	5,019	76.2
		Black	649	9.9
		Hispanic	1,351	20.5
		Mexican	691	10.5
		Median Age	22.3	(X)
		Under Poverty Threshold – Families	(X)	8.5%
		Median Household Income (dollars)	52,867	(X)
9801 Montgomery	Clarksville Base / Sabre	Total Population	277	(X)
		Male	244	88.1
		Female	33	11.9
		Under 18	--	(X)
		Employed	0	(X)
		Unemployed	0	(X)
		Armed Forced	277	100
		White	158	57.0
		Black	55	19.9
		Hispanic	18	6.5
		Mexican	5	1.8
		Median Age	23.8	(X)
		Under Poverty Threshold – Families	(X)	--
		Median Household Income (dollars)	--	(X)
9801 Christian	CAAF	No Data		
9802 Trigg	NWC Fort Campbell	No Data		
9802 Stewart	SWC Fort Campbell	No Data		
Surrounding Communities				
2014 Christian	N of Fort Campbell	Total Population	2,948	(X)
		Male	1,530	51.9
		Female	1,418	48.1
		Under 18	999	(X)
		Employed	1,105	54.8
		Unemployed	49	2.4
		Armed Forces	53	2.6
		White	2,615	88.7
		Black	118	4.0
		Hispanic	62	2.1
		Mexican	20	0.7
		Median Age	30.1	(X)
		Under Poverty Threshold – Families	(X)	15.0%
		Median Household Income (dollars)	57,009	(X)
2013.02		Total Population	7,763	(X)
		Male	4,232	54.5

Census Tract Number	Location / Area	Characteristic	Estimates and Percentages	
			Estimate	Percent
Christian	NE of Bastogne (Oak Grove Community)	Female	3,531	45.5
		Under 18	2,443	(X)
		Employed	3,186	57.5
		Unemployed	103	1.9
		Armed Forces	977	17.6
		White	5,262	67.8
		Black	1,847	23.8
		Hispanic	1,331	17.1
		Mexican	824	10.6
		Median Age	24.1	(X)
		Under Poverty Threshold – Families	(X)	14.2%
		Median Household Income (dollars)	48,612	(X)
1015 Montgomery	S of Fort Campbell	Total Population	7,103	(X)
		Male	3,659	51.5
		Female	3,444	48.5
		Under 18	1,521	(X)
		Employed	3,185	55.9
		Unemployed	306	5.4
		Armed Forces	319	5.6
		White	5,883	82.8
		Black	574	8.1
		Hispanic	334	4.7
		Mexican	192	2.7
		Median Age	37.0	(X)
		Under Poverty Threshold – Families	(X)	4.2%
		Median Household Income (dollars)	54,695	(X)
1012.02 Montgomery	E of Fort Campbell	Total Population	4,043	(X)
		Male	2,055	50.9
		Female	1,979	49.1
		Under 18	942	(X)
		Employed	1,495	47.8
		Unemployed	115	3.7
		Armed Forces	311	9.9
		White	2,786	69.1
		Black	737	18.3
		Hispanic	311	7.7
		Mexican	156	3.9
		Median Age	30.5	(X)
		Under Poverty Threshold – Families	(X)	14.4%
		Median Household Income (dollars)	44,434	(X)
1011.02 Montgomery	East of Clarksville Base / Sabre	Total Population	7,502	(X)
		Male	3,533	47.1
		Female	3,969	52.9
		Under 18	2,010	(X)
		Employed	2,926	50.7
		Unemployed	162	2.8
		Armed Forces	418	7.2
		White	5,009	66.8
		Black	2,085	27.8
		Hispanic	1,006	13.4
		Mexican	585	7.8
		Median Age	31.4	(X)

Census Tract Number	Location / Area	Characteristic	Estimates and Percentages	
			Estimate	Percent
		Under Poverty Threshold – Families	(X)	20.5%
		Median Household Income (dollars)	48,481	(X)
1013.03 Montgomery	E of Cole Park, S of Oak Grove Community	Total Population	11,220	(X)
		Male	5,589	49.8
		Female	5,631	50.2
		Under 18	3,721	(X)
		Employed	3,578	45.8
		Unemployed	377	4.8
		Armed Forces	1,270	16.3
		White	6,167	55.0
		Black	3,255	29.0
		Hispanic	1,218	10.9
		Mexican	556	5.0
		Median Age	25.7	(X)
		Under Poverty Threshold – Families	(X)	17.7
		Median Household Income (dollars)	50,074	(X)
1013.04 Montgomery	E of Cole Park	Total Population	5,346	(X)
		Male	2,667	49.9
		Female	2,679	50.1
		Under 18	1,447	(X)
		Employed	1,993	49.6
		Unemployed	285	7.1
		Armed Forces	517	12.9
		White	2,692	50.4
		Black	1,999	37.4
		Hispanic	998	18.7
		Mexican	262	4.9
		Median Age	29.4	(X)
		Under Poverty Threshold – Families	(X)	18.5%
		Median Household Income (dollars)	38,255	(X)
9702 Trigg	NW of Fort Campbell	Total Population	7,101	(X)
		Male	3,346	47.1
		Female	3,755	52.9
		Under 18	2,173	(X)
		Employed	2,719	52.9
		Unemployed	247	4.8
		Armed Forces	17	0.3
		White	5,947	83.7
		Black	1,043	14.7
		Hispanic	94	1.3
		Mexican	54	0.8
		Median Age	37.7	(X)
		Under Poverty Threshold – Families	(X)	17.7%
		Median Household Income (dollars)	43,278	(X)
9703 Trigg	W/NW of Fort Campbell	Total Population	4,689	(X)
		Male	2,506	53.4
		Female	2,183	46.6
		Under 18	567	(X)
		Employed	2,136	51.1
		Unemployed	232	5.5
		Armed Forces	0	0.0
		White	4,652	99.2

Census Tract Number	Location / Area	Characteristic	Estimates and Percentages	
			Estimate	Percent
		Black	15	0.3
		Hispanic	178	3.8
		Mexican	178	3.8
		Median Age	51.9	(X)
		Under Poverty Threshold – Families	(X)	5.8%
		Median Household Income (dollars)	55,383	(X)
1102 Stewart	S/SW of Fort Campbell	Total Population	5,743	(X)
		Male	2,946	51.3
		Female	2,797	48.7
		Under 18	1,233	(X)
		Employed	2,414	52.7
		Unemployed	174	3.8
		Armed Forces	44	1.0
		White	5,319	92.6
		Black	88	1.5
		Hispanic	91	1.6
		Mexican	58	1.0
		Median Age	39.7	(X)
		Under Poverty Threshold – Families	(X)	13.4%
		Median Household Income (dollars)	44,792	(X)

-- = No Data
(X) = Not applicable
Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates (Census 2019c)

The highest on-post poverty rate was reported at 13.9 percent for Tract 2015.02 (east Bastogne) for 2013 through 2017 with the next highest reported impoverished area on-post being north Bastogne reporting 12.0 percent for the same reporting period [NOTE: the poverty threshold was set at $25,086 in 2018 by the Census Bureau for a household of four persons]. The median household income difference between these two areas (north and east Bastogne) is within approximately $5,000 (Census 2019c).

Surrounding Community

Census data analysis indicates the majority of Fort Campbell commuters are likely coming from the east/southeast from Tract 1013.03 (east of Cole Park / south of Oak Grove) and from Tract 2013.02 (Oak Grove). Census tract data specifically indicates 33.9 percent of the population combined from these two tracts are employed in the Armed Forces. In total, both of these populations (18,983 persons) reported an average median household income nearing $50,000. The Oak Grove community, located northeast of the Cantonment Area, reported an unemployment rate of 1.9 percent and a poverty rate of 14.2 percent. Of its total population, 2,443 are under the age of 18 with the median age being reported at 24.1. The larger tract east of

Cole Park / south of Oak Grove (Tract 1013.03) reported an unemployment rate of 4.8 percent and a poverty rate of 17.7 percent. Of its total population, 3,721 are under the age of 18 with the median age being reported at 25.7 (Census 2019c).

Census Tract 1013.04 (east of Cole Park / south of Oak Grove) reported the highest percentage of its total population (5,346 persons) below the poverty threshold (18.5 percent). Of the surrounding Fort Campbell community, Tract 1013.04 reported the lowest median household income at $38,255. The median age was reported at 29.4 and of 1,447 were reported under 18 years of age (Census 2019c).

3.16.3 Environmental Consequences

This section evaluates environmental justice concerns to include disproportionate impacts on low-income or minority populations. The Cantonment Area Master Plan would have an adverse impact with respect to environmental justice in the surrounding metropolitan area if it would disproportionately impact minority populations or low-income populations. Impacts on identified environmental justice (minority and low-income) communities and the protection of children would be considered significant if one or more of the following would occur:

- Activities or operations substantially altering lifestyles or quality of life of Fort Campbell employees and their families or civilian households living near Fort Campbell.
- Disproportionately high and adverse environmental or human health impacts on an identified minority or low-income population, which appreciably exceed those of the general population around the project area.
- Disproportionately high and adverse environmental health or safety risks to an identified population of children.

3.16.3.1 Alternative A

To comply with EO 12898, ethnicity and poverty status in the study area have been examined and compared to state and national statistics to determine if minority or low-income groups could be disproportionately affected by Alternative A. Based on current census tract data, there were no minority groups that reported 50 percent or greater of their population in any of the study areas.

Minor impacts could occur from construction-related activities in the Cantonment Area; however, no impacts would be expected to off-post areas. The environment around Fort Campbell is influenced by Army operations, land management practices, vehicle traffic, and emissions sources off post. Site preparation and construction activities included as part of routine construction activities on Fort Campbell would cause increases in air emissions and noise, but effects would be addressed through mitigation measures and would not disproportionately affect a single population. Additionally, Alternative A would not disproportionately impact children.

Access to construction/demolition sites would be generally secured with locked fencing that would protect children from any hazards associated with the construction sites. In addition, Fort Campbell's perimeter boundary fence would add another secure layer, protecting motorists, cyclists, and children outside of Fort Campbell from any nearby associated hazards from construction/demolition sites. Therefore, there would be no impacts on environmental justice communities, and no significant impacts would occur from Alternative A.

3.16.3.2 Alternative B

Alternative B would result in the same minor impacts from construction-related activities in the Cantonment Area. Although Alternative B would implement short- and mid-range Master Plan projects, the same communities surrounding Fort Campbell would not change and would not be impacted by the proposed construction projects planned within the Cantonment Area.

3.16.3.3 Alternative C

Alternative C would have no disproportionate impact to minorities, economically disadvantaged populations, or children. Therefore, Alternative C would have no impact over current conditions with respect to environmental justice.

3.17 Safety and Occupational Health

3.17.1 Description of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation or

environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Activities that can be hazardous include transportation, maintenance and repair activities, and the creation of highly noisy environs. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications. Any facility or human-use area with potential explosive or other rapid oxidation processes creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns. The public would have no access to the construction activities associated with the Proposed Action.

Munitions and Explosive Safety

Explosives are classified based on their reactions to specific influences. The explosives hazard class is further subdivided into "division", based on the character and predominance of the associated hazards and their potential for causing personnel casualties or property damage. For example, Explosives Hazard Class/Division 1.4 designates a moderate fire with no significant blast or fragment hazard (Sandia 2010).

Construction Safety

Construction site safety consists primarily of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by DoD designed to comply with standards issued by OSHA and USEPA. These standards specify the amount and type of training required for industrial workers, the use of protective equipment and clothing, engineering controls, and maximum exposure limits for workplace stressors. In addition, health and safety plans are typically developed by the contractor on a project-specific basis.

3.17.2 Affected Environment

Munitions and Explosives Safety

Quantity Arc Distances are considered operational constraints to development. With the exception of Master Plan projects associated with the airfields and those located in the vicinity of the Ammunition Supply Point, the majority of projects would be located outside these distances.

Construction Safety

All contractors performing demolition and construction activities are responsible for following ground safety regulations and worker compensation programs and are required to conduct construction activities in a manner that does not pose any risk to workers or personnel. Industrial hygiene programs address exposure to hazardous materials, use of personal protective equipment, and availability of Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractor responsibilities are to review potentially hazardous workplace operations; to monitor exposure to workplace chemical (e.g., asbestos, lead, hazardous materials), physical (e.g., noise propagation), and biological (e.g., infectious waste) agents; to recommend and evaluate controls (e.g., ventilation, respirators) to ensure personnel are properly protected or unexposed; and to ensure a medical surveillance program is in place to perform occupational health physicals for those workers subject to any accidental chemical exposures.

Anti-Terrorism/Force Protection

The DoD seeks effective ways to minimize the likelihood of mass casualties from terrorist attacks against DoD personnel in the buildings in which they work and live. The intent of the United Facilities Criteria (UFC) 4-010-01 standard is to minimize the possibility of mass casualties in buildings or portions of buildings owned, leased, privatized, or otherwise occupied, managed, or controlled by or for DoD. The UFC standards provide appropriate, implementable, and enforceable measures to establish a level of protection against terrorist attacks for all inhabited DoD buildings where no known threat of terrorist activity currently exists.

The UFC mandates minimum standoff distances for new and existing buildings and for those buildings to exist within or outside of a controlled perimeter. Standoff distances are distances maintained between a building or portion thereof and the potential location for an explosive detonation, primarily an adjacent roadway, parking area, and/or trash cans. A controlled perimeter is a physical boundary at which vehicle access is controlled with sufficient means to channel vehicles to the access control points. At a minimum, access control at a controlled perimeter requires the demonstrated capability to search for and detect explosives.

3.17.3 Environmental Consequences

Impacts on health and safety are evaluated for their potential to jeopardize the health and safety of personnel as well as the surrounding public. Impacts might arise from physical changes in the work environment, demolition and construction activities, introduction of demolition and construction-related risks, and risks created by either direct or indirect workforce and population changes related to proposed activities. Army regulations and procedures promote a safe work environment and guard against hazards to the public. Fort Campbell programs and day-to-day operations are accomplished according to applicable Army federal and state health and safety standards.

3.17.3.1 Alternative A

Munitions and Explosives Safety

However rare, some training munitions have been discovered on sites in the cantonment area. Project sites would be clear of any Fort Campbell munitions or explosives hazards. No adverse effects due to munitions or explosives safety would be expected to occur from any of the Cantonment Area Master Plan projects.

Construction Safety

Short-term minor impacts to workers could potentially occur during Cantonment Area Master Plan demolition and construction activities. Contractors would be required to establish and maintain safety programs, develop health and safety plans, and adhere to Standard Operating Procedures (SOPs). Any potential adverse impacts to the health and safety of nearby personnel would be minimized by clearly identifying the work zone and prohibiting access to unauthorized

individuals. Use of high-profile equipment would require a "spotter" when operating near any overhead hazards. To minimize vehicle accidents, contractors would direct heavy vehicles entering and exiting the demolition sites.

Fort Campbell has also incorporated stringent safety standards and procedures into day-to-day operations. For utilities, the excavator would call Tennessee One-Call System to locate utilities in advance of excavation (Fort Campbell 2018a). Tennessee One-Call shall be contacted for excavations in both the Tennessee and Kentucky portions of the installation. In addition, proper excavation techniques would be used to ensure that existing underground utility lines are not damaged during excavation. In the event a utility line is cut or otherwise damaged, on-site personnel would need to implement emergency procedures. Therefore, no adverse effects are anticipated as a result of Cantonment Area Master Plan projects due to safeguards existing to protect personnel.

No adverse effects regarding fire hazards or public safety would be expected to occur from Cantonment Area Master Plan projects. SOPs for demolition and construction projects would be in place to protect the public.

Anti-Terrorism/Force Protection

No adverse effects to anti-terrorism/force protection (ATFP) would be expected as a result of constructing Cantonment Area Master Plan projects. All on-post facilities would be constructed within a controlled perimeter at Fort Campbell. Beneficial impacts would also result because new construction would comply with the ATFP requirements.

3.17.3.2 Alternative B

Alternative B would result in the same potential impacts from construction-related activities in the Cantonment Area as Alternative A.

3.17.3.3 Alternative C

Alternative C would have no impacts on safety or occupational health.

4.0 Cumulative Effects

Increasing evidence suggests the most adverse environmental effects may result not from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions over time (CEQ 1997). The CEQ regulations implementing NEPA require that cumulative impacts of a proposed action be assessed. A cumulative impact is defined as:

> *"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (40 CFR § 1508.7).*

The CEQ's guidance for considering cumulative effects states NEPA documents should compare cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant. The first step in assessing cumulative effects involves identifying and defining the scope of other actions and determining their interrelationship with the proposed action. Identifying and defining scope must consider whether other projects coincide with the location and timing of the proposed action. Past, present, and reasonably foreseeable future actions are examined, including military actions in the region as well as other federal and non-federal actions to determine if there is an interaction with the proposed action or alternative.

Cumulative effects result from special (geographic) and temporal (time) crowding of environmental perturbation. The effects of human activities will accumulate when a second perturbation occurs at a site before the ecosystem can fully rebound from the effect of the first perturbation (CEQ 1997). Cumulative effects may arise from single or multiple actions and may result in additive or interactive effects. Analyzing cumulative effects differs from the traditional approach to environmental impact assessment because it requires the analyst to expand the geographic boundaries and extend the timeframe to encompass additional effects on the resources, ecosystems, and human communities of concern.

As Fort Campbell is an active military installation that undergoes changes in missions and training requirements in response to defense policies, current threats, and tactical and technological advances, it requires new construction, facility improvements, infrastructure

upgrades, and maintenance and repairs on an on-going basis. In addition, tenant organizations occupy portions on post, conduct aircraft operations, and maintain select facilities. All these on-post actions would continue to occur before, during, and after Cantonment Area Master Plan project implementation.

4.1 Past, Present, and Reasonably Foreseeable Future Actions

The Army has undergone and continues to undergo a series of changes that have impacted virtually every Army installation. The past 10 years has brought a great deal of change to Army installations. Not only did soldiers fight in two wars, the Army is going through the greatest organizational change since World War II. Between instituting the Army Force Generation model, reorganizing around modular brigades and the BRAC process, the Army looks very different than it did 10 years ago. The BRAC process is a large part of that organization (Fort Campbell 2011).

On Fort Campbell, signs of success in meeting BRAC goals can be seen. Construction alone has brought thousands of jobs to the surrounding community. The upgraded installation has caused local businesses and service providers to grow. More people require more schools, houses and emergency services, which can be seen throughout the installation on Fort Campbell.

The DPW has identified actions on Fort Campbell that are under consideration and in the planning stages. These actions are included in the cumulative effects analysis to the extent that details regarding such actions exist and the actions have a potential to interact with Master Plan projects outlined in this EA. No applicable non-federal or off-post future projects were identified. **Table 4-1** presents future projects identified in the Cantonment Area:

Table 4-1. DoD Past, Present, and Reasonably Foreseeable Actions

Project Name	Description	Planned Year of Implementation / Frequency	Resources Potentially Affected	Magnitude of Impact
EA to Construct 6-Megawatt Generator Plant and Microgrid Controls	Multi—Phased project to install three each 2 MW natural gas power generation sets to include plant building, natural gas lines, radiators, heat exchangers, transformers, controls, optimizations programming, auto switching, protective relays/interlocks, and other required equipment/appurtances/communications to generate power to serve the critical CAAF substation #5, providing energy security for critical utilities and buildings along the installation airfield, while ensuring optimal peak shaving capability at the same time.	September 2019	Air Quality, Noise, Earth Resources, Biological Resources, Utilities, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Vehicle Maintenance Shop	Construct a standard design medium vehicle maintenance shop (VMS); 58,200 sf of new construction.	FY19	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
DODEA School Conversion	Renovate and alter the former high school building by demolishing 64,000 (61%) sf of the existing building and renovating the remaining areas, constructing a new two-story academic wing, performance space and administrative areas. Construct a total of 126,000 sf.	FY19	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Company Operations Facility (COF) Troop Aid Station	Construct a Troop Aid Station as a supplemental facility to the existing COF. Includes administrative space for medical personnel, training, and supply areas. Construct a total of 12,357 sf.	FY19	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
SOF Multi-Use Helicopter Training Facility	Construct a 26,950 sf Multi-Use Helicopter Training Facility (MUHT) in the SOAR District. Allows 160th SOAR to train realistically on basic and advanced helicopter skills required to ensure proficiency on Mission Essential Task Lists.	FY19	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
CAAF Purchase of Avigational Easements	Secure real estate interests on remaining properties that could not be obtained under MCA PN55856 (2003 Purchase of CAAF Avigational Easements MCA Project). To acquire real estate interests on approximately	FY20	None Identified	Not Significant

Project Name	Description	Planned Year of Implementation / Frequency	Resources Potentially Affected	Magnitude of Impact
	357 acres within the primary flight approach of CAAF main runway 05-23. The project is needed to protect training and deployment capabilities at CAAF, which is the installation's primary airfield and deployment platform.			
Maintenance Shop, General Purpose	Construct a General-Purpose Maintenance Facility complex, including organizational vehicle parking and open storage areas for the Logistics Readiness Center (LRC), which are dispersed across the installation. Construct a total of 136,527 sf.	FY20	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Perimeter Fencing	Construct perimeter security fencing at the southeast corner of the installation. The project consists of two phases with Phase 1 to be completed in 2020. Phase 1 is needed to close the gap in the existing Cantonment Area perimeter between Gates 1 and 10. This phase involves the construction of approximately 18,614 linear feet of fencing from south of Gate 1 to east of Gate 10. Tree-cutting would be required to provide a 10-foot clearing on either side of the fencing. The timeframe for Phase 2 is contingent upon funding and is not included in this evaluation.	FY20	Air Quality, Noise, Earth Resources, Biological Resources, Safety and Occupational Health	Significant but Mitigable
SOATB Headquarters	Battalion Headquarters building with classrooms. Construct a total of 20,000 sf.	FY25	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
SOAR Human Performance Center	Construct a standard medium tactical human optimization, rapid rehabilitation, and reconditioning (THOR3) facility. Construct a total of 30,000 sf.	FY19	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
SOF Operations Facility	Construct a 10,000 sf Company Operations Building (COF).	FY22	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
SOF Heavy Drop Rigging Facility	Construct a 6,400 sf Company Operations Building (COF).	FY22	Air Quality, Noise, Earth Resources, Hazardous	Not Significant

Project Name	Description	Planned Year of Implementation / Frequency	Resources Potentially Affected	Magnitude of Impact
			Materials/Waste, Safety and Occupational Health	
SOF Regiment	Construct a 35,000 sf Company Operations Building (COF).	FY25	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
National Guard Readiness Center	Construct a 37,560-sf facility that supports individual and collective training, administrative, automation and communications, and logistical requirements for the TNARNG.	FY23	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
TUAV Hangar	Construct a 3,750-sf non-standard tactical unmanned aerial vehicle maintenance facility, with classroom, to facilitate manned/unmanned teaming.	FY24	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Vehicle Maintenance Shop	Construct a 36,000-sf medium VMS to include organizational parking, POL and hazardous material storage, unmanned aerial vehicle storage and maintenance space.	FY25	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Cantonment Area Roads, Paved	Road Improvement	FY25	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Aircraft Loading Apron, Paved	Construct a 13,315 square yard concrete aircraft arm/de-arm apron with concrete access taxiway, taxiway lighting, signage and marking, access road, site work, and striping of pavement.	FY26	Air Quality, Noise, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Enlisted Unaccompanied Personnel Housing	Construct 125,904 sf of standard design barracks and building information systems.	FY25	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety and Occupational Health	Not Significant
Command and Control Facility Addition	Construct 30,165 sf Command and Control facility with operations center to include connection to existing Division Headquarters building.	FY25	Air Quality, Noise, Earth Resources, Hazardous Materials/Waste, Safety	Not Significant

Project Name	Description	Planned Year of Implementation / Frequency	Resources Potentially Affected	Magnitude of Impact
			and Occupational Health	

Source: Fort Campbell Capital Investment Strategy, Part V: Project Summary Profiles

4.2 Analysis of Cumulative Effects

The following analysis first considered whether the actions could affect, or be affected by those resulting from the Proposed Action. Second, an evaluation was made to determine whether such a relationship would result in potentially additive impacts not identified when the Proposed Action is considered alone.

The additive or interactive cumulative effects of the Proposed Action, when considered together with the effects of other past, present, and reasonably foreseeable future actions in the Cantonment Area, are presented below by resource category. Note only resources that were identified in **Table 4-1** were carried forward for cumulative analysis. Other resource categories, analyzed for the Proposed Action, would not be cumulatively affected by these past, present, or reasonably foreseeable actions. Timeframes and budgets for each proposed project listed in **Table 4-1** can only be estimated or are uncertain. Short-term adverse effects could be possible if these projects were to occur in conjunction with the Proposed Action.

4.2.1 Cumulative Effects on Resources

The following examines cumulative effects on the environment that would result from incremental impacts of implementation of the Proposed Action, in addition to other past, present, and reasonably foreseeable future actions. This analysis assesses potential for an overlap of impacts with respect to project schedules or affected areas. This section presents a qualitative analysis of cumulative effects.

Under the No Action alternative, there would be no change to baseline conditions for any resource area and existing conditions would continue as described in Sections 3.2 through 3.17 for resources analyzed. No cumulative impacts would be expected as a result of Alternative C (No Action).

Air Quality. The potential impact on air quality would be particulate dust and emissions from vehicle exhaust and fugitive dust generated during earth-moving operations from construction and demolition activities. These activities would be minor, temporary, and have a localized direct effect from construction and demolition. Dust generated by demolition and construction projects would be minimized by dust control practices. As a short-term, localized effect added to the Cantonment Area Master Plan projects, along with other reasonably foreseeable future actions would not have a significant cumulative impact on regional air quality. Long-term projects involving operations such as the 6 MW generator plant/microgrid controls would also need to be evaluated with respect to permit requirements.

Airspace. Construction and demolition activities associated with the Proposed Action and other cumulative actions would not cause short- or long-term effects on airspace because no projects (i.e., deployment exercises; routine training exercises; increased use of new technology systems) are planned that would impact FAA-defined controlled airspace in the Fort Campbell region.

Cultural Resources. Under this PEA, the majority of Master Plan projects would be constructed on previously-disturbed ground. However, disturbed ground does not preclude the installation's responsibilities under Section 106 of the NHPA. As discussed in Section 3.3, installations are responsible for completing the Section 106 process for the development of Master Plan projects under the PEA. BMPs and the use of an ICRMP do not replace the regulatory requirement under this regulation. Each site must be evaluated and considered for its potential for cultural resources prior to implementation of Master Plan project construction. If NHPA consultation is completed for these actions, and appropriate mitigation identified when the installation determines that the construction of the project will constitute an adverse effect in accordance with 36 CFR 500.(1), the construction on previously-disturbed ground will not have a significant cumulative effect on cultural resources.

Noise. Demolition and construction activities associated with the Proposed Action and other cumulative actions would cause short-term, minor and adverse, cumulative impacts on noise in the Fort Campbell Cantonment Area. No specific noise-producing activity or individual project has been identified that, when combined with the Proposed Action, would have greater than

minor adverse impact on sensitive noise receptors at Fort Campbell due to Master Plan projects. Long-term cumulative impacts due to noise from projects such as the 6 MW generator plant in the CAAF district could occur once operational. These impacts would be expected to be minimized by engineered controls.

Earth Resources. Past development in various locations of the Cantonment Area have likely contributed to erosion and soil loss. However, the extent to which this has occurred is difficult to determine. The Proposed Action and other cumulative projects involving demolitions and construction would result in temporary disturbed ground surfaces and short-term, minor, adverse impacts on earth resources. Although soils would be disturbed by earthmoving and other construction activities, any effects would not be expected to exceed individual project boundaries and would not result in significant impacts on earth resources since BMPs, erosion and sediment controls and other management measures would be implemented.

Biological Resources. Master Plan projects can have some effects on natural resources, both flora and fauna. This would be the result of large-scale earth-moving that may cause a loss of vegetation and loss of habitat, or cause some wildlife species to relocate to an area outside the project location(s). All of the past and planned projects are likely located within areas that have or would take place in developed areas; therefore, impacts to biological resources across the Cantonment Area would not be expected. Projects involving the removal of trees, however, may require a bat survey or evaluation. Any potential impacts to threatened, endangered, or sensitive species would require consultation with the USFWS and potential mitigation. USFWS currently requires formal consultation for the removal of all suitable bat habitat on the installation. No survey will be required, but extensive consultation will need to occur, which may require mitigation costs for habitat removal/loss. Therefore, no significant cumulative impacts to biological resources would be anticipated.

Water Resources. Short-term, minor, cumulative adverse impacts on groundwater and surface water would be expected from implementation of the Proposed Action and other cumulative projects involving demolition or construction. The cumulative increase in impervious surfaces from the proposed cumulative projects in the area would be considered a minor contribution in

the context of the whole watershed but could be noticeable on a more localized level. Adherence to stormwater management plans and practices would minimize cumulative impacts across the Cantonment Area.

Facilities. Modernizing and upgrading Cantonment Area facilities at Fort Campbell would have a short-term effect on the installation's facilities as personnel and functions are transitioned and relocated to new facilities. However, no significant cumulative effect on the installation's facilities would be expected as this would be perceived as an overall beneficial cumulative impact at Fort Campbell.

Socioeconomics. When the Proposed Action is combined with other reasonably foreseeable actions in the Cantonment area, no significant cumulative effect on local business volume, employment, personal income, or population that exceeds the MSA's historical annual change or negatively affects social services or social conditions, including property values, school enrollment, county or municipal expenditures, or crime rates would be expected. In the long-term, however, cumulative beneficial impacts to the local economy would be expected due to overall improvements and growth at Fort Campbell.

Utilities. The PEA assesses operational maintenance and new development actions within the Cantonment Area that support increases in troop strength and performance. In conjunction with the Fort Campbell Master Plan, the capacity for growth and potential exists for cumulative impacts on utilities when added to reasonably foreseeable projects in the area. However, as newly constructed infrastructure would replace older facilities, the newer, more energy-efficient construction methods would likely contribute to cumulative, long-term, minor, beneficial impacts on electrical consumption. For example, the 6 MW generator plant and microgrid controls project would have beneficial impacts because it would provide energy security for critical utilities and buildings along the installation airfield. Short- and long-term, negligible, cumulative impacts on the communications, sewer and wastewater, and stormwater drainage systems would be expected from accommodation of the operations and personnel associated with the Cantonment Area Master Plan projects when combined with other actions in the Cantonment Area.

Land Use. No cumulative effects to land use would be expected when added to reasonably foreseeable projects in the Cantonment Area because land use would not be expected to change. The majority of land is classified as developed in the Cantonment Area and would not be expected to change as a result of implementation of Master Plan projects.

Hazardous Materials/Waste. Hazardous materials, when not properly transported, stored, or disposed, could adversely affect human health and the environment. Master Plan projects could have negligible effects on hazardous materials and wastes associated with construction equipment and debris. In addition, building demolitions could have the potential for generation of ACM, LBP, or other hazardous waste, but effects would be minimized by following proper protocols for abatement and/or disposal. Therefore, no significant cumulative impacts to hazardous materials and waste would be anticipated when added to other reasonably foreseeable projects in the Cantonment Area.

Storage Tanks. No cumulative effects to storage tanks would be expected when added to reasonably foreseeable projects in the Cantonment Area because there would be few projects impacting existing or new storage tank assets. In addition, all storage tank projects in the Cantonment Area would meet all regulatory requirements and procedures for compliance.

Traffic/Transportation. Temporary and minor increases in traffic alterations could occur during construction of proposed Cantonment Area Master Plan projects when combined with other reasonably foreseeable projects and would be dependent upon location at Fort Campbell. As a result of Cantonment Area Master Plan projects, traffic diversion routes around construction sites would be considered unavoidable. Once each Cantonment Area construction site is implemented, traffic patterns would adjust back to normal so that volumes flow smoothly.

Solid Waste. Cantonment Area Master Plan projects would have minor impact on solid waste management at Fort Campbell when combined with other reasonably foreseeable projects. Solid waste generated from new facilities, paved areas, and demolition debris would be recycled to the greatest extent practicable with remaining materials sent to Bi-County Landfill or the Fort

Campbell Landfill for disposal; therefore, minimizing the cumulative effect on the on-post C&DD landfill.

Environmental Justice. Cantonment Area Master Plan projects would have no impact with respect to environmental justice because no disproportionate impact to minority populations or low-income populations would occur when added to other reasonably foreseeable Cantonment Area projects.

Safety and Occupational Health. Short-term negligible cumulative adverse impacts on health and safety (e.g., slips, falls, heat exposure, exposure to mechanical, electrical, vision, or chemical hazards) would be expected as a result of Cantonment Area Master Plan projects when added to other cumulative projects on the Cantonment Area. Implementation of appropriate safety methods during construction activities would be expected to minimize the potential for such impacts. Workers at construction sites would be required to adhere to site specific health and safety plans; construction areas would be secured to prevent unauthorized personnel from entering work sites; and in accordance with the Occupational Safety and Health Act, all workers would be provided with appropriate personal protective equipment. Therefore, no significant cumulative impacts to safety and occupational health would be expected.

4.2.2 Irreversible and Irretrievable Commitment of Resources

NEPA requires that EAs include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of a Proposed Action. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources could have on future generations. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that use of these resources will have on future generations. Irreversible effects primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable time frame (e.g., energy and minerals).

Environmental consequences as a result of the Proposed Action are considered short-term and temporary. Construction would require consumption of materials typically associated with

construction (e.g., concrete, wiring, piping). The Army does not expect the amount of these materials used to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, these amounts would not be appreciable and are not expected to affect the availability of these resources. Irretrievable effects to vegetation/green space at project site(s) would occur as a result of construction of select Master Plan projects. However, there are other areas scattered throughout Fort Campbell that contain naturally-occurring vegetation and areas that previously contained structures that were demolished with those sites being turned into green space. Therefore, the irretrievable loss of vegetation/green space as a result of constructing Master Plan projects could be a retrievable resource elsewhere on Fort Campbell and is not a significant loss when compared to the overall green space existing at Fort Campbell.

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Appendix A

Interagency and Intergovernmental Coordination for Environmental Planning Correspondence (IICEP) and Notice of Availability

Contract Number:	Delivery Order :
W912QR-14-D-0001	W912QR18F0524

Document Name:
PRELIMINARY FINAL

Programmatic Environmental Assessment - Cantonment Area Master Plan at Fort Campbell

Date of Document:	Date of Review:	Reviewers:
8/28/2020		Interagency and Intergovernmental Coordination for Environmental Planning (IICEP)
	4/1/2020	Tennessee Department for Environment and Conservation (TDEC)
	4/27/2020	U.S. Fish & Wildlife Service - Tennessee Ecological Service Office
	5/8/2020	Kentucky Department for Environmental Protection (KDEP)
	3/27/2020	U.S. Corps of Engineers - Nashville District (USACE)
	7/10/2020	U.S. Environmental Protection Agency (USEPA) - Region 4
	3/18/2020	Tennessee Historical Commission - State Historic Preservation Office (SHPO)

Comment	Reviewer	Section	Page	Line	Comment	Response
1	TDEC	IICEP Coordination	1.6.2	NA	TDEC believes the Draft PEA adequately addresses potential impacts to cultural and natural resources within the proposed project area and supports the plan.	Comment noted. No changes.
		Cultural Resources, Section 3.3	3-17	21-31	This is a state-level review only and cannot be substituted for a federal agency Section 106 review/response.	Comment noted. No changes. Fort Campbell's Programmatic Agreements (PAs) with the respective State Historic Preservation Offices (SHPOs) outline the stipulations for satisfying the Army's Section 106 responsibilities.
		Cultural Resources, Section 3.3.3.1, Archaeological Sites	3-25	1-8	Additionally, a court order from Chancery Court must be obtained prior to the removal of any human graves. If human remains are encountered or accidentally uncovered by earthmoving activities, all activity within the immediate area must cease. The county coroner or medical examiner, a local law enforcement agency, and the state archaeologist's office should be notified at once (Tennessee Code Annotated 11-6-107d).	The following sentence was added to the end of Section 3.3.3.1: "Specific procedures for discovery of remains or graves are also provided by TDEC (Appendix A)."
2	TDEC	Air Quality Section 3.1	3-4 3-9	19-27 21-27	TDEC encourages the Army to provide additional clarification relating to General Conformity requirements found on pages 3-4 and 3-9 of the document, respectively, in the Final PEA.	Comment noted. Fort Campbell is now in an attainment area for ozone. There is no longer a requirement for information from the equipment and trucks used on the construction sites to perform General Conformity Rule emission calculations. When the General Conformity Rule was a requirement, emissions from the diesel engines had to be calculated to ensure that the activity would not impede Fort Campbell's maintenance area status. Please see response to Comment 3. In addition, all open burning is prohibited on Fort Campbell per Fort Campbell Regulation 420-24, Chapter 8, Section 12. This includes burning that would have been exempt from state regulations on open burning. The only burning that is allowed is prescribed burning conducted by Forestry or Range Control. Please see the response to Comment 4.

Comment	Reviewer	Section	Page	Line	Comment	Response
3	TDEC	Air Quality Section 3.1.3.1	3-11 3-12	9-17 1-2	TDEC encourages the Army to consider hiring contractors for the onsite demolition, earthmoving and construction projects that can certify or demonstrate that the diesel engines powering the equipment and transport trucks are being properly maintained, have all emissions control equipment in good working order and where possible; are using their newer trucks for routine, long term onsite projects to help mitigate emissions.	Text was added to Section 3.1.3.1 to indicate: "Specific comments are provided in the response letters from TDEC and KDEP (Appendix A). It is noted that Fort Campbell is now in an attainment area for ozone. There is no longer a requirement for information from the equipment and trucks used on the construction sites to perform General Conformity Rule emission calculations."
4	TDEC	Air Quality Section 3.1.3.1	3-11 3-12	1-7 1-2	TDEC recommends that should open burning be considered for disposal of wood wastes generated from the proposed project, alternatives to open burning, including chipping, composting or grinding of wood waste, be evaluated first. If open burning is selected for wood waste disposal the Army should consider implementing a smoke management plan, not burning on air quality alert days, and coordinating burning with other agencies (local and State air pollution control agencies, forestry agencies and local fire departments). TDEC encourages the Army to include discussion relating to these considerations in the Final PEA.	Text was added to Section 3.1.3.1 to indicate: "Specific comments are provided in the response letters from TDEC and KDEP (Appendix A). It is noted that all open burning is prohibited on Fort Campbell per Fort Campbell Regulation 420-24, Chapter 8, Section 12. This includes burning that would have been exempt from state regulations on open burning. The only burning that is allowed is prescribed burning conducted by Forestry or Range Control."
5	TDEC	Water Resources, Section 3.7.3.1	3-58	26-27	TDEC believes that the Draft PEA adequately addresses potential impacts to water resources. TDEC encourages the Army to follow all best management practices wherever possible, 50 foot stream buffers should be in place, and additional stormwater controls should be added for any additional impervious surfaces (buildings, asphalt, etc.).	The following text was added to Section 3.7.3.1: "Additional BMPs include placement of 50 foot stream buffers as needed (TDEC response letter, Appendix A)."
6	TDEC	Hazardous Waste, Section 3.12; Solid Waste, Section 3.15	NA	NA	TDEC believes that the Draft PEA adequately addresses potential impacts to solid and hazardous waste.	Comment noted. No changes.
7	USFWS	Biological Resources, Section 3.6	3-50	1-13	The Service concludes that the requirements of the Endangered Species Act of 1973 (the Act), as amended, are fulfilled. Obligations under the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.	The full text of the comment was added to Section 3.6.3.

Comment	Reviewer	Section	Page	Line	Comment	Response
8	KDEP, Division of Water, Water Quality Branch	Water Resources, Section 3.7.2, Surface Water	3-54	18-20	The West Fork Red River in Christian County is a Cold Water Aquatic Habitat and Outstanding State Resource Water. 401 KAR 10:031 Section 4(2) specifies additional surface water criteria for Cold Water Aquatic Habitats while 401 KAR 10:031 Section 8 specifies additional criteria for Outstanding State Resource Waters.	Comment is noted. No changes. The West Fork of the Red River is located approximately five miles to the east of Fort Campbell and doesn't take any surface drainage from the installation.
9	KDEP, Division of Water, Water Resources Branch	Water Resources, Section 3.7.3.1	3-56	16-17	An individual Clean Water Act Section 401 Water Quality Certification from the DOW is required for this project.	The following text was added as part of a new paragraph at the end of Section 3.7.2: "An individual Clean Water Act Section 401 Water Quality Certification may be required for this project (KDEP response letter, Appendix A)."
10	KDEP, Division of Water, Watershed Management	Water Resources, Section 3.7.3.1	3-53 3-54	30-31 1-3	The existence of recharge points to the Boiling Springs basin within the FCCA does not necessarily preclude the adoption of the PEA, as understood by the comment writer, it does, given the nature of karst aquifers demonstrate activity within the FCCA could influence water quality at the post's primary drinking water source and should be addressed. (The full response can be found in Attachment A of the KDEP letter.)	The following text was added at the end of the subsection for Groundwater under Section 3.7.2 : "It is noted, however, that additional information from KDEP indicates there has been observed connectivity between karst surface features within the Cantonment Area and the Boiling Springs Basin. The nature of karst aquifers and demonstrated activity within the Cantonment Area could influence water quality. This discussion is presented in Attachment A of the KDEP response letter (Appendix A)."
11	KDEP, Division of Water, Watershed Management	Water Resources, Section 3.7.3.1	3-57 3-58	33 1-2	The proposed work is endorsed by the Groundwater Section of the Watershed Management Branch. However, the proposed work is located in an area with a high potential for karst development where groundwater is susceptible to direct contamination from surface activities. It is our recommendation that proposed work be made aware of the requirements of 401 KAR 5:037 and the need to develop a Groundwater Protection Plan (GPP) for the protection of groundwater resources within that area.	The following text was added to Section 3.7.3.1: "The KDEP Division of Water recommended the development of a Groundwater Protection Plan for the protection of groundwater resources in these areas (Appendix A)."
12	KDEP, Division of Water, Field Operations Branch	Water Resources, Section 3.7.3.1	NA	NA	No comments.	Comment noted. No changes.
13	KDEP, Division of Waste Management	Storage Tanks, Section 3.13.2	3-82	20-21	UST Branch records indicate underground storage tank site issues identified within the project impact area. If any USTs are encountered during the project construction, they should be reported to KDWM. Any UST issues or questions should be directed to the UST Manager.	A list of USTs identified in the project area is provided in the response letter from KDEP (Appendix A). It is noted that the UST list provided by KDEP includes some sites not on Fort Campbell and has some inaccuracies. The Fort Campbell Tank Program maintains the complete listing. The following text was added to the second paragraph of Section 3.13.2: "The Fort Campbell Tank Program maintains the complete listing."

Comment	Reviewer	Section	Page	Line	Comment	Response
14	KDEP, Division of Waste Management	Hazardous Waste, Section 3.12.2	3-74	17-18	Superfund Branch record indicate Superfund sites identified within the project impact area. Any Superfund issues or questions should be directed to the Superfund Branch.	The following text was added to Section 3.12.2: "A list of Superfund sites identified in the project area is provided in the response letter from KDEP (Appendix A)."
15	KDEP, Division of Waste Management	Solid Waste, Section 3.15.2	3-86	25-26	The Solid Waste Branch records indicate no historic landfill sites identified within the project impact area. There are three solid waste sites. Any solid waste issues or questions should be directed to the Solid Waste Branch.	The following text was added to Section 3.15.2: "A list of solid waste sites identified in the project area is provided in the response letter from KDEP (Appendix A)."
16	KDEP, Division of Waste Management	Hazardous Waste, Section 3.12.2	3-74	18-19	The Hazardous Waste Branch records indicate two hazardous waste sites identified within the project impact area. Any hazardous waste issues or questions should be directed to the Hazardous Branch.	It is noted that the other site listed in the KDEP response letter is a Wal-Mart Supercenter, which is not located on Fort Campbell. The following text was added to Section 3.12.2 following the sentence added from Comment 14 (above): "One hazardous waste site is also identified in the project area on the installation and is provided in the KDEP response letter (Appendix A). The other waste site on the list is not located on Fort Campbell."
17	KDEP, Division of Waste Management	Solid Waste, Section 3.15.2	3-86	26-27	The Recycling and Local Assistance (RLA) Branch records indicate there are no RLA tracked open dumps within the project impact area. Any issues or questions should be directed to the RLA Branch.	The following text was added to Section 3.15.2 (after the bullet list): "There are no RLA tracked open dumps within the project area (Appendix A)."
18	KDEP, Division of Waste Management	Solid Waste, Section 3.15.3.1	3-86	11	All solid waste generated by this project must be disposed of at a permitted facility.	The following text was added as the first sentences of Section 3.15.3.1 and Section 3.15.3.2: "Solid wastes generated by this project will be disposed of at a permitted facility."
19	KDEP, Division of Waste Management	Hazardous Waste, Section 3.12.3.1	3-81	8-11	If asbestos, lead paint and/or other contaminants are encountered during this project contact the Division of Waste Management for proper disposal and closure.	The following text was added: "If asbestos, lead paint and/or other contaminants would be encountered during this project, the Kentucky Division of Waste Management would be contacted for proper disposal and closure".
20	KDEP, Division of Waste Management	Hazardous Waste, Section 3.12.3	3-80	5-9	The information provided is based on those facilities or sites that KDWM currently has in its database. If you would like additional information on any of these facilities or sites, you may contact the file room custodian at (502) 782-6357. Please keep in mind additional locations of releases, potential contamination or waste facilities may be present but unknown to the agency. Therefore, it is recommended that appropriate precautions be taken during construction activities. Please report any evidence of illegal waste disposal facilities and releases of hazardous substances, pollutants, contaminants or petroleum to the 24-hour Environmental Response Team.	Comment noted. The following text was added: "As part of the review process, KDEP presented information on those facilities and sites that the Kentucky Division of Waste Management currently has in its database. Contact information for further data or for reporting evidence of illegal disposal or releases is provided in the KDEP response letter (Appendix A)."
21	KDEP, Division for Air Quality	Air Quality Section 3.1.2	3-9	2-3	As this project is presented, comply with any applicable Division for Air Quality permitting requirements contained in 401 KAR Chapter 52 Permits, Registrations, and Prohibitory Rules.	The following text was added to Section 3.1.2, second to last paragraph: "Additional information regarding permit requirements is provided in the KDEP response letter (Appendix A)."

Comment	Reviewer	Section	Page	Line	Comment	Response
22	KDEP, Division for Air Quality	Air Quality Section 3.1.3.1	3-11	19-21	As this project is presented, Kentucky Division for Air Quality Regulations 401 KAR 58:025, Asbestos Standards and 401 KAR 58:040, Requirements for Asbestos Abatement Entities, apply to this project, and the project must be inspected by a Kentucky Accredited Asbestos Inspector. Asbestos that will be affected by this activity must be abated using approved work practices prior to demolition. If the asbestos abated is over threshold amounts, a Kentucky certified contractor must be used. Written notification must be given on form DEP 7036 to the Division for Air Quality at least 10 weekdays prior the start of demolitions, whether or not asbestos has been identified to be present.	If asbestos would be identified during renovation or demolition projects, the following text was added to Section 3.1.3.1 to address asbestos abatement: "For projects involving asbestos, the Kentucky Division for Air Quality briefly outlined the regulations for Asbestos Standards and Requirements for Asbestos Abatement Entities. This information can be found in the KDEP response letter in Appendix A".
23	KDEP, Division for Air Quality	Air Quality Section 3.1.3.1	3-10	28 36-37	As this project is presented, 401 KAR 63:010, Fugitive Emissions, states that no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Additional requirements include the covering of open bodied trucks, operating outside the work area transporting materials likely to become airborne, and that no one shall allow earth or other material being transported by truck or earth-moving equipment to be deposited onto a paved street or roadway. Please note the Fugitive Emissions Fact Sheet.	Covering open-bodied trucks was already listed as a control measure for fugitive emissions in the bullet list in Section 3.1.3.1. The following text was added after the bullet list: "Additional information regarding fugitive emissions was provided by KDEP in their response letter for this PEA (Appendix A)."
24	KDEP, Division for Air Quality	Air Quality Section 3.1.3.1	3-11 3-12	1-7 1-2	As this project is presented, 401 KAR 63:010, Fugitive Emissions, 401 KAR 63:005 states that open burning shall be prohibited except as specifically provided. Open Burning is defined as the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the outdoor atmosphere without passing through a stack or chimney. However, open burning may be utilized for the expressed purposes listed on the Open Burning Brochure.	A paragraph regarding open burning was added after the bullet list in Section 3.1.3.1. A general statement was also added to this section to indicate : "Specific recommendations and requirements from TDEC and KDEP are provided in their respective response letters (Appendix A)."
25	KDEP, Division for Air Quality	Section 3.7.2	3-11 3-12	9-17 1-2	As this project is presented, The Division would like to offer the following suggestions on how this project can help us stay in compliance with the NAAQS. These air quality control strategies are beneficial to the health of citizens of Kentucky: utilize alternatively fueled equipment; utilize other emission controls that are applicable to your equipment; and reduce idling time on equipment.	Measures for mitigating emissions from fueled equipment were added to Section 3.1.3.1. A general statement was also added in this section to indicate : "Specific recommendations and requirements from TDEC and KDEP are provided in their respective response letters (Appendix A)."
26	KDEP, Division for Air Quality	Air Quality Section 3.1.3.1	3-12	2-4	The Division also suggests an investigation into compliance with applicable local government regulations.	The following text was added to Section 3.1.3.1: "In addition, individual projects would be evaluated for applicable state and local regulations based on specific project activities and location."

Comment	Reviewer	Section	Page	Line	Comment	Response
27	KDEP, Kentucky Nature Preserves	Biological Resources Section 3.6.3	3-50	10-13	Your project might have the potential of impacting federally or state listed species and natural communities. Go to the Kentucky Biological Assessment Tool (kynaturepreserves.org) to obtain a Standard Occurrence Report for information regarding listed species known within your project area. The report will also provide information on public and private conservation lands, areas of biodiversity significance, and other natural resources in your project area for which the Office of Kentucky Nature Preserves maintains data.	Federal- and State-listed species are generally discussed in Section 3.6.2. In addition, threatened and endangered species present at Fort Campbell are shown in Table 3-2 and Birds of Conservation Concern are shown in Table 3-3. The following text was added to Section 3.6.3: "For additional information on federally or state listed species and natural communities, Kentucky Nature Preserves provided information on the Kentucky Biological Assessment Tool for obtaining Standard Occurrence Reports on a project-specific basis (KDEP response letter, Appendix A)."
28	KDEP	IICEP Coordination	Section 1.6.2	NA	This review is based upon the information that was provided by the applicant. An endorsement of this project does not satisfy, or imply, the acceptance or issuance of any permits, certifications or approvals that may be required from this agency under Kentucky Revised Statutes or Kentucky Administrative Regulations. Such endorsement means this agency has found no major concerns from the review of the proposed project as presented other than those stated as conditions or comments.	Comment noted. No changes.
29	USACE - Nashville District	Water Resources, Section 3.7.3.1	3-56	17-20	The U.S. Army Corps of Engineers (USACE) has regulatory responsibilities pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344). Under Section 10, the USACE regulates all work in, or affecting, navigable waters of the U.S. Under Section 404, the USACE regulates the discharge of dredged and/or fill material into waters of the U.S. (33 CFR Part 328). This project has been assigned number LRN-2020-00245. Please refer to this number in all communication concerning this matter. A review of the information provided indicates the subject activities may involve a discharge of dredged or fill material into waters regulated under the Clean Water Act (33 U.S.C. 1344). Work in these waters may require a Department of the Army section 404 permit.	The following text was added as the second paragraph of Section 3.7.2: "In addition, under Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the U.S. (33 CFR Part 328). Therefore, projects that involve work in these waters may require a Department of the Army Section 404 permit (USACE response letter, Appendix A)."
30	USEPA Region 4	IICEP Coordination General	Section 1.6.2	NA	The EPA concludes that appropriate alternatives were considered and analyzed. Alternative A (Preferred Alternative) is supportive of the PEA's intent to streamline the NEPA process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. It also appears that the proposed project will not have a significant impact on human health and the environment. The EPA has no additional comments at this time.	Comment is noted. No changes.

Comment	Reviewer	Section	Page	Line	Comment	Response
31	TN SHPO	Cultural Resources, Section 3.3.3.1	3-24	4-6	Based on the information provided, we find that the document adequately addresses potential effects to historic properties. As stated in the document, undertakings will continue to be reviewed under the existing programmatic agreements between our offices.	Comment is noted. The following text was added as the first two sentences of Section 3.3.3.1: "The Tennessee SHPO found that this PEA adequately addresses potential effects to historic properties. Undertakings would continue to be reviewed under the existing programmatic agreements between SHPO and Fort Campbell."
32	Dan Etson, NEPA Manager, Fort Campbell	FNSI	Part 4	10-16	Update the Finding of No Significant Impact (FNSI) to reflect the extended public review periods necessitated by delays due to the COVID-19 pandemic.	The following text was added to Part 4 of the FNSI to describe the process for extending the public review: "The initial public review period was subsequently interrupted by library closures due to the COVID-19 pandemic. The Montgomery County Mayor directed the library to close on March 19, 2020. Hopkinsville-Christian County Library closed on March 17, 2020. The two smaller libraries also closed around mid-March. In addition, Executive Orders to "stay-at-home" were issued by the Governors of Kentucky and Tennessee on March 25, 2020 and March 30, 2020, respectively. To address the truncated review period, a second NOA for a 30-day period was published on June 10, 2020 on the Fort Campbell web site and a third NOA for a 21-day review period was published on July 21, 2020 in The Leaf Chronicle and Kentucky New Era newspapers. For both review periods, the Draft PEA and FNSI were made available on the Fort Campbell web site and in the public libraries listed above. No comments were received from the general public during any of these periods; however, responses to requests for consultation were received from seven agencies. The NOAs from each review period and a summary of the outcome of consultation efforts with pertinent agencies are included in Appendix A of the PEA."

Kentucky Department for Environmental Protection (KDEP)
Consultation Letters:

1. **Fort Campbell Request – 4Mar20**
2. **KDEP Response – 8May20**

Etson, Daniel L CIV USARMY USAG (USA)

From: Etson, Daniel L CIV USARMY USAG (USA)
Sent: Wednesday, March 4, 2020 9:06 AM
To: 'Aldridge, Louanna C (EEC)'
Subject: RE: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan

Ms. Aldridge,

Thank you

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

-----Original Message-----
From: Aldridge, Louanna C (EEC) [mailto:Louanna.Aldridge@ky.gov]
Sent: Wednesday, March 4, 2020 8:57 AM
To: Etson, Daniel L CIV USARMY USAG (USA) <daniel.l.etson.civ@mail.mil>
Subject: [Non-DoD Source] RE: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan

Thank you. Received.

Louanna C. Aldridge
Staff Assistant
Office of the Commissioner
Department for Environmental Protection
Energy and Environment Cabinet
502-782-0863

-----Original Message-----
From: Etson, Daniel L CIV USARMY USAG (USA) <daniel.l.etson.civ@mail.mil>
Sent: Wednesday, March 4, 2020 9:51 AM
To: Aldridge, Louanna C (EEC) <Louanna.Aldridge@ky.gov>
Subject: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan

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Ms. Aldridge,

Fort Campbell has published a Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan for public review and agency comment. The Cantonment Area is Fort Campbell's urbanized area.

Would your office be the correct one to distribute to the various EEC/Department for Environmental Protection/Natural Resources offices for comment?

If possible we would like any comments by the first week of April.

Thank you,

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ANTHONY R. HATTON
COMMISSIONER

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-564-2150
TELEFAX: 502-564-4245

May 8, 2020

U.S. Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King Jr. Place
Louisville, KY 40202

Re: Cantonment Area Master Plan at Fort Campbell-- SERO 2020-4

Dear Mr. Etson,

The Energy and Environment Cabinet serves as the state clearinghouse for review of environmental documents generated pursuant to the National Environmental Policy Act (NEPA). Within the Cabinet, the Commissioner's Office in the Department for Environmental Protection coordinates the review for Kentucky state agencies. We received your letter requesting an environmental review for this project. We have reviewed the document and provided comments below.

Division of Water

Water Quality Branch:
The West Fork Red River in Christian County is a Cold Water Aquatic Habitat and Outstanding State Resource Water. 401 KAR 10:031 Section 4(2) specifies additional surface water criteria for Cold Water Aquatic Habitats while 401 KAR 10:031 Section 8 specifies additional criteria for Outstanding State Resource Waters. Questions should be directed to Andrea Fredenburg, Water Quality Branch, (502) 782-6950, Andrea.Fredenburg@ky.gov.

Water Resources Branch:
An individual Clean Water Act Section 401 Water Quality Certification from the DOW is required for this project. Questions should be directed to Samantha Vogeler, Water Quality Certification Section, (502) 782-6995, Samantha.Vogeler@ky.gov.

Watershed Management:
See Attachment A. Questions should be directed to Chloe Brantley, Water Supply Section, (502) 782-6898, Chloe.Brantley@ky.gov.

The proposed work is endorsed by the Groundwater Section of the Watershed Management Branch. However, the proposed work is located in an area with a high potential for karst development where groundwater is susceptible to direct contamination from surface activities. It is our recommendation that proposed work be made aware of the requirements of 401 KAR 5:037 and the need to develop a Groundwater Protection Plan (GPP) for the protection of groundwater resources within that area. Questions should be directed to Adam Nolte, Groundwater Section, (502) 782-1312, Adam.Nolte@ky.gov or Kurtis Spears, Groundwater Section, (502) 782-7119, Kurtis.Spears@ky.gov.

Field Operations Branch:
No comments. Questions should be directed to Connie Coy, Field Operations Branch, (502) 782-6587, Constance.Coy@ky.gov.

Division of Waste Management

UST Branch records indicate the following underground storage tank site issues identified within the project impact area:

Active Sites:
Ft Campbell Building 7178 (7176)
MASTER AI ID: 63771
LONGITUDE: -87.4881
LATITUDE: 36.6548

Max Fuel No 15
MASTER AI ID: 62647
LONGITUDE: -87.435833
LATITUDE: 36.643889

Ft Campbell Building 71001 (AAFES)
MASTER AI ID: 80371
LONGITUDE: -87.463382
LATITUDE: 36.666979

Mapco Express #7503
MASTER AI ID: 112532
LONGITUDE: -87.443056
LATITUDE: 36.668889

Oak Grove Marathon
MASTER AI ID: 62646
LONGITUDE: -87.441667
LATITUDE: 36.660833

Closed Sites:
Fort Campbell Military Reservation
MASTER AI ID: 751

LONGITUDE: -87.46504999999999
LATITUDE: 36.652431

Oak Grove Concrete Mix Co
MASTER AI ID: 4786
LONGITUDE: -87.462722
LATITUDE: 36.678582999999996

Star Mart Market
MASTER AI ID: 62634
LONGITUDE: -87.443083
LATITUDE: 36.665241

Eazy Food Store No 100289
MASTER AI ID: 62664
LONGITUDE: -87.44224
LATITUDE: 36.663591

J B Fish Estate-Pops Auto Repair
MASTER AI ID: 62669
LONGITUDE: -87.44083333
LATITUDE: 36.64138889

Abandoned US 41 A Station
MASTER AI ID: 62695
LONGITUDE: -87.43730000000001
LATITUDE: 36.6467

Eagle Market
MASTER AI ID: 62699
LONGITUDE: -87.438306
LATITUDE: 36.650222

Ft Campbell Building 6548 Auto Craft Shop
MASTER AI ID: 63599
LONGITUDE: -87.47420000000001
LATITUDE: 36.6649

Ft Campbell Building 92
MASTER AI ID: 63762
LONGITUDE: -87.44914399999999
LATITUDE: 36.64172

Ft Campbell Building 95
MASTER AI ID: 63763
LONGITUDE: -87.44883
LATITUDE: 36.643429

Ft Campbell Building 5972
MASTER AI ID: 63764
LONGITUDE: -87.46258736
LATITUDE: 36.642873

Ft Campbell Building 6253
MASTER AI ID: 63765
LONGITUDE: -87.4684453
LATITUDE: 36.650878

Ft Campbell Building 6486
MASTER AI ID: 63766
LONGITUDE: -87.47205
LATITUDE: 36.658711

Ft Campbell Building 6527
MASTER AI ID: 63767
LONGITUDE: -87.47243643
LATITUDE: 36.662532

Ft Campbell Building 6533
MASTER AI ID: 63768
LONGITUDE: -87.47395999999999
LATITUDE: 36.66173

Ft Campbell Building 7051
MASTER AI ID: 63769
LONGITUDE: -87.47247899999999
LATITUDE: 36.644689

Ft Campbell Building 7221
MASTER AI ID: 63772
LONGITUDE: -87.506647
LATITUDE: 36.671217

Marshall Elementary School
MASTER AI ID: 63773
LONGITUDE: -87.44600058
LATITUDE: 36.64530067

Ft Campbell Building 7141A
MASTER AI ID: 63779
LONGITUDE: -87.4881
LATITUDE: 36.6548

Ft Campbell Building 7164

MASTER AI ID: 63780
LONGITUDE: -87.4881
LATITUDE: 36.6548

Ft Campbell Building 7163
MASTER AI ID: 63783
LONGITUDE: -87.48709699999999
LATITUDE: 36.670168

Ft Campbell Building 7180
MASTER AI ID: 63784
LONGITUDE: -87.492751
LATITUDE: 36.669585999999995

Ft Campbell Building 7297a
MASTER AI ID: 63785
LONGITUDE: -87.482128
LATITUDE: 36.683546

Ft Campbell Building 7293
MASTER AI ID: 63786
LONGITUDE: -87.491913
LATITUDE: 36.676227

Tennessee Army National Guard Unit Training Equipment Site
MASTER AI ID: 64786
LONGITUDE: -87.479642
LATITUDE: 36.650621

Ft Campbell Building 7272
MASTER AI ID: 65251
LONGITUDE: -87.4881
LATITUDE: 36.6548

Ft Campbell Building 6382
MASTER AI ID: 65343
LONGITUDE: -87.47035503
LATITUDE: 36.653391

American Bread Company
MASTER AI ID: 65694
LONGITUDE: -87.442988
LATITUDE: 36.665656999999996

Fort Campbell 7262
MASTER AI ID: 65735
LONGITUDE: -87.4881

LATITUDE: 36.6548

Ft Campbell Building 133
MASTER AI ID: 66139
LONGITUDE: -87.45104099999999
LATITUDE: 36.653425

Ft Campbell Building 7109
MASTER AI ID: 66359
LONGITUDE: -87.480955
LATITUDE: 36.666610999999996

Former Hot Stop Markets 1351
MASTER AI ID: 67554
LONGITUDE: -87.43900000000001
LATITUDE: 36.651

Ft Campbell Building 7085
MASTER AI ID: 67651
LONGITUDE: -87.47377
LATITUDE: 36.64958

Ft Campbell Building 6136
MASTER AI ID: 67765
LONGITUDE: -87.46563435
LATITUDE: 36.646952999999996

Ft Campbell Building 7243
MASTER AI ID: 67790
LONGITUDE: -87.4881
LATITUDE: 36.6548

Ft Campbell Building 7251
MASTER AI ID: 67791
LONGITUDE: -87.4881
LATITUDE: 36.6548

Ft Campbell Building 7268
MASTER AI ID: 67792
LONGITUDE: -87.4881
LATITUDE: 36.6548

Fort Campbell 7264
MASTER AI ID: 67894
LONGITUDE: -87.4881
LATITUDE: 36.6548

Ft Campbell Building 7178
MASTER AI ID: 67897
LONGITUDE: -87.481534
LATITUDE: 36.669124

Ft Campbell Building 7062
MASTER AI ID: 67898
LONGITUDE: -87.47377
LATITUDE: 36.64958

Ft Campbell Building 7057
MASTER AI ID: 67899
LONGITUDE: -87.47094
LATITUDE: 36.6458

Ft Campbell Building 6511
MASTER AI ID: 67900
LONGITUDE: -87.47119099999999
LATITUDE: 36.660879

Ft Campbell Building 6305
MASTER AI ID: 67901
LONGITUDE: -87.465054
LATITUDE: 36.652496

Ft Campbell Building 6247
MASTER AI ID: 67902
LONGITUDE: -87.46480000000001
LATITUDE: 36.652100000000004

Aafes Fuel Station Bldg 4190
MASTER AI ID: 67904
LONGITUDE: -87.46860000000001
LATITUDE: 36.669000000000004

Southern Pride Body Shop
MASTER AI ID: 69200
LONGITUDE: -87.44256
LATITUDE: 36.662541

Ft Campbell Building 6327
MASTER AI ID: 69234
LONGITUDE: -87.46835947
LATITUDE: 36.65698116

Ft Campbell Building 6306
MASTER AI ID: 69247

LONGITUDE: -87.466921
LATITUDE: 36.655113

Ft Campbell Building 6303
MASTER AI ID: 69255
LONGITUDE: -87.46503299999999
LATITUDE: 36.652514

W-56
MASTER AI ID: 69256
LONGITUDE: -87.46679306
LATITUDE: 36.651669999999996

W-58
MASTER AI ID: 69258
LONGITUDE: -87.47750099999999
LATITUDE: 36.663125

Ft Campbell Building 98
MASTER AI ID: 69613
LONGITUDE: -87.448533

LATITUDE: 36.641742
Ft Campbell Building 6359
MASTER AI ID: 69257
LONGITUDE: -87.470879
LATITUDE: 36.656334

Ft Cambpell Building 6563
MASTER AI ID: 69619
LONGITUDE: -87.47742099999999
LATITUDE: 36.664285

Ft Campbell Building 6559
MASTER AI ID: 69622
LONGITUDE: -87.47777939
LATITUDE: 36.663393

Ft Campbell Building 6551
MASTER AI ID: 69623
LONGITUDE: -87.47425
LATITUDE: 36.664989999999996

Ft Campbell Building 6555
MASTER AI ID: 69630
LONGITUDE: -87.47425
LATITUDE: 36.664989999999996

Ft Campbell Building 7230a
MASTER AI ID: 69818
LONGITUDE: -87.503958
LATITUDE: 36.675553

Ft Campbell Building 7153
MASTER AI ID: 69821
LONGITUDE: -87.488512
LATITUDE: 36.66661

Ft Campbell Building 6225
MASTER AI ID: 69827
LONGITUDE: -87.464529
LATITUDE: 36.650061

101 Lotto
MASTER AI ID: 74920
LONGITUDE: -87.43763889
LATITUDE: 36.64711111

Ft Campbell Building 7167
MASTER AI ID: 123956
LONGITUDE: -87.48571299999999
LATITUDE: 36.671336

If any UST's are encountered during the project construction they should be reported to KDWM. Any UST issues or questions should be directed to the UST Branch.

Superfund Branch records indicate the following superfund site identified within the project impact area:

Ft Campbell Building 7116
MASTER AI ID: 130832
SUBJECT ITEM DESIGNATION: Exempt UST
CLOSURE OPTION DESC: Option A No Action Necessary
CLOSURE DATE: 07/14/2016
LAT LONG SOURCE: SI
LONGITUDE: -87.48415
LATITUDE: 36.6634

Ft Campbell Building 7171
MASTER AI ID: 108492
SUBJECT ITEM DESIGNATION: Exempt tank
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 07/07/2010
LAT LONG SOURCE: SI

LONGITUDE: -87.47873
LATITUDE: 36.67695

Ft Campbell Building 7202
MASTER AI ID: 110952
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 03/29/2011
LAT LONG SOURCE: SI
LONGITUDE: -87.50981
LATITUDE: 36.667187

Ft Cambpell Building 6563
MASTER AI ID: 69619
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC:
CLOSURE DATE:
LAT LONG SOURCE: SI
LONGITUDE: -87.47742099999999
LATITUDE: 36.664285

Ft Campbell Building 3213
MASTER AI ID: 117572
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 04/01/2013
LAT LONG SOURCE: SI
LONGITUDE: -87.460701
LATITUDE: 36.650940999999996

Ft Campbell Building 3214
MASTER AI ID: 125119
SUBJECT ITEM DESIGNATION: Petroleum
CLOSURE OPTION DESC: Option A No Action Necessary
CLOSURE DATE: 03/08/2015
LAT LONG SOURCE: SI
LONGITUDE: -87.462441
LATITUDE: 36.653507

Fort Campbell Military Reservation
MASTER AI ID: 751
SUBJECT ITEM DESIGNATION: 15229
CLOSURE OPTION DESC: Non-Incident
CLOSURE DATE: 03/05/1995
LAT LONG SOURCE: SI
LONGITUDE: -87.46504999999999
LATITUDE: 36.652431

Ft Campbell Building 92
MASTER AI ID: 63762
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 11/18/2010
LAT LONG SOURCE: SI
LONGITUDE: -87.448892
LATITUDE: 36.641619999999996

Central Energy Facility Building 3902
MASTER AI ID: 108353
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 06/30/2010
LAT LONG SOURCE: SI
LONGITUDE: -87.465218
LATITUDE: 36.661061

US Department of Defense Property - Campbell Crossing Barracks
MASTER AI ID: 113607
SUBJECT ITEM DESIGNATION: Meth Lab
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 12/15/2011
LAT LONG SOURCE: SI
LONGITUDE: -87.470682
LATITUDE: 36.669323999999996

Ft Campbell Building 98
MASTER AI ID: 110951
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 03/22/2011
LAT LONG SOURCE: SI
LONGITUDE: -87.450712
LATITUDE: 36.64066

Ft Campbell Building 7223
MASTER AI ID: 114563
SUBJECT ITEM DESIGNATION: Exempt tank closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 04/25/2012
LAT LONG SOURCE: SI
LONGITUDE: -87.50694
LATITUDE: 36.672219999999996

Ft Campbell Building 3910

MASTER AI ID: 125118
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option A No Action Necessary
CLOSURE DATE: 03/03/2015
LAT LONG SOURCE: SI
LONGITUDE: -87.468358
LATITUDE: 36.663768999999995

Ft Campbell Building 6929
MASTER AI ID: 125120
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option A No Action Necessary
CLOSURE DATE: 03/03/2015
LAT LONG SOURCE: SI
LONGITUDE: -87.469392
LATITUDE: 36.646361

Ft Campbell Building 6555
MASTER AI ID: 69630
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 04/20/2016
LAT LONG SOURCE: SI
LONGITUDE: -87.47425
LATITUDE: 36.664989999999996

Ft Campbell Building 95
MASTER AI ID: 63763
SUBJECT ITEM DESIGNATION: Exempt tank
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 08/15/2010
LAT LONG SOURCE: SI
LONGITUDE: -87.449225
LATITUDE: 36.643207

Ft Campbell Building 6551
MASTER AI ID: 69623
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 04/19/2016
LAT LONG SOURCE: SI
LONGITUDE: -87.47505
LATITUDE: 36.665419

Ft Campbell Building 7154
MASTER AI ID: 125121
SUBJECT ITEM DESIGNATION: Exempt UST

CLOSURE OPTION DESC: Option A No Action Necessary
CLOSURE DATE: 03/03/2015
LAT LONG SOURCE: SI
LONGITUDE: -87.48841999999999
LATITUDE: 36.666959999999996

Ft Campbell Building 3708
MASTER AI ID: 161326
SUBJECT ITEM DESIGNATION: AST
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 04/22/2019
LAT LONG SOURCE: SI
LONGITUDE: -87.46284
LATITUDE: 36.660392

Fort Campbell Military Reservation
MASTER AI ID: 751
SUBJECT ITEM DESIGNATION: 35638
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 05/02/1995
LAT LONG SOURCE: SI
LONGITUDE: -87.44912
LATITUDE: 36.654503999999996

Ft Campbell Building 5001
MASTER AI ID: 132401
SUBJECT ITEM DESIGNATION: Exempt UST
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 11/29/2016
LAT LONG SOURCE: SI
LONGITUDE: -87.441169
LATITUDE: 36.646183

Ft Campbell Building 7164
MASTER AI ID: 117683
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC:
CLOSURE DATE:
LAT LONG SOURCE: SI
LONGITUDE: -87.48682699999999
LATITUDE: 36.669624999999996

Ft Campbell Building 6938
MASTER AI ID: 115572
SUBJECT ITEM DESIGNATION: Exempt UST
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 06/18/2012

LAT LONG SOURCE: SI
LONGITUDE: -87.460979
LATITUDE: 36.650816999999996

Ft Campbell Building 7179
MASTER AI ID: 117701
SUBJECT ITEM DESIGNATION: Closure
CLOSURE OPTION DESC: Option C Restored
CLOSURE DATE: 03/20/2013
LAT LONG SOURCE: SI
LONGITUDE: -87.481689
LATITUDE: 36.674977999999996

Any superfund issues or questions should be directed to the Superfund Branch.

Solid Waste Branch records indicate no historic landfill sites within the project impact area:
The following solid waste sites are within the project impact area:

MASTER AI ID: 751
MASTER AI NAME: Fort Campbell Military Reservation
USER GROUP DESCRIPTION: DWMSWB- General
ALTERNATE AI ID: SW02400011
LONGITUDE: -87.46504999999999
LATITUDE: 36.652431

MASTER AI ID: 751
MASTER AI NAME: Fort Campbell Military Reservation
USER GROUP DESCRIPTION: DWMSWB- General
ALTERNATE AI ID: SW02400022
LONGITUDE: -87.46504999999999
LATITUDE: 36.652431

MASTER AI ID: 43566
MASTER AI NAME: Dept of the Army Recycler
USER GROUP DESCRIPTION: DWMSWB- General
ALTERNATE AI ID: SW02400018
LONGITUDE: -87.458489
LATITUDE: 36.658159999999995

Any solid waste issues or questions should be directed to the Solid Waste Branch.

Hazardous Waste Branch records indicate the following hazardous waste site issues identified within the project impact area:

Fort Campbell Military Reservation
MASTER AI ID: 751
ALTERNATE AI ID: KY5210020140

USER GROUP DESCRIPTION: EPA ID Number (RCRA)
LONGITUDE: -87.46504999999999
LATITUDE: 36.652431

Wal-Mart Supercenter 3362
MASTER AI ID: 50518
ALTERNATE AI ID: KYR000043067
USER GROUP DESCRIPTION: EPA ID Number (RCRA)
LONGITUDE: -87.442194
LATITUDE: 36.66825

Any hazardous waste issues or questions should be directed to the Hazardous Waste Branch.

RLA Branch records indicate no RLA tracked open dumps identified within the project impact area. Any issues or questions should be directed to the RLA Branch.

All solid waste generated by this project must be disposed of at a permitted facility.

If asbestos, lead paint and/or other contaminants are encountered during this project contact the Division of Waste Management for proper disposal and closure.

The information provided is based on those facilities or sites that KDWM currently has in its database. If you would like additional information on any of these facilities or sites, you may contact the file room custodian at (502) 782-6357. Please keep in mind additional locations of releases, potential contamination or waste facilities may be present but unknown to the agency. Therefore, it is recommended that appropriate precautions be taken during construction activities. Please report any evidence of illegal waste disposal facilities and releases of hazardous substances, pollutants, contaminants or petroleum to the 24-hour Environmental Response Team at 1-800-928-2380.

Division for Air Quality

As this project is presented, the owner or operator of this company should comply with any applicable Division for Air Quality permitting requirements contained in 401 KAR Chapter 52 Permits, Registrations, and Prohibitory Rules located at https://legislature.ky.gov/Pages/index.aspx and https://eec.ky.gov/Environmental-Protection/Air/Pages/Air-Permitting.aspx. For permitting information, please contact the Division for Air Quality Permit Review Branch Manager, at (502) 782-6997.

Kentucky Division for Air Quality Regulations **401 KAR 58:025**, Asbestos Standards and **401 KAR 58:040**, Requirements for Asbestos Abatement Entities, apply to this project, and the project must be inspected by a Kentucky Accredited Asbestos Inspector. Asbestos that will be affected by this activity must be abated using approved work practices prior to demolition. If the asbestos abated is over threshold amounts, a Kentucky certified contractor must be used. Written notification must be given on form DEP 7036 to the Division for Air Quality at least 10 weekdays prior the start of demolitions, whether or not asbestos has been identified to be

present. More information can be found on the Division's website at https://eec.ky.gov/Environmental-Protection/Air/asbestos/Pages/default.aspx.

401 KAR 63:010, Fugitive Emissions, states that no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Additional requirements include the covering of open bodied trucks, operating outside the work area transporting materials likely to become airborne, and that no one shall allow earth or other material being transported by truck or earth-moving equipment to be deposited onto a paved street or roadway. Please note the Fugitive Emissions Fact Sheet located at https://eec.ky.gov/Environmental-Protection/Air/Documents/Fugitive%20Dust%20Fact%20Sheet.pdf

401 KAR 63:005 states that open burning shall be prohibited except as specifically provided. Open Burning is defined as the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the outdoor atmosphere without passing through a stack or chimney. However, open burning may be utilized for the expressed purposes listed on the Open Burning Brochure located at https://eec.ky.gov/Environmental-Protection/Air/Pages/Open-Burning.aspx

The Division would like to offer the following suggestions on how this project can help us stay in compliance with the NAAQS. These air quality control strategies are beneficial to the health of citizens of Kentucky.

- Utilize alternatively fueled equipment.
- Utilize other emission controls that are applicable to your equipment.
- Reduce idling time on equipment.

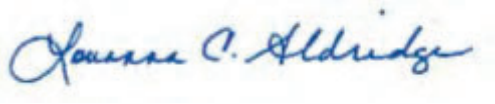
The Division also suggests an investigation into compliance with applicable local government regulations.

Kentucky Nature Preserves

Your project might have the potential of impacting federally or state listed species and natural communities. Go to the Kentucky Biological Assessment Tool (kynaturepreserves.org) to obtain a Standard Occurrence Report for information regarding listed species known within your project area. The report will also provide information on public and private conservation lands, areas of biodiversity significance, and other natural resources in your project area for which the Office of Kentucky Nature Preserves maintains data.

This review is based upon the information that was provided by the applicant. An endorsement of this project does not satisfy, or imply, the acceptance or issuance of any permits, certifications or approvals that may be required from this agency under Kentucky Revised Statutes or Kentucky Administrative Regulations. Such endorsement means this agency has found no major concerns from the review of the proposed project as presented other than those stated as conditions or comments. If you should have any questions, please contact me at (502) 782-0863.

Sincerely,



Louanna Aldridge

Attachment

Attachment A

Comments RE: Programmatic Environmental Assessment (PEA), Cantonment Area Master Plan at Fort Campbell KY

Reviewed by: Kentucky Division of Water, Water Management Branch, Water Supply Section

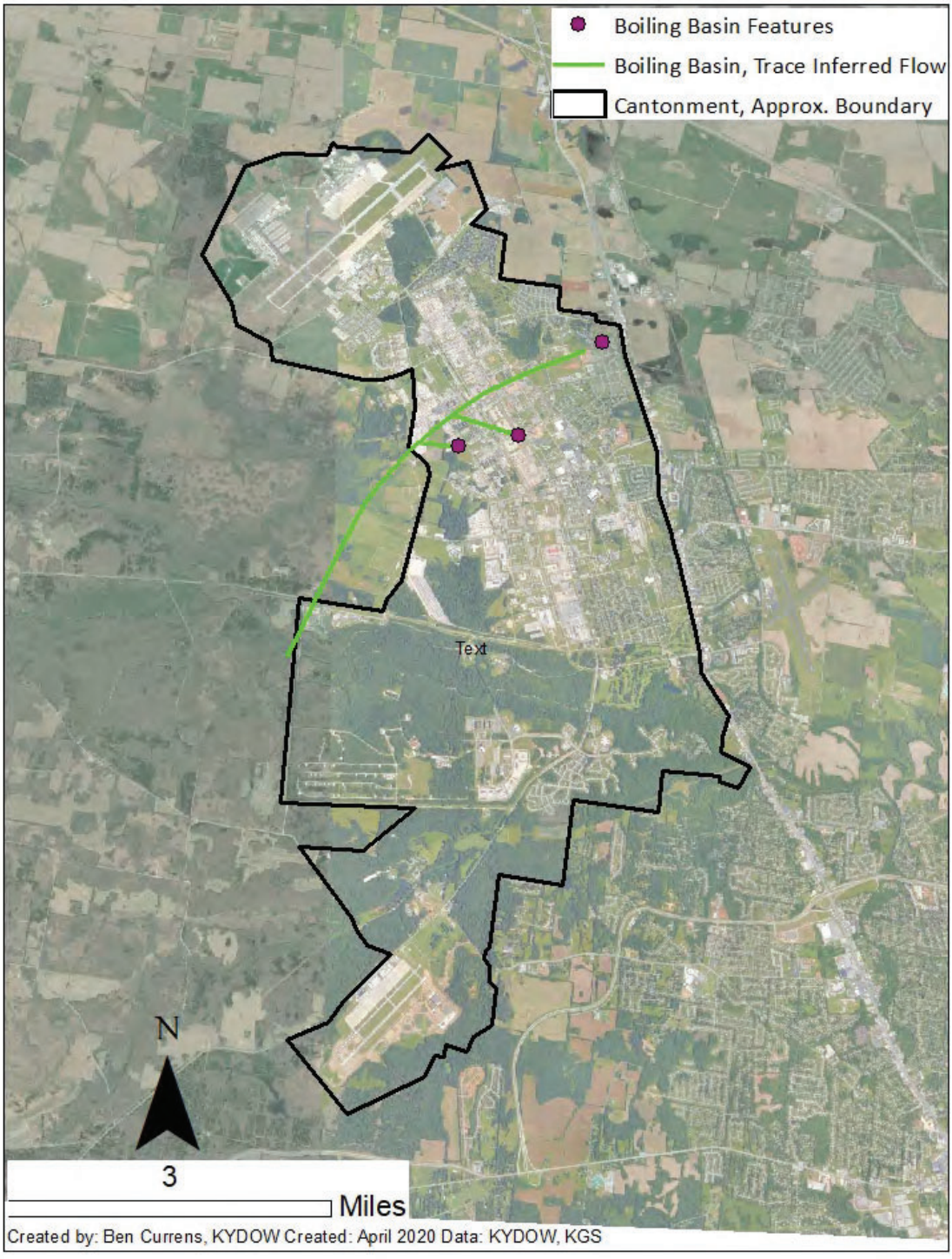
Benjamin Currens, Environmental Scientist IV; benjamin.currens@ky.gov; 502-782-5227

These comments are in response to a request for review received by the Kentucky DOW for a PEA of the Fort Campbell Cantonment Area (FCCA). They are addressed only at the regions of the cantonment area within Kentucky.

With respect to water quality and water supply. The PEA authors acknowledge the presence of karst topography and soluble bedrock (PEA, 3.5.2) and provide the location of surveyed karst features (sinkholes; PEA, 3-32). They further acknowledge the influence of karst terrain on groundwater and the interaction between surface water and groundwater. The hydrogeology present within the FCCA is described as consisting of an upper and lower aquifer, with the lower aquifer (unnamed in PEA) rising, at least in part, at Boiling Springs. Boiling Springs is reported as the primary drinking water source for Fort Campbell and is located outside of the FCCA. The PEA states that "The upper aquifer is recharged by sinkholes" and "The deep aquifer is associated with Boiling Springs…" (PEA, 3.51). The assessment further states, implying barriers to or a lack of connectivity between karst features within the FCCA and Boiling Springs, that "The Boiling Spring aquifer has natural barriers to contamination from onsite and offsite sources" (PEA, 3 - 52). However, the PEA fails to acknowledge observed connectivity between karst surface features within the FCCA and the Boiling Springs basin (Fig. 1) demonstrated through dye-tracing conducted by A.D. Little (1997a, 1999, and 2001a). It is important to note that the studies cited by the Kentucky Geological Survey (Karst Groundwater Basin Database, unpublished) as the source for demonstrations of conductivity could not be located prior to the comment deadline, only the established connection could be taken into account for this comment and the absolute nature of the connection is not known to the comment writer.

The demonstrated connections indicate that at least some portion of the Boiling Springs basin is karstic and receives recharge from the FCCA. As the Kentucky Division of Water does not have a Source Water Protection Plan or Wellhead Protection Plan on file, Boiling Spring is likely regulated by the state of Tennessee as a drinking water source. However, karst is characterized by heterogeneity, the rapid movement of water and carried contaminants through dissolution conduits from recharge areas (sinkholes, sinking streams, swallets) to points of discharge (springs), and a lack of the filtering and attenuation effects observed in porous media aquifers. The existence of recharge points to the Boiling Springs basin within the FCCA does not necessarily preclude the adoption of the PEA, as understood by the comment writer, it does, given the nature of karst aquifers. demonstrate activity within the FCCA could influence water quality at the post's primary drinking water source and should be addressed.

Karst Features, Boiling Springs Basin, Ft. Campbell, KY



Department of the Army, Nashville District, Corps of Engineers (NCOE) Consultation Letters:

1. **Fort Campbell Request – 28Feb20**
2. **NCOE Response – 27Mar20**

Etson, Daniel L CIV USARMY USAG (USA)

From: Etson, Daniel L CIV USARMY USAG (USA)
Sent: Friday, February 28, 2020 2:07 PM
To: 'Wilder, Timothy C CIV USARMY CELRN (USA)'
Subject: RE: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan (UNCLASSIFIED)
Attachments: Draft PEA_Cantonment Area Master Plan_Feb2020.pdf; NCOE IICEP Letter Public Notice_Agency Review NOA Cantonment Area PEA signed.pdf

Tim,

Attached is a copy of the draft PEA. The Notice of Availability will be published in local newspapers on 3 March 2020. I would appreciate your comments NLT 1 April 2020.

I look forward to hearing from you.

v/r

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

-----Original Message-----
From: Wilder, Timothy C CIV USARMY CELRN (USA) [mailto:Timothy.C.Wilder@usace.army.mil]
Sent: Friday, February 28, 2020 11:24 AM
To: Etson, Daniel L CIV USARMY USAG (USA) <daniel.l.etson.civ@mail.mil>
Subject: RE: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Dan,

Tammy Turley is no longer at the Nashville District.
Our new chief is Todd Tillinger. Todd.N.Tillinger@usace.army.mil

You may send it to Todd or me.

PDF is preferred.

Tim

Tim Wilder
Chief, West Branch
Regulatory Division
U.S. Army Corps of Engineers
Nashville District
3701 Bell Road
Nashville, TN 37214

Office: (615) 369-7502

Internet: http://www.lrn.usace.army.mil/Missions/Regulatory.aspx

The Nashville District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:8126372295348

-----Original Message-----
From: Etson, Daniel L CIV USARMY USAG (USA) [mailto:daniel.l.etson.civ@mail.mil]
Sent: Friday, February 28, 2020 11:07 AM
To: Wilder, Timothy C CIV USARMY CELRN (USA) <Timothy.C.Wilder@usace.army.mil>
Subject: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan

Mr. Wilder,

Fort Campbell is publishing a Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan for public review and agency comment, starting next week.

I believe in the past our NEPA documents have been submitted to Ms. Tammy Turley. Please confirm this and what type of format is best. I can email the document as a pdf.

v/r

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

CLASSIFICATION: UNCLASSIFIED

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
REGULATORY DIVISION
3701 BELL ROAD
NASHVILLE, TENNESSEE 37214

March 27, 2020

SUBJECT: File no. LRN-2020-00245, Fort Campbell Programmatic Environmental Assessment Cantonment Area Master Plan, Fort Campbell, Christian County, Kentucky

Daniel Etson
DPW – Environmental Division
Building 371 Bastogne Avenue
Fort Campbell, Kentucky 42223

Dear Mr. Etson:

This is in response to your February 28, 2020, request for our comments regarding the subject project. The U.S. Army Corps of Engineers (USACE) has regulatory responsibilities pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344). Under Section 10, the USACE regulates all work in, or affecting, navigable waters of the U.S. Under Section 404, the USACE regulates the discharge of dredged and/or fill material into waters of the U.S. (33 CFR Part 328). This project has been assigned number LRN-2020-00245. Please refer to this number in all communication concerning this matter.

A review of the information provided indicates the subject activities may involve a discharge of dredged or fill material into waters regulated under the Clean Water Act (33 U.S.C. 1344). Work in these waters may require a Department of the Army section 404 permit.

We understand the project proposal may not have specific design plans at this time, and this inquiry is an initial review to obtain comments regarding the draft Programmatic Environmental Assessment.

If you have questions regarding this matter, please contact Mr. Timothy Wilder, at the above address, via e-mail at Timothy.C.Wilder@usace.army.mil, or by telephone at (615) 369-7502. Thank you for the opportunity to review and comment on this proposed project.

Sincerely,

Timothy C. Wilder
Chief, West Branch
Regulatory Division

entuc y tate istoric reservation Office (O) Consultation Letters:

1. **Fort Campbell Request – 6Mar20**
2. **Kentucky SHPO Response – No Response Received**

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CAMPBELL
BUILDING 2574 23RD STREET
FORT CAMPBELL, KY 42223-5617

March 6, 2020

Directorate of Public Works

Mr. Craig A. Potts
Kentucky Heritage Council
State Historic Preservation Office
410 High Street
Frankfort, Kentucky 40601

Dear Mr. Potts:

Enclosed are one (1) physical copy and one (1) digital copy of a draft Programmatic Environmental Assessment (PEA) entitled *Programmatic Environmental Assessment Cantonment Area Master Plan at Fort Campbell* (Alliant Corporation 2020). This PEA is for the Fort Campbell Master Plan within the Cantonment area.

Fort Campbell does not accept that this document as sufficient to satisfy the installation's requirements under Section 106 of the National Historic Preservation Act (NHPA). This document will be used only to satisfy some of the requirements under the National Environmental Policy Act (NEPA). All undertakings associated with the activities contained within the PEA will continue to be reviewed by Fort Campbell in accordance with the *Programmatic Agreement among the United States Army, the State Historic Preservation Officer of Kentucky and the State Historic Preservation Officer of Tennessee Regarding the Operation, Maintenance, and Development of the Fort Campbell Army Installation at Fort Campbell, Kentucky* (Effective January 2009), subsequent management documents, or 36 CFR 800 as appropriate.

Please review the enclosed draft PEA and provide any comments to be incorporated into the final NEPA document. Fort Campbell is not making any determinations of Eligibility for listing in the National Register of Historic Places and/or determinations of effect to *Historic Properties* from this document. If you have any further questions regarding this matter, please contact Mr. Ronald Grayson, Cultural Resources Program Manager, at ronald.i.grayson.civ@mail.mil, or by telephone 270-412-8174.

Sincerely,

Jeffrey J. Atkins, PE
Chief, DPW Environmental Division

Enclosures

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Mr. Craig Potts

Street and Apt. No., or PO Box No.
410 High St.

City, State, ZIP+4®
Frankfort KY, 40601

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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ennessee tate istoric reservation Office (O) Consultation Letters:

1. **Fort Campbell Request – 5Mar20**
2. **Tennessee SHPO Response – 18Mar20**

DEPARTMENT OF THE ARMY
HEAD ARTER N TED TATE ARMY ARR ON FORT AMP E
D N RD TREET
FORT AMP E Y

March 5, 2020

Directorate of Public Works

Mr. E. Patrick McIntyre Jr., E ecutive Director and SHPO
Tennessee Historical Commission
Clover Bottom Mansion
2941 Lebanon Road
Nashville, Tennessee 37243-0441

Dear Mr. McIntyre:

Enclosed are one (1) physical copy and one (1) digital copy of a draft Programmatic Environmental Assessment (PEA) entitled *ro rammat c n ronmental e ment Cantonment rea a ter lan at Fort Campbell* (Alliant Corporation 2020). This PEA is for the Fort Campbell Master Plan within the Cantonment area.

Fort Campbell does not accept that this document as sufficient to satisfy the installation s requirements under Section 106 of the National Historic Preservation Act (NHPA). This document will be used only to satisfy some of the requirements under the National Environmental Policy Act (NEPA). All undertakings associated with the activities contained within the PEA will continue to be reviewed by Fort Campbell in accordance with the *ro rammat c reement amon t e n te State rmy, t e State tor c re er at on cer o Kentucky an t e State tor c re er at on cer o enne ee e ar n t e perat on, a ntenance, an e elopment o t e Fort Campbell rmy n tallat on at Fort Campbell, Kentucky* (Effective January 2009), subsequent management documents, or 36 CFR 800 as appropriate.

Please review the enclosed draft PEA and provide any comments to be incorporated into the final NEPA document. Fort Campbell is not making any determinations of Eligibility for listing in the National Register of Historic Places and/or determinations of effect to *tor c ropert e* from this document. If you have any further questions regarding this matter, please contact Mr. Ronald Grayson, Cultural Resources Program Manager, at ronald.i.grayson.civ@mail.mil, or by telephone 270-412-8174.

Sincerely,

Jeffrey J. Atkins, PE
Chief, DPW Environmental Division

Enclosures

TENNESSEE HISTORICAL COMMISSION
STATE HISTORIC PRESERVATION OFFICE
2941 LEBANON PIKE
NASHVILLE, TENNESSEE 37243-0442
OFFICE: (615) 532-1550
www.tnhistoricalcommission.org

March 18, 2020

Mr. Jeffrey J. Atkins
Department of the Army, Installation Management Command, Atlantic Region
Headquarters, United States Army Garrison, Ft. Campbell
39 Normandy Boulevard
Ft. Campbell, KY 42223-5617

RE: DOD / Department of Defense, Programmatic Environmental Assessment, Cantonment Area Master Plan at Fort Campbell, Ft. Campbell Montgomery County, TN

Dear Mr. Atkins:

At your request, our office has reviewed the above-referenced draft Programmatic Environmental Assessment. This review is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Based on the information provided, we find that the document adequately addresses potential effects to historic properties. As stated in the document, undertakings will continue to be reviewed under the existing programmatic agreements between our offices.

Your continued cooperation is appreciated.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb

tate of ennessee Department of Environment an Conservation (DEC) Consultation Letters:

1. **Fort Campbell Request – 2Mar20**
2. **TDEC Response – 1Apr20**

Etson, Daniel L CIV USARMY USAG (USA)

From: Etson, Daniel L CIV USARMY USAG (USA)
Sent: Monday, March 2, 2020 7:43 AM
To: 'Jaclyn.Mothupi@tn.gov'
Subject: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan
Attachments: Draft PEA_Cantonment Area Master Plan_Feb2020.pdf

Ms. Mothupi:

Fort Campbell is publishing a Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan for public review and agency comment, starting March 3, 2020. The Cantonment Area is Fort Campbell's urbanized area.

Attached is a copy of the draft document. We are requesting review and comment(s) by TDEC and would like a response by April 1, 2020.

I look forward to hearing from you.

Thank you

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

DAVID W. SALYERS, P.E.
COMMISSIONER

BILL LEE
GOVERNOR

April 1, 2020

Via Electronic Mail to daniel.l.etson.civ@mail.mil
Attn: Dan Etson, Environmental Engineer
NEPA Program Manager Compliance Branch
Fort Campbell's Directorate of Public Works
871 Bastogne Avenue,
Fort Campbell, KY 42223

Dear Mr. Etson:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the United States Army (Army) *Fort Campbell Cantonment Area Draft Programmatic Environmental Assessment* (PEA) *and unsigned Finding of No Significant Impact* (FONSI), which considers environmental effects of construction, operation, and maintenance of Master Plan projects in the Cantonment Area at Fort Campbell, Kentucky.[1] The Draft PEA is intended to facilitate NEPA compliance for routine infrastructure projects within the Cantonment Area, which consists of eight individual Area Development Plans (ADPs) (i.e., distinct areas within the Cantonment Area). The PEA presumes the continued implementation of the extensive and on-going Fort Campbell environmental management program. According to the Army, as a result of established environmental processes that have occurred at Fort Campbell, it is no longer necessary to address historically common and repetitive impacts with additional Environmental Assessments/FONSIs for individual action items, which are executed daily throughout the entire installation. Therefore, the PEA, if implemented, would identify, document, and evaluate effects of applying standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area.[2]

Actions considered in detail within the Draft PEA with Unsigned FONSI include:

- **Alternative A – Implement All Master Plan Projects (Proposed Action).** Fort Campbell proposes to implement standardized operating practices for routine Master Plan projects in the Cantonment Area. These projects include all short-range (0 to 5 years), mid-range (5 to 16 years), and long-range (16 to 25 years) projects as described in each ADP. According to the PEA, Implementation of the Proposed Action would allow for a streamlined process and would presume the continued implementation of the extensive and on-going Fort Campbell environmental management program. Compliance with installation environmental management plans, corresponding environmental laws and implementing regulations

[1] The ADPs are linked to the 2018 Capital Investment Strategy (CIS) for Fort Campbell. The CIS ties all projects to one central document. These documents are collectively referred to as the "Master Plan" in the PEA.
[2] For example, ground-disturbing activities that remove vegetative cover for extended periods of time due to construction, demolition, renovation, and/or automobile traffic activities that are to occur on a daily basis are being monitored at Fort Campbell to avoid erosion and deposition of sediment into the downstream watershed.

would be accomplished for all Cantonment Area Master Plan projects. This alternative captures the wide range of projects represented in the Master Plan. The general types of construction, renovation, and demolition projects described in the individual ADPs for the Cantonment Area are summarized by planning district in the Draft PEA.[3]

- **Alternative B – Implement Short-Range and Mid-Range Projects.** Alternative B is similar to the Proposed Action in that it includes the short-range (0 to 5 years) and mid-range (5 to 16 years) projects described in each ADP. As the estimated timeframe for the long-range projects extends from 16 to 25 years, the project timelines and discretionary funding from Congress are uncertain. By that time, this PEA would also need to be updated to reflect changes in conditions and priorities at Fort Campbell. Therefore, the long-range projects are not included in Alternative B.

- **Alternative C – No Action Alternative.** The No Action alternative serves as a baseline against which the impacts of the proposed action and alternatives can be evaluated. Under the No Action alternative, the implementation of the Master Plan projects would not occur in the Cantonment Area at Fort Campbell. Baseline conditions would remain the same for NEPA review and discrete environmental impact analysis would continue for each individual project in each of the seven Cantonment Area districts. Although the No Action alternative would eliminate unavoidable adverse, short- and long-term impacts associated with the Proposed Action, the No Action alternative would not satisfy selection standards established for this project, resulting in generation of duplicative environmental analysis, documentation and initiation of public notification procedures.

TDEC has reviewed the Draft PEA with Unsigned FONSI and provides the following comments:

Cultural and Natural Resources

TDEC believes the Draft PEA adequately addresses potential impacts to cultural and natural resources within the proposed project area and supports the plan.[4]

Air Resources

TDEC encourages the Army to provide additional clarification relating to General Conformity requirements found on pages 3-4 and 3-9 of the document, respectively, in the Final PEA.

TDEC encourages the Army to consider hiring contractors for the onsite demolition, earthmoving and construction projects that can certify or demonstrate that the diesel engines powering the equipment and transport trucks are being properly maintained, have all emissions control equipment in good working order and where possible; are using their newer trucks for routine, long term onsite projects to help mitigate emissions.

TDEC recommends that should open burning be considered for disposal of wood wastes generated from the proposed project, alternatives to open burning, including chipping, composting or grinding of wood waste, be

[3] See Table 2-2 on electronic page 29 of the Draft PEA.

[4] This is a state-level review only and cannot be substituted for a federal agency Section 106 review/response. Additionally, a court order from Chancery Court must be obtained prior to the removal of any human graves. If human remains are encountered or accidentally uncovered by earthmoving activities, all activity within the immediate area must cease. The county coroner or medical examiner, a local law enforcement agency, and the state archaeologist's office should be notified at once (Tennessee Code Annotated 11-6-107d). If you have questions, please contact Daniel Brock, State Programs Archaeologist at 615-687-4778 or Daniel.Brock@tn.gov.

evaluated first. If open burning is selected for wood waste disposal the Army should consider implementing a smoke management plan, not burning on air quality alert days, and coordinating burning with other agencies (local and State air pollution control agencies, forestry agencies and local fire departments). TDEC encourages the Army to include discussion relating to these considerations in the Final PEA.

Water Resources

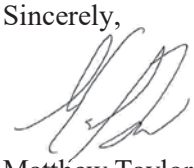
TDEC believes that the Draft PEA adequately addresses potential impacts to water resources. TDEC encourages the Army to follow all best management practices wherever possible, 50 foot stream buffers should be in place, and additional stormwater controls should be added for any additional impervious surfaces (buildings, asphalt, etc.).

Solid Waste

TDEC believes that the Draft PEA adequately addresses potential impacts to solid and hazardous waste.

TDEC appreciates the opportunity to comment on this Draft PEA with Unsigned FONSI. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,



Matthew Taylor
Senior Policy Analyst, Office of Policy and Sustainable Practices
Tennessee Department of Environment and Conservation
Matthew.K.Taylor@tn.gov
(615) 532-1291

cc: Kendra Abkowitz, TDEC, OPSP
Lacey Hardin, TDEC, APC
Lisa Hughey, TDEC, SWM
Tom Moss, TDEC, DWR
Daniel Brock, TDEC, DOA
Stephanie Williams, TDEC, DNA

. . Environmental rotection Agency (E A) Consultation Letters:

1. **Fort Campbell Request – 4Mar20**
2. **USEPA Response – 10Jul20**

Etson, Daniel L CIV USARMY USAG (USA)

From: Etson, Daniel L CIV USARMY USAG (USA)
Sent: Wednesday, March 4, 2020 8:38 AM
To: 'jenkins.brandi@epa.gov'
Subject: FW: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan
Attachments: Draft PEA_Cantonment Area Master Plan_Feb2020.pdf

Ms. Jenkins,

Fort Campbell has published a Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan for public review and agency comment. The Cantonment Area is Fort Campbell's urbanized area.

Would your office be the correct one to distribute at USEPA Region 4 for comment? I tried contacting Mr. Militscher, who is listed on your website as the Chief of the NEPA Program Office, but was not successful.

If possible we would like any comments from USEPA Region 4 by the first week of April.

Thank you,

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

-----Original Message-----
From: Etson, Daniel L CIV USARMY USAG (USA)
Sent: Wednesday, March 4, 2020 8:31 AM
To: 'militscher.chris@epa.gov' <militscher.chris@epa.gov>
Subject: FW: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan

Mr. Militscher,

Fort Campbell has published a Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan for public review and agency comment. The Cantonment Area is Fort Campbell's urbanized area.

If possible we would like any comments from USEPA Region 4 by the first week of April.

Thank you

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223

(270) 798-9784
daniel.l.etson.civ@mail.mil

-----Original Message-----
From: Etson, Daniel L CIV USARMY USAG (USA)
Sent: Friday, February 28, 2020 1:20 PM
To: 'militscher.chris@epa.gov' <militscher.chris@epa.gov>
Subject: Fort Campbell Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan

Mr. Militscher,

Next week Fort Campbell is publishing a Draft Programmatic Environmental Assessment (PEA): Cantonment Area Master Plan for public review and agency comment. The Cantonment Area is Fort Campbell's urbanized area.

Would you be the POC for submitting our document for review? I can send the PEA in pdf format.

Thank you

Dan Etson
Environmental Engineer, NEPA Program Manager Compliance Branch, DPW-Environmental Division
871 Bastogne Avenue, Fort Campbell KY 42223
(270) 798-9784
daniel.l.etson.civ@mail.mil

Etson, Daniel L CIV USARMY USAG (USA)

From: Gissentanna, Larry <Gissentanna.Larry@epa.gov>
Sent: Friday, July 10, 2020 1:36 PM
To: Etson, Daniel L CIV USARMY USAG (USA)
Cc: Kajumba, Ntale; Buskey, Traci P.
Subject: [Non-DoD Source] Fort Campbell's Draft Programmatic Environmental Assessment Cantonment Area Master Plan.

Dear Mr. Etson:

The U.S. Environmental Protection Agency has reviewed the above referenced documents in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The proposed action is being evaluated to determine standard practices for construction, demolition, and general maintenance projects as prescribed in the Fort Campbell Cantonment Area Master Plan. The Cantonment Area Master Plan describes multiple actions to occur over an extended time period and therefore, the goal is to streamline the environmental review process for Master Plan-related projects within the Cantonment Area. The Programmatic Environmental Assessment (PEA) is designed to provide sufficient detail about the potential environmental impacts on installation resources, to enable Fort Campbell to tier to other future NEPA documents.

Based on our review of the Draft PEA, the EPA concurs with the screening criteria (section 2-2) that was used as a goal to streamline the NEPA process for proposed Master Plan projects. The PEA for Fort Campbell evaluated three alternatives. Alternative A, (Preferred Alternative), involves the implementation of all short-range (0 to 5 years), mid-range (5 to 16 years), and long-range (16 to 25 years) Master Plan projects described in each of the eight Area Development Plans (ADP). The second alternative, Alternative B, which is similar to Alternative A, will only include the short-range (0 to 5 years) and mid-range (5 to 16 years) projects described in each ADP. The No Action Alternative serves as a baseline against which impacts of a proposed action and alternatives can be evaluated. Under the No Action alternative, the implementation of Master Plan projects would not occur in Fort Campbell's Cantonment Area.

The EPA concludes that appropriate alternatives were considered and analyzed. Alternative A (Preferred Alternative) is supportive of the PEA's intent to streamline the NEPA process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. It also appears that the proposed project will not have a significant impact on human health and the environment. The EPA has no additional comments at this time.

Thank you for the opportunity to provide comments on your proposed project. Please provide this office with a hard copy and electronic version of the final NEPA documents. Please remember to keep the local community informed and involved throughout the project process. If you have any questions, feel free to contact me via the information provided below.

Sincerely,

Larry O. Gissentanna

Project Manager, DoD & Federal Facilities

U.S. Environmental Protection Agency/ Region 4

Strategic Programs Office, NEPA Section

61 Forsyth Street, SW

Atlanta, GA 30303-8960

Office: 404-562-8248

gissentanna.larry@epa.gov < Caution-mailto:gissentanna.larry@epa.gov >

. . ish an il life ervice ( ) Consultation Letters:

1. **Fort Campbell Request – 17Mar20**
2. **USFWS Response – 27Apr20**

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT CAMPBELL
BUILDING 2574 23RD STREET
FORT CAMPBELL, KY 42223-5617

IMCB-PWE
Directorate of Public Works
Environmental Division

17 March 2020

Robbie Sykes
US Fish and Wildlife Service
Tennessee Field Office
446 Neal Street
Cookeville, TN 38501

Dear Mr. Sykes:

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to consider potential impacts prior to undertaking a course of action. In accordance with NEPA and the Army's NEPA regulation, *Environmental Analysis of Army Actions*, the Army has prepared a Programmatic Environmental Assessment (PEA) to evaluate potential environmental impacts associated with the construction and operation of routine infrastructure projects within the Cantonment Area at Fort Campbell, Kentucky. Per Executive Order 12372, *Intergovernmental Review of Federal Programs*, we request your participation by reviewing the enclosed Draft PEA and solicit your comments concerning the Proposed Action and any potential environmental consequences.

The PEA is intended to facilitate NEPA compliance for routine infrastructure projects within the Cantonment Area, which consist of eight individual Area Development Plans (ADPs) (i.e., distinct areas within the Cantonment Area). As a result of established environmental processes that have occurred at Fort Campbell, it is no longer necessary to address historically common and repetitive impacts with additional Environmental Assessments (EAs)/Finding of No Significant Impacts (FNSIs) for individual action items, which are executed daily throughout the entire installation. The PEA streamlines the NEPA process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. Alternative A (Implement All Master Plan Projects) and Alternative B (Implement Short- and Mid-Range Master Plan Projects) would not have significant impacts on the environment. Therefore, the PEA, if implemented, would identify, document, and evaluate effects of applying standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area.

Notice of Availability (NOA) was published in the following newspapers for a 30-day review period: *The Leaf Chronicle*, *Stewart County Standard*, *Kentucky New Era*, and *Cadiz Record*. In addition, a copy of the Draft PEA was made available for review in the following public libraries: Clarksville-Montgomery County Library, Christian County Library, Robert F. Sink Library, John L. Street Library, and Stewart County Public Library.

Comments regarding the Draft PEA/FNSI can be provided either in writing or electronically. You may direct your comments to:

Mr. Daniel Etson, Environmental Engineer
DPW – Environmental Division
Building 871 Bastogne Avenue
Fort Campbell, Kentucky 42223
daniel.l.etson.civ@mail.mil

Sincerely,

Gene A Zirkle
Wildlife Biologist
Fish and Wildlife Program

Enclosure

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Tennessee ES Office
446 Neal Street
Cookeville, Tennessee 38501

April 27, 2020

Mr. Daniel Etson
DPW – Environmental Division
Building 871 Bastogne Avenue
Fort Campbell, Kentucky 42223

Subject: FWS #2020-I-0901. Draft Programmatic Environmental Assessment (EA) and Finding of No Significant Impact for the Cantonment Area Master Plan at Fort Campbell Military Installation in Trigg and Christian Counties, Kentucky, and Stewart County, Tennessee.

Dear Mr. Etson:

Fish and Wildlife Service (Service) biologists, including the Kentucky Ecological Services Field Office, have reviewed the subject documents that you provided with an email on March 17, 2020. Fort Campbell proposes to implement standardized operating practices for routine renovation, demolition, and construction Master Plan projects in the Cantonment Area at Fort Campbell. Compliance with installation environmental management plans and corresponding environmental laws and regulations would be accomplished for all Cantonment Area developmental projects. These projects include all short-range (0 to 5 years), mid-range (5 to 16 years), and long-range (16 to 25 years) projects as described in each Area Development Plan. Implementation of the Proposed Action would allow for a streamlined process and would presume the continued implementation of the extensive and on-going Fort Campbell environmental management program.

Your correspondence indicates that all of the past and planned projects are likely located within areas that have, or would take place in developed areas; therefore, impacts to biological resources across the Cantonment Area would not be expected. The PEA also indicates that any potential impacts to threatened, endangered, or sensitive species would require consultation with the Service, and potential mitigation. Due to the highly developed nature of the Cantonment Area, the Service agrees with your assessment of potential impacts to federally listed species.

The Service concludes that the requirements of the Endangered Species Act of 1973 (the Act), as amended, are fulfilled. Obligations under the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include

activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

We appreciate the opportunity to review the subject proposal. If you have any questions concerning these comments, please do not hesitate to contact Robbie Sykes at 931/525-4979, or by email at *robbie sykes fws.gov*.

Sincerely,

Virgil Lee Andrews, Jr.
Field Supervisor

Notice of Availa ility (NOA) Ne spaper A vertisements (A s)

Burns, Stephanie A

From: Burns, Stephanie A
Sent: Wednesday, March 4, 2020 1:26 PM
To: Burns, Stephanie A
Subject: Page A01 | E-Edition | Kentucky New Era

https://www.kentuckynewera.com/cadiz_record/eedition/page_fe206ac6-1c43-5319-9cd9-e94fb9933f1e.html

PUBLIC NOTICE Notice of Availability Draft PEA Cantonment Area Master

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Details for PUBLIC NOTICE Notice of Availability Draft PEA Cantonment Area Master

56 min ago

PUBLIC NOTICE
Notice of Availability
Draft PEA
Cantonment Area
Master Plan
Fort Campbell, Kentucky

Beginning March 3, 2020 through April 1, 2020, the Army will accept comments on the Programmatic Environmental Assessment (PEA) for routine infrastructure projects within the Cantonment Area at Fort Campbell, Kentucky. This PEA is intended to streamline the National Environmental Policy Act (NEPA) process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. Alternative A (Implement All Master Plan Projects) and Alternative B (Implement Short- and Mid-Range Master Plan Projects) would not have significant impacts on the environment - indicating that a Finding of No Significant Impact (FNSI) would be appropriate. The public is invited to review documents at the following libraries: Christian County Library, 101 Bethel Street, Hopkinsville, KY 42240 and Robert F. Sink Library, Bldg 38, Screaming Eagle Blvd, Fort Campbell, KY 42223.

Written comments or inquiries can be mailed to:

Mr. Dan Etson,

Building 871 Bastogne Avenue

Fort Campbell, KY 42223
or emailed to: daniel.l.etson.civ@mail.mil

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0004070629
Public notice of sale on a 2007 Ford Edge vin# 2FMDK39C87BA33939 belonging to Elliott M Hendricks to satisfy a mechanics lien for repairs. Date of sale is April 17th 2020 at 10:00AM at 2655 Trenton Rd., Clarksville TN 37040.

0004075779
NOTICE OF SALE

Clarksville Lock Storage pursuant to the Tennessee Self-service Storage Facility Act (Tenn. Code Ann 66-31-101) hereby gives Notice of Sale under said act to wit: On April 3rd, 2020 at 10:00 a.m. on Storagetreasures.com, Clarksville Lock Storage South will conduct a sale by select bid on the contents of the following

Continued to next column

Continued from last column

units:

Thomas McCauley A14 10x10 – Furniture, boxes, lamp, T.V. toddler car, bed frames

TERMS: Cash at time of sale- items to be removed in 48 hours. Clarksville Lock Storage reserves the right to accept or reject any and/or all bids.

NOTE: TENANTS OF THE ABOVE LISTED UNITS HAVE UNTIL 5PM MARCH 18, 2020 TO BRING THEIR ACCOUNT CURRENT AND REMOVE THEIR UNIT FROM THE AUCTION.

0004079430
PUBLIC NOTICE
Notice of Availability

Draft PEA
Cantonment Area
Master Plan
Fort Campbell, Kentucky

Beginning March 3, 2020 through April 1, 2020, the Army will accept comments on the Programmatic Environmental Assessment (PEA) for routine infrastructure projects within the Cantonment Area at Fort Campbell, Kentucky. This PEA is intended to streamline the National Environmental Policy Act (NEPA) process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. Alternative A (Implement All Master Plan Projects) and Alternative B (Implement Short- and Mid-Range Master Plan Projects) would not have significant impacts on the environment - indicating that a Finding of No Significant Impact (FNSI) would be appropriate. The public is invited to review documents at the following libraries: Clarksville-Montgomery County Library, 350 Pageant Lane, Suite 404, Clarksville, TN 37042; and Robert F.

Continued to next column

Continued from last column

Sink Library, Bldg 38, Screaming Eagle Blvd, Fort Campbell, KY 42223. Written comments or inquiries can be mailed to: Mr. Dan Etson, Building 871 Bastogne Avenue, Fort Campbell, KY 42223 or emailed to: daniel.l.etson.civ@mail.mil

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	1							4
		9		8				2
8	9	5			7			
	4			9			8	
			5			1	4	9
2				1		6		
5							2	
		7	6		3			1

3/3/20

Rating: SILVER

Solution to 3/2/20

1	6	5	2	4	8	3	9	7
4	7	9	1	6	3	5	2	8
2	8	3	5	7	9	1	4	6
7	5	8	6	9	4	2	3	1
3	4	6	8	1	2	7	5	9
9	1	2	3	5	7	8	6	4
5	9	4	7	2	1	6	8	3
8	2	1	4	3	6	9	7	5
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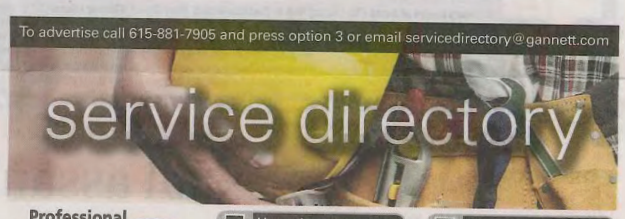

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45212

TEAR SHEET ATTACHED

Jackie Cooper Sales Assistant for the above mentioned newspaper,

hereby certify that the attached advertisement appeared in said newspaper on the following dates:

03/03/20

Jackie Cooper

Subscribed and sworn to before me this 3rd day of March 2020

Donna Walker
Notary Public

Donna Walker
State of Tennessee Notary Public
Davidson County
My Commission Expires 05/03/21

Affidavits Requested:

1

0004079430PUBLICNOTICENOTICEOFAVAILABILITYDR/
Re: PEA

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Knoxville, TN 37923
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TENNESSEE PUBLIC NOTICES

Public Notice

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County: Montgomery
Printed In: Leaf-Chronicle, The (Clarksville)
Printed On: 2020/03/03

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Public Notice:

0004079430 PUBLIC NOTICE Notice of Availability Draft PEA Cantonment Area Master Plan Fort Campbell, Kentucky Beginning March 3, 2020 through April 1, 2020, the Army will accept comments on the Programmatic Environmental Assessment (PEA) for routine infrastructure projects within the Cantonment Area at Fort Campbell, Kentucky. This PEA is intended to streamline the National Environmental Policy Act (NEPA) process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. Alternative A (Implement All Master Plan Projects) and Alternative B (Implement Short- and Mid-Range Master Plan Projects) would not have significant impacts on the environment - indicating that a Finding of No Significant Impact (FNSI) would be appropriate. The public is invited to review documents at the following libraries: Clarksville-Montgomery County Library, 350 Pageant Lane, Suite 404, Clarksville, TN 37042; and Robert F. Sink Library, Bldg 38, Screaming Eagle Blvd, Fort Campbell, KY 42223. Written comments or inquiries can be mailed to: Mr. Dan Etson, Building 871 Bastogne Avenue, Fort Campbell, KY 42223 or emailed to: daniel.l.etson.civ@mail.mil

Initial publication on 2020-03-03.

Public Notice ID: 25859152

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PUBLIC NOTICES

STATE OF TENNESSEE
CHANCERY COURT OF STEWART COUNTY
AT DOVER

NOTICE TO CREDITORS
ESTATE OF David Hicks, Deceased
PROBATE DOCKET NO. CH-2020-PR-557

Notice is hereby given that on the 20th day of February, 2020, Letters of Testamentary, in respect to the estate of David Hicks, deceased, who died on January 2, 2020 were issued to the undersigned by the Chancery Court of Stewart County, Tennessee.

All persons, resident and non-resident, having claims, matured or unmatured, against said estate are required to file same with the Clerk of this Court on or before the earlier of the dates prescribed in (1) or (2) otherwise their claims will be forever barred: (1) (A) Four (4) months from the date of the first publication of this notice if the creditor received an actual copy of this notice to creditors at least sixty (60) days before the date that is four (4) months from the date of the first publication; or (B) Sixty (60) days from the date the creditor received an actual copy of the notice to creditors if the creditor received the copy of the notice less

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than sixty (60) days prior to the date that is four (4) months from the date of first publication as described in (1) (A); or (2) Twelve (12) months from the decedents date of death.

This 20th day of February, 2020.
Sarah Owens Hicks, Executrix
Estate of David Hicks
Elizabeth Pugh
Attorney for the Estate
118 Franklin Street
Clarksville, TN 37040
Belinda J. Crutcher, DC & M
April J. Turner Clerk & Master
Insertion Dates: February 25, March 3, 2020

STATE OF TENNESSEE
CHANCERY COURT OF STEWART COUNTY
AT DOVER

NOTICE TO CREDITORS
ESTATE OF Bonnie Free, Deceased
PROBATE DOCKET NO. CH-2020-PR-556

Notice is hereby given that on the 14th day of February, 2020, Letters of Testamentary, in respect to the estate of Bonnie Free, deceased, who died on July 3, 2019 were issued to the undersigned by the Chancery Court of Stewart County, Tennessee.

All persons, resident and non-resident, having claims, matured or unmatured, against said estate are required to file same with the Clerk of this Court on or before the earlier

continued on next line

of the dates prescribed in (1) or (2) otherwise their claims will be forever barred: (1) (A) Four (4) months from the date of the first publication of this notice if the creditor received an actual copy of this notice to creditors at least sixty (60) days before the date that is four (4) months from the date of the first publication; or (B) Sixty (60) days from the date the creditor received an actual copy of the notice to creditors if the creditor received the copy of the notice less than sixty (60) days prior to the date that is four (4) months from the date of first publication as described in (1) (A); or (2) Twelve (12) months from the decedents date of death.

This 14th day of February 2020.
Cynthia Cook, Executrix
Estate of Bonnie Free
Olivia Wann
Attorney for the Estate
P.O. 539
Dover, TN 37058
(931) 232-4529
Belinda J. Crutcher, DC & M
April J. Turner Clerk & Master
Insertion Dates: February 25, March 3, 2020

PUBLIC NOTICE
Notice of Availability
Draft PEA
Cantonment Area
Master Plan
Fort Campbell, Kentucky

Beginning March 3, 2020 through April 1, 2020, the Army will accept comments on the Programmatic Environmental Assessment (PEA) for routine infrastructure projects within the Cantonment Area at Fort Campbell, Kentucky. This PEA is intended to streamline the National Environmental Policy Act (NEPA) process by analyzing the impacts of standardized operating practices for routine renovation, demolition, and construction as part of Fort Campbell's Master Plan. Alternative A (Implement All Master Plan Projects) and Alternative B (Implement Short- and Mid-Range Master Plan Projects) would not have significant impacts on the environment - indicating that a Finding of No Significant Impact (FNSI) would be appropriate. The public is invited to review documents at the following libraries: Stewart County Public Library, 102 Natcor Dr, Dover, TN 37058 and Robert F. Sink Library, Bldg 38, Screaming Eagle Blvd, Fort Campbell, KY 42223. Written comments or inquiries can be mailed to:

Mr. Dan Etson, Building 871 Bastogne Avenue, Fort Campbell, KY 42223 or emailed to: daniel.l.etson.civ@mail.mil

Insertion Date: March 3, 2020

NOTICE OF MEETING

The Stewart County Board of Education will meet in Regular Session at 7:00 P.M. on Thursday, March 12, 2020 at the Stewart County Board of Education located at 1031 Spring Street, Dover, TN 37058

Insertion Dates: March 3, March 10, 2020

PHOTO BY ALEXIS JONES

The Delinquent Tax Committee met recently to discuss putting several delinquent county- owned properties up for auction.

Delinquent Tax Committee Prices Properties for Auction

By ALEXIS JONES
Staff Writer

Eric Watkins was selected as Chair and Shane Keatts Vice Chair at the recent Delinquent Tax Sales Committee meeting. Mayor Robin Brandon mentioned the four commissioners who were selected to be on the board last year for setting current tax delinquent county-owned property at a fair sale price, were still on the board for this year. Those four are Keatts, Clint Mathis, Drue Shepherd, and Watkins. Mathis said if there wasn't an expiration on it, then he didn't see a problem with it. Brandon stated, "So it's possible that we may be able to use the same four as last year. I've listed a process for what has to happen for us to sell this property. Tonight it would be nice if we could place a fair price on each tract of land. If you look at the list of properties for sale, the first 18 properties, this is our third attempt at least to sell at auction these properties."

The 18 properties Brandon referred to in Stewart County are: Holiday Shores Unit 1, Park Drive Lot 287, beginning bid of $1,296; Loon Bay, Cherokee Trail Lot 347 beginning bid of $929; Eagles Rest Subdivision, Talon Lane Lot 243 beginning bid of $2,023; Eagles Rest Subdivision, Talon Lane Lot 244 beginning bid of $1,765; 1821 Hwy 120 beginning bid of $6,374; Loon Bay, Harbor Drive Lot 46 beginning bid of $861; Eagles Rest Subdivision, Eagle View Court Lot 148 beginning bid of $1,852; Ft. Donelson Shores, Unit 2, Lakeshore Drive Lot 69 beginning bid of $1,159; Loon Bay, Woodland Trail Lot 261 beginning bid of $1,206; Eagles Rest Subdivision, Talon Lane Lot 240 beginning bid of $1,988; Holiday Shores Unit 1 beginning bid of $962; Ft. Donelson Shores Unit 1, Hickman Shores Rd. Lot 11 beginning bid of $1,431; Villa Village, Ridgecrest Rd. Lot 123 beginning bid of $920; Eagles Rest Subdivision, Eaglet Court Lot 222 beginning bid of $1,997; Loon Bay, Cherokee Trail Lot 351 beginning bid of $878; Eagles Rest Subdivision, Talon Lane Lot 242 beginning bid of $1,834; Holiday Shores Unit 1, Forest Trail Lot 3 beginning bid of $890; and Holiday Shores Unit 1, Crestview Drive Lot 343 beginning bid of $904. According to Brandon, these properties first came up for sale at the Court House public auction in 2015.

Brandon stated, "So, we tried to sell them last year and now we're trying to sell them again this year. These first 18 are the same properties we considered last year and they didn't sell… Last year we sold ten properties and a little over $13,000 went back on the logs. We had one learning lesson though. One person did not record the deed. I received checks in the mail from all nine of the new owners, they sent me a $20 check made out to the Register of Deeds. I then had it all registered and sent to them. One property owner said they wanted to file and record the deed. I said I would be sending the deed unrecorded. They haven't refiled the deed, so it's not on the books. Here's the deal, they paid $2,000 for that property. I don't understand why they won't record it for $20. Hopefully I can convince them to record it. The reason I said all that was because in the future, I just don't see how I can allow someone to get their deed without us recording it, we will have to record it first."

Mathis asked if any of the properties would be a suitable place to put playground equipment. Brandon has recently announced every odd year Stewart County receives a grant and he wants to put a playground in each district. Brandon said the properties wouldn't really be suitable for playground equipment due to hills and hollows. Shepherd made a motion to put the starting bids at $250 on each piece of property out of the 18, other than the one on 1821 Highway 120, with a beginning bid of $6,374. The motion was approved with no discussion. Shepherd then made a motion to put $2,000 as a starting bid on the property on 1821 Highway 120. The motion was also approved by the committee.

For the other 21 properties, which has only had one attempt to sell at auction, the committee decided to set the price as what the beginning bid was already set for. Mathis made a motion to set the price as the beginning bid as what is owed against it, and the committee all agreed. The 21 properties are the following in Stewart County: Holiday Shores Unit 1, Crestview Drive Lot 341 beginning bid of $761; Holiday Shores Block 1, Lakeshore Drive Lot 620 beginning bid of $1,997; Holiday Shores Unit 3, Lakeshore Drive Lot 625 beginning bid of $1,600; 2461 Hwy. 120, Big Rock beginning bid of $9,402; Hurricane Creek Rd. beginning bid of $3,777; Holiday Shores unit 1, Volunteer Court Lot 0072 beginning bid of $990; Holiday Shores Unit 1, Volunteer Court Lot 0073 beginning bid of $1,205; Holiday Shores Unit 1, Commodore Court Lot 332 beginning bid of $969; Holiday Shores Unit 1, Hermitage Circle Lot 133 beginning bid of $798; Holiday Shores Unit 1, Hermitage Circle Lot 132 beginning bid of $3,214; Holiday Shores Unit 1, Hermitage Circle Lot 131 beginning bid of $711; Holiday Shores Unit 1, Hermitage Circle Lot 130 beginning bid of $1,006; Holiday Shores Unit 1, Hermitage Circle Lot 107 beginning bid of $785; Holiday Shores Unit 1, Hermitage Circle Lot 106 beginning bid of $785; Holiday Shores Unit 1, Hermitage Circle Lot 105 beginning bid of $785; Holiday Shores Unit 1, Hermitage Circle Lot 102 beginning bid of $985; Holiday Shores Unit 1, Hermitage Circle Lot 110 beginning bid of $926; Holiday Shores Unit 1, Hermitage Circle Lot 109 beginning bid of $942; Holiday Shores Unit 1, Hermitage Circle Lot 108 beginning bid of $924; Short Creek Rd., Short Creek Aero Marina Lot 1 beginning bid of $2,130; Holiday Shores Unit 1, Hermitage Circle Lot 164 beginning bid of $903; and Holiday Shores Unit 1, Crestview Drive Lot 340 beginning bid of $871.

UPCOMING AREA EVENTS

Here's to the Women
March 6, 3:30 pm & 6 pm
Renaissance Theater (Annex)
110 Natcor Dr. Dover, TN
Free performance on Women's Suffrage.
Artist Exhibit between the shows.

Turkey Shoot
March 7 & 14, 9 am signup, shoot time 10 am
VFW Post 4730
129 Long Creek Rd. Dover, TN
Call 931-232-6040 for info.

SC Friends of the Public Library Meeting
March 9, 5 pm
SC Public Library
102 Natcor Dr. Dover, TN
Questions call 931-232-3127

Dover Community Blood Drive
March 12, 12 pm - 5 pm
Fort Donelson UMC Fellowship Hall
420 Church St. Dover, TN
For appointments visit www.redcrossblood.org
Enter sponsor code: DoverComm19

Narcan Training
March 12, 5 pm
SC Public Library
102 Natcor Dr. Dover, TN
Free to everyone.
Every 2nd Thursday of the month.

Kady's Comedy Club
March 14
Reserve your tickets by March 8.
$12 includes dinner.
For info call 931-255-0086

Email info for event calendar by Thursday the week prior to publication to news@StewartCountyStandard.com.

STEWART COUNTY STANDARD
WEEKLY COMMUNITY NEWS

PROOF OF PUBLICATION

State of Tennessee --- Stewart County:

This day personally before me, came the undersigned, Patricia Hicks, representative of the **Stewart County Standard**, a weekly newspaper published in Dover, Tennessee, who makes oath in due form of law that the advertisement for APTIM, a copy of which has been provided, was published in said paper on 3/3/20, and the printer's fee for same is $_____

Sworn and subscribed to me this 4th day of March, 20 20.

APRIL J. TURNER
STATE OF TENNESSEE NOTARY PUBLIC
STEWART COUNTY

April J. Turner
Notary

My commission expires: Nov. 4, 2023

U.S. ARMY FORT CAMPBELL

Home of the 101st Airborne Division (Air Assault)

CLICK HERE FOR CORONAVIRUS DISEASE 2019 (COVID-19) INFORMATION - CURRENT HPCON: BRAVO

EFFECTIVE IMMEDIATELY - MASK MANDATE

ACTIVE WEATHER ALERTS:

No weather warnings or wathches.

Campbell Crossing Work Orde
931-431-3966

Housing Complaint Hotline
270-956-4728

Report issues in the barracks through the unit chain of command.

ARMY FAMILY HOUSING
HOUSING REPAIRS

ARMY HOUSING
Housing America's Soldiers and Families

NOTICE OF AVAILABILITY

Draft Environmental Assessment and Finding of No Significant Impact

Proposed Integrated Natural Resources Management Plan 2020-2025

Fort Campbell, Kentucky

U.S. Army Fort Campbell has prepared a draft Programmatic Environmental Assessment (PEA) for the proposed Fort Campbell Integrated Natural Resources Management Plan (INRMP). The PEA has been prepared to address effects of implementing the Fort Campbell INRMP 2020-2025 and all associated plans and actions. The INRMP is a five year planning document that is the primary mechanism for integrating natural resources management with the Fort Campbell military mission. The INRMP establishes goals, objectives, and standard procedures for managing natural resources on the installation.

The draft PEA has resulted in a Draft Finding of No Significant Impact (FNSI). Both documents are available for public review and comment on Fort Campbell's Environmental website in the *Public Review Documents link*. Interested persons can also request a mailed or emailed copy using the email or physical addresses below.

The public is encouraged to review and comment on these documents. Public comments must be received no later than 30 days from the publication date of this notice and can be submitted by e-mail at daniel.l.etson.civ@mail.mil, or mailed to: Mr. Dan Etson, Compliance Branch, IMCB-PWE, Public Works, Environmental Division, Building 871, Bastogne Avenue, Fort Campbell, KY 42223-5130.

NOTICE OF AVAILABILITY
Draft Programmatic Environmental Assessment:
Cantonment Area Master Plan at
Fort Campbell

U.S. Army Fort Campbell has prepared a draft Programmatic Environmental Assessment (PEA) Cantonment Area Master Plan at Fort Campbell. The PEA has been prepared to facilitate NEPA compliance for routine infrastructure projects within the Cantonment Area, which consists of eight individual Area Development Plans (ADPs) (i.e., distinct areas within the Cantonment Area) collectively referred to as the "Master Plan" in the PEA. The PEA, if implemented, would identify, document, and evaluate effects of applying standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area.

The draft PEA has resulted in a Draft Finding of No Significant Impact (FNSI). Both documents are available for public review and comment on Fort Campbell's Environmental website in the Public Review Documents link. Interested persons can also request a mailed or emailed copy using the email or physical addresses below.

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NOT E OF A A A TY
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Classifieds Get The Job Done

BUS DRIVERS NEEDED!

Christian County Public Schools are in need of Bus Drivers. Experience not necessary. Apply online at *christian.kyschools.us* and click on the Employment tab. Questions? **Call the Christian County Public Schools Transportation Department at 270-887-7099.**

AXYDLBAAXR
is LONGFELLOW

One letter stands for another. In this sample, A is used for the three L's, X for the two O's, etc. Single letters, apostrophes, the length and formation of the words are all hints. Each day the code letters are different.

7-21 **CRYPTOQUOTE**

SQHZQKXX PX PDSHXXPLRK APUYHOU NYTMZK, TMG UYHXK AYH NTMMHU NYTMZK UYKPQ DPMGX NTMMHU NYTMZK TMJUYPMZ.

— Z.L. XYTA

Yesterday's Cryptoquote: IT'S TOUGH TO MAKE PREDICTIONS, ESPECIALLY ABOUT THE FUTURE. — YOGI BERRA

SUDOKU

DIFFICULTY RATING: ★☆☆☆☆

4	2			8				7
3	5			1	7	6	2	
7				5	6			
5			1	9			3	
1		3		4		9		2
	8			7	3			1
			9	2				5
	7	2	5	3			6	4
8				6			9	3

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HOW TO PLAY: Each row, column and set of 3-by-3 boxes must contain the numbers 1 through 9 without repetition.

PREVIOUS SOLUTION

7	6	5	3	4	8	1	2	9
4	3	9	2	1	5	6	8	7
2	8	1	9	7	6	5	3	4
9	5	8	4	2	7	3	6	1
6	4	3	1	5	9	8	7	2
1	2	7	6	8	3	4	9	5
5	1	6	8	9	2	7	4	3
8	9	4	7	3	1	2	5	6
3	7	2	5	6	4	9	1	8

0107 Special Notice

JT Foundation is doing an awareness voting contest on August 17th for the Humane Society. The winner will be announced on that day. 1st place winner receives $2.3 M for society of choice. 2nd place winner will $100,000 for society of choice. Enter July 20 through August 17. Masks, sanitizer, and social distancing are required. Food & drink available. Pets allowed. Any questions call (270)889-6025 ext. 2707 and ask for Brandon Seeley.

Moving out of state in the next 30-60 days? Don't get taken for a ride! Moving APT offers a PRICE MATCH GUARANTEE and RISK FREE RESERVATIONS. Carriers are all licensed and bonded. Free quote! Call 1-844-224-2530

Need IRS Relief $10K - $125K+ Get Fresh Start or Forgiveness. Call 1-855-897-7657 Monday through Friday 7AM-5PM PST

NEW STARTING BASE PAY - .50 cpm w/ option to make .60 cpm for Class A CDL Flatbed Drivers, Excellent Benefits, Home Weekends, Call 800-648-9915 or www.boydandsons.com

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Counterfeit or fake checks are being used in a growing number of fraudulent schemes. Check overpayment scams target consumers selling cars or other valuable items through classified ads or online auction sites. Unsuspecting sellers get stuck when scammers pass off bogus cashiers checks, corporate checks, or personal checks. If you're selling something, don't accept a check for more than the selling price, no matter how tempting the offer or how convincing the story, especially if it is from an out of town buyer. Ask the buyer to write the check for the correct amount. If the buyer refuses to send the correct amount, return the check. Don't send the merchandise. If you think you've been targeted by a counterfeit check scam, report it to the Federal Trade Commission. Visit www.ftc.gov or call 1-877- FTC-HELP (1-877-382- 4357) for more details or to report suspected fraud. This is a public service announcement brought to you by this newspaper.

Portable Oxygen Concentrator May Be Covered by Medicare! Reclaim independence and mobility with the compact design and long-lasting battery of Inogen One. Free information kit! Call 844-254-2147

0107 Special Notice

Seriously Injured in an AUTO ACCIDENT? Let us fight for you! Our network has recovered millions for clients! Call today for a FREE consultation! 1-844-423-8835

Stay In your home longer with an American Standard Walk-In Bathtub. Receive up to $1,500 off, including a free toilet, and a lifetime warranty on the tub and installation! Call us at 1-877-530-1935 or visit www.walkintubquote.com/KY

Two great new offers from AT&T Wireless! Ask how to get the new iPhone 11 or Next Generation Samsung Galaxy S10e ON US with AT&T's Buy one, Give One offer. While supplies last! CALL 1-866-478-8859

Up to $15,000.00 of GUARANTEED Life Insurance! No medical exam or health questions. Cash to help pay funeral and other final expenses. Call Physicians Life Insurance Company- 844-950-2448 or visit www.Life55plus.info/kypress

Wesley Financial Group, LLC Timeshare Cancellation Experts Over $50,000,000 in timeshare debt and fees cancelled in 2019. Get free informational package and learn how to get rid of your timeshare! Free consultations. Over 450 positive reviews. Call 855-977-4979

Will do Ironing In my home. Call 270-484-9635

0135 Personals

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PETS

0470 Farm Equipment

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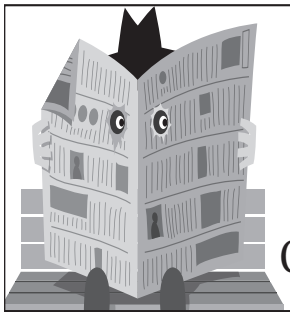

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MERCHANDISE

0554 Wanted to Rent/ Buy/Trade

Wanted - Land. 10-15 acres, $1500 per acre, in Christian/ surrounding counties. **270-348-4969**

0563 This & That

GREEN HILL MEMORIAL GARDEN
2 Cemetery plots
2 Concrete vaults
Marble marker with 2 bronze nameplates; Bronze vase in the center of marble marker. Price includes grave openings and closings. $4500.00 Being sold by an individual. **Please call Max 270-350-1410 if Interested.**

REAL ESTATE FOR RENT

0610 Unfurnished Apartments

2 Bedrooms Upstairs. Stove & Refrig. 1523 West 7th St. $450 Month. **Call 270-885-5412**

All real estate advertised in this newspaper is subject to the Federal Fair Housing Act of 1968, which makes it illegal to advertise any preference, limitation or discrimination based on race, color, religion, sex, handicap, family status or national origin, or intention to make any such preference, limitation or discrimination.
We will not knowingly accept any advertising for real estate which is in violation of the law. All persons are hereby informed that all dwellings advertised are available on an equal opportunity basis.

Bainbrook Apartments
Accepting applications for 1 bedroom apartment. We accept Section 8. There is no Rental Assistance available at this time. Onsite maintenance and laundry facilities. Visit 135 West Mill St in Crofton, KY for further details. (270) 424-8157. EHO TDD-711 **"This institution is an equal opportunity provider and employer"**

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0610 Unfurnished Apartments

Hopkinsville
1-2 Bedrooms
$395-$650. Call Sandifer Property Management & Leasing. Call 270-886-4601.

Laurel Cove
One Bedroom. Furnished or unfurnished. Utilities included. Laundry facility short or long term lease. Located at 2523 Fort Campbell Boulevard. 270-886-0712.

Christian Care Communities
NOW LEASING Chapel House/ Friendship House
Carefree living for seniors age 62 plus. Studio, one bedroom, and handicap accessible units HUD subsidized rent with ALL utilities included. Independent living with an array of services, amenities and activities.
Call Stacy @ CH 270-885-0880 Or Connie @ FH 270-885-4119 TDD# 800-545-1833 Equal Housing Opportunity

EQUAL HOUSING OPPORTUNITY

0615 Furnished Apartments

**** One Bedroom ****
Apartment Furnished. Utilities Paid. $150 Weekly. Call 270-498-9489 or 270-887-0061.

0620 Homes for Rent

1610 Colonelette Drive - Brick, 2BR, 1BA $600/mo, $600/dep. Appl. furnished; utilities not furnished; fenced back yard; Verifiable wage income. Call or text 931-237-7561

Hopkinsville
Houses For Rent
$550 to $900 a month. Call Sandifer Property Management & Leasing. 270-886-4601.

REAL ESTATE FOR SALE

0734 Lots & Acreage

Property For Sale 11825 Lafayette Rd. Herndon Ky. 42236. 4.5 acres w/office space. **Please contact David 270-886-0141 or Eston 270-886-5191.**

LEGALS

0955 Legals

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1276 Roofing

Hopkinsville
Schamp Roofing
Work guaranteed. Free Estimates. 270-269-2306

DRIVE AWAY WITH A BARGAIN IN THE CLASSIFIEDS

NOTICE OF AVAILABILITY
Draft Programmatic Environmental Assessment: Cantonment Area Master Plan at Fort Campbell

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CROSSWORD

By THOMAS JOSEPH

ACROSS
1 Chickens and turkeys
5 Misbehave
10 Land measure
11 Moon feature
13 Place for snorkeling
14 Nemesis of Ness
15 Banish
17 Skillet
18 Get excited
19 Country lodgings
20 Refinery supply
21 Track event
22 Spanish farewell
25 Worker with a pick
26 Soft shot in tennis
27 Saloon vessel
28 Mouse's cousin
29 Crusading king
33 Fury
34 Butt holder
35 Limited
37 Gag
38 Fragrance counter bottle
39 From the U.S.
40 Run-down
41 Deep voice

DOWN
1 Door-slamming comedy
2 Pacific, for one
3 Take by force
4 Boxing hit
5 Point a finger at
6 Packing box
7 Keg need
8 Perfect
9 Act of contrition
12 Jeremy of "The Avengers"
16 For us
21 Boxing hit
22 Floating aimlessly
23 Personal logs
24 Powerful
25 A lot of
27 Stephen King novel
29 Appraised
30 Kitchen come-on
31 Yard tools
32 Fabric workers
36 Mineral suffix

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Saturday's answer

7-20

CROSSWORD

By THOMAS JOSEPH

ACROSS
1 News article
5 End table lights
10 Copenhagen natives
12 Find darling
13 1969 Bobby Sherman hit
15 Yale student
16 Hosp. hookups
17 Farrow of film
18 Money, in slang
20 Days gone by
21 Whoop it up
22 Words of understanding
23 Astronomer Hubble
25 Hamlet
28 Kind of switch
31 Quarreling
32 "The Wind in the Willows" character
34 Pop's boy
35 Eastern "way"
36 Top card
37 1986 Billy Joel hit
40 Unaccompanied
41 Taters
42 Full of info
43 Fencing sword

DOWN
1 Loafed around
2 Suit worker
3 Whole
4 Got together
5 Statutes
6 Commotion
7 Poppas' wives
8 Commend
9 Capitol group
11 Like Bill Murray in "Ghostbusters"
14 1975 ELO hit
19 Happening
20 Wine grape
24 How corn is planted
25 New Zealand discoverer
26 Peter of "The Stunt Man"
27 Sash setting
29 Get a big head
30 Fake front
33 Tightly packed
35 Low card
38 Print units
39 Unclose, to poets

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Yesterday's answer

7-21

NOTICE OF A AILA ILIT

Save Share

Details for NOTICE OF A AILA ILIT

ul 20, 2020

N T A A A T
tP o tic i o e t l A e e t:
to e t A e te Pl t
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U. . Arm ort Campbell has prepared a draft Programmatic Environmental Assessment PEA Cantonment Area aster Plan at ort Campbell. The PEA has been prepared to facilitate NEPA compliance for routine infrastructure pro ects within the Cantonment Area, which consists of eight individual Area evelopment Plans A Ps i.e., distinct areas within the Cantonment Area collectivel referred to as the aster Plan in the PEA. The PEA, if implemented, would identif , document, and evaluate effects of appl ing standard practices for multiple aster Plan pro ects in the ort Campbell Cantonment Area.

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THE LEAF-CHRONICLE

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JANRIC CLASSIC SUDOKU

Fill in the blank cells using numbers 1 to 9. Each number can appear only once in each row, column and 3x3 block. Use logic and process elimination to solve the puzzle. The difficulty level ranges from Bronze (easiest) to Silver to Gold (hardest).

Rating: SILVER

1					7		9	3
	9			3		5		
5		4			8			6
7				2				
	6		3		1		2	
				6				8
6			5			8		2
		9		8			4	
8	7		1					9

7/21/20

Solution to 7/20/20

5	3	1	8	9	7	6	2	4
7	9	6	5	2	4	1	8	3
8	2	4	1	3	6	5	9	7
3	6	9	7	8	1	2	4	5
2	8	5	4	6	3	7	1	9
4	1	7	2	5	9	8	3	6
9	7	3	6	1	2	4	5	8
1	4	8	3	7	5	9	6	2
6	5	2	9	4	8	3	7	1

Auctions | Auctions | Auctions

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"This newspaper will not knowingly accept any advertisement for real estate which is in violation of the law. Our readers are hereby informed that all dwellings advertised in this newspaper are available on an equal opportunity basis. To complain of discrimination, call HUD Toll-free at 1-800-669-9777. For hearing impaired call 1-800-927-9275.

Your Source **Public Notices** for the latest...

Public Notices

0004288272

NOTICE OF AVAILABILITY
Draft Programmatic Environmental Assessment:
Cantonment Area Master Plan at Fort Campbell

U.S. Army Fort Campbell has prepared a draft Programmatic Environmental Assessment (PEA) Cantonment Area Master Plan at Fort Campbell. The PEA has been prepared to facilitate NEPA compliance for routine infrastructure projects within the Cantonment Area, which consists of eight individual Area Development Plans (ADPs) (i.e., distinct areas within the Cantonment Area) collectively referred to as the "Master Plan" in the PEA. The PEA, if implemented, would identify, document, and evaluate effects of applying standard practices for multiple Master Plan projects in the Fort Campbell Cantonment Area.

The draft PEA has resulted in a Draft Finding of No Significant Impact (FNSI). Both documents are available for public review and comment on Fort Campbell's Environmental website, https://home.army.mil/campbell/index.php/about/Garrison/dpw/environmental in the Public Review Documents link. Interested persons can also request a mailed or emailed copy using the email or physical addresses below.

The public is encouraged to review and comment on these documents. Public comments must be received no later than 21 days after publication of this notice and can be submitted by e-mail at daniel.j.etson.civ@mail.mil, or mailed to: Mr. Dan Etson, Compliance Branch, IMCB-PWE, Public Works, Environmental Division, Building 871, Bastogne Avenue, Fort Campbell, KY 42223-5130.

Continued from last column

0004288820

The following vehicles will be sold at auction at the following location on August 4, 2020 at 9 a.m.
495 Craft Street
1997 ford
1FMDU32P3VZB53245
unknown owner please contact me regarding this trailer 615-573-8053
The following trailer will be sold on August 4, 2020 at 9 a.m.
912 lucas lane
59n1e1428fb000466

0004289337

All Auctions will be sold online through storagetreasures.com on or after August 30, 2020, at 9:30 am. The company name and location of units is Stor-Alot Self Storage at 2021 Tiny Town Road Clarksville, Tennessee 37042. We can be reached at (931) 542-1915.

Jenkins, Scarlett UNIT # 2040H

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cars	pets
yard sales	instruments
tickets	jewelry
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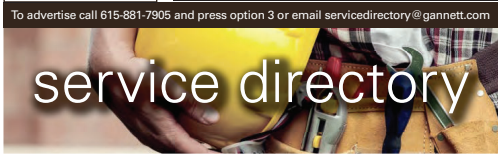
Check out the classified ads everyday.

To advertise call 615-881-7905 and press option 3 or email servicedirectory@gannett.com



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