EGLIN AIR FORCE BASE CANTONMENT AREAS
DRAFT
ENVIRONMENTAL ASSESSMENT

Prepared for:

Department of the Air Force

SEPTEMBER 2025

Privacy Advisory

This Draft Environmental Assessment (EA) has been provided for public comment in accordance with the National Environmental Policy Act which provides an opportunity for public input on United States Department of the Air Force (DAF) decision-making, allows the public to offer input on alternative ways for DAF to accomplish what it is proposing, and solicits comments on DAF's analysis of environmental effects.

Public input allows DAF to make better-informed decisions. Letters or other written or verbal comments provided may be published in this EA. Providing personal information is voluntary. Private addresses will be compiled to develop a stakeholders inventory. However, only the names of the individuals making comments and specific comments will be disclosed. Personal information, home addresses, telephone numbers, and e-mail addresses will not be published in this EA.

Section 508 of the Rehabilitation Act of 1973

The digital version of this EA complies with Section 508 of the Rehabilitation Act of 1973 because assistive technology (e.g., "screen readers") can be used to help the disabled to understand these electronic media. Accessibility may be limited to a descriptive title for each item because of the nature of graphics, figures, tables, and images in the document.

COVER SHEET
EGLIN AIR FORCE BASE CANTONMENT AREAS ENVIRONMENTAL ASSESSMENT
EGLIN AIR FORCE BASE, FLORIDA

a. *Responsible Agency*: Department of the Air Force (DAF)

b. *Cooperating Agency*: None

c. *Proposals and Actions:* This Environmental Assessment (EA) analyzes the Proposed Action and Alternatives (Proposed Action) to implement construction and development projects over the next 5 to 7 years within five cantonment areas at Eglin Air Force Base (AFB), Florida (Eglin Main Base [including the Jackson Guard Natural Resources Compound], Camp Rudder, Camp Bull Simons, Duke Field, and Site C-6). The Proposed Action would enable the DAF, Eglin AFB, and mission partners to provide facilities and infrastructure that meet current DoD criteria and support ongoing and future mission, security, and operational requirements.

d. *For Additional Information*: Ms. Ilka Cole, Eglin AFB Public Affairs, 850-882-2936 or 96CEG.CEIEA.NEPAPublicComments@us.af.mil.

e. *Designation:* Draft EA

f. *Abstract:* This EA has been prepared pursuant to provisions of the National Environmental Policy Act (NEPA) (Title 42 U.S. Code §§ 4321-4347), as amended by Public Law 30 118-5, Fiscal Responsibility Act of 2023 (42 United States Code 4321 et seq.).

The purpose of the Proposed Action is to provide facilities and infrastructure at Eglin AFB identified or recommended in the current Installation Development Plan and District Plans that meet current DoD and DAF criteria and support ongoing and future security, mission, and operational requirements. The Proposed Action is needed to provide and maintain facilities and infrastructure at Eglin AFB that support DAF mission requirements and the quality of life for DoD and civilian personnel hosted by the installation; meet applicable DoD installation master planning criteria, consistent with Unified Facilities Criteria 2-100-01, *Installation Master Planning*, DAF Air Force Instruction 32-1015, *Integrated Installation Planning*, and Air Force Policy Directive 32-10, *Installations and Facilities*; and comply with applicable federal, state, local, and DoD laws and regulations.

The Proposed Action could include but would not be limited to construction and operation of new facilities, structures, and infrastructure; renovation of existing facilities, structures, and infrastructure; construction of parking areas, pedestrian sidewalks, and other impervious surface; reconfiguration of roadways, taxiways, and associated infrastructure; demolition of existing facilities, structures, and infrastructure; and associated site preparation activities. The Proposed Action would be implemented within the existing boundaries of the five Eglin AFB cantonment areas. No modifications of those boundaries, or of the overall Eglin AFB installation boundary, are proposed. The Proposed Action does not include and would not involve changes or modifications to the number of military or civilian personnel or dependents working and living at Eglin AFB; the number or types of aircraft operating at the base; the number or types of flight operations occurring at Eglin AFB; or the boundaries or uses of overland or offshore airspace managed by Eglin AFB. Additional environmental analysis would be conducted for individual projects in accordance with NEPA as site-specific plans for the types of conceptualized projects analyzed in the EA are refined by project proponents in the future.

The EA analyzes two alternatives for implementing the Proposed Action (Alternative 1 and Alternative 2). The DAF has identified Alternative 1 as the Preferred Alternative. Based on the analysis of the affected environment and potential environmental consequences presented in the Draft EA, Alternative 1 (Preferred Alternative) and Alternative 2 would have no significant adverse impacts on environmental resources in the region of influence.

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ABBREVIATIONS AND ACRONYMS

20 SPSS	20th Space Surveillance Squadron
6 RTB	6th Ranger Training Battalion
7 SFG(A)	7th Special Forces Group (Airborne)
96 TW	96th Test Wing
ACAM	Air Conformity Applicability Model
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ADP	Area Development Plan
AF	Air Force
AFB	Air Force Base
AFH	Air Force Handbook
AFI	Air Force Instruction
AFOSH	Air Force Occupational Safety and Health
AFPD	Air Force Policy Directive
AICUZ	Air Installations Compatible Use Zone
AMTC	Advanced Munitions Training Complex
APE	Area of Potential Effect
APZ	accident potential zone
AQCR	Air Quality Control Regions
ASUS	American States Utility Services
AT/FP	Antiterrorism and Force Protection
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
C&D	construction and demolition
CAA	Clean Air Act
CATEX	Categorical Exclusion
CEG	Civil Engineer Group
CEIEA	Civil Engineer Group/Environmental Assets
CEG/IEC	Civil Engineer Group/Environmental Compliance
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGP	Construction Generic Permit
CH_4	methane
CHELCO	Choctawhatchee Electric Cooperative
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
CWA	Clean Water Act
CZ	clear zone

CZMA	Coastal Zone Management Act
DAF	Department of the Air Force
DAFI	Department of the Air Force Instruction
DAFMAN	Department of the Air Force Manual
dB	decibels
dBA	A-weighted decibels
DERP	Defense Environmental Restoration Program
DNL	Day-Night Level
DPS	distinct population segment
E.O.	Executive order
EA	Environmental Assessment
ECUS	Emerald Coast Utility Services
EIS	Environmental Impact Statement
EPO	Environmental Planning Office
ERP	Environmental Resource Permit
ESA	Endangered Species Act
ESQD	Explosive Safety Quantity Distance
FAC	Florida Administrative Code
FCMP	Florida Coastal Management Program
FDEP	Florida Department of Environmental Protection
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FWC	Fish and Wildlife Commission
GHG	greenhouse gases
GPD	gallons per day
GWP	Global Warming Potential
HWMP	Hazardous Waste Management Plan
IDP	Installation Development Plan
INRMP	Integrated Natural Resource Management Plan
IRP	Installation Restoration Program
ISWMP	Integrated Solid Waste Management Plan
LBP	lead-based paint
LOD	limit of disturbance
LRR	Land Resource Region
LUC	land use control
MBTA	Migratory Bird Treaty Act
MGD	million gallons per day
MLRA	Major Land Resource Areas
MMRP	Military Munitions Response Program
MSA	munitions storage area

MSL	mean sea level
MSW	municipal solid waste
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOx	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRO	Natural Resources Office
NWI	National Wetland Inventory
O_3	ozone
OFW	Outstanding Florida Waters
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyl
PM_{10}	particulates equal to or less than 10 microns in diameter
$PM_{2.5}$	particulates equal to or less than 2.5 microns in diameter
PPE	personal protective equipment
PSD	Prevention of Significant Deterioration
RANSS	Range Support Squadron
RCRA	Resource Conservation and Recovery Act
RCW	red-cockaded woodpecker
ROI	region of influence
SE	Systems Engineering
SF	square feet
SFHA	Special Flood Hazard Areas
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasures Plan
SWESCP	Stormwater, Erosion, and Sedimentation Control Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
tpy	tons per year
TSCA	Toxic Substances Control Act
U.S.C.	U.S. Code
UFC	Unified Facilities Criteria

USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UXO	unexploded ordnance
VOC	volatile organic compound
WGA	Western Governors Association
WRF	water reclamation facility
WWTP	wastewater treatment plant

CHAPTER 1 PURPOSE OF AND NEED FOR ACTION

1.1 Introduction

The Department of the Air Force (DAF) prepared this Environmental Assessment (EA) to evaluate the potential environmental consequences from the Proposed Action and Alternatives (Proposed Action) to implement construction and development projects over the next 5 to 7 years in five cantonment areas on Eglin Air Force Base (AFB), Florida. Eglin AFB covers more than 724 square miles of land on the Florida Panhandle within portions of Okaloosa, Santa Rosa, and Walton Counties **(Figure 1.1-1)**. The Proposed Action would enable the DAF, Eglin AFB, and Eglin AFB mission partners to provide facilities and infrastructure that meet current DoD criteria and support ongoing and future mission, security, and operational requirements. A small portion of Eglin AFB within Gulf County, Florida, would not be affected by the Proposed Action and is not discussed further in this EA.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [U.S.C.] §§ 4321 - 4347, as amended). The requirements of other federal, state, and local regulations are also addressed in this EA, as applicable.

1.1.1 Eglin Air Force Base

Eglin AFB was originally established in 1935 as the Valparaiso Bombing and Gunnery Base on 1,460 acres and is today one of the largest DAF bases in the United States (Eglin AFB, n.d.). In addition to its land area, the base includes more than 120,000 square miles of airspace over the Gulf of America known as the Eglin Gulf Test and Training Range, which is part of the overall Eglin Test and Training Complex. (The scope of the Proposed Action evaluated in this EA does not involve establishment of new airspace or modification of existing airspace managed and operated by Eglin AFB. Therefore, the Eglin Gulf Test and Training Range and overland airspace operated and managed by Eglin AFB are not addressed further in this EA.) The primary mission of Eglin AFB is to support research and development of conventional weapons and electronic systems as well as individual and joint training of operational units. Eglin AFB is a national asset of the Air Force Materiel Command headquartered at Wright-Patterson AFB, Ohio, and the Air Force Test Center headquartered at Edwards AFB, California. Eglin AFB is also one of several DoD installations comprising the congressionally established Major Range and Test Facility Base. Approximately 20,000 military and civilian personnel are assigned to Eglin AFB (Eglin AFB, 2022a).

Figure 1.1-1 Location of Eglin AFB and Cantonment Areas

The DAF's 96th Test Wing (96 TW) serves as the host wing for Eglin AFB, and the 96 TW Commander serves as the installation commander and Range Authority. The 96 TW is the test and evaluation center for air-delivered weapons, navigation and guidance systems, Command and Control systems, and Air Force Special Operations Command systems. The 96 TW performs development, testing, and evaluation across the complete system life cycle for a wide variety of customers, including Air Force Systems Program Offices, Air Force Research Laboratory, logistics and product centers, Major Commands, other DoD services and U.S. government agencies, foreign military sales, and private industry. As the host wing, the 96 TW supports Eglin AFB with traditional military services, civil engineering, personnel, logistics, communications, computer, medical, security, and all other host services and base operating support functions. These services and support are provided for nine wings and wing equivalents, 11 operating locations and detachments, and more than 35 associate units. The 96 TW operates, maintains, or otherwise supports more than 3,200 facilities containing 11.6 million square feet (SF) of space at Eglin AFB (Eglin AFB, 2022a).

1.1.2 Cantonment Areas and Installation Development Planning

Five distinct areas of development on Eglin AFB, referred to as cantonment areas, are addressed in this EA: Eglin Main Base, Camp Rudder, Camp Bull Simons, Duke Field, and Site C-6 (**Figure 1.1-1**). Each cantonment area is located with a secure, access-controlled perimeter, and each contains similar or related patterns of development, buildings, structures, pavements, and other facilities and infrastructure. Characteristics of these cantonment areas are briefly described in **Table 1.1-1**. Detailed views of each cantonment area are shown on **Figure 1.1-2** through **Figure 1.1-6**.

Although the Jackson Guard Natural Resources Compound (referred to as "Jackson Guard" in this EA) is not a defined cantonment area on Eglin AFB, it is described separately in **Table 1.1-1** for ease of reference. Throughout this EA, descriptions of existing and proposed future conditions at Jackson Guard are incorporated into discussions of Eglin Main Base.

Generally, the cantonment areas are widely distributed throughout Eglin AFB and collectively total approximately 14,026 acres, or about 3 percent of the total land area at the base. The cantonment areas are connected by and accessed via paved roads, and all are served with electrical, communications/data, water, and sewer utilities. Lands on Eglin AFB between each of the cantonment areas generally consist of testing and training ranges or undeveloped areas that are managed by Eglin AFB for the importance or value of their natural resources. (Management actions and other proposed activities in these areas are evaluated as needed in NEPA documentation prepared separately from this EA.)

Table 1.1-1 Summary of Eglin AFB Cantonment Areas

Cantonment Area	Approximate Area (acres)	Description
Eglin Main Base **(Figure 1.1-2)**	11,265	Eglin Main Base contains a variety of uses and mission partners, including headquarters and support functions, administrative office spaces, test and evaluation, training, laboratories, dormitories, community support and service functions, aircraft runways, taxiways, and support facilities, and recreation. Eglin Main Base is subdivided into nine distinct planning districts: Downtown, Bayou Park, Bayside, Flightline, Boomtown, Tom's Creek, Fightertown, Westside, and Pinchot. Approximately 6,528 acres on Eglin Main Base are developed and 4,737 acres are undeveloped.
Jackson Guard [1] **(Figure 1.1-2)**	14	Jackson Guard is the home of the Eglin AFB Natural Resources Office (NRO). The NRO's mission is management of natural resources in support of the military mission within the land and water ranges at Eglin AFB. The NRO is responsible for integrating and prioritizing wildlife, fire, and forest management to protect and effectively manage the complex's aquatic and terrestrial environments and ensuring "no net loss" in the operational capability of these strategic priorities. Facilities at Jackson Guard include administrative/office buildings, vehicle and equipment maintenance and storage buildings, and indoor and outdoor storage areas. Approximately 4.72 acres of Jackson Guard are developed, while the remaining 9.28 acres are undeveloped. Jackson Guard is approximately 2.3 miles north of Eglin Main Base in Niceville.
Camp Rudder **(Figure 1.1-5)**	287	Camp Rudder is home to the U.S. Army's 6th Ranger Training Battalion (6 RTB). The 6 RTB conducts approximately 11 classes per year and exposes students to tactical operations in a coastal swamp environment, including the third and final phase of U.S. Army Ranger Training. Camp Rudder includes administrative and operational facilities, barracks, indoor and outdoor training facilities, indoor and outdoor storage facilities, recreational facilities, and other buildings, structures, and infrastructure that support the mission of the 6 RTB. Approximately 87 acres on Camp Rudder are developed and 200 acres are undeveloped. Camp Rudder is located approximately 14 miles northwest of Eglin Main Base.
Camp Bull Simons **(Figure 1.1-4)**	500	Camp Bull Simons is used by the 7th Special Forces Group (Airborne) (7 SFG(A)), which is part of the U.S. Army Special Forces Command. The mission of the 7 SFG(A) is to organize, equip, train, validate, and prepare forces for deployment to conduct worldwide special operations. The camp includes barracks, operations and administrative facilities, dining facilities, training facilities, motor pools, indoor and outdoor storage facilities, and other buildings, structures, infrastructure, and facilities that support the mission of the 7 SFG(A). Approximately 306 acres of the camp are developed and 194 acres are undeveloped. Camp Bull Simons is approximately 12 miles northwest of Eglin Main Base.

Table 1.1-1 Summary of Eglin AFB Cantonment Areas

Cantonment Area	Approximate Area (acres)	Description
Duke Field **(Figure 1.1-3)**	1,946	Duke Field is a self-contained airfield that is home to the 919th Special Operations Wing and 413th Flight Test Squadron. The mission of the 919th Special Operations Wing is to provide operations and maintenance personnel to support the nonstandard aviation, foreign internal defense, and combat aviation advisor programs for the Air Force Special Operations Command. The 413th Flight Test Squadron specializes in new aircraft acquisition developmental testing. Facilities at Duke Field include aircraft runways, taxiways, aprons, hangars, and support buildings, administrative and operational buildings, roads, and utility infrastructure. Approximately 1,464 acres of Duke Field are developed and 482 acres are undeveloped. Duke Field is approximately 12 miles north of Eglin Main Base.
Site C-6 **(Figure 1.1-6)**	14	Site C-6 hosts the 20th Space Surveillance Squadron (20 SPSS). The 20 SPSS operates a radar that can track near-earth and deep-space objects for space situational awareness. Buildings and structures at Site C-6 include the radar facility, aboveground fuel tanks, and storage and support buildings. The entirety of the Site C-6 cantonment area (14 acres) is developed or otherwise previously disturbed; no undeveloped or undisturbed land is present. Site C-6 is approximately 17 miles east of Eglin Main Base.
Total	**14,026**	

Notes:
[1] Jackson Guard is not a defined cantonment area at Eglin AFB but is described separately here for ease of reference. Descriptions of existing and proposed future conditions at Jackson Guard are incorporated into discussions of Eglin Main Base in this EA.

Installation development is a nearly continuous process at Eglin AFB, given its large military and civilian workforce, the presence of multiple tenants, associate units, and mission partners, ongoing developmental, testing, evaluation, and training activities, rapidly emerging technology, and changing mission requirements. The Eglin AFB Installation Development Plan (IDP) underwent a major update in 2017 and is now maintained through routine, ongoing updates via the Comprehensive Planning Platform developed by the Air Force Civil Engineer Center. The IDP serves as a guidance document for future development decisions and assists Eglin AFB personnel in meeting DAF goals for mission capability, sustainability, readiness, and modernization. The Eglin AFB IDP is prepared and updated in accordance with Unified Facilities Criteria (UFC) 2-100-01, *Installation Master Planning*; DAF Instruction (DAFI) 32-1015 *Integrated Installation Planning*; and Air Force Policy Directive (AFPD) 32-10, *Installations and Facilities*.

Figure 1.1-2 Eglin Main Base Cantonment Area (including Jackson Guard)

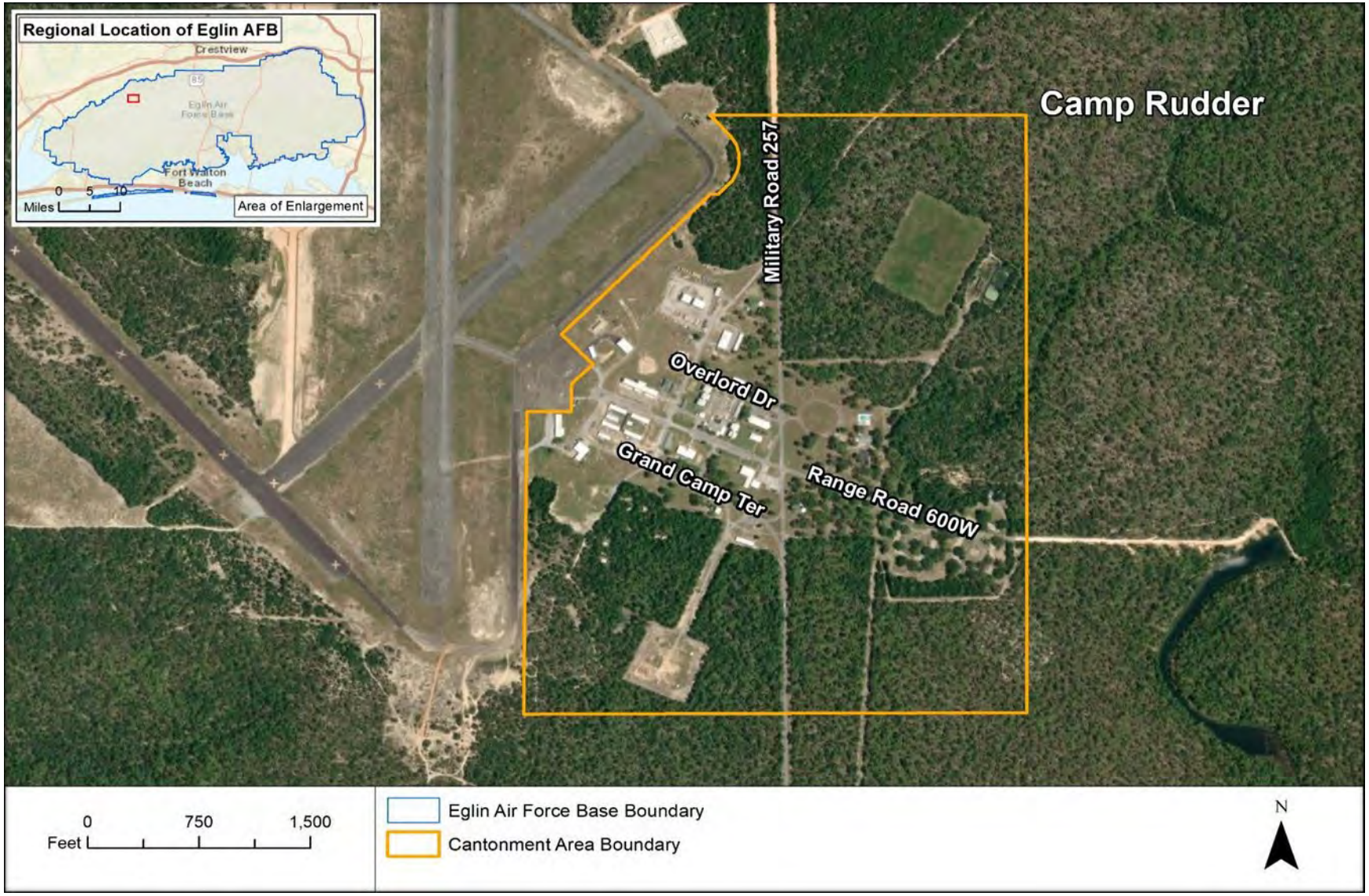

Figure 1.1-3 Camp Rudder Cantonment Area

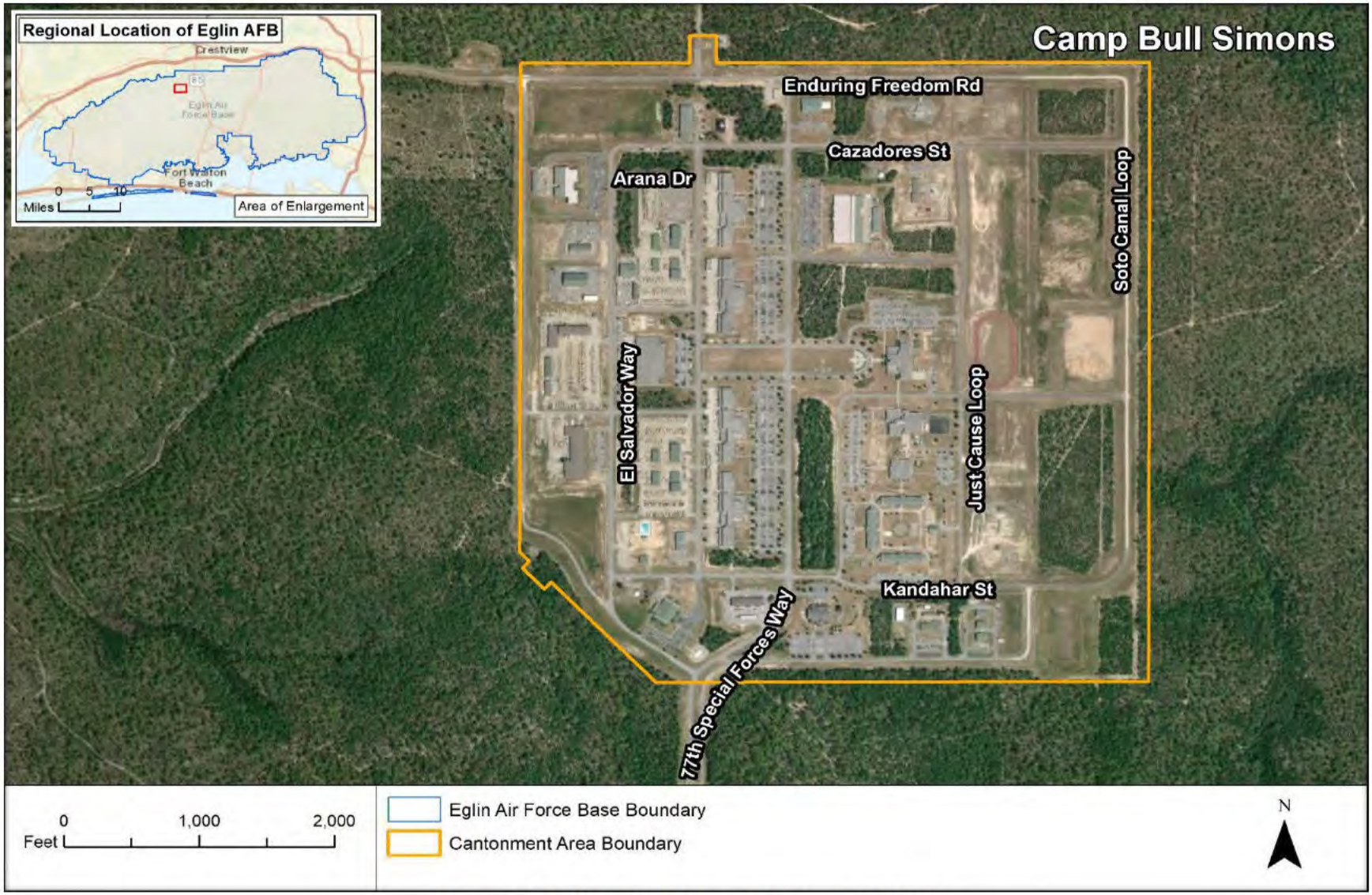

Figure 1.1-4 Camp Bull Simons Cantonment Area

Figure 1.1-5 Duke Field Cantonment Area

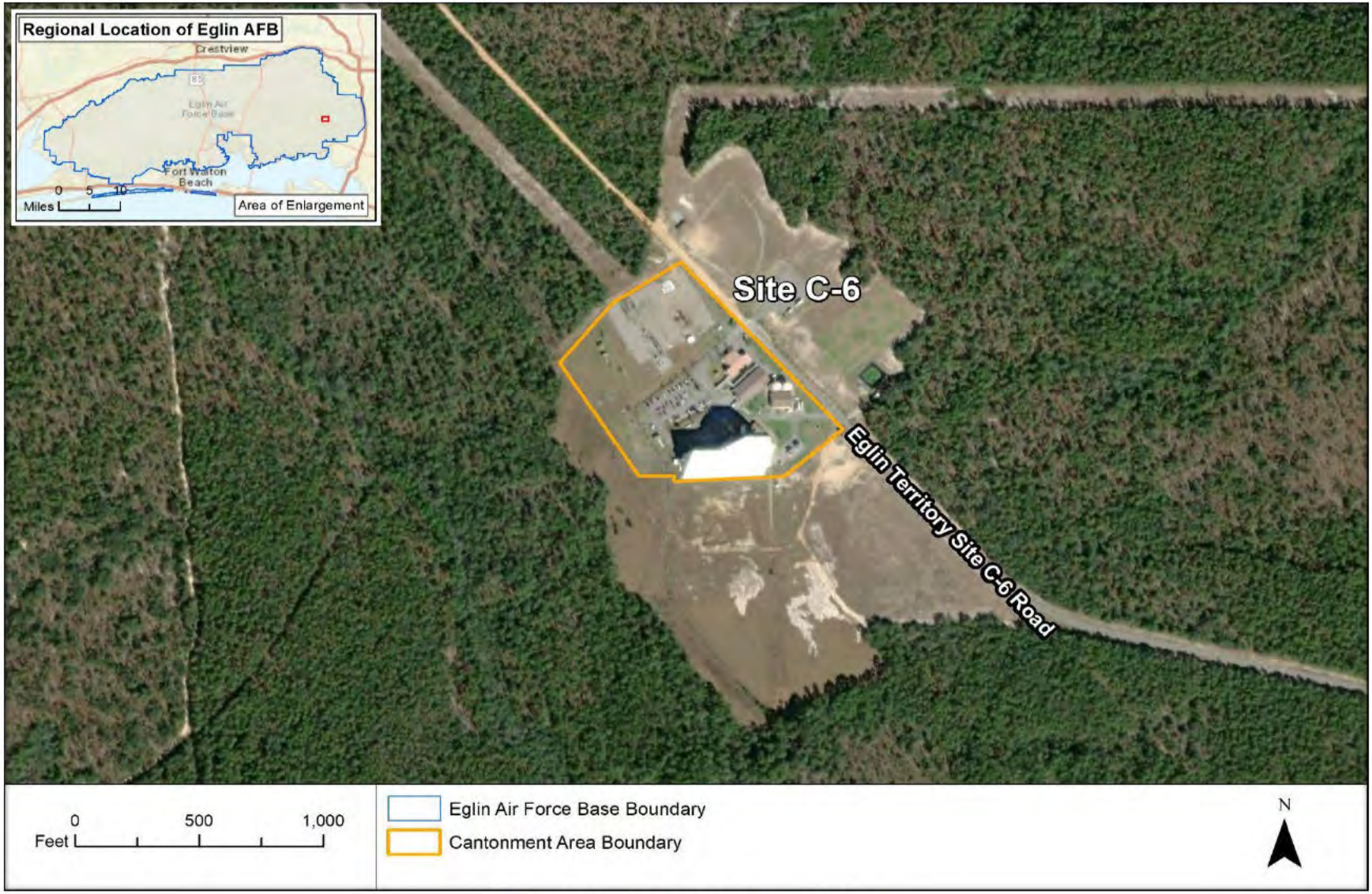

Figure 1.1-6 Site C-6 Cantonment Area

In addition to the Eglin AFB IDP, District Plans are prepared and maintained for specific areas and districts on the base. Each District Plan focuses on the conceptual planning and design of a given area within the installation and establishes a framework for future development through consideration of mission requirements, physical conditions, constraints, opportunities for development, and aesthetic qualities. Development projects include military construction, demolition, and renovation and repair of existing facilities, as well as other proposed activities such as transportation, infrastructure, and landscape improvements.

Eglin AFB personnel evaluate potential impacts from proposed installation development projects at the programmatic level of analysis. This programmatic approach is in accordance with direction provided by Headquarters Air Force, Logistics, Engineering and Force Protection – Civil Engineering Directorate to execute overarching "fence-to-fence" NEPA documentation as part of base comprehensive planning in the Environmental Impact Assessment Process Improvement Initiative memorandum dated November 30, 2010. The analysis of potential impacts resulting from implementation of proposed development projects within the Eglin AFB cantonment areas was previously documented in the 2020 *Eglin Air Force Base Cantonment Areas Final Environmental Assessment* (2020 Final EA) (USACE, 2020). The 2020 Final EA analyzed development anticipated to occur within the next 5 to 10 years; this EA serves as an update to the 2020 Final EA. Development that has occurred at Eglin AFB since the Finding of No Significant Impact (FONSI) was signed for the 2020 Final EA is incorporated into the discussion of the affected environment (baseline or existing conditions) for each environmental resource presented in **Chapter 3**.

Like the 2020 Final EA, this EA is intended to provide a "fence-to-fence" analysis of potential impacts from proposed development anticipated to occur in the cantonment areas in the next 5 to 7 years. Given the breadth of units, facilities, and operations within each cantonment area and the continuously evolving mission needs and requirements, proposed development is evaluated at a programmatic rather than site-specific level of analysis in this EA based on estimated levels of disturbance from activities such as site preparation, construction of new facilities, new impervious surface, and facility demolitions. Eglin AFB personnel would conduct additional environmental analysis for each project in accordance with NEPA as project proponents further refine the site-specific plans for the types of conceptualized projects analyzed in this EA in the future.

1.2 Purpose of the Proposed Action

The purpose of the Proposed Action is to provide facilities and infrastructure at Eglin AFB as identified or recommended in the current IDP and District Plans that meet current DoD and DAF criteria and support ongoing and future security, mission, and operational requirements. Evaluating potential impacts from proposed projects at the programmatic level of analysis presented in this EA will establish thresholds for comparison of impacts from site-specific projects in the future and reduce the time needed to complete applicable environmental compliance processes for such projects, including NEPA.

1.3 Need for the Proposed Action

The Proposed Action is needed to provide and maintain facilities and infrastructure at Eglin AFB that:

- Support DAF mission requirements and the quality of life of DoD and civilian personnel hosted by the installation.
- Meet applicable DoD installation master planning criteria, consistent with UFC 2-100-01, *Installation Master Planning*; DAFI 32-1015 *Integrated Installation Planning*; and AFPD 32-10, *Installations and Facilities.*
- Comply with applicable federal, state, local, and DoD laws and regulations, including the Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Clean Water Act (CWA), Clean Air Act (CAA), Resource Conservation and Recovery Act (RCRA), and Migratory Bird Treaty Act (MBTA). Additional information on resource-specific laws and regulations is provided in **Chapter 3**.

The Proposed Action would allow for facility and infrastructure improvements to address conditions associated with intensive use, obsolescence, deterioration, and evolving mission needs. Functionality and capability of facilities and infrastructure would be ensured through an ongoing process of construction, renovation, and demolition of redundant or obsolete facilities and infrastructure. If not routinely addressed, these conditions impede Eglin AFB's ability to meet current and future mission requirements established by the DoD and DAF.

1.4 Interagency / Intergovernmental Coordination and Consultation

1.4.1 Intergovernmental, Interagency, and Stakeholder Coordination and Consultation

Per the requirements of NEPA, the Intergovernmental Cooperation Act of 1968 (42 U.S.C. § 4231[a]) and Executive Order (E.O.) 12372, Intergovernmental Review of Federal Programs (as amended by E.O. 12416), federal, state, and local agencies with jurisdiction over resources that could be affected by the Proposed Action or alternatives were notified during development of this EA. The Intergovernmental Coordination Act and E.O. 12372 require federal agencies to cooperate with and consider state and local views in implementing a federal proposal. Through the coordination process, potentially interested and affected government agencies, government representatives, elected officials, and interested parties that could be affected by the Proposed Action and alternatives were notified during development of this EA. A list of stakeholders who were notified during preparation of this EA and copies of relevant agency and intergovernmental correspondence are included in **Appendix A**.

1.4.2 Agency Consultations

Compliance with NEPA requires coordination and consultation with federal, state, and local agencies and Native American tribes to address regulatory requirements established under the NHPA (36 CFR Part 800), DoD Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, DAF Instruction 90-2002, *Interactions with Federally Recognized Tribes*, Section 7 of the

ESA (16 U.S.C. § 1531 et seq.), and other laws and regulations. These requirements are summarized below. Other regulatory requirements are addressed throughout this EA, as applicable.

1.4.2.1 Government-to-Government Consultation

The NHPA directs federal agencies to consult with federally recognized Native American tribes when a proposed action has the potential to affect tribal lands or properties of religious or cultural significance. Consistent with the NHPA, DoD Instruction 4710.02, and DAF Instruction 90-2002, the DAF has initiated government-to-government consultation with Native American tribes with cultural, historical, or religious ties to lands located within Eglin AFB. The tribal consultation process is distinct from NEPA consultation and the interagency coordination process and requires separate notification to all relevant tribes. The timelines for tribal consultation are also distinct from those of other consultations.

In fulfillment of government-to-government consultation requirements, the Draft EA and Proposed FONSI were provided to Native American tribes for a 30-business day review and comment period from June to August 2025. In an email dated July 9, 2025, the Seminole Nation of Oklahoma stated that it had no questions regarding the Proposed Action. No other comments were received during the government-to-government consultation period.

The Eglin AFB Installation Tribal Liaison Officer is the point of contact for tribal consultation. Government-to-government consultation correspondence regarding the Proposed Action is included in **Appendix A**.

1.4.2.2 Cultural Resources Guidance

Section 106 of the NHPA requires federal agencies to consider the effects of their proposed actions (or "undertakings") on historic properties and to integrate historic preservation values into their decision-making process. Federal agencies must seek to avoid, minimize, or mitigate potential adverse effects on historic properties under Section 106 (36 CFR § 800.1[a]). Section 106 also requires agencies to consult with federally recognized Native American tribes with a vested interest in the undertaking. Other federal laws protecting cultural resources include the Archaeological and Historic Preservation Act of 1960 as amended, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990.

The Section 106 consultation process is integrated into the NEPA process for the Proposed Action evaluated in this EA. The DAF is consulting with the Florida Division of Historical Resources, which serves as the State Historic Preservation Office (SHPO), regarding potential effects on historic properties from the Proposed Action. The Eglin AFB Cultural Resources Manager is the point of contact for consultation with the SHPO and Advisory Council on Historic Preservation (ACHP), as applicable.

1.4.2.3 Endangered Species Act

The ESA establishes protections for species listed as federally threatened and endangered and the ecosystems upon which those species depend. Endangered species are those in danger of extinction

throughout all, or a large portion, of their range (16 U.S.C. § 1536). Threatened species are those likely to be listed as endangered in the foreseeable future. Section 7 of the ESA prohibits federal agencies from engaging in any action that is likely to jeopardize the continued existence of federally listed endangered or threatened species or that destroys or adversely affects the critical habitat of such species. Section 9 of the ESA prohibits the take of federally listed species. "Take" as defined under the ESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The DAF did not initiate Section 7 consultation regarding the Proposed Action due to the programmatic nature of the analysis presented in this EA. However, the USFWS was notified of the preparation of the Draft EA and invited to review the EA upon request. Per a response dated July 25, 2025, the Final EA and signed FONSI will be provided to the USFWS for its records when available. Eglin AFB would initiate Section 7 consultation with USFWS as applicable for future site-specific projects in the cantonment areas that would have the potential to adversely affect federally listed species. Relevant correspondence is included in **Appendix A**.

1.5 Public Participation

The DAF sent letters to the Florida SHPO and Native American tribes in January 2025 to notify them of the Proposed Action and request consultation in compliance with Section 106 of the NHPA. These letters also requested comments on resources or issues that should be addressed in the EA. The following tribes have accepted the DAF's invitation to consult: Seminole Tribe of Florida, Seminole Nation of Oklahoma and Thlopthlocco Tribal Town. In a response dated February 10, 2025, the Muscogee Creek Nation requested additional information about the Proposed Action before they would provide comments regarding potential effects on traditional cultural properties. Agency and intergovernmental correspondence is included in **Appendix A**.

The Draft EA and Proposed FONSI are available for a 30-day public comment period. A Notice of Availability for the Draft EA and Proposed FONSI was published in the *Northwest Florida Daily News,* inviting the public to review and comment on the Draft EA during the 30-day public comment period. The Draft EA and Proposed FONSI are available on the Eglin AFB website at https://www.eglin.af.mil/About-Us/Eglin-Documents/. Local libraries provide internet access and librarians can assist in accessing these documents. Comments or inquiries on the Draft EA and Proposed FONSI should be submitted to Ms. Ilka Cole, 96th Test Wing Public Affairs, 101 West D Avenue, Room 238, Eglin Air Force Base, Florida 32542, or via e-mail at 96CEG.CEIEA.NEPAPublicComments@us.af.mil. Comments on the Draft EA will be considered in the Final EA, as applicable

The list of stakeholders who were notified and consulted regarding the Proposed Action is provided in **Appendix A**.

CHAPTER 2 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Proposed Action Alternative

The proposed construction and development projects would meet current DoD criteria and support ongoing and future mission, security, and operational requirements at Eglin AFB in accordance with the current IDP and District Plans. All projects included in the Proposed Action Alternative would be implemented within the existing boundaries of the five Eglin AFB cantonment areas (**Figure 1.1-1** through **Figure 1.1-6**). No modifications of those boundaries, or of the overall Eglin AFB installation boundary, are proposed. The Proposed Action does not include and would not involve changes or modifications to the number of military or civilian personnel or dependents working and living at Eglin AFB; the number or types of aircraft operating at the base; the number or types of flight operations occurring at Eglin AFB; or the boundaries or uses of overland or offshore airspace managed by Eglin AFB.

As needed, the proposed projects could include, but would not be limited to the following activities:

- construction and operation of new facilities, structures, and infrastructure;
- renovation of existing facilities, structures, and infrastructure;
- construction of parking areas, pedestrian sidewalks, and other impervious surface;
- reconfiguration of roadways, taxiways, and associated infrastructure;
- demolition of existing facilities, structures, and infrastructure that are redundant to proposed or recently constructed facilities, have reached the end of their service life, or are functionally obsolete; and
- associated site preparation, including vegetation clearing and removal, placement or excavation of soils, soil compaction and grading, and trenching or excavation to install underground utilities or foundational elements.

The activities listed above would pose the most likely potential to result in impacts on environmental resources and conditions on or near Eglin AFB. Therefore, these activities are grouped into five broad categories to support the programmatic level of analysis presented in this EA: total area disturbed (acres), facilities construction (including renovation of existing facilities) (SF), parking/impervious surface (acres), roads/infrastructure (acres), and demolition (SF). These categories may also be referred to as “levels of development” or “impact thresholds” throughout this EA and have the same meaning.

Proponents of the proposed projects include the DAF, 96 TW, or other current or future DAF, DoD, or federal mission partners with responsibility for facilities in the cantonment areas at Eglin AFB. As plans for site-specific projects are further refined, all proponents would submit Air Force (AF) Form 813, *Request for Environmental Impact Analysis* to the Eglin AFB Environmental Planning Office (EPO) for review. The EPO would review project information provided in AF Form 813 to evaluate potential project impacts against thresholds evaluated in this EA. Based on these reviews, the EPO would identify any additional review or documentation needed to satisfy NEPA and other

applicable environmental compliance requirements. In most instances, it is anticipated that preparation of a Categorical Exclusion would satisfy any such additional requirements, although preparation of a site- or action-specific EA or Environmental Impact Statement (EIS) could be required for proposed projects that involve activities or potential impacts not addressed in this EA.

The No Action Alternative is described in **Section 2.2**. Alternatives for implementing the Proposed Action are described in **Section 2.3** and **Section 2.4**.

2.2 No Action Alternative

Under the No Action Alternative, Eglin AFB personnel would continue to evaluate and authorize proposed construction and development projects in the five cantonment areas described in **Section 1.1.2** based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Proponents would continue to submit project-specific AF Form 813s to the EPO for review as project details are further refined. Potential impacts identified in AF Form 813 would be compared against the levels of development and impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to meet NEPA and other applicable environmental compliance requirements. Preparation of site-specific compliance documentation would substantially increase the time needed to implement individual proposed development projects at Eglin AFB, as this additional documentation would include consultation with applicable federal, state, and local agencies and Native American tribes, and review of all compliance documents by the EPO and legal office for technical and legal sufficiency.

The No Action Alternative is retained for detailed analysis in this EA in accordance with NEPA to provide a baseline for evaluation of potential impacts from the Proposed Action. Although it would not meet the DAF's purpose and need, the No Action Alternative represents a potential and viable decision if the Proposed Action is not implemented.

2.3 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the cantonment areas described in **Section 1.1.2**:

- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 SF
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 SF

The total levels of development for Alternative 1 represent the anticipated levels from projects planned or proposed to occur within the cantonment areas in the next 5 to 7 years, based on input

provided by Eglin AFB personnel to support preparation of this EA. These totals would also provide an additional margin of flexibility (approximately 25 to 30 percent for most levels of development within each cantonment area) relative to Alternative 2 to accommodate unanticipated or unforeseen construction and development (including potential facility demolitions) that could be deemed necessary in the cantonment areas based on changing mission requirements or other factors.

The anticipated levels of development within each cantonment area under Alternative 1 are summarized in **Table 2.3-1**.

Table 2.3-1 Proposed Levels of Development Under Alternative 1 (Preferred Alternative)

Cantonment Area	Total Area Disturbed (acres)	Facilities Construction (SF)	Parking / Impervious Surface (acres)	Roads / Infrastructure (acres)	Demolition (SF)
Eglin Main Base [1]	444.5	994,083	156.8	45.8	212,520
Camp Rudder	76.3	158,685	21.3	22.5	8,168
Camp Bull Simons	47.1	250,000	5	5	13,979
Duke Field	251.1	528,206	97.5	28.8	31,171
Site C-6	5	12,605	1.3	0	630
Total	**824**	**1,943,579**	**281.9**	**102.1**	**266,468**

Notes:
[1] Includes proposed levels of development for Jackson Guard.

Under Alternative 1, proponents would submit project-specific AF Form 813s to the EPO for review as project details are further refined in the future. Potential impacts identified in AF Form 813 would be compared against the levels of development summarized in **Table 2.3-1**. Once these levels of development are met, proponents would be required to prepare the appropriate level of documentation for each site-specific project to meet NEPA and other applicable environmental compliance requirements. This documentation would be required until new levels of development are established in a future NEPA document programmatically evaluating potential impacts from proposed construction and development projects in the cantonment areas.

Generally, proposed construction and development in the cantonment areas under Alternative 1 would primarily occur within previously developed, disturbed, or otherwise urbanized areas. Development within wetlands, floodplains, extensively vegetated areas, areas providing noteworthy or unique wildlife habitat, or other potentially sensitive environmental areas would be avoided or minimized to the extent feasible. Proposed activities in wetlands or floodplains would be limited to continuation of necessary routine maintenance already occurring in those areas, including maintenance of landscaping in airfield safety buffers, which is required to maintain safety for aircraft; maintenance of existing fence lines and utility rights-of-way, which are already present in some wetland and floodplain areas; and similar activities. All proposed projects would be implemented in accordance with applicable requirements of the Eglin AFB *Integrated Natural Resources Management Plan* (INRMP) (Eglin AFB, 2024a), *Integrated Cultural Resources Management Plan* (Eglin AFB, 2024b), and other approved management plans, policies, and procedures to avoid or minimize potential impacts on environmental resources, including wildlife, habitat, wetlands, floodplains, and historic properties.

The types of construction and development that could occur in the Eglin AFB cantonment areas over the next 5 to 7 years are described in the following sections.

2.3.1 Eglin Main Base Proposed Construction and Development Projects

The goal of future development proposed for Eglin Main Base is to provide logical solutions for development issues and concerns while maximizing efficiency and striking a balance between operational needs and the natural environment. Future development on Eglin Main Base under the Proposed Action could include construction of new facilities, renovation of existing facilities, demolition of outdated or obsolete facilities, improvements to airfield and transportation infrastructure, parking, facility renovation and maintenance, and similar activities. Proposed development at Jackson Guard may include refurbishments and upgrades to existing facilities, construction of new facilities, and demolition of infrastructure. Areas of proposed development at Jackson Guard under Alternative 1 are included in totals shown for Eglin Main Base in **Table 2.3-1**.

2.3.2 Camp Rudder Proposed Construction and Development Projects

The goal of proposed development at Camp Rudder is to ensure that facilities will accommodate quality training for U.S. Army Ranger Training School students. Proposed development projects on Camp Rudder under Alternative 1 reflect an anticipated increase in use of the site; projects could include construction or renovation of multi-purpose facilities, approved Ranger recreational facilities, and maintenance and storage facilities; construction or renovation of barracks that would temporarily house soldiers training at Camp Rudder; and infrastructure improvements.

2.3.3 Camp Bull Simons Proposed Construction and Development Projects

Goals of proposed development projects at Camp Bull Simons under Alternative 1 include enhancing mission readiness, maintaining security and the low visibility of cantonment operations, implementing sustainable design, and enhancing the quality of life for military and civilian personnel assigned to this cantonment area. Development proposed under Alternative 1 could include construction and renovation of approved 7 SFG(A) recreational facilities, operational support facilities, security improvements, and improvements to transportation infrastructure.

2.3.4 Duke Field Proposed Construction and Development Projects

The goal of development on Duke Field is to maximize efficiency and create a balance between operational needs and the natural environment while supporting readiness posture and missions. Proposed development at Duke Field under Alternative 1 could include airfield improvements, facilities construction and renovation, improvements to transportation infrastructure, and demolition projects.

2.3.5 Site C-6 Proposed Construction and Development Projects

Proposed development in the Site C-6 cantonment area under Alternative 1 could include renovation and maintenance projects, infrastructure improvements, and demolition of existing

facilities and structures. No new construction projects are proposed at Site C-6 under Alternative 1.

2.4 Alternative 2 – Reduced Levels of Development

Under Alternative 2, Eglin AFB personnel would evaluate and authorize the following levels of development for proposed construction and development projects in the cantonment areas described in **Section 1.1.2**:

- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 SF
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 SF

Alternative 2 would generally include the same types of proposed construction and development described for Alternative 1 **(Section 2.3)**. The development totals included in Alternative 2 would account for proposed construction and development projects that could be implemented in the cantonment areas in the next 5 to 7 years. However, relative to Alternative 1, these totals would provide a smaller margin of flexibility to accommodate unanticipated or unforeseen construction and development that could be determined necessary based on changing mission requirements or other factors. Proposed levels of development within each cantonment area under Alternative 2 are summarized in **Table 2.4-1**.

Table 2.4-1 Proposed Levels of Development Under Alternative 2

Cantonment Area	Total Area Disturbed (acres)	Facilities Construction (SF)	Parking / Impervious Surface (acres)	Roads / Infrastructure (acres)	Demolition (SF)
Eglin Main Base[1]	355.6	795,266	125.4	36.6	170,016
Camp Rudder	61.0	126,948	17.0	18.0	6,534
Camp Bull Simons	37.7	106,729	4.0	4.0	11,183
Duke Field	200.9	422,565	78.0	23.0	24,937
Site C-6	4.0	10,084	1.0	0	504
Total	**659.2**	**1,461,592**	**225.4**	**81.6**	**213,174**

Notes:
[1] Includes proposed levels of development for Jackson Guard.

Under Alternative 2, proponents would submit project-specific AF Form 813s to the EPO for review as project details are further refined in the future. Potential impacts identified in AF Form 813 would be compared against the levels of development summarized in **Table 2.4-1**. Once these levels of development are met, proponents would be required to prepare the appropriate level of documentation (EA or EIS) for each site-specific project to meet NEPA and other applicable environmental compliance requirements. This documentation would be required until new levels of development are established in a future NEPA document programmatically evaluating potential

impacts from construction and development projects in each cantonment area. All other details regarding Alternative 2 would be the same as those described for Alternative 1 **(Section 2.3)**.

2.5 Alternatives Eliminated

The DAF initially considered analyzing other alternatives for implementing the Proposed Action in this EA. However, it was determined that those alternatives would not meet the purpose and need, and they were eliminated from further analysis in accordance with NEPA. Alternatives considered but eliminated from further analysis are briefly described in the following sections.

2.5.1 Project- and Site-specific Alternatives

The evaluation of individual project- or site-specific alternatives is not feasible or practicable at the programmatic level of analysis presented in this EA. Such alternatives would be identified in AF Form 813s submitted by proponents of individual projects in each cantonment area and considered during the Eglin AFB EPO review process to satisfy applicable NEPA and associated environmental compliance requirements. Generally, project- and site-specific alternatives described in AF Form 813s for individual proposed projects would be those identified and vetted for potential implementation through the IDP and District Plan processes, which would include consideration of proponent requirements and applicable operational, security, safety, and environmental constraints. Therefore, site- and project-specific alternatives were eliminated from detailed analysis in this EA.

2.5.2 Other Levels of Development

This EA evaluates alternatives that include all planned and proposed development that could occur at Eglin AFB in the next 5 to 7 years with additional margins of flexibility to accommodate unanticipated or unforeseen construction and development that could be determined necessary during that timeframe. These levels of development are based on the expertise and input of Eglin AFB cantonment area representatives, facility planners, environmental personnel, and other base planning staff. The inclusion of other alternatives with larger or smaller levels of development would be arbitrary and speculative because levels of development included in Alternative 1 and Alternative 2 are considered sufficient to accommodate all potential development as well as unforeseen or unidentified development that could be determined necessary in the next 5 to 7 years. Therefore, other alternatives with larger or smaller levels of development were dismissed from detailed analysis in this EA.

2.6 Permits, Licenses, and Other Authorizations

Table 2.6-1 summarizes permits, licenses, and other authorizations that could be required before the proposed projects could be implemented at Eglin AFB. Generally, fulfilling these requirements would be in addition to or outside of compliance with NEPA and would be required before implementation of a proposed project. Not all requirements listed in **Table 2.6-1** would apply to all proposed projects at Eglin AFB. The permits, licenses, and other authorizations listed in **Table 2.6-1** are representative and are not intended to be a comprehensive listing; other applicable

requirements could be identified through the project planning or agency coordination and consultation processes that would be conducted before a proposed project is implemented.

Table 2.6-1 Permits, Licenses, and Other Authorizations Potentially Applicable to the Proposed Action

Permit, License, or Other Authorizations	Requirement	Responsible Agency (or Agencies)	Timeframe
ESA Section 7 Consultation	The ESA requires consideration of effects on federally listed threatened and endangered species and federally designated critical habitat that could result from actions proposed, authorized, or funded by a federal agency.	USFWS (terrestrial species [including birds], freshwater species, and marine mammal species such as walrus, sea otters, manatees, and polar bears) National Oceanic and Atmospheric Administration (NOAA) Fisheries (most marine and anadromous species) USFWS and NOAA Fisheries share jurisdiction over other species including sea turtles, Gulf Sturgeon, and Atlantic salmon (NOAA Fisheries, 2024)	Complete consultation and development of an approved mitigation plan (if required) before the federally proposed or authorized action would be implemented.
NHPA Section 106 Consultation	Section 106 of the NHPA requires consideration of potential effects on properties listed or eligible for listing in the National Register of Historic Places that could result from actions proposed, authorized, or funded by a federal agency.	SHPO ACHP (typically involved in Section 106 consultation only when a listed or eligible property would be adversely affected)	Complete consultation and development of an executed Programmatic Agreement or Memorandum of Agreement, if applicable, before the federally proposed or authorized action would be implemented.
CWA Section 401 Wetland Permit / Section 404 Water Quality Certification	A permit and/or water quality certification is required under Section 401 and Section 404 of the CWA, respectively, when an action proposed or authorized by a federal agency would involve draining, filling, or otherwise developing or disturbing federally regulated wetlands or surface waters.	U.S. Army Corps of Engineers (USACE)	Obtain permits from USACE and develop an approved avoidance, compensation, or mitigation plan before the federally proposed or authorized action would be implemented.

Table 2.6-1 Permits, Licenses, and Other Authorizations Potentially Applicable to the Proposed Action

Permit, License, or Other Authorizations	Requirement	Responsible Agency (or Agencies)	Timeframe
National Pollutant Discharge Elimination System (NPDES) Construction Generic Permit (CGP)	Coverage under an NPDES CGP is required in accordance with Florida Administrative Code (FAC) Rule 62-621 when construction in Florida would collectively disturb 1 or more acres of land and discharge stormwater to surface waters of the state or to a municipal separate storm sewer system. Under the terms of the permit, a comprehensive Stormwater, Erosion, and Sedimentation Control Plan (SWESCP) and a Stormwater Pollution Prevention Plan (SWPPP) would be required in the final plan design. An application for a Stormwater Discharge Permit with stormwater retention and design is required prior to any ground-disturbing activities per FAC Rule 62-346. A Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP) may be required in addition to a CGP.	FDEP	Obtain permit coverage and prepare comprehensive SWESCP and SWPPP as part of final plan design before the proposed projects would be implemented.
Environmental Resource Permit	ERPs are intended to prevent the discharge of stormwater pollution to Florida's waters. An ERP is required in accordance with FAC Rule 62-330 when construction activities, among others, occur on or over wetlands or other surface waters in Florida. An ERP may be required in addition to the CGP.	FDEP	Obtain permit coverage and submit a completed application notice to FDEP with project details at least 60 days before the project is implemented.

Table 2.6-1 Permits, Licenses, and Other Authorizations Potentially Applicable to the Proposed Action

Permit, License, or Other Authorizations	Requirement	Responsible Agency (or Agencies)	Timeframe
Coastal Zone Management Act (CZMA) Federal Coastal Zone Consistency Determination	The CZMA requires federal agencies to determine the consistency of their proposed actions with the enforceable policies of a state's federally approved coastal zone management program when the action would have the potential to affect state coastal zone resources.	FDEP	Receive FDEP concurrence that the proposed federal action or project would be consistent to the maximum extent practicable with the Florida Coastal Management Program before the action is implemented.
Potable Water System Permit / Revision to Existing Consumptive Use Permit	A new permit or modification of an existing permit may be required in accordance with statewide regulations for drinking water at FAC Chapter 40A-2, *Consumptive Uses of Water*, when a proposed project or action would cause consumptive use of potable water to exceed currently permitted levels or require construction and operation of a new potable water system.	FDEP	Complete permitting before the action would be implemented.
Dewatering Permit	Discharge to groundwater from dewatering operations is regulated through industrial water permits under FAC Rule 62-621.300. Coverage for dewatering associated with a construction activity may be obtained through an NPDES CGP if criteria specified in FAC Rule 62-621.300(2), part 3.4.3 are met. As a component of the CGP, the operator must implement appropriate dewatering best management practices (BMPs) and include dewatering in the SWPPP.	FDEP	Request to obtain permit coverage at least 14 days prior to the planned commencement of dewatering discharge. Permit request will include DEP Form 61-621.300(2)(b). If seeking dewatering coverage in combination with a CGP, the timeframe is as stated in the NPDES CGP row, above. Applicants can elect to obtain coverage under DEP Form 62-621.300(4)(b).

2.7 Comparison of Environmental Consequences

Potential impacts associated with the Proposed Action (Alternatives 1 and 2) and the No Action Alternative are summarized in **Table 2.7-1**. This summary is based on the detailed analysis of each resource presented in **Chapter 3**.

Table 2.7-1 Summary of Potential Environmental Impacts from Alternatives Analyzed in the EA

Environmental Resource	Proposed Action (Alternatives 1 and 2)	No Action Alternative
Biological Resources	No significant short- or long-term adverse impacts.	No significant impacts.
Water Resources	No significant short- or long-term adverse impacts.	No significant impacts.
Soils	No significant short- or long-term adverse impacts.	No significant impacts.
Air Quality	No significant short- or long-term adverse impacts.	No significant impacts.
Noise	No significant short- or long-term adverse impacts.	No significant impacts.
Land Use	No significant short- or long-term adverse impacts.	No significant impacts.
Cultural Resources	No significant short- or long-term adverse impacts.	No significant impacts.
Socioeconomics	No significant short- or long-term adverse impacts. Short-term beneficial effects.	No significant impacts.
Safety	No significant short- or long-term adverse impacts.	No significant impacts.
Utilities	No significant short- or long-term adverse impacts.	No significant impacts.
Hazardous Materials and Waste	No significant short- or long-term adverse impacts.	No significant impacts.

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This chapter describes the existing conditions of environmental resources on and around the Eglin AFB cantonment areas and potential impacts on those resources from the Proposed Action and the No Action Alternative. The effects of reasonably foreseeable future actions are also considered. Throughout this EA, the terms "impact," "effects," and "environmental consequences" are used interchangeably and have the same meaning.

3.1.1 Resources Not Carried Forward for Detailed Analysis

Table 3.1-1 summarizes environmental resources that were dismissed from detailed analyses in this EA because the Proposed Action would have no potential to affect them.

Table 3.1-1 Environmental Resources Dismissed from Detailed Analysis in the EA

Environmental Resource	Rationale for Dismissal
Airspace	The Proposed Action analyzed in this EA does not include and would not involve the establishment of new airspace, modification of existing airspace, changes to the number or types of aircraft operating at Eglin AFB, or changes to the number or types of aircraft operations occurring in airspace at or near the base. Therefore, airspace was dismissed from detailed analysis in the EA.
Transportation	None of the projects included in the Proposed Action would result in permanent changes to the number of military and civilian personnel or dependents at Eglin AFB. The number of construction workers and construction-related vehicles traveling to and from construction sites on Eglin AFB would vary throughout the 5- to 7-year implementation period and would represent a small percentage of the number of privately owned vehicles regularly accessing the base on a daily basis. None of the proposed projects would involve changes to off-base roads or transportation infrastructure; on-base traffic would return to previous conditions or would be improved after proposed on-base transportation and infrastructure projects have been completed. None of the proposed projects would permanently increase the number of personnel commuting to and from Eglin AFB each day. Therefore, transportation was dismissed from detailed analysis in this EA.

3.1.2 Past, Present, Reasonably Foreseeable Future Actions Considered

Potential effects from the reasonably foreseeable future actions listed in **Table 3.1-2** were considered in evaluating the potential for effects from the Proposed Action to contribute to significant adverse cumulative effects on environmental resources on and around Eglin AFB. Effects or conditions resulting from past projects occurring on and around Eglin AFB are incorporated into descriptions of the affected environment for each resource evaluated in this EA and, therefore, are not listed here. In all cases, it is assumed that the projects listed in **Table 3.1-2** would adhere to applicable regulatory permitting requirements, BMPs, and other avoidance or minimization measures to ensure that potential impacts from those projects would not be significant.

Table 3.1-2 Reasonably Foreseeable Future Actions

Scheduled Project	Project Summary	Implementation Date	Relevance to Proposed Action
Advanced Munitions Training Complex (AMTC) Phase III (Hensel Phelps, 2024)	Includes construction of a new Aerospace Engineering Research Laboratory and Explosive Storage Facility as part of the AMTC. Phases I and II of the AMTC are complete.	Current - 2026	Project is within Eglin Main Base cantonment area.
Eglin Orphan Land Development – Enhanced Use Lease Program and Conceptual Master Plans (Get the Coast, 2025)	A Conceptual Master Plan has been approved for the future use of eight orphaned parcels of Eglin AFB land. General uses approved under the Enhanced Use Lease program for these parcels include recreational and commercial areas.	Indefinite	Projects would involve construction, development, and operations on Eglin AFB property.
Advanced Energy Technology Center (Gulf Coast Energy Network, n.d.)	Proposed construction of a new energy technology center to support the U.S. military mission throughout the DoD by providing a joint-use space for the military and private sector to research and develop energy technology such as advanced fuels, sustainable construction, and cybersecurity.	Unknown	Project would be within or adjacent to Eglin Main Base cantonment area.
Realignment of Eglin Boulevard (DAF, 2024a)	Proposed realignment of approximately 2.5 miles of Eglin Boulevard on Eglin AFB. This project may include construction of traffic controls, intersections, bridges, and other transportation infrastructure. When it is complete, the existing 2.5-mile portion of Eglin Boulevard would be closed.	2027 - 2029	Project would occur throughout Eglin Main Base cantonment area.
Expansion of Eglin Childcare Services (DAF, 2024b)	Proposed construction of a new child development center by DAF and the Department of the Army. The new facility will be constructed in the city of Crestview on a 14.1-acre parcel and will be designed to accommodate up to 256 children.	2026	Project would occur adjacent to the Eglin Test and Training Complex.
Programmed Military Construction Projects (GovCon Wire, 2024)	Various construction projects are planned throughout Eglin AFB, including road repair, roofing, electrical, plumbing, excavation, and demolition work.	Current - 2029	Projects would occur within multiple Eglin cantonment areas.
Okaloosa County Infrastructure Development (Okaloosa County, 2024)	Road and infrastructure projects primarily include stormwater system upgrades and local roadway improvements.	Current - 2026	Projects occur in the immediate vicinity of Eglin AFB.

3.2 Biological Resources

3.2.1 Definition of the Resource

Biological resources include native or naturalized plants and animals and the habitats (such as grasslands, forests, and wetlands) where they occur. Protected and sensitive biological resources include threatened, endangered, and proposed candidate species and migratory birds. Threatened, endangered, and proposed species are designated by the USFWS (terrestrial and freshwater organisms) and NOAA Fisheries (marine organisms) under the ESA or by the Fish and Wildlife Commission (FWC) under the Florida Endangered and Threatened Species Act. Migratory birds are protected species under the MBTA. Critical habitat designated by USFWS and NOAA Fisheries consists of specific geographic areas that are essential to the conservation of federally listed threatened and endangered species. Sensitive ecological areas may be designated by state or other federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or limited in distribution, and important seasonal use areas for wildlife (for example, migration routes, breeding areas, and crucial summer and winter habitats).

The intent of the ESA (16 U.S.C. § 1531 et seq.) is to protect and recover imperiled species and the ecosystems on which they depend. The ESA defines an "endangered species" as any species in danger of extinction throughout all or a significant portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future. The ESA also prohibits any action that causes a "take" of any listed animal. "Take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct" (USFWS, 2017). Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on federal land.

The ESA requires federal agencies, in consultation with USFWS and the National Marine Fisheries Service, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. Section 7 of the ESA requires federal agencies to consult with USFWS when their actions may affect a federally listed species or federally designated critical habitat.

The MBTA of 1918 (16 U.S.C. § 703–712), as amended, and E.O. 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, require federal agencies to minimize or avoid impacts on migratory birds. Unless otherwise permitted by regulations, the MBTA makes it unlawful to (or attempt to) pursue, hunt, take, capture, or kill any migratory bird, nest, or egg. Federal agencies with activities that could have measurable negative impacts on migratory birds are directed by E.O. 13186 to develop and implement a Memorandum of Understanding with USFWS to promote the conservation of migratory bird populations.

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA in 2007; however, bald and golden eagles continue to be federally protected under the Bald and Golden Eagle Protection Act (BGEPA), which prohibits the "take" of bald or golden eagles in the United States. BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." For these guidelines, "disturb" means "to agitate or bother a bald or golden eagle to a degree that

causes, or is likely to cause: (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." Bald and golden eagles are also protected under the MBTA.

In Florida, the FWC oversees the protection and management of state-protected fauna under the Florida Endangered and Threatened Species Act (Florida Statute 372.072). Within the FAC, protection is provided to endangered species (68A-27.003 FAC), threatened species (68A-27.004 FAC), and species of special concern (68A-27.005 FAC). The Florida Department of Agriculture and Consumer Services maintains the state list of plants designated as endangered, threatened, and commercially exploited (5B-40 FAC) as defined under Florida Statute 581.185(2).

The biological resources region of influence (ROI) consists of the five Eglin AFB cantonment areas.

3.2.2 Affected Environment

3.2.2.1 Eglin AFB – General Ecological Conditions

Northwest Florida is in the U.S. Forest Service Outer Coastal Plain Mixed Forest Province, which is part of the larger Subtropical Division and the overall Humid Temperate Domain (USFS, 2024). The U.S. Department of Agriculture (USDA) divides Eglin AFB between two Land Resource Regions (LRRs) and Major Land Resource Areas (MLRAs) (USDA, 2022). The northern portion of Eglin AFB property (containing Duke Field, Camp Bull Simons, Camp Rudder, and Site C-6 cantonments) is in LRR P (South Atlantic and Gulf Slope Cash Crops, Forest, and Livestock Region) and MLRA 133C (Gulf Coastal Plain). This region is characterized by abundant rainfall (46 to 58 inches annually) and a relatively long growing season (USDA, 2022). Summers tend to be hot, long, and humid, with short, mild winters (USDA, 2022).

The southern portion of Eglin AFB (containing Eglin Main Base) is in LRR T (Atlantic and Gulf Lowland Forest and Crop Region) and MLRA 152A (Eastern Gulf Coast Flatwoods). This region is characterized by forested wetlands, brackish water/saltwater marshes, shallow water tables, small natural ponds, and low-lying areas prone to flooding. Rainfall is abundant (typically 39 to 62 inches), with hot humid summers, short mild winters, and a high incidence of hurricanes. Predominant land cover types (outside urbanized areas) include mixed hardwood/coniferous forest, wetlands, and open pasture/hayfield. This region supports several unique habitats and species, as a result of its geographic position in a coastal area with varied aquatic regimes, its varied topography (ranging from inland terrestrial uplands with elevations of 100 to 300 feet mean sea level [MSL] to tidal estuaries at sea level), and its diverse vegetation (including expansive pine forests, abandoned old field areas, livestock pasture, hayfields, crop fields, orange groves, submerged aquatic vegetation/sea grass beds, and maintained landscape areas in residential communities and commercial areas).

In undisturbed areas, Eglin AFB contains four general ecological community types, including Sandhill Matrix, Flatwoods Matrix, Barrier Island Matrix, and Wetlands/Riparian Matrix (USDA, 2022). The predominant vegetative community within the Eglin AFB property limits is mixed pine

forest. These forests are typically dominated by three pine species: slash pine (*Pinus elliottii*), sand pine (*Pinus clausa*), and longleaf pine (*Pinus palustris*) (USDA, 2022). Pine species generally grow well in regions with sandy soils, higher air temperatures, and high humidity (though loblolly pine [*Pinus taeda*], shortleaf pine [*Pinus echinata*], and pond pine [*Pinus serotina*] tend to prefer the cooler temperatures of northern Florida).

3.2.2.2 Cantonment Areas

Most of the cantonment area boundaries coincide closely with prior development limits, though some undisturbed areas are present within Eglin Main Base (to the southwest, north, and southeast) and Camp Bull Simons (to the west). Prior habitat disturbance in developed portions of the cantonments has included grading (excavation and filling), paving, demolition, building construction, and utility line installation. A network of freshwater streams and rivers (most with adjacent wetlands) convey flow through Eglin AFB property toward coastal brackish water marshes, Choctawhatchee Bay, and Pensacola Bay (and eventually the Gulf of America). These surface waters provide diverse aquatic habitats (tidal and nontidal) with varied flow regimes, salinity levels, water depths, substrate types, and organic matter inputs.

Given the large land area covered by Eglin AFB (approximately 724 square miles) and geographic separation of the cantonment areas evaluated in this EA (3 to 18 miles apart), large tracts of relatively undisturbed habitat are present between developed areas on the base. Additionally, four of these cantonment areas were initially developed prior to 1969, with many local species gradually becoming acclimated to human presence, activity, and development in the subsequent 50 years. While the large geographic extent of Eglin AFB (previously part of Choctawhatchee National Forest prior to 1940) includes many unique natural habitats, it also provides an abundance of available habitats for species either temporarily or permanently displaced by human activities. Habitats within each of the cantonments are further described below.

Eglin Main Base

Eglin Main Base is the largest cantonment area and has the lowest elevation (20 to 80 feet MSL). It has undergone substantial development since it was initially established in 1940. The predominant ecological community in undeveloped portions of the cantonment is mixed pine-hardwood forest (Sandhill Matrix). Large areas of maintained grass are present surrounding the airfield and throughout the developed portion of the cantonment. Approximately 60 percent of this site has been previously developed with runways, taxiways, hangars, maintenance buildings, roads, administrative buildings, parking lots, houses, and infrastructure (though some of these areas are maintained vegetation/lawns). The remaining 40 percent is predominantly pine-dominated forest, with large tracts of planted silvicultural tracts. The three largest undeveloped areas within the cantonment are to the southwest, north, and southeast (with the most abundant aquatic habitats along the margins of the cantonment, particularly to the north and southeast).

Eglin Main Base contains portions of Tom's Creek, Doolittle Run, three unnamed streams, and seven unnamed ponds to the north. In the eastern portion of this cantonment are six unnamed ponds. To the south are Jack Lake, Upper Memorial Lake, Lower Memorial Lake, Bear Creek, Ben's Lake, three unnamed streams, and one unnamed pond. Along the west side of the cantonment

area are Garnier Creek, a portion of Lightwood Knot Creek, and one unnamed stream. Wetlands are likely present along most stream channels throughout the cantonment area (USGS, 2025a).

Four tidal/estuarine bayous are present within the Eglin Main Base cantonment area, including Tom's Bayou (to the north), Weekley Bayou (to the east), and Boggy Bayou (to the northeast). Additional tidal waters include Choctawhatchee Bay itself (to the southeast) and its adjacent salt marshes and inter-tidal mud flats. Canals within the Eglin Main Base cantonment area may be the result of agricultural efforts to either drain adjacent wetlands or to reduce stream channel sinuosity decades ago, as they generally pre-date available aerial photographs. The developed portions of Eglin Main Base and Jackson Guard generally lack natural (undisturbed) surface waters, though stormwater conveyance channels are present in many areas.

Camp Rudder

Approximately 53 percent (153 acres) of Camp Rudder's land area consists of largely undeveloped pine forest. These forests are mostly along the southern and northeastern sides of the cantonment. Portions of these forests are used for active Ranger training. While no mapped streams or wetlands are present within the cantonment limits, on-site observations indicate the presence of interspersed forested wetlands and uplands in parts of the undeveloped forest near the Ranger training camp. Metts Creek and an unnamed pond are located outside the cantonment to the east. Suitable foraging habitat for red-cockaded woodpecker (RCW) (*Dryobates borealis*) is present near the cantonment's southeastern boundary, as well as high-quality natural community here and to the east. No mapped RCW cavity trees are present within the cantonment (Eglin AFB, 2019; Eglin AFB, 2024a).

Camp Bull Simons

Camp Bull Simons is the most-recently constructed cantonment (2010) and covers approximately 500 acres in the north-central portion of Eglin AFB. No aquatic (stream/wetland) habitat is present within the cantonment boundary. Streams near but outside the cantonment area include Gopher Creek to the north, Turkey Hen Creek to the east, and an unnamed tributary to Turkey Gobbler Creek to the southwest.

Camp Bull Simons primarily consists of developed lands, with approximately 35 acres (7 percent of its land area) considered undeveloped. Trails have been built in some forested areas. On-site terrestrial habitat is largely limited to maintained lawn areas (with planted ornamental trees and shrubs) and isolated pine forest remnants typically covering 1 to 4 acres. Suitable RCW foraging habitat is present along the eastern cantonment boundary, along with a small high-quality natural community to the south (Eglin AFB, 2019; Eglin AFB, 2024a).

Duke Field

Duke Field is in the north-central portion of Eglin AFB on a broad ridge that bisects the base from northeast to southwest. Approximately 1,204 acres (61 percent) of the cantonment area have been previously developed, with initial construction beginning in 1942. Most of the existing facilities were completed by 1969.

Undeveloped land within the cantonment is primarily located on its western side, although most of this area is in active timber production. Of the 760 acres in this area, approximately 220 acres

south of the main access road were selectively cut between 2007 and 2010. North of the main access road, 144 acres north of the main road were clear-cut and subsequently replanted between 2012 and 2013, and 50 acres were clear-cut between 2019 and 2020. An additional 47 acres of planted pines are in the southwestern portion of the cantonment area.

Approximately 5 acres of mixed nontidal wetlands and open water aquatic habitat forming the headwaters of Pearl Creek are present within the wooded area on the western side of the cantonment. No apparent streams or wetlands are present within the developed portion of the cantonment area. Given its inland location and elevation at 120 to 230 feet MSL, no tidal waters are present on Duke Field.

Several inactive RCW cavity trees are in the southwestern portion of Duke Field, but no active cavity trees are currently documented (Eglin AFB, 2019; Eglin AFB, 2024a). Suitable RCW foraging habitat is present outside the cantonment area to the southeast. Juniper Creek, south of the cantonment boundary, is classified as suitable aquatic habitat for Okaloosa darter. Additionally, a high-quality natural community is present at the southeastern corner of the cantonment (Eglin AFB, 2024c).

Site C-6

Site C-6 is in the eastern portion of Eglin AFB and is the smallest of the cantonment areas evaluated in this EA. The entirety of the cantonment is developed or otherwise previously disturbed. Existing vegetation primarily consists of areas of mowed grass and landscape trees and shrubs. Little Basin Creek and mapped adjacent wetlands are located southwest of this cantonment area, but no surface waters are located within the boundaries of the cantonment. No mapped RCW cavity trees are present within the cantonment area, although the Site C-6 boundary abuts the Alice Creek Outstanding Natural Area (Eglin AFB, 2019; Eglin AFB, 2024a).

3.2.2.3 Wildlife

A variety of widespread and abundant wildlife species are known or have the potential to occur within the cantonment areas based on the presence of suitable habitat. The developed character of the cantonment areas limits suitability for some specialized herbivores and carnivores with unique diets. However, many generalist omnivores have adapted to human-altered landscapes. Representative species that could occur in the cantonment areas are listed in **Table 3.2-1**. Widespread and abundant species of wildlife and their habitat on the base are managed in accordance with the Eglin AFB INRMP (Eglin AFB, 2024a).

No livestock is present within the cantonment areas evaluated in this EA. Common domestic animals, such as dogs and cats, could be present in family housing areas along the southern and eastern sides of Eglin Main Base. One reptile enclosure (for exposure training to American alligators and snakes) is present at Camp Rudder.

Table 3.2-1 Common Wildlife Species Potentially Occurring in the Eglin AFB Cantonment Areas

Common Name	Scientific Name	Common Name	Scientific Name
Mammals			
Coyote	*Canis latrans*	Squirrel	*Sciurus carolinensis*
Opossum	*Didelphis virginiana*	Feral hog	*Sus scrofa*
Bobcat	*Lynx rufus*	Eastern cottontail	*Sylvilagus floridanus*
River otter	*Lontra canadensis*	Gray fox	*Urocyon cinereoargenteus*
Skunk	*Mephitis mephitis*	Black bear	*Ursus americanus*
White-tailed deer	*Odocoileus virginianus*	Red fox	*Vulpes vulpes*
Raccoon	*Procyon lotor*		
Birds			
Great egret	*Ardea alba*	Great crested flycatcher	*Myiarchus crinitus*
Great blue heron	*Ardea herodias*	Double-crested cormorant	*Nannopterum auritum*
Red-tailed hawk	*Buteo jamaicensis*	Osprey	*Pandion haliaetus*
Red-shouldered hawk	*Buteo lineatus*	Blue grosbeak	*Passerina caerulea*
Northern cardinal	*Cardinalis cardinalis*	Indigo bunting	*Passerina cyanea*
Chimney swift	*Chaetura pelagica*	Brown pelican	*Pelecanus occidentalis*
Bobwhite quail	*Colinus virginianus*	Carolina chickadee	*Poecile carolinensis*
Eastern wood-pewee	*Contopus virens*	Prothonotary warbler	*Protonotaria citrea*
Ruby-crowned kinglet	*Corthylio calendula*	Common grackle	*Quiscalus quiscula*
American crow	*Corvus brachyrhynchos*	Easten phoebe	*Sayornis phoebe*
Blue jay	*Cyanocitta cristata*	Pine warbler	*Setophaga pinus*
Downy woodpecker	*Dryobates pubescens*	Yellow-throated warbler	*Setophaga dominica*
Pileated woodpecker	*Dryocopus pileatus*	Eastern bluebird	*Sialia sialis*
Gray catbird	*Dumetella carolinensis*	Yellow-bellied sapsucker	*Sphyrapicus varius*
Swallow-tailed kite	*Elanoides forficatus*	Chipping sparrow	*Spizella passerina*
Laughing gull	*Leucophaeus atricilla*	Eastern meadowlark	*Sturnella magna*
Red-bellied woodpecker	*Melanerpes carolinus*	Carolina wren	*Thryothorus ludovicianus*
Wild turkey	*Meleagris gallopavo*	Brown thrasher	*Toxostoma rufum*
Northern mockingbird	*Mimus polyglottos*	Mourning dove	*Zenaida macroura*
Reptiles and Amphibians			
Southern cricket frog	*Acris gryllus*	Coachwhip	*Masticophis flagellum*
Northern cottonmouth	*Agkistrodon piscivorous*	Eastern coralsnake	*Micrurus fulvius*
Southern toad	*Anaxyrus terrestris*	Banded watersnake	*Nerodia fasciata*
Green anole	*Anolis carolinensis*	Gray ratsnake	*Pantherophis spiloides*

Table 3.2-1 Common Wildlife Species Potentially Occurring in the Eglin AFB Cantonment Areas

Common Name	Scientific Name	Common Name	Scientific Name
Reptiles and Amphibians *(continued)*			
Brown anole	*Anolis sagrei*	Five-lined skink	*Plestiodon inexpectatus*
Florida softshell turtle	*Apalone ferox*	Broad-headed skink	*Plestiodon laticeps*
Common snapping turtle	*Chelydra serpentina*	Coastal plain cooter	*Pseudemys floridana*
Southern black racer	*Coluber constrictor priapus*	Eastern fence lizard	*Sceloporus undulatus*
Southern two-lined salamander	*Eurycea cirrigera*	Pygmy rattlesnake	*Sistrurus miliarius*
Escambia map turtle	*Graptemys ernsti*	Intermediate musk turtle	*Stemotherus intermedius*
Green treefrog	*Hyla cinerea*	Gulf coast box turtle	*Terrapene carolina major*
Green frog	*Lithobates clamitans*	Pond slider	*Trachemys scripta*
Fish			
Bullhead catfish	*Ameiurus nebulosus*	Redear sunfish	*Lepomis microlophus*
Bowfin	*Amia calva*	Spotted sunfish	*Lepomis punctatus*
Sucker	*Catostomidae* spp.	Gar	*Lepisosteus* spp.
Spotted trout	*Cynoscion nebulosus*	Croaker	*Micropogonias undulatus*
Chain pickerel	*Esox niger*	Largemouth bass	*Micropterus salmoides*
Eastern mosquitofish	*Gambusia holbrooki*	Striped mullet	*Mugil cephalus*
Channel catfish	*Ictalurus punctatus*	Flounder	*Paralichthys* spp.
Warmouth	*Lepomis gulosus*	Black crappie	*Pomoxis nigromaculatus*
Bluegill	*Lepomis macrochirus*	Sailfin shiner	*Pternotropis hypselopterus*

Source: USDA, 2022; iNaturalist, 2025

3.2.2.4 Protected Species

A total of 54 protected species are known or have the potential to occur at Eglin AFB, including 18 federally listed species and 39 state-listed species (some species may be both federally and state-listed). Of these, 11 species are known to occur in the Eglin AFB cantonment areas **(Table 3.2-2)** (USFWS, 2025; FNAI, 2025). Generally, federally and state-listed species are managed in accordance with policies and procedures set forth in the Eglin AFB INRMP and the *Threatened and Endangered Species Component Plan Update* (Eglin AFB, 2024c). Additionally, some protected species occurring on the base may be subject to requirements established in species-specific consultations between Eglin AFB and federal or state regulatory agencies.

Bald eagles are no longer protected under the ESA, but they remain protected under the BGEPA. Two mapped bald eagle nests are present on Eglin Main Base; one is adjacent to Choctawhatchee Bay and the other is in the southwestern portion of the cantonment area site (Eglin AFB, 2024c). Eagles frequently re-use nests from previous years, so protecting existing nest trees directly benefits local populations.

As shown in **Table 3.2-2**, gopher tortoise (*Gopherus polyphemus*) is present in one or more of the Eglin AFB cantonment areas. Additionally, although federally delisted in 2023, the Okaloosa darter (*Etheostoma okaloosae*) is present in waters adjacent to Eglin Main Base. The federally threatened eastern indigo snake (*Drymarchon couperi*) has not been observed at Eglin AFB since 1999. All protected species are of special management concern at Eglin AFB. Additional information about these species is provided in the sections below.

Table 3.2-2 Protected Species Occurring in the Eglin AFB Cantonment Areas

Common Name	Scientific Name	Protected Species Classification	Cantonment(s) Where Documented
Plants			
Arkansas oak	*Quercus arkansana*	ST	Eglin Main, Duke Field
Ashe's magnolia	*Magnolia ashei*	SE	Duke Field
Baltzell's sedge	*Carex baltzelli*	ST	Eglin Main, Duke Field
Gulf coast lupine	*Lupinus westianus*	ST	Duke Field
Gulf coast red-flower pitcherplant	*Sarracenia rubra*	ST	Duke Field, Camp Rudder, Site C-6
Hairy wild indigo	*Baptisia calycosa*	ST	Eglin Main, Duke Field, Camp Rudder
Large-leaved jointweed	*Polygonella macrophylla*	ST	Eglin Main, Duke Field
Naked-stemmed panic grass	*Dicanthelium nudicaule*	ST	Site C-6
Pineland hoary-pea	*Tephrosia mohrii*	ST	Eglin Main, Camp Bull Simons, Camp Rudder
Mammals			
Tri-colored bat	*Perimyotis subflavus*	PE	*
West Indian manatee	*Trichechus manatus*	FT	*
Birds			
Bald eagle	*Haliaeetus leucocephalus*	BGEPA	Eglin Main
Red cockaded woodpecker	*Picoides borealis*	FT	*
Reptiles and Amphibians			
Alligator snapping turtle	*Macrochelys temminckii*	PT	*
Gopher tortoise	*Gopherus polyphemus*	ST	Eglin Main, Camp Bull Simons
Eastern indigo snake	*Drymarchon couperi*	FT	*
Fish			
Gulf sturgeon	*Acipenser oxyrinchus desotoi*	FT	*
Insects			
Monarch butterfly	*Danaus plexippus*	PT	*

Notes:

*Potentially present locally, but not confirmed within Eglin AFB cantonment areas

Sources: USFWS, 2025; FNAI, 2025

FE = Federally Endangered, FT = Federally Threatened, SE = State Endangered, ST = State Threatened, PE = Potentially Endangered, PT = Potentially Threatened

Red-Cockaded Woodpecker

RCWs are small woodpeckers averaging 8 to 9 inches in length, with black and white coloration similar to downy woodpeckers (*Dryobates pubescens*) and hairy woodpeckers (*Leuconotopicus villosus*). This species is named for the red mark (cockade) present on each side of the male's head. Mated pairs (and occasionally single "helper" males) typically live in small family groups and re-use cavity trees for breeding, having taken 2 o 3 years to excavate a suitable nesting cavity. Most woodpeckers create cavities in dead trees, but RCW prefer living trees for nesting (often using the cavities for multiple years). When RCWs create holes in living trees (to serve as sap wells), the trees may take on a characteristic "candle tree" look resulting from sap running down the bark.

This species is typically found in mature longleaf pine forests, and feeds primarily on insects (such as ants, beetles, and spiders) and fruits/seeds. The gradual loss of such mature forests has reduced RCW habitat to approximately 1 percent of its original extent (Eglin AFB, 2019; Eglin AFB, 2024a). Eglin AFB property management and project review decisions are guided by regulations and policies intended to help protect this species. These include federal ESA requirements and the *Eglin AFB 2024 INRMP, 2019 Red-Cockaded Woodpecker Programmatic Biological Opinion*, and *2024 Threatened and Endangered Species Component Plan Update* (Eglin AFB, 2024a; Eglin AFB, 2019; Eglin AFB, 2024c). Conservation efforts in recent years have resulted in down-listing of the red-cockaded woodpecker from federally Endangered to federally Threatened (USFWS, 2024).

Gopher Tortoise

The gopher tortoises is a terrestrial species averaging 9 to 11 inches, with bodies tan or gray in color, forelegs optimized for digging, and lifespans of 40 to 60 years. This herbivorous species typically feeds on berries, grasses, fungi, fruits, and flowers, and favors pine forest habitats with sandy soils and dense low-growing vegetation. Both gopher tortoises and their burrows have been protected since 1972. Some studies suggest that their burrows are also utilized by more than 300 other species, including the eastern indigo snake. The USFWS subdivides the Florida gopher tortoise population into an eastern distinct population segment (DPS) and a western DPS. The eastern DPS is considered secure, but the western DPS remains federally listed as threatened (USFWS, 2022). The gopher tortoise has been documented on Eglin Main Base and Camp Bull Simons **(Table 3.2-2)**. Gopher tortoises occurring on Eglin AFB belong to the federally threatened western DPS.

Eastern Indigo Snake

The eastern indigo snake is a large, conspicuous, slow-moving and docile snake that can attain a body length of 8.5 feet. The species uses sandhills during the winter months and frequently inhabits gopher tortoise burrows and the burrows of other species for over-wintering. Riparian areas are frequently used in the summer. Although indigo snakes have been previously documented at 17 sites on Eglin AFB, none have been observed on the base since 1999. It is likely the species is locally extirpated; however, Eglin AFB manages the species in accordance with the USFWS *Standard Protection Measures for the Eastern Indigo Snake*. The primary goal of indigo snake management on Eglin AFB is to provide the highest level of capability and flexibility to the

military testing and training mission while meeting the legal requirements of the ESA, CWA, and other applicable laws (Eglin AFB, 2024a; Eglin AFB, 2024c).

Okaloosa Darter

The Okaloosa darter is a small, 2-inch freshwater fish that lives in only six stream systems in Okaloosa County and Walton County, Florida (approximately 90 percent within Eglin AFB limits). Since it lacks a swim bladder, this species is considered an obligate bottom dweller. Their typical diet includes mayfly nymphs, caddisfly larvae, and midge larvae. These darters generally breed between March and October, with fertilized eggs attaching to vegetation.

Since 1973, Eglin AFB has worked to improve darter habitat by restoring 480 acres near streams with known populations, reducing soil erosion and in-stream sedimentation, and removing aquatic habitat barriers (USFWS, 2023). Threats to this species include competition from brown darters (*Etheostoma edwini*) and in-stream sedimentation (from upstream soil erosion) that can smother eggs (FFWC, 2025). The USFWS personnel at Eglin AFB work to maintain vegetated riparian buffers along on-base surface waters, including Toms Creek and its tributaries (where known Okaloosa darter populations exist).

3.2.3 Environmental Consequences

3.2.3.1 Evaluation Criteria

Adverse impacts on biological resources would include removal of common vegetation from project sites; displacement or inadvertent injury or death of individual animals of widespread and abundant wildlife species during construction; or introduction of native or exotic plants and animals to the base. Adverse impacts on biological resources would be considered significant if the Proposed Action impeded or prevent the continued propagation of common plants and wildlife at the community, population, or species level; resulted in the "take" of a federally or state-protected species or required the determination of an adverse effect on any federally listed species; involved disturbance, removal, or alteration of federally designated critical habitat; or resulted in an introduction of exotic, invasive, or nuisance species that would exceed the capacity of Eglin AFB to manage or eradicate it.

3.2.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Prior to implementing site-specific projects, proponents would submit AF Form 813 to the Eglin AFB EPO for review. These reviews would include consideration of potential effects on common species of vegetation and wildlife as well as federally and state-listed species potentially occurring on or near the project sites. Generally, all projects would be implemented with the applicable requirements of the Eglin AFB INRMP, associated species and natural resources management documents, and agency consultations to avoid or minimize adverse impacts on common plant and wildlife species and avoid adverse effects on federally and state-listed species. Eglin AFB may initiate Section 7 consultation with USFWS as applicable for site-specific projects that would have the potential to adversely affect federally listed species and would coordinate further with FWC regarding projects that would have potential adverse effects on state-listed species.

As determined necessary through review of AF Form 813 for each project, and additional project-specific consultation or coordination with USFWS or FWC, surveys would be conducted for federally and state-listed species such as the RCW, gopher tortoise, and eastern indigo snake on or near the project sites. Animals would be relocated, if necessary, from project sites to other areas of suitable habitat in accordance with the requirements of the Eglin AFB INRMP, associated species management plans, and agency consultations. No land disturbance would occur before performing species surveys on sites known or suspected to contain suitable habitat or before any necessary species relocations are completed.

Overall, adverse impacts on biological resources from Alternative 1 would primarily consist of removal of common vegetation and disturbance, displacement, or the inadvertent injury or death of widespread and abundant animals during site preparation associated with each project. While adverse, these effects would occur at the individual rather than the community, population, or species level. Furthermore, adverse effects on widespread and abundant wildlife would primarily be limited to animals that are adapted or conditioned to previously disturbed or urbanized environments with elevated levels of noise and human activity. Mobile animals displaced by construction would likely relocate to other nearby areas on Eglin AFB that provide suitable habitat. The implementation of proposed construction and development projects over 5 to 7 years would reduce the potential for concentrated impacts at a single location, thereby minimizing impact severity and intensity. Undeveloped areas of construction sites would be replanted with native plant species, and it is anticipated that widespread and abundant animals would gradually resume breeding, nesting, and foraging in habitat provided by these plants after each project has been completed. Therefore, short-term adverse impacts on common species of plants and wildlife would not be significant.

Vegetation replanted on project sites would be limited to native or adapted species approved by the Eglin AFB NRO. Contractors would adhere to applicable requirements of the Eglin AFB *Final Operational Component Plan for Management of Invasive Non-native Species, Feral Animals, and Nuisance Native Wildlife* (Eglin AFB, 2024d) to prevent the introduction of exotic, invasive, and nuisance vegetation. Therefore, short-term and long-term adverse impacts from exotic, invasive, and nuisance species would not be significant.

Other than periodic vegetation maintenance associated with new facilities and infrastructure, proposed construction and development projects implemented under Alternative 1 would not be expected to involve the continued disturbance of biological resources. Therefore, short-term and long-term adverse effects on biological resources from Alternative 1 would not be significant.

3.2.3.3 Alternative 2 – Reduced Levels of Development

Short- and long-term impacts on biological resources from Alternative 2 would be similar to those described for Alternative 1, except that there would be a somewhat reduced potential for impacts because fewer construction and development projects would be implemented. Short-term and long-term adverse impacts on biological resources from Alternative 2 would not be significant. Review of AF Form 813 for each site-specific project, additional project-specific consultation and coordination with USFWS and FWC regarding federally and state-listed species, and adherence to

applicable requirements of the INRMP, species management plans, and agency consultations would all help to ensure that these impacts are not significant.

3.2.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA (**Section 1.1.2**) based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on biological resources would not be significant.

3.2.3.5 Cumulative Effects

Other reasonably foreseeable future actions summarized in **Section 3.1.2** would have the potential to adversely affect widespread and abundant species of vegetation and wildlife as well as federally and state-listed species. Potential effects on such species would be avoided or minimized through consultation and coordination with federal, state, and local regulatory authorities, adherence to applicable permitting requirements, and incorporation of avoidance measures and BMPs to ensure any adverse impacts remain less than significant. The Proposed Action would not contribute to cumulatively significant adverse effects on biological resources when considered with other reasonably foreseeable future actions given the dispersion of the cantonment areas (3 to 18 miles apart), the seven different watersheds where the cantonments are located, the abundance of vegetation and undeveloped land offering habitat on the base, and the presence of Eglin AFB EPO personnel providing project oversight to ensure compliance with regulatory requirements.

3.2.3.6 Mitigation

Potential impacts on biological resources would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Additionally, consideration of potential effects on biological resources during reviews of AF Form 813 for each site-specific project, additional project-specific consultation and coordination with USFWS and FWC, and adherence to the applicable requirements of the Eglin AFB INRMP, associated species management plans, and agency consultations, would ensure that adverse effects on biological resources would be avoided or would remain nonsignificant. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No additional mitigation measures would be required because implementation of Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on biological resources.

3.3 Water Resources

3.3.1 Definition of the Resource

Water resources consist of surface waters (which includes watersheds, water quality, and tidal and nontidal wetlands), groundwater, stormwater, and floodplains. The use of and potential effects on water resources, particularly with respect to water quality, are primarily regulated at the federal level under the CWA and the Rivers and Harbors Act of 1899. Federal consistency requirements under the CZMA of 1972 (16 U.S.C. § 1451, et seq., as amended) are also addressed in this section.

Surface water includes oceans, bays, lakes and artificial impoundments, rivers, streams, and wetlands. Wetlands are complex natural systems that support extensive vegetative and wildlife habitats and support diverse biologic and hydrologic functions. These functions include water quality improvement, groundwater recharge and discharge, filtering of pollutants, nutrient cycling, and erosion protection. E.O. 11990, Protection of Wetlands, requires federal agencies to minimize or avoid the destruction, loss, or degradation of wetlands and to preserve and enhance their natural and beneficial values. Water quality refers to the presence of pollutants in water resources and applicable restrictions on human uses of water resources based on the levels and types of pollutants.

Groundwater is water that exists underground in saturated zones beneath the land surface (USGS, 2025b). Stormwater is a form of surface water that occurs when water flows across the landscape during or immediately after precipitation events. Any stormwater that does not soak into the ground becomes surface runoff. Floodplains are low-lying areas adjacent to water bodies that are subject to periodic inundation. E.O. 11988, Floodplain Management, requires federal agencies to avoid, to the extent practicable, the long- and short-term adverse impacts associated with occupancy and modification of floodplains.

The CZMA of 1972 (16 U.S.C. § 1451, et seq., as amended) requires federal agencies to assess the consistency of their actions with the enforceable policies of federally approved state coastal zone management programs.

The water resources ROI includes water resources entirely or partially within the cantonment areas evaluated in this EA that could be influenced or affected by the Proposed Action. The ROI also includes water resources outside the cantonment areas that could receive runoff or infiltration from proposed construction and development.

3.3.2 Affected Environment

The cantonment areas evaluated in this EA benefit from previous siting decisions that generally resulted in construction of facilities largely in upland areas (typically on broad knolls and ridges), away from most surface waters. As a result, few mapped jurisdictional streams, wetlands, open waters, or estuaries are present within the developed portions of the cantonments themselves. Existing land use and previous development have substantially altered topography, runoff patterns, the extent of impervious cover, and stormwater management within the cantonments relative to conditions that existed before they were established.

Water resources on and near each of the cantonment areas are shown on **Figure 3.3-1** through **Figure 3.3-5**.

3.3.2.1 Surface Waters

Watersheds and Wetlands

Watersheds containing the cantonment areas evaluated in this EA are summarized in **Table 3.3-1**. Overall drainage from Eglin Main Base and Site C-6 is to the south/southeast, while drainage from Duke Field, Camp Bull Simons, and Camp Rudder is generally to the north toward the Shoal River, which eventually flows southwesterly and discharges into East Bay (USGS, 2025a; USGS, 2025c).

Table 3.3-1 Summary of Watersheds Containing Eglin AFB Cantonment Areas

Cantonment	Watershed
Eglin Main Base	The southwestern portion of the cantonment is in the Garnier Bayou/Frontal Choctawhatchee Bay watershed (HUC 031401 020702, 28 square miles). The northeastern portion of the cantonment is in the Boggy Bottom/Frontal Choctawhatchee Bay watershed (HUC 031401020604, 19 square miles).
Camp Rudder	Metts Creek-Yellow River watershed (HUC 031401030082, 27 square miles)
Camp Bull Simons	The western portion of the cantonment is in the Turkey Gobbler Creek/Yellow River watershed (HUC 031401030801, 34 square miles). The eastern portion of the cantonment in the Turkey Hen Creek/Shoal River watershed (HUC 031401030705, 35 square miles)
Duke Field	Lower Titi Creek (HUC 031401030073, 31 square miles)
Site C-6	The cantonment area itself is in the Basin Bayou/Frontal Choctawhatchee Bay watershed (HUC 031401020301, 45 square miles). The northeastern side of the road where on-site wastewater is treated is within the Alaqua Creek/Alaqua Bayou watershed (HUC 031401020205, 19 square miles).

Source: USGS, 2025a

As a result of the low-gradient topography and abundant rainfall, streams and wetlands are present throughout many areas of the Eglin AFB cantonments **(Table 3.3-2)**. USFWS National Wetland Inventory (NWI) wetland mapping data indicate the presence of six general wetland types (palustrine forested swamps, palustrine scrub-shrub wetlands, palustrine emergent marshes, freshwater ponds/lakes, estuarine/marine wetlands, and riverine habitats/streams), with the greatest abundance and areal extent within Eglin Main Base. U.S. Geological Survey (USGS) topographic mapping suggests greater wetland extents than do the NWI maps and indicates likely wetland areas within 50 to 100 feet of many surface waters throughout the Eglin AFB property. Actual jurisdictional extents (origins) of stream channels may also be farther upgradient than they are mapped in either USGS or NWI records.

Two unique wetland types, steepheads and coastal dune lakes, are present in areas of northwestern Florida. Coastal dune lakes are not present on Eglin AFB. Steepheads are spring-fed channels in valleys whose steep sides and head-cut stream origins differentiate them from many other nearby streams. On Eglin AFB, these types of wetlands only occur on Eglin Main Base and have been observed at multiple locations

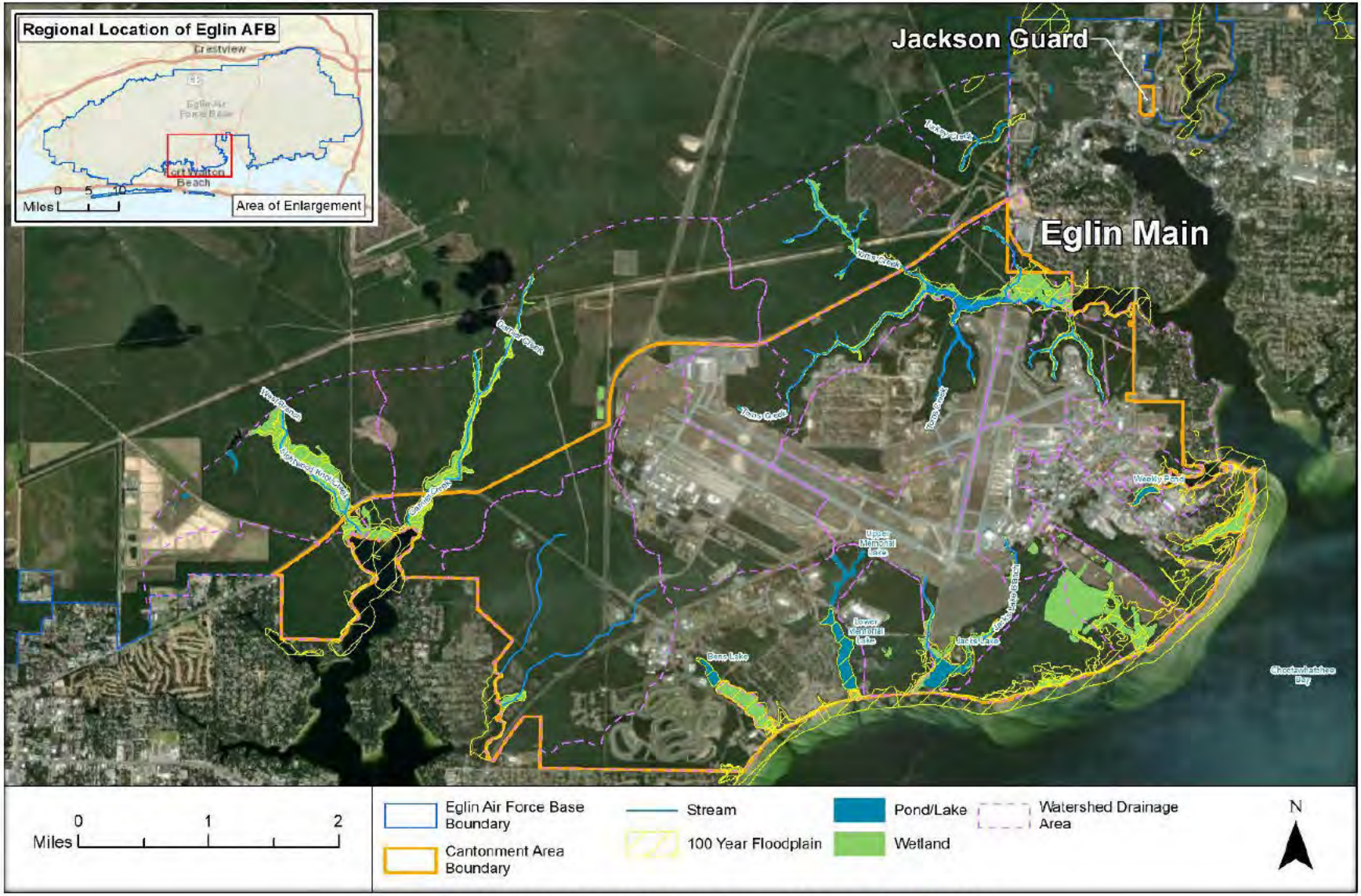

Figure 3.3-1 Surface Water Features On and Near Eglin Main Base

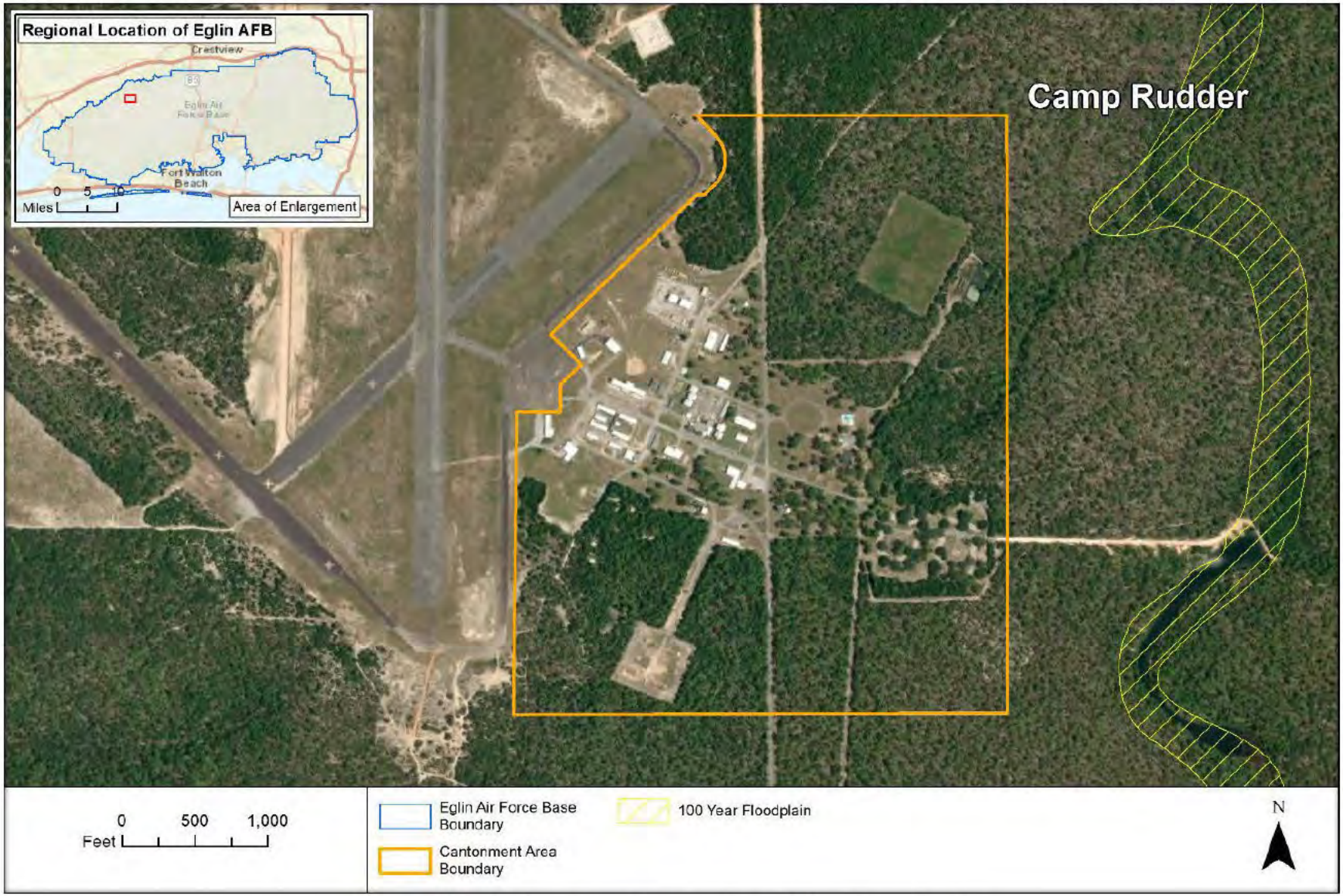

Figure 3.3-2 Surface Water Features On and Near Camp Rudder

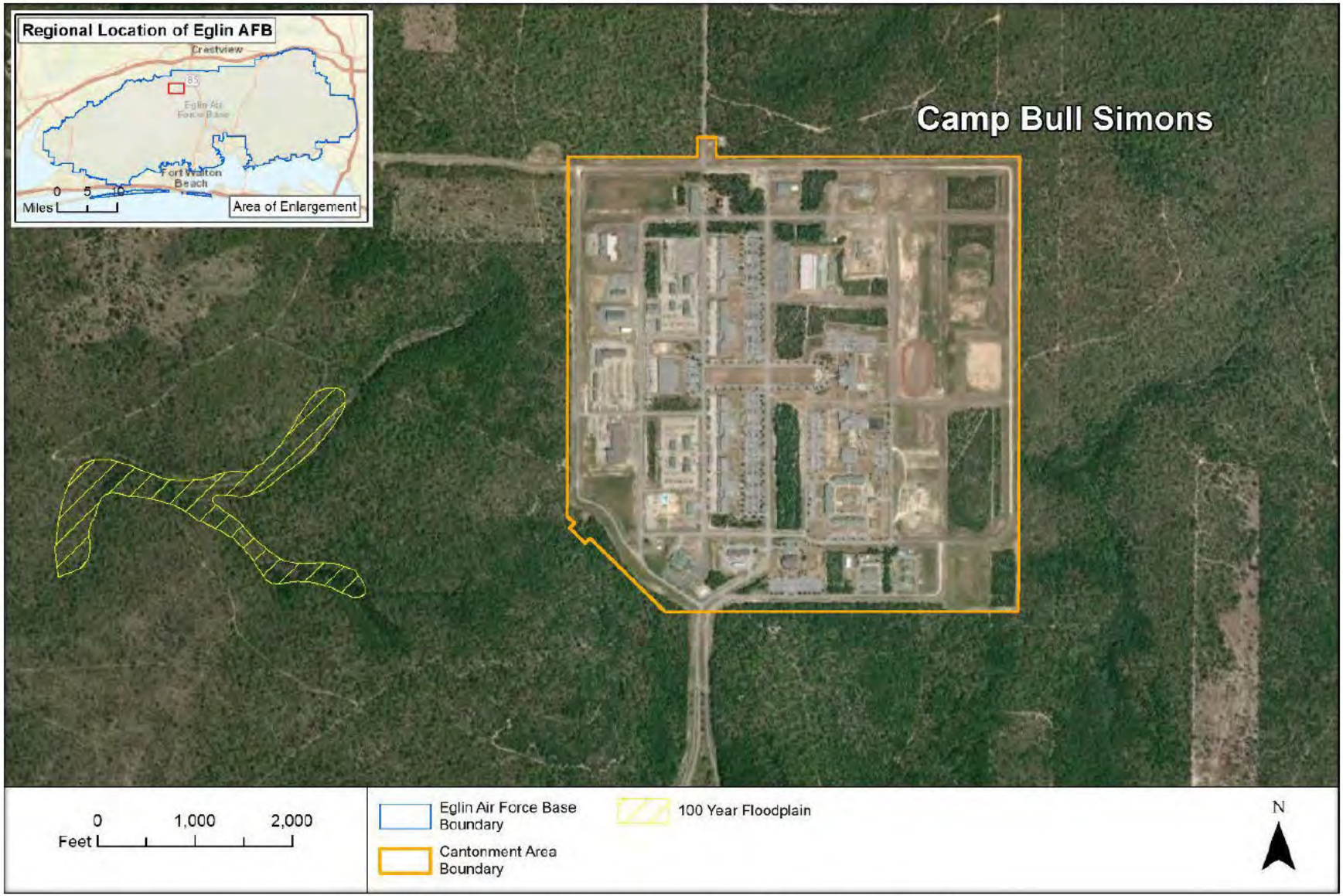

Figure 3.3-3 Surface Water Features On and Near Camp Bull Simons

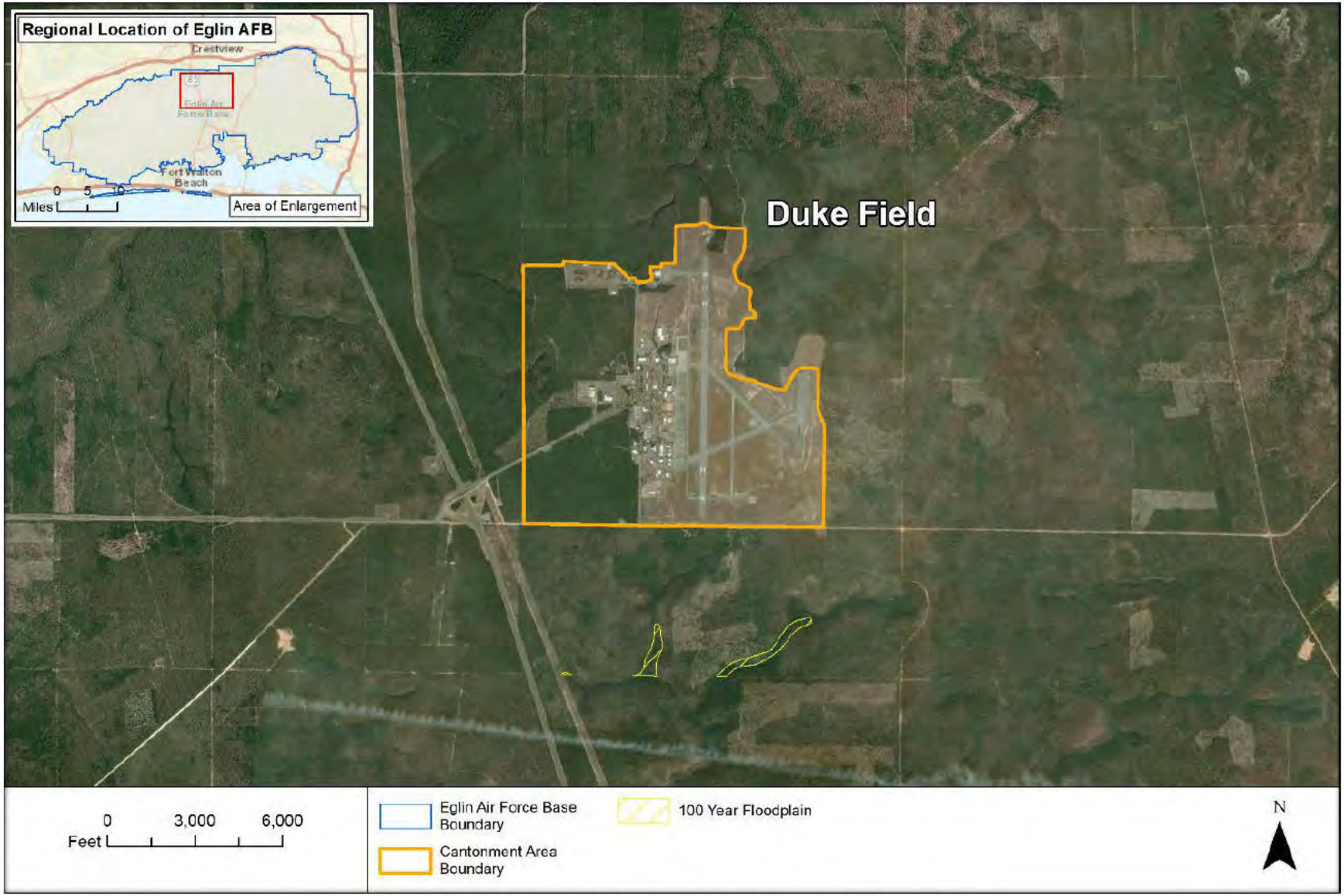

Figure 3.3-4 Surface Water Features On and Near Duke Field

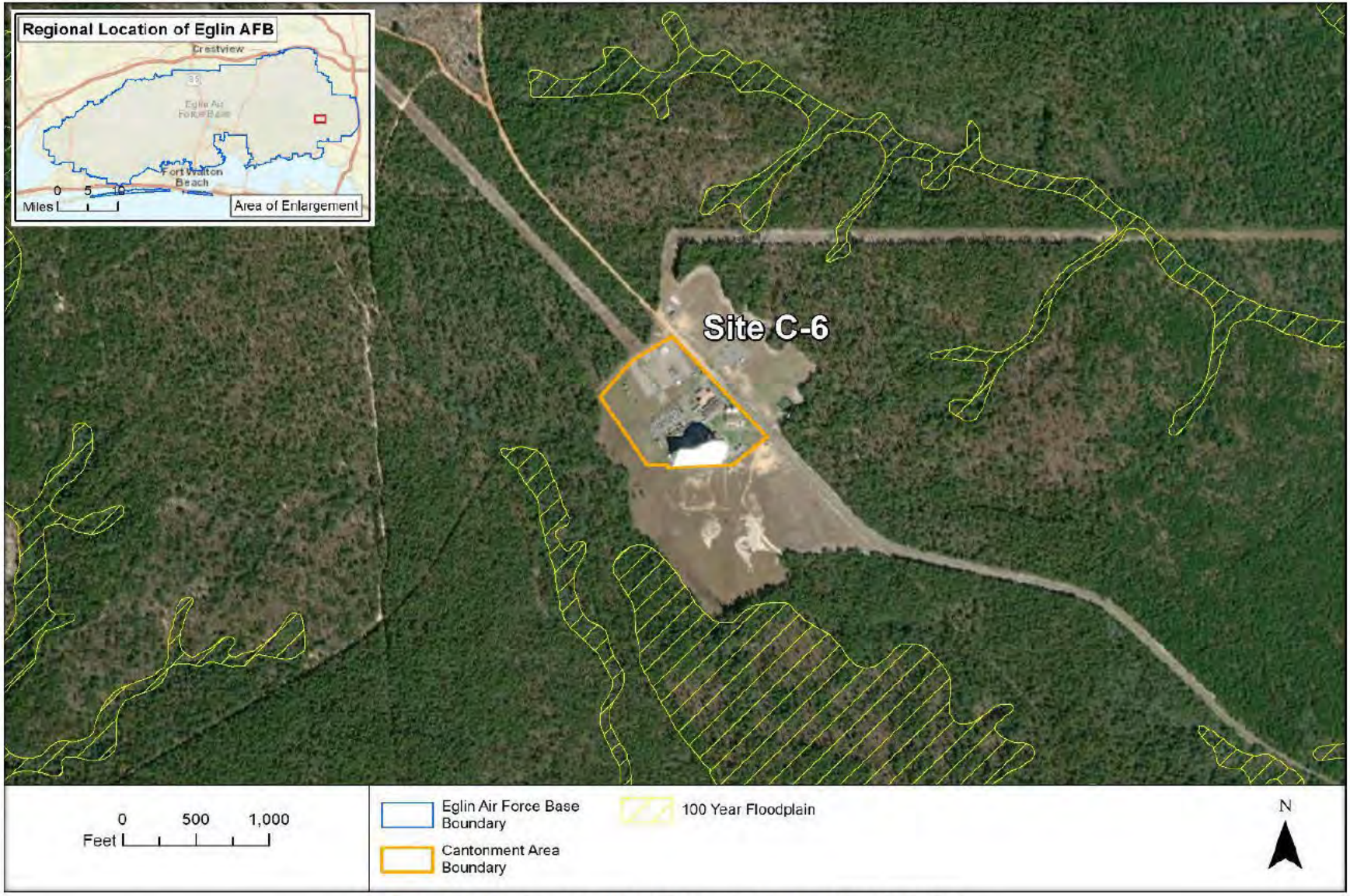

Figure 3.3-5 Surface Water Features On and Near Site C-6

Surface waters and streams are present in all the cantonment areas except Site C-6 **(Table 3.3-2)**. These features are most abundant on Eglin Main Base, while Camp Rudder has less than one acre (USGS, 2025a). Given its coastal location adjacent to Choctawhatchee Bay, Eglin Main Base is the only cantonment area where tidal waters are present or adjacent.

Table 3.3-2 Surface Water Features on the Eglin AFB Cantonment Areas

Water Features	Eglin Main (acres)	Camp Rudder (acres)	Camp Bull Simons (acres)	Duke Field (acres)	Site C-6 (acres)	Total (acres)
Forested and Scrub-Shrub Wetlands	341.79	0.32	0	0	0	**342.11**
Emergent Wetlands	69.82	0	0	0.74	0	**70.56**
Freshwater Ponds and Lakes	124.42	0.52	0	6.88	0	**131.82**
Estuarine and Marine Wetlands	17.37	0	0	0	0	**17.37**
Estuarine and Marine Deepwater Habitats	65.82	0	0	0	0	**65.82**
Riverine Habitats/Streams	32.49	0	0	0	0	**32.49**
Total (acres)	**651.71**	**0.84**	**0**	**7.62**	**0**	**660.17**

Sources: USFWS, 2025; Cowardin, 1979

Water Quality

FDEP classifies Florida surface waters into one of five categories: Class I (potable water supplies), Class II (Shellfish Propagation or Harvesting), Class III (Fish Consumption, Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife), Class IV (Agricultural Water Supplies, and Class V (Navigation, Utility, and Industrial Use) (FAC 62-302.400). Waters that are designated as impaired are those that, based on the presence of pollutants or other conditions, do not support one or more of the use categories. The state is required to prepare a Total Maximum Daily Load (TMDL) for each impaired water body to address how water quality will be restored to meet acceptable water quality standards (FDEP, 2025a).

Most surface waters within Eglin AFB property are classified as Class III. Impaired surface waters (Category 4 and 5) are present within the boundaries of Eglin Main Base. No impaired waters are present on the other four cantonments, although portions of Camp Bull Simons are within two impaired watersheds. Impaired waters and watersheds within or near each of the cantonment areas are summarized in **Table 3.3-3**.

Table 3.3-3 Summary of Impaired Surface Waters On or Near the Eglin AFB Cantonment Areas

Cantonment	Watershed
Eglin Main	Turkey Creek (contributes flow to Tom's Bayou) • Stream, Category 5 (Impaired) • Impairment by elevated metals concentrations (primarily Iron)
	Boggy Bayou (including portion of Tom's Bayou) • Estuary, Category 5 (Impaired) • Not currently Impaired, but cannot be de-listed yet because of elevated enterococci bacteria concentrations
	Airfield drainage channels and streams • Streams, Category 4D (Impaired) • Impairment because of low dissolved oxygen concentrations

Table 3.3-3 Summary of Impaired Surface Waters On or Near the Eglin AFB Cantonment Areas

Cantonment	Watershed
Eglin Main *(continued)*	Choctawhatchee Bay (middle and lower segments) • Estuary, Category 5 (Impaired) • Impairment becaue of elevated fecal coliform bacteria concentrations
	Garnier Bayou • Estuary, Category 4D (Impaired) • Impairment because of low dissolved oxygen concentrations
Camp Rudder	The nearest Impaired surface water is the Yellow River watershed (Category 5, Impaired because of elevated fecal coliform bacteria concentrations), approximately 3 to 6 miles northeast of the cantonment area.
Camp Bull Simons	No Impaired surface waters are within the cantonment area. However, the northwestern portion of the cantonment is located within the Yellow River watershed (Category 5, Impaired because of elevated fecal coliform bacteria concentrations) and the northeastern portion of the cantonment is within the Shoal River watershed (Category 5, Impaired because of elevated *Escherichia coli* bacteria concentrations).
Duke Field	The nearest Impaired surface water is the Shoal River watershed (Category 5, Impaired because of elevated *Escherichia coli* bacteria concentrations), approximately 3 miles northwest of the cantonment area.
Site C-6	The nearest Impaired surface water is Alaqua Creek (Category 5, Impaired because of elevated *Escherichia coli* bacteria concentrations), approximately 2 miles to the east.

Source: FDEP, 2025a

FDEP designates some high-quality surface waters as either Special Waters or Outstanding Florida Waters (OFWs). Though no OFWs are located within the five Eglin AFB cantonment areas, 10 are located within approximately 10 miles or less of Eglin AFB. OFWs include surface waters within the following (Eglin AFB, 2024a; FDEP, 2021):

- Rocky Bayou State Aquatic Preserve (2 miles south)
- Basin Bayou State Recreation Area (2 miles southeast)
- Fred Gannon Rocky Bayou State Recreational Area (3 miles southeast)
- Shoal River (4 miles north)
- Gulf Islands National Seashore (5 miles southwest)
- Topsail Hill State Park (5 miles southeast)
- Eden Gardens State Park (9 miles southeast)
- Henderson Beach State Park (9 miles southeast)
- Blackwater River State Park (10 miles northwest)
- Yellow River Marsh Aquatic Preserve (10 miles west)

Surface water quality in Florida is also protected through the FDEP Environmental Resource Permit program. The treatment of post-construction stormwater in Florida became mandatory in 1982. This technology-based rule is based on four principles (FDEP, 2024a):

1. A performance standard or goal for the minimum level of treatment.
2. Design criteria for BMPs to achieve the performance standard.
3. An expectation that discharges from a stormwater management system designed in accordance with the BMP design criteria will not cause harm to water resources.
4. Periodic review and updating of BMP design criteria, to increase their effectiveness in removing pollutants.

Currently, Florida's stormwater requirements are intended to "maintain, to the degree possible, during and after construction and development, the predevelopment stormwater characteristics of a site" (FDEP, 2024b). The regulations include a focus on removal of pollutants that bind to suspended sediment particles.

Eglin Main Base

Eglin Main Base includes the most abundant surface waters **(Figure 3.3-1)**, the largest areal extent, and the lowest elevations of the cantonment areas evaluated in this EA (averaging 20 to 80 feet MSL). This cantonment area contains portions of Tom's Creek, Doolittle Run, three unnamed streams, and seven unnamed ponds to the north. In the eastern portion of this cantonment are six unnamed ponds. To the south are Jack Lake, Upper Memorial Lake, Lower Memorial Lake, Bear Creek, Ben's Lake, three unnamed streams, and one unnamed pond. Along the west side of the cantonment area are Garnier Creek, a portion of Lightwood Knot Creek, and one unnamed stream. Wetlands are likely present along most stream channels throughout the cantonment area (USGS, 2025c).

Multiple tidal/estuarine bayous are present within Eglin Main Base, including Tom's Bayou (to the north), Weekley Bayou (to the east), and Boggy Bayou (to the northeast). Additional tidal waters include Choctawhatchee Bay itself (to the southeast) and its adjacent salt marshes and inter-tidal mud flats. Canals within Eglin Main Base may be the result of agricultural efforts to either drain adjacent wetlands or to reduce stream channel sinuosity decades ago, as they generally pre-date available aerial photographs. The developed portions of Eglin Main Base typically lack natural (undisturbed) surface waters, though stormwater conveyance channels are present in many areas. No apparent surface waters are present at Jackson Guard.

Camp Rudder

No mapped streams or wetlands are present within the boundaries of Camp Rudder, although Metts Creek and an unnamed pond are located to the east.

Camp Bull Simons

No mapped streams or wetlands are present within the boundaries of Camp Bull Simons **(Figure 3.3-3)**. Nearby streams outside the cantonment area boundary include Gopher Creek to the north, Turkey Hen Creek to the east, and an unnamed tributary to Turkey Gobbler Creek to the southwest. Because of its more recent construction, stormwater management basins are present throughout this cantonment area.

Duke Field

Surface waters within the boundaries of Duke Field primarily include streams and wetlands near the periphery of the cantonment area, with no apparent streams or wetlands within the developed portion of the cantonment **(Figure 3.3-4)**. Given the location of Duke Field on the broad ridge that generally bisects Eglin AFB property from northeast to southwest, the majority of runoff is toward the Shoal River via Silver Creek (to the north) and Pearl Creek (to the west). A smaller portion of the cantonment drains to the south (toward Juniper Creek). NWI mapping indicates the presence of a 7.62-acre wetland/open water system at the headwaters of Pearl Creek, in the western portion of the cantonment.

Site C-6

No surface waters are located within the boundaries of Site C-6 **(Figure 3.3-5)**. Little Basin Creek and mapped adjacent wetlands are located southwest of this cantonment area.

3.3.2.2 Groundwater

Both shallow surficial groundwater and a deeper regional aquifer are present beneath the cantonment areas evaluated in this EA. The high permeability of the predominantly sandy Lakeland soils beneath the cantonment areas results in an average depth to the shallow (surficial) water table of greater than 80 inches (USDA, 2025). Water quality in this shallow sand-gravel surficial groundwater is generally good, although the high soil permeability increases the risk of contamination from human land use activities (such as land development, agriculture, stormwater runoff, and chemical spills).

The deeper Floridan aquifer system underlies the entirety of Eglin AFB and the ROI. This system is one of the most productive aquifers in the world and encompasses approximately 100,000 square miles (including all of Florida and portions of South Carolina, Georgia, and Alabama). The thickness of the system varies from 100 to 2,600 feet and is primarily composed of Tertiary carbonate rocks (USGS, 2021). The northwest Florida portion of this larger overall aquifer system is shallower (with an average thickness of 200 to 600 feet) and is characterized by semi-consolidated sand at shallow depths, and by limestone and dolomite at deeper depths (USGS, 2025c). Its depth, lower permeability, and overlying clay confining strata help protect this deeper groundwater from many surface contaminants. Potable water used on Eglin AFB and the cantonment areas is generally withdrawn from this deeper Floridan aquifer system.

Saltwater intrusion can be a substantial concern in coastal areas when groundwater withdrawals exceed natural recharge rates. FDEP categorizes groundwater aquifers in the state based on contamination vulnerability as More Vulnerable, Vulnerable, or Less Vulnerable. Groundwater resources beneath Eglin Main Base are FDEP-classified as Less Vulnerable, while aquifer areas beneath the other four cantonments are listed as Vulnerable (FDEP, 2025b).

3.3.2.3 Stormwater

Within the cantonment areas, stormwater runoff is managed through a network of curb inlets, drop inlets, underground piping, ditches, canals, and stormwater basins. High permeability of the

predominant sandy Lakeland soils underlying the cantonments helps to minimize the volume of stormwater runoff and minimize the need for large numbers of detention/retention facilities (USDA, 2025). However, the low-gradient topography in portions of the cantonment areas can limit the rate of stormwater runoff downstream. Existing stormwater management measures within the cantonments are generally considered adequate (Eglin AFB, 2020). Stormwater management in the cantonment areas is further discussed below.

Eglin Main Base

Stormwater generated on Eglin Main Base is collected, conveyed, and discharged through a network of curb inlets, drop inlets, ditches, stormwater basins, and outfalls. The Eglin Main Base stormwater management system is permitted as an FDEP Phase II Municipal Separate Storm Sewer System and is administered by the 96 CEG/CEIEC in compliance with the requirements of the SWPPP for Eglin AFB. Stormwater runoff is to the north (toward Doolittle Run and Tom's Creek and Tom's Bayou), to the east (toward Boggy Bayou, Weekley Bayou, and Choctawhatchee Bay), to the south (toward Jack Lake, Bear Creek, Upper Memorial Lake, and Lower Memorial Lake, and Ben's Lake), and to the west (toward Garnier Creek, Lightwood Knot Creek, and Garnier Bayou).

Camp Rudder

Stormwater in this cantonment is managed by a network of ditches and culverts. Because of the low-gradient topography, the limited extent of impervious cover, and permeable sandy underlying Lakeland soils, stormwater infiltration in this cantonment helps minimize the volume of runoff. Stormwater that is discharged from the cantonment generally flows east, toward Metts Creek.

Camp Bull Simons

Stormwater is generally managed in this cantonment by a series of ditches and culverts, eventually conveying runoff to four dry detention basins, with larger basins to the northwest and southwest, and smaller basins near the eastern cantonment limits (Eglin AFB, 2020).

Duke Field

Stormwater generated on Duke Field is managed by curb inlets, drop inlets, ditches, and stormwater basins. Stormwater runoff is to the north (toward Silver Creek), the west (toward Pearl Creek), and to the south (toward Juniper Creek). The Duke Field/Auxiliary Field 3 Area Development Plan requires integration of low-impact design measures for future projects.

Site C-6

Stormwater generated on Site C-6 is managed by a network of ditches and culverts. Because of the low-gradient topography, the limited extent of impervious cover, and permeable sandy underlying Hurricane soils, stormwater infiltration in this cantonment helps minimize the volume of runoff. Stormwater that does discharge from the cantonment generally flows east, toward Little Basin Creek (though wastewater discharges are to the east toward Little Alaqua Creek).

3.3.2.4 Floodplains

Special Flood Hazard Areas (SFHAs), defined by the Federal Emergency Management Agency (FEMA) as areas subject to inundation by the 1 percent annual chance flood (100-year flood), are present throughout Eglin AFB and are associated with most streams on the installation. Eglin Main Base is the only cantonment area with SFHAs inside its boundaries **(Figure 3.3-1)**, although SFHAs may be present near other cantonment areas **(Figure 3.3-2** through **Figure 3.3-5)**. SFHAs on or near the cantonment areas are summarized in **Table 3.3-4**.

Table 3.3-4 Floodplains In or Near the Eglin AFB Cantonment Areas

Cantonment	Watershed
Eglin Main	SFHA Zone AE (1% annual flood, with established Base Flood Elevations of 7 to 10 feet MSL) and Coastal SFHA Zone VE (1% annual flood, with Base Flood Elevations of 11 to 13 feet MSL and fast-moving or storm-induced waves >3 feet in height) are present along Tom's Bayou, Jacks's Lake, Lower Memorial Lake, the entirety of the Choctawhatchee Bay shoreline, and multiple small tributary streams flowing to the bay.
Camp Rudder	No FEMA SFHAs are present on Camp Rudder. The closest FEMA SFHA (Zone A) is approximately 0.20 miles to the east along Metts Creek).
Camp Bull Simons	No FEMA SFHAs are present on Camp Bull Simons. The closest FEMA SFHA (Zone A) is approximately 0.25 miles to the west along an unnamed tributary of Turkey Gobbler Creek.
Duke Field	No FEMA SFHAs are present on Duke or within 0.25 miles of Duke Field.
Site C-6	No FEMA SFHAs are present on Site C-6. The closest FEMA SFHAs (Zone A) are approximately 0.10 miles to the southwest along Little Basin Creek and 0.16 miles to the northeast along an unnamed tributary to Little Alaqua Creek.

Source: FEMA, 2021

3.3.2.5 Coastal Zone Management

The CZMA provides assistance to states, in cooperation with federal and local agencies, for developing land and water use programs in coastal zones. Section 307 of the CZMA stipulates that federal projects that affect land uses, water uses, or other coastal resources of a state's coastal zone must be consistent with the enforceable policies of that state's federally approved coastal management plan.

Florida's coastal zone includes the entirety of the state's 67 counties and adjacent territorial waters. The federally approved Florida Coastal Management Program (FCMP) comprises 24 Florida statutes that are intended to protect and enhance the state's natural, cultural, and economic coastal resources. Under the FCMP, federal consistency requirements apply to proposed federal actions that would occur in any of Florida's 35 coastal counties or adjoining territorial waters (FDEP, 2024c).

Portions of Eglin AFB are within Santa Rosa, Okaloosa, and Walton Counties, which are all counties where federal consistency requirements are applicable. As a federally owned military installation, Eglin AFB is statutorily excluded from Florida's coastal zone. However, federal actions occurring at Eglin AFB that have the potential to affect coastal zone resources outside the installation's boundaries must be consistent with the statutes that constitute the FCMP. Therefore,

Eglin AFB is required to evaluate the consistency of proposed activities potentially affecting Florida's coastal zone resources with the FCMP.

3.3.3 Environmental Consequences

3.3.3.1 Evaluation Criteria

Adverse impacts on water resources would include rechanneling or altering surface water features (including wetlands), increased sedimentation or turbidity in receiving water bodies from runoff of sediments and pollutants from construction sites, or accidental spills or releases of petroleum products or other hazardous materials during construction. Adverse impacts on water resources would be considered significant if any of the following occurred or resulted from the Proposed Action:

- *Surface Waters (including streams, wetlands, and water quality)*: The Proposed Action would contribute to the impairment of surface water bodies or impede or prevent the water quality objectives of applicable TMDLs, or result in wetland impacts that could not be avoided, compensated, or mitigated through USACE and FDEP permitting requirements.
- *Groundwater*: New or additional withdrawals of groundwater that would exceed the capacity of underlying aquifers or increase the potential for saltwater intrusion; would result in the release of hazardous materials that would prevent Floridan aquifer groundwater from being used for potable water and sanitation purposes; or would require the abandonment of existing wells.
- *Stormwater*: Discharges from construction sites would not comply with applicable FDEP permitting requirements, or additional volumes of stormwater resulting from increases in impervious surface associated with the Proposed Action would exceed applicable NPDES stormwater quantity and quality treatment requirements.
- *Floodplains*: Activities occurring in floodplains would alter floodplain hydrology and function and result in unmitigated increases in the downstream displacement of floodwaters and risks to property and human safety.
- *Costal Zone Management:* The Propsoed Action would not be fully consistent with the enforceable policies of the FCMP.

3.3.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Before proposed construction and development projects would be implemented under Alternative 1, proponents would submit AF Form 813 to the Eglin AFB EPO for review. These reviews would consider potential impacts on water resources from each site-specific project as well as compliance with the CWA and other applicable laws and regulations that address water resources. As applicable, all proposed construction and demolition (C&D) projects collectively disturbing 1 or more acres and discharging stormwater to surface waters of the state or to a municipal separate storm sewer system would be required to obtain coverage under an NPDES CGP in accordance with FAC Rule 62-621. In accordance with these permits, contractors would prepare and adhere to a comprehensive SWESCP and SWPPP to manage soil erosion and stormwater runoff and

minimize corresponding increases in the sedimentation, pollution, and turbidity of receiving water bodies.

It is anticipated that most proposed construction and development projects would be implemented in developed and previously disturbed areas of the cantonment areas and would not affect wetlands or other surface waters. However, if construction or other disturbance of wetlands or surface waters is required, proponents would delineate potentially affected features and obtain and comply with all necessary permits issued by USACE and FDEP, including applicable avoidance, compensation, and mitigation measures. Contractors would also obtain and comply with ERPs issued by FDEP for projects occurring on or over wetlands or other surface waters in Florida.

Hazardous materials used on project sites would be managed in accordance with the Eglin AFB Hazardous Waste Management Plan (HWMP) to prevent accidental releases or spills that could migrate to receiving water bodies or underlying aquifers. Any accidental spills would be immediately contained and cleaned up in accordance with the Eglin AFB Spill Prevention, Control, and Countermeasures (SPCC) Plan to prevent downstream or groundwater contamination.

It is anticipated that most proposed facilities requiring potable water would connect to the existing water distribution system serving Eglin AFB and would not require installation of new potable water wells. If a new well is required for a proposed facility, the Eglin AFB EPO and the project proponent would coordinate with local water management authorities and conduct additional reviews or studies to identify available capacity and potential effects on underlying aquifers. The installation and operation of new wastewater injection wells is not anticipated under Alternative 1.

Proposed projects on Camp Bull Simons and Site C-6 would have no potential to affect floodplains outside the boundaries of those cantonment areas. Proposed activities in floodplains on Eglin Main Base would primarily be limited to maintenance such as airfield landscaping (mowing, trimming, and tree removal) to maintain flight safety buffers, maintaining existing fence lines and utility rights-of-way, and installation and maintenance of water-dependent structures such as stormwater outfalls, docks, and piers. Any proposed project that would require activity within a floodplain would be planned, designed, and constructed to maintain floodplain hydrology and function and prevent that downstream displacement of floodwaters that could increase the risks to property and human safety.

In the long term, new facilities and infrastructure constructed under Alternative 1 would have the potential to increase the amount of impervious surface on Eglin AFB, resulting in corresponding increases in stormwater volume generated on the cantonment areas. Such increases would be partially offset by proposed demolition of existing facilities and infrastructure. All net increases in stormwater volume and discharge would be managed in accordance with the applicable requirements of Eglin AFB's NPDES permit to ensure pollutant concentrations do not exceed applicable regulatory limits. Continued management of stormwater generated on Eglin AFB in this manner would not contribute to new impairments of receiving water bodies and would not prevent or impede achievement of water quality objectives in applicable TMDLs. None of the proposed construction and development projects would be expected to establish new regulated point source discharges of pollutants at Eglin AFB. In the context of Eglin AFB, which contains large tracts of

undeveloped land, increases in impervious surface associated with Alternative 1 would not meaningfully affect infiltration and recharge of underlying aquifers.

Eglin AFB has determined that the Proposed Action (Alternative 1 and Alternative 2) would be consistent with the applicable Florida statutes of the FCMP. The DAF's Federal Consistency Determination summarizing the Proposed Action's consistency with the FCMP is provided in **Appendix B**. FDEP's concurrence with this determination is pending. Federal consistency requirements for site-specific projects would be addressed by the Eglin AFB EPO and project proponents during reviews of AF Form 813, as applicable.

For the reasons described above, and through reviews of AF Form 813 before each site-specific project would be implemented, Alternative 1 would have no significant short- or long-term adverse impacts on water resources.

3.3.3.3 Alternative 2 – Reduced Levels of Development

Impacts on water resources from Alternative 2 would be similar to those described for Alternative 1, except that there could be less potential for impacts because fewer construction and development projects would be implemented. Through review of AF Form 813 for each site-specific project and adherence to applicable permitting requirements and BMPs, short- and long-term adverse impacts on water resources from Alternative 2 would not be significant.

3.3.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA (**Section 1.1.2**) based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin AFB EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on water resources would not be significant.

3.3.3.5 Cumulative Effects

Reasonably foreseeable future actions summarized in **Section 3.1.2** would have the potential to impact water resources. The severity, extent, and duration of potential effects would vary based on the type of project; however, coordination with appropriate regulatory authorities and adherence to applicable permitting requirements and BMPs would ensure that adverse impacts on water resources from those projects would not be significant. Furthermore, given the dispersion of the cantonment areas (3 to 18 miles apart), the seven different watersheds where the cantonments are located, and the presence of Eglin AFB EPO personnel providing project oversight to ensure compliance with regulatory requirements, the Proposed Action would not contribute to cumulatively significant adverse impacts on water resources when considered with other reasonably foreseeable actions occurring on and around Eglin AFB.

3.3.3.6 Mitigation

Potential impacts on water resources would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on water resources.

3.4 Soils

3.4.1 Definition of the Resource

Soils are "the unconsolidated mineral or organic material on the immediate surface of the Earth that serves as a natural medium for the growth of land plants, and is the unconsolidated mineral or organic matter on the surface of the Earth that has been subjected to and shows effects of genetic and environmental factors of: climate (including water and temperature effects), and macro- and microorganisms, conditioned by relief, acting on parent material over a period of time" (SSSA, 2025). Soil provides critical nutrients and physical structure for vegetative root growth, improves surface water and ground water quality by filtering precipitation via infiltration and microbial activity, supports agricultural productivity (crops and livestock pasture/forage), and serves wildlife by promoting growth of vegetation that can be used as habitat or a source of food. Soils and soil characteristics are critical for human health (crop production), building construction (compaction, drainage, strength, shrink/swell potential, and organic matter content), and landscape stability (erodibility, cohesion, nutrient content, and structure).

Soils in portions of the Eglin AFB cantonment areas may be identified as prime or unique farmland, or farmland of statewide (or local) importance, as defined by the Farmland Protection Policy Act of 1981. However, the historical military use of Eglin AFB constitutes an irreversible commitment to a non-agricultural land use and precludes the formal designation or use of these areas as federal, state, or locally protected farmland.

The soils ROI consists of the five Eglin AFB cantonment areas.

3.4.2 Affected Environment

3.4.2.1 Eglin AFB Soils – Overview

Eglin AFB is located within the Western Highlands Province, which is part of the larger overall Southern Pine Hills Physiographic District of northwestern Florida. Geologically, this area is underlain by the Citronelle Formation (beneath all five cantonment areas evaluated in this EA) and Undifferentiated Sediments (beneath a portion of Eglin Main Base, along the Choctawhatchee Bay coast to the southeast). Rock and sediment distribution characterizes Eglin Main Base as being in an area of medium-fine sand and silt, while Site C-6 is in a region of sandy clay and clay. The other three cantonments are predominantly underlain by gravel and coarse sand (FDEP, 2025c).

Soils underlying the five Eglin AFB cantonment areas in this region are generally sandy, well-drained, and nonhydric (nonwetland), with very few being designated as prime farmland, farmland of state importance, or farmland of local importance. Soils underlying all the cantonments except Site C-6 are composed of 65 to 95 percent Lakeland sandy soils, with an additional 13 to 18 percent Urban Land and Udorthent (cut/fill) soils (USDA, 2025).

Within the developed portions of the cantonment areas, soils that have undergone previous disturbance from excavation and fill associated with construction (Urban Land or Udorthents) are susceptible to erosion, particularly those on steep slopes, along streambanks, at construction sites (such as bare, exposed, or unvegetated soil), and where subjected to concentrated stormwater runoff. Soil erosion in Florida is often accelerated by high annual precipitation, intense summer thunderstorms, and periodic hurricanes. However, high infiltration rates in sandy soils and low-gradient topography in some areas help reduce the severity of such erosion. Soil erosion associated with construction or other land-disturbing activities on Eglin AFB is managed in accordance with the installation's *Erosion Control Component Plan* (Eglin AFB, 2023).

Soils underlying each of the cantonment areas are shown on **Figure 3.4-1** through **Figure 3.4-5** and are further discussed below.

3.4.2.2 Eglin Main Base

Eglin Main Base is underlain by nine soil series **(Table 3.4-1)**. Soils characterized as Lakeland sand (60.1 percent) and Urban Land (16.5 percent) are the most extensive. Lakeland sand is classified as excessively drained, is nonhydric (nonwetland), is not designated farmland, and has average slopes of 0 to 5 percent (USDA, 2025). This upland soil series is often found along broad, low-gradient ridges, is often used for silviculture (timber production) or livestock pasture, and does not retain nutrients well because of its excessive drainage (making it generally unsuitable for row crops). Urban Land characteristics are often highly variable, as these soils have been extensively modified by grading, excavation/fill, compaction, impervious cover, and artificial drainage.

Table 3.4-1 Eglin Main Base Soils

Map Unit [1]	Map Unit Name	Hydric Soil	Designated Farmland	Percent of Cantonment
12	Lakeland sand, 0-5% slopes	No	No	60.1
27	Urban Land	No	No	16.5
4	Chipley and Hurricane soils, 0-5% slopes	No	No	6.4
8	Foxworth sand, 0-5% slopes	No	No	6.2
13	Lakeland sand, 5-12% slopes	No	No	2.8
6	Dorovan muck, frequently flooded	Yes, 66-99%	No	2.5
14	Lakeland sand, 12-30% slopes	No	No	2.3
20	Udorthents, nearly level	No	No	0.4
2	Arents, 2-8% slopes	No	No	0.4
-	Water	N/A	N/A	2.4

Notes:
[1]Map Unit numbers correspond to numbers shown on **Figure 3.4-1**.
Source: USDA, 2025

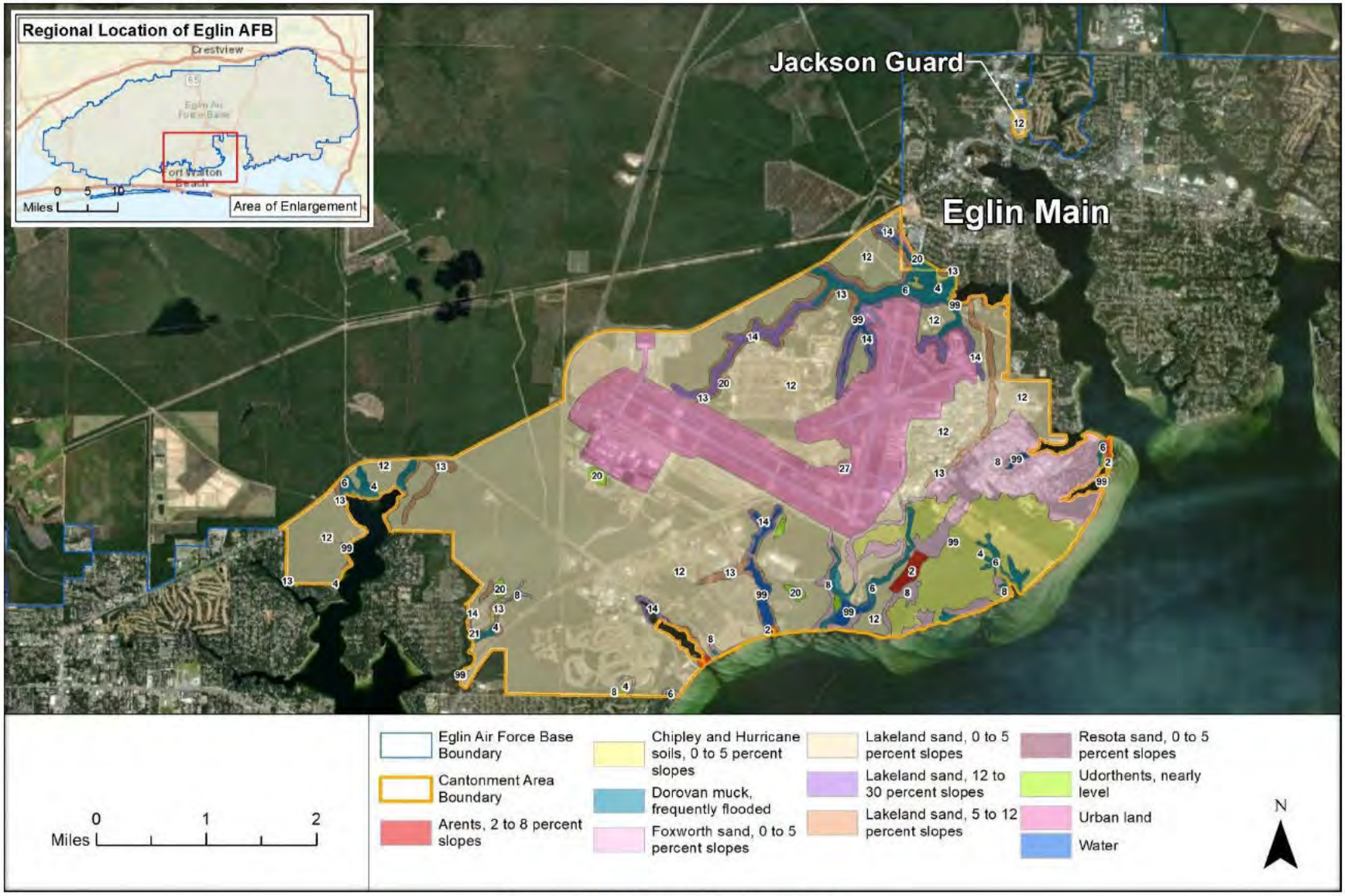

Figure 3.4-1 Eglin Main Base Soils

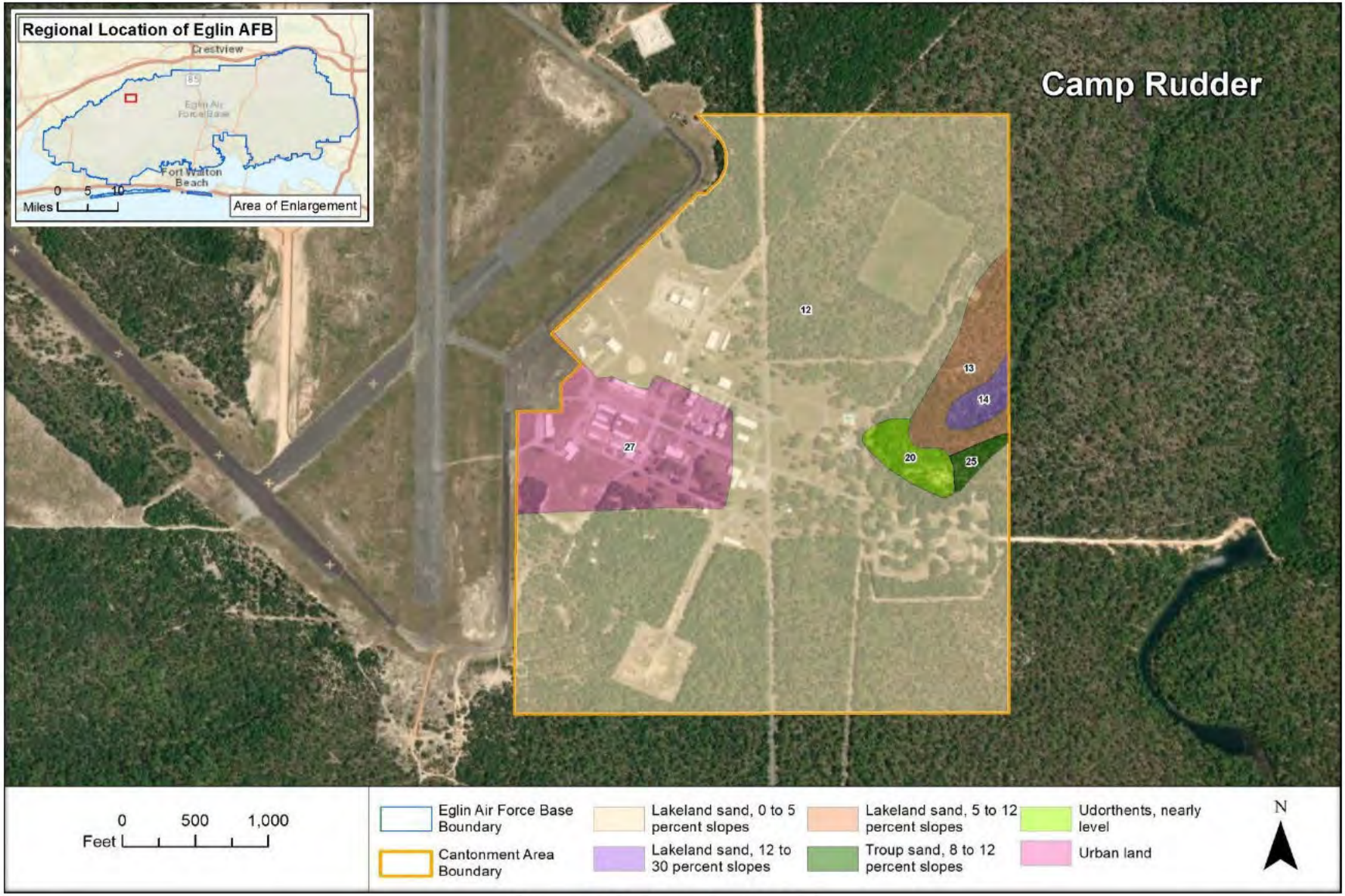

Figure 3.4-2 Camp Rudder Soils

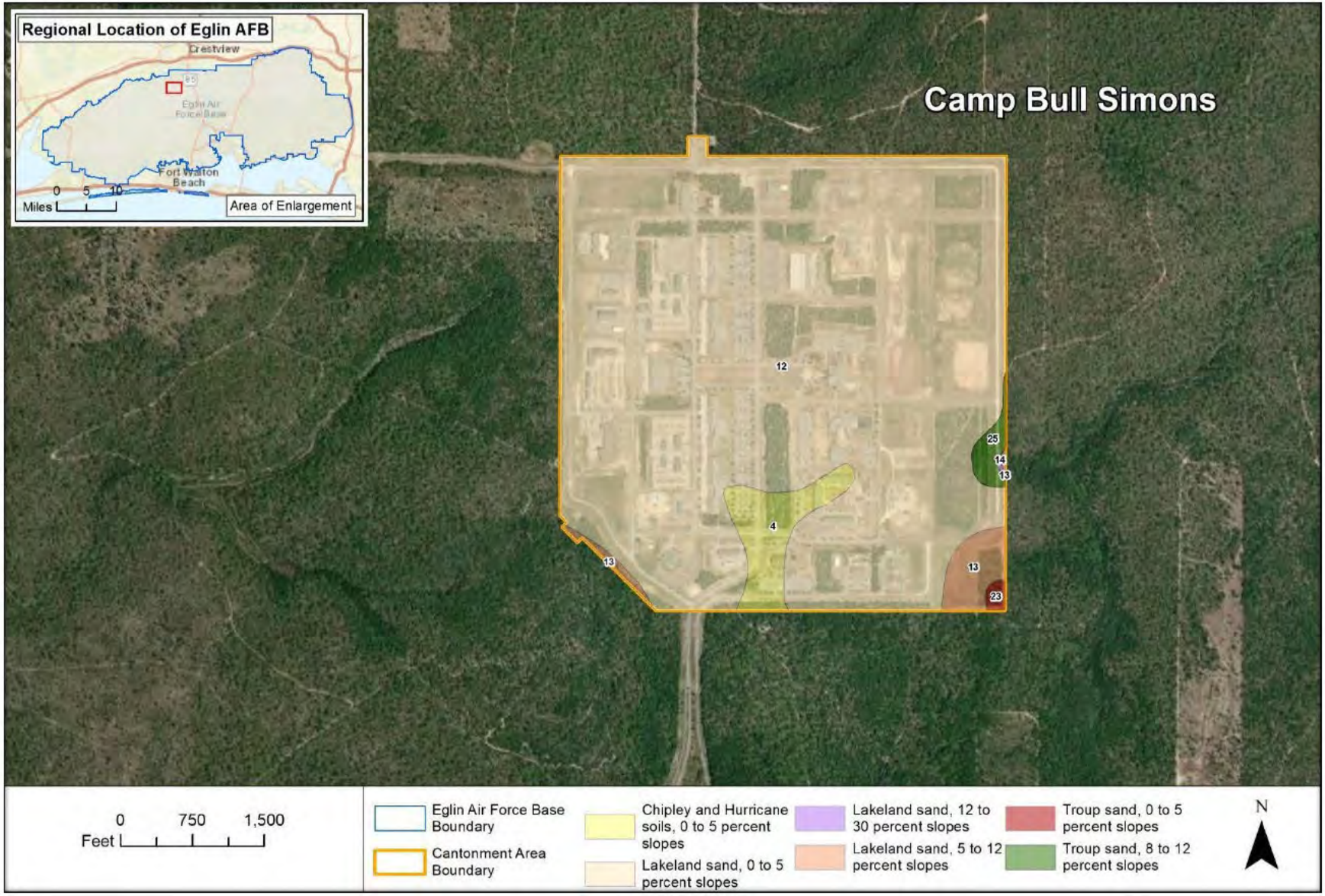

Figure 3.4-3 Camp Bull Simons Soils

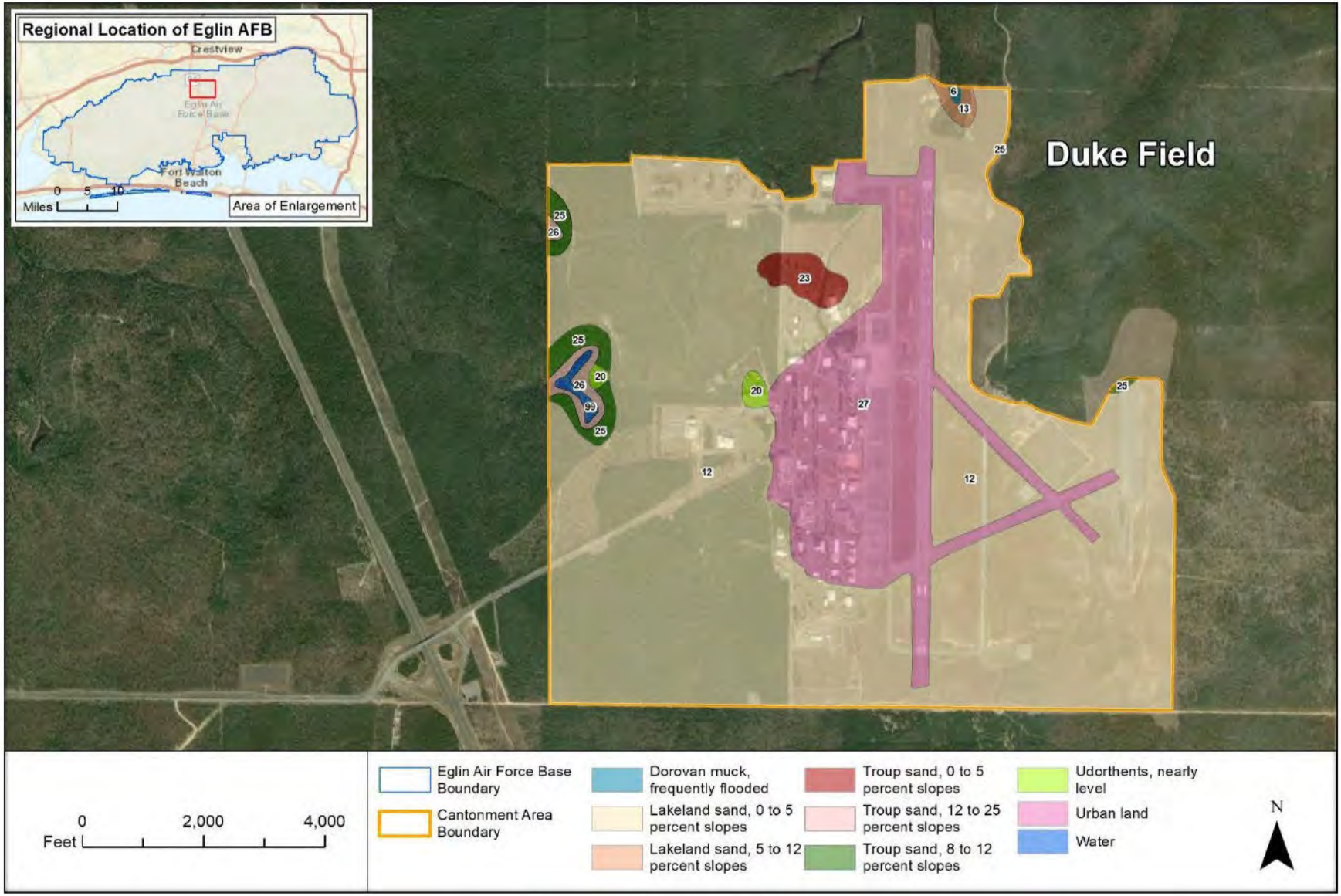

Figure 3.4-4 Duke Field Soils

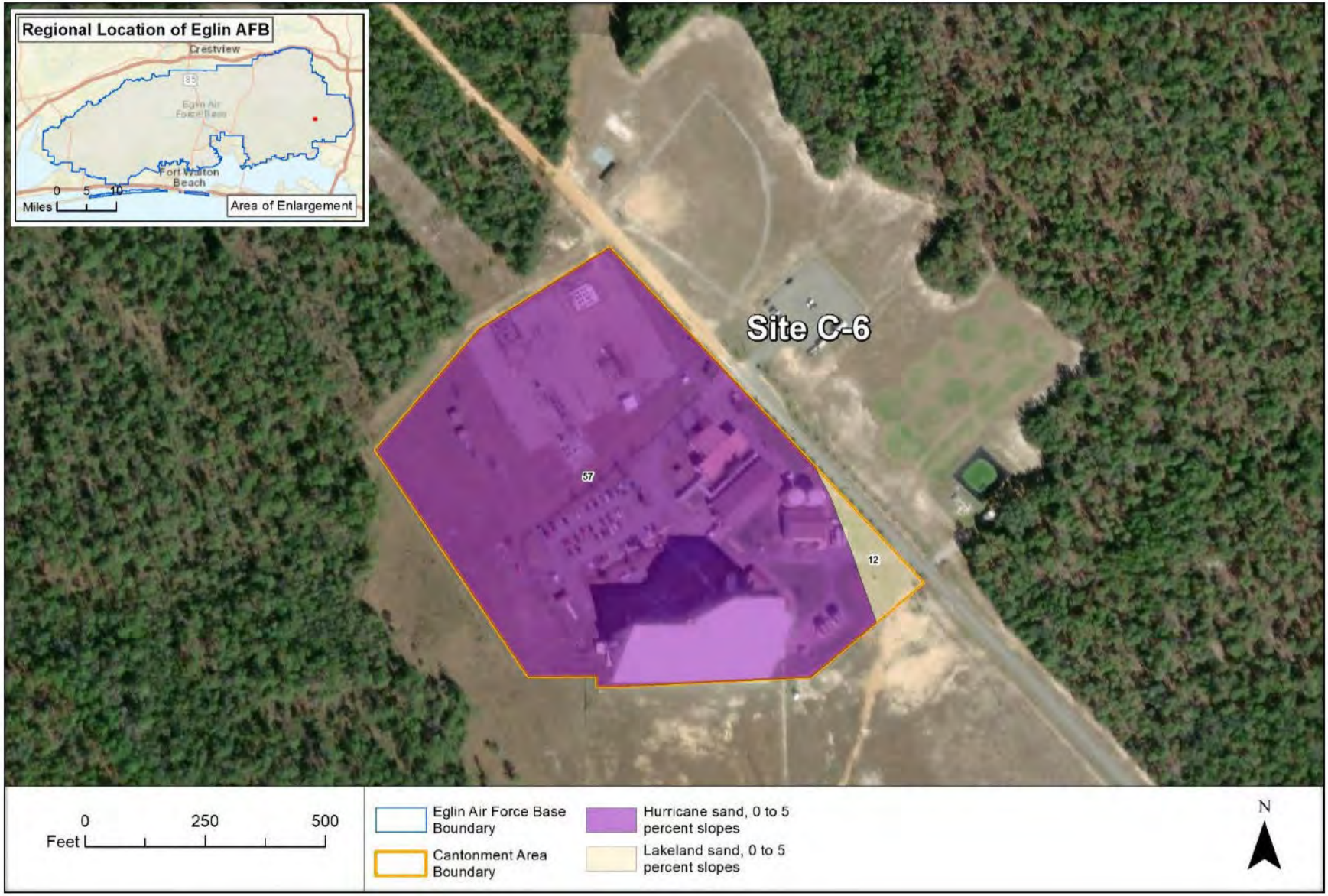

Figure 3.4-5 Site C-6 Soils

3.4.2.3 Camp Rudder

Camp Rudder is underlain by six soil series **(Table 3.4-2)**, with Lakeland sand (excessively drained, nonhydric, nonfarmland soil, with 0 to 5 percent slopes) being the most extensive (at 83.3 percent). On-site elevations range from approximately 100 to 140 feet MSL (USGS, 2025a).

Table 3.4-2 Camp Rudder Soils

Map Unit [1]	Map Unit Name	Hydric Soil	Designated Farmland	Percent of Cantonment
12	Lakeland sand, 0-5% slopes	No	No	83.3
27	Urban Land	No	No	11.2
13	Lakeland sand, 5-12% slopes	No	No	2.8
20	Udorthents, nearly level	No	No	1.6
14	Lakeland sand, 12-30% slopes	No	No	0.6
25	Troup sand, 8-12% slopes	No	No	0.5

Notes:
[1] Map Unit numbers correspond to numbers shown on **Figure 3.4-2**.
Source: USDA, 2025

3.4.2.4 Camp Bull Simons

Camp Bull Simons is underlain by five soil series **(Table 3.4-3)**. Lakeland sand is the most extensive (excessively drained, nonhydric, nonfarmland soil, with 0 to 5 percent slopes), underlying approximately 93.2 percent of the cantonment area. Camp Bull Simons is located on a broad hill, with on-site elevations thatrange from approximately 170 to 220 feet MSL (USGS, 2025a).

Table 3.4-3 Camp Bull Simons Soils

Map Unit [1]	Map Unit Name	Hydric Soil	Designated Farmland	Percent of Cantonment
12	Lakeland sand, 0-5% slopes	No	No	91.5
4	Chipley and Hurricane soils, 0-5% slopes	No	No	3.9
13	Lakeland sand, 5-12% slopes	No	No	2.0
25	Troup sand, 8-12% slopes	No	No	2.4
23	Troup sand, 0-5% slopes	No	Yes, farmland of local importance	0.2

Notes:
[1] Map unit numbers correspond to numbers shown on **Figure 3.4-3**.
Source: USDA, 2025

3.4.2.5 Duke Field

Duke Field is generally underlain by eight soil series **(Table 3.4-4)**. The predominant soil series is Lakeland sand (excessively drained, nonhydric, nonfarmland soil, with 0 to 5 percent slopes), representing 77.4 percent of soils on the cantonment area. The developed portion of this cantonment area is generally on a broad knoll. On-site elevations range from approximately 170 to 220 feet MSL (USGS, 2025a).

Table 3.4-4 Duke Field Soils

Map Unit [1]	Map Unit Name	Hydric Soil	Designated Farmland	Percent of Cantonment
12	Lakeland sand, 0-5% slopes	No	No	77.4
27	Urban Land	No	No	17.6
25	Troup sand, 8-12% slopes	No	No	2.4
23	Troup sand, 0-5% slopes	No	Yes, farmland of local importance	1.0
26	Troup sand, 12-25% slopes	No	No	0.6
20	Udorthents, nearly level	No	No	0.4
13	Lakeland sand, 5-12% slopes	No	No	0.3
6	Dorovan muck, frequently flooded	Yes, 66-99%	No	0.1
-	Water	N/A	N/A	0.2

Notes:
[1] Map unit numbers correspond to numbers shown on **Figure 3.4-4**
Source: USDA, 2025

3.4.2.6 Site C-6

Site C-6 is underlain by two soil series **(Table 3.4-5)** (USDA, 2025). Hurricane sand (somewhat poorly drained, nonhydric, locally important farmland soil, with 0 to 5 percent slopes) is the predominant soil type here (at 87.4 percent). This cantonment area is located on a northwest-southeast ridgeline, with elevations of 130 to 140 feet MSL (USGS, 2025a).

Table 3.4-5 Site C-6 Soils

Map Unit [1]	Map Unit Name	Hydric Soil	Designated Farmland	Percent of Cantonment
57	Hurricane sand, 0-5% slopes	No	Yes, farmland of local importance	87.4
12	Foxworth sand, 0-5% slopes	No	Yes, farmland of local importance e	4.0

Notes:
[1] Map unit numbers correspond to numbers shown on **Figure 3.4-5**.
Source: USDA, 2025

3.4.3 Environmental Consequences

3.4.3.1 Evaluation Criteria

Adverse impacts on soils would include most types of soil disturbance associated with proposed construction and development projects, such as excavation, backfill, grading/leveling, trenching, boring, vegetation removal, building and facility demolition, and compaction. Accidental spills or releases of hazardous materials to underlying soil would also represent an adverse impact. Adverse impacts would be significant if a proposed project resulted in temporary or ongoing soil erosion or loss that could not be managed through adherence to applicable permitting requirements, BMPs, and construction practices; construction on soils that are unsuitable to support operation of the facility or project; or accidental spills or releases that could not be contained, cleaned up, or otherwise managed in accordance with the Eglin AFB SPCC Plan.

3.4.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Alternative 1 would authorize up to 824 acres of land disturbance during proposed construction and development projects on the cantonment areas **(Table 2.3-1)**. The largest amounts of land disturbance are expected to occur on Eglin Main Base (444.5 acres) and Duke Field (251.1 acres), with less than 100 acres of disturbance occurring at Camp Rudder and Camp Bull Simons. Land disturbance at Site C-6 would not exceed 5 acres. Generally, most of the proposed construction and development projects that would be implemented under Alternative 1 would occur in previously developed or disturbed areas of each cantonment area. Most effects would be limited to soils classified as Lakeland sand (the most common soil type throughout Eglin AFB) and Urban Land (previously excavated/filled/graded/disturbed soil).

Before site-specific projects would be implemented, soils would be analyzed at the project level to identify and quantify their suitability to support development. This step could include analysis of soil characteristics such as load bearing strength, shrink/swell potential, drainage capacity, and potential for subsidence. As necessary, design and engineering practices would address relevant soil limitations at each project site. Existing soils on project sites would be screened and sampled for their development suitability and presence of potential contaminants. Contaminated or otherwise impacted soils would be excavated and disposed of at a permitted facility outside Eglin AFB in accordance with applicable federal, state, and local requirements before construction or other land-disturbing activities would be implemented. Soils considered suitable to support intended development would be imported to project sites as needed to supplement less-suitable soils. Any soils imported to individual project sites to support development would be tested and screened to ensure that they do not contain contaminants that could pose a risk to human health and safety.

Land disturbance associated with construction and development could include excavation, backfilling, grading/leveling, trenching or boring (to install, upgrade, or replace subsurface infrastructure), demolition of existing buildings and structures, removal of foundation elements, vegetation removal, and compaction (to prepare sites for building construction, and from operation of vehicles and heavy equipment). Soils exposed during construction are susceptible to increased erosion from wind and water.

Potential adverse effects on soils (including soil loss, contamination, and structural alteration) would be managed at the individual project level. Before site-specific projects would be implemented, proponents would submit AF Form 813 to the Eglin AFB EPO for review. These reviews would include consideration of existing soil conditions, potential effects on soils, and applicable permitting requirements and BMPs. All proposed projects involving land disturbance would adhere to the applicable requirements of the Eglin AFB *Erosion Control Component Plan*. Furthermore, individual projects collectively disturbing 1 or more acres of land that would discharge stormwater to surface waters of the state or to a municipal separate storm sewer system would obtain coverage under a National Pollutant Discharge Elimination System Construction General Permit in accordance with FAC Rule 62-621. Such coverage would include preparation and adherence to a comprehensive stormwater erosion and sediment control plan and SWPPP as part of final plan design. Projects disturbing 1 or more acres of land would also obtain a Stormwater

Discharge Permit with stormwater retention and design in accordance with FAC Rule 62-346. It is anticipated that proposed construction and development projects under Alternative 1 would avoid disturbance of wetlands; however, contractors would obtain an ERP in accordance with FAC Rule 62-330, as applicable, for projects that would have the potential to occur on or over wetlands or other surface waters.

Construction contractors would incorporate and adhere to applicable BMPs in accordance with permitting requirements and soil considerations to prevent or minimize soil erosion and corresponding runoff of sediments and pollutants to receiving water bodies. Such BMPs could include covering soil stockpiles; temporarily vegetating soils that would be exposed for extended periods; staging construction equipment and materials on existing gravel or paved surfaces; and prohibiting operation of vehicles and heavy equipment in areas containing soils that are particularly susceptible to erosion, rutting, or compaction. All contractors would adhere to the applicable requirements of the Eglin AFB HWMP and SPCC Plan to manage the use of hazardous materials on project sites and prevent or immediately contain and clean up any accidental spills or releases.

As construction activities are completed on each project site, soils that are not built on or otherwise developed would be graded to achieve or maintain positive drainage and seeded to help prevent erosion. Soil disturbance would end after construction and development projects have been completed. None of the proposed construction and development projects would involve ongoing soil disturbance or intentional releases of contaminants to soil. Implementation of proposed projects over 5 to 7 years would minimize construction-related impacts on soils and ensure that all soil impacts would not occur simultaneously.

Therefore, Alternative 1 would have no significant short- or long-term adverse impacts on soils.

3.4.3.3 Alternative 2 – Reduced Levels of Development

Short- and long-term impacts on soils from Alternative 2 would be similar to those described for Alternative 1, except that there would be reduced potential for impacts because fewer construction and development projects would be implemented. Alternative 2 would have no significant short-term or long-term adverse effects on soils through review of AF Form 813 for each site-specific project, consideration and planning for soil conditions on each project site, and adherence to applicable permitting requirements and BMPs.

3.4.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA (**Section 1.1.2**) based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin AFB EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other

applicable environmental compliance requirements would ensure that potential impacts on soils would not be significant.

3.4.3.5 Cumulative Effects

Reasonably foreseeable future actions summarized in **Section 3.1.2** could have short-term and long-term adverse impacts on soils. The extent and duration of these impacts would vary based on factors such as the scale, duration, and location of each project. However, coordination between project proponents and appropriate authorities and adherence to applicable permitting requirements and BMPs would ensure that potential adverse impacts on soils from these projects would be prevented or minimized and would remain less than significant. Therefore, when considered with other reasonably foreseeable future actions, the Proposed Action would not contribute to cumulatively significant adverse impacts on soils.

3.4.3.6 Mitigation

Potential impacts on soils would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on soils.

3.5 Air Quality

3.5.1 Definition of the Resource

In the context of this EA, air quality refers to the concentration of specific pollutants in the atmosphere. Air quality in a given location is influenced by the type and amount of pollutants in the air, the size and topography of the airmass, and the existing weather conditions. Pollutants considered in the analysis of air quality are emitted from man-made sources (such as power plants and cars), as well as natural sources, such as volcanic eruptions and forest fires.

The CAA is the federal law (42 U.S.C. section 7401 et seq.) that was established to regulate air quality for the protection of public health and welfare. As required by the CAA, the U.S. Environmental Protection Agency (USEPA) set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for certain pollutants of concern, called criteria pollutants. These criteria pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter (including particulates equal to or less than 10 microns in diameter [PM_{10}] and particulates equal to or less than 2.5 microns in diameter [$PM_{2.5}$]), and lead (Pb). Ozone is formed in the atmosphere through a series of complex reactions with other pollutants (ozone precursors) that are directly emitted into the air from emission sources. Nitrogen oxides (NO_x) and volatile organic compounds (VOCs) are considered ozone precursors and O_3 is indirectly controlled by setting NAAQS for these precursors.

The USEPA has established Air Quality Control Regions (AQCRs) throughout the United States to evaluate compliance with the NAAQS. Federal regulations describe areas below the NAAQS as attainment areas, and those that exceed the NAAQS as nonattainment. The CAA also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and for achieving attainment with the NAAQS. Attainment areas that were reclassified from a previous nonattainment status to attainment are called maintenance areas and are required to prepare a maintenance plan for air quality.

The USEPA's General Conformity Rule (40 CFR 93) applies to federal actions in a nonattainment or maintenance area. The rule requires an analysis to determine if the federal action would conform to the SIP. A federal action is exempt from SIP conformity evaluation if the total indirect and direct net emissions from the project would be below *de minimis* levels for each of the pollutants as specified in 40 CFR § 93.153.

Under the CAA, USEPA's Prevention of Significant Deterioration (PSD) New Source Review permit program regulations apply in attainment areas. These regulations apply to a new major stationary source that would have the potential to emit 250 tons per year (tpy) of any regulated pollutant, and to a significant modification to a major stationary source, as defined.

Greenhouse gases (GHG) are gases in the earth's atmosphere that trap heat near the surface of the earth and, therefore, contribute to the warming of the planet. While most GHG occur naturally in the air, it is the rapid accumulation of GHG from human activities, such as the burning of fossil fuels, that is considered to intensify the warming. The primary GHG include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Emissions from GHG are typically quantified and expressed in terms of the CO_2 equivalent (CO_2e), which is a measure used to compare the emissions from various GHG based on their Global Warming Potential (GWP). The GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more that a given gas warms the earth compared with CO_2 over the same time period. USEPA regulates GHG emissions via permitting and reporting requirements that are applicable mainly to large stationary sources of emissions.

Eglin AFB is located in Okaloosa, Santa Rosa, and Walton Counties, which are within the Mobile (Alabama)-Pensacola-Panama City (Florida)-Southern Mississippi Interstate AQCR (40 CFR 81.68). Generally, this AQCR is the ROI for the air quality analysis in this EA. However, effects from different types of pollutants may be experienced at different geographic scales. Potential effects from pollutants emitted directly from an emissions source, such as CO and SO_2, are typically confined to areas near the source of emissions and will typically be smaller. Effects from secondary pollutants, those formed via chemical reactions in the atmosphere after being emitted and formed some distance away from the source, typically occur over a larger regional area. Secondary pollutants include O_3 and its precursors NO_x and VOCs and precursors of PM_{10} and $PM_{2.5}$. GHG are typically assessed at a regional or global scale.

See Appendix C for a detailed discussion on air quality regulations, ROIs, general conformity, and GHGs.

3.5.2 Affected Environment

3.5.2.1 Regional Climate

The regional climate of northwestern Florida (also referred to as the "panhandle") is classified as humid subtropical, which is characterized by mild winters and hot and humid summers. The region is heavily influenced by a semipermanent subtropical cyclone, referred to as the Bermuda High, located east and southeast of Florida. The circulation around this high-pressure system results in a moist maritime air flow across the Gulf of America and the southeastern United States. The warmest months are July and August, with average high and low temperatures of approximately 89 degrees Fahrenheit (°F) and 74°F. January is the coldest month, with an average high temperature of 60°F and average low temperature of 42°F. The wettest month is July, with an average of 7.47 inches of rain. Although the winters are mild, the region can be faced with cold conditions that sometimes result in frost (Weatherbase, 2025).

3.5.2.2 Regional Air Quality and Permitting

The air quality ROI includes the Florida counties of Okaloosa, Walton, and Santa Rosa. All three counties are currently designated as in attainment for each of the criteria pollutants regulated under the NAAQS (ACAM, 2024; USEPA, 2025). Therefore, the General Conformity Rule is not applicable to the Proposed Action.

FDEP implements the CAA and related Florida statutes. As a major source of criteria pollutants, Eglin AFB currently operates under a Title V Air Operation Permit (Permit No. 0910031-030-AV, valid until March 5, 2029) issued by FDEP. Regulated stationary sources of air emissions at Eglin AFB include:

- Paint booths for aerospace and nonaerospace equipment and parts.
- External combustion: boilers fueled by natural gas and diesel fuel.
- Internal combustion sources: emergency and nonemergency generators (reciprocating engines) operating on diesel fuel and gasoline.
- Fuel storage tanks and handling: a gasoline distribution terminal, fuel storage tanks.
- A relocatable air curtain incinerator used to dispose of fiberboard from munitions testing.

Other air emissions-generating sources at Eglin AFB include prescribed burning, vehicle operations, use of aerospace ground support equipment, and solid waste landfill operations. While mobile sources of air emissions (vehicles, flights operations) at Eglin AFB are not regulated under the Title V permit, they form a substantial portion of the total air emissions for Eglin AFB. Actual annual air emissions reported from regulated sources for 2023 (FDEP, 2024d) are presented in **Table 3.5-1**.

Table 3.5-1 2023 Criteria Pollutant Actual Emissions for Eglin AFB

NH_3	CO	NOx	PM_{10}	$PM_{2.5}$	SO_2	VOCs
0.27	33.43	57.44	2.01	1.42	0.47	32.15

Notes:
NH_3 = ammonia

3.5.2.3 Greenhouse Gases

Statewide emissions of energy-related CO_2 in Florida totaled 228.02 million metric tons in 2022. This total includes CO_2 emissions from direct fuel use across all sectors, including residential, commercial, industrial, and transportation, as well as primary fuels consumed for electricity generation (ACAM, 2024). Total CO_2 emissions in Florida in 2022 represent 4 percent of the total U.S. energy-related CO_2 emissions in that year (5,164 million metric tons) (ACAM, 2024).

3.5.3 Environmental Consequences

3.5.3.1 Evaluation Criteria

The ROI is in attainment (or unclassified) for all criteria pollutants; therefore, the General Conformity Rule does not apply to the Proposed Action. DAF guidance (Air Force, 2020) for actions in attainment areas was used to evaluate potential air quality impacts from the Proposed Action. As such, criteria pollutant emissions were compared against insignificance indicators for PSD major source thresholds, as follows:

- 250 tpy all criteria pollutant
- 25 tpy for lead

If the net emissions for each criteria pollutant from the Proposed Action are below the above-listed indicator values, the emissions are considered so insignificant that it will not cause or contribute to an exceedance of one or more NAAQS. These insignificance indicators do not define a significant impact; rather, they provide a threshold to identify actions that are insignificant and to assess potential impacts on air quality.

Adverse impacts on air quality could be significant if the net emissions resulting from implementation of the Proposed Action or the No Action Alternative caused or contributed to exceedances of one or more NAAQSs.

3.5.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

The DAF Air Conformity Applicability Model (ACAM), version 5.0.24a, was used to estimate the air emissions from Alternative 1. Emissions estimated using ACAM would primarily be associated with the following:

- earth disturbance
- operation of diesel-fuel construction equipment and vehicles hauling construction materials
- on-site trips for workers
- paving and architectural coating applications

Alternative 1 would be implemented over 5 to 7 years. However, following DAF guidance for emissions estimation, all C&D for Alternative 1 were assumed to occur within a single calendar year (2026).

Emissions from the operation of new fuel-burning sources, such as boilers and generators, were not estimated. Compared with emissions from proposed construction and development, net increases in emissions from increases in heated building area or other fuel burning sources would be minor. In most cases, replacing older, more-polluting sources with newer, more-efficient units would result in reduced emissions. However, all new fuel-burning equipment and other sources of emissions would need to be evaluated for applicability to obtain a construction permit under FDEP rules.

Table 3.5-2 presents the total annual estimated emissions for Alternative 1. The combined total emissions from proposed activities included in Alternative 1 areas would be well below the insignificant indicator for all pollutants, except for PM_{10}, which would exceed the insignificant indicator of 250 tpy.

Table 3.5-2 Net Change in Criteria Pollutant Emissions from Alternative 1

Cantonment Area	Emissions (tpy)							
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	Pb	NH_3
Eglin Main Base	12.45	7.32	7.83	0.02	222.99	0.22	0.00	0.09
Camp Rudder	2.39	4.30	5.45	0.01	45.62	0.15	0.00	0.02
Camp Bull Simons	3.38	4.09	5.04	0.01	19.37	0.13	0.00	0.02
Duke Field	6.88	5.87	6.81	0.01	134.27	0.19	0.00	0.05
Site C-6	0.56	3.32	4.38	0.01	1.80	0.11	0.00	0.01
TOTAL	**25.65**	**24.91**	**29.50**	**0.06**	**424.05**	**0.79**	**0.00**	**0.19**
Insignificance Indicator (tpy)	250	250	250	250	250	250	25	250
Exceeds threshold/indicator	No	No	No	No	Yes	No	No	No

Notes:
Source: ACAM output (refer to Appendix C)
SO_x = sulfur oxide

Emissions from Alternative 1 would:

- moderately increase emissions for all criteria pollutants within the ROI in the short-term
- be temporary, as they would end when construction is completed
- not result in any long-term impacts
- not result in significant impacts within the ROI that would affect maintenance of NAAQS

Much of the uncontrolled PM_{10} (fugitive dust) emissions estimated would result from earthmoving on construction sites that would involve movement and redistribution of large amounts of soil. No dust control measures are considered in ACAM; thus, PM_{10} emissions shown in **Table 3.5-2** represent a conservative increase in annual emissions for Alternative 1. The application of typical dust control measures would substantially reduce estimated emissions. For example, a dust control effectiveness of 50 percent can be achieved for a routine dust suppression measure such as watering (WGA, 2006). Additionally, all proposed construction and development included in Alternative 1 is conservatively assumed to simultaneously occur over a 1-year period. Proposed construction and development projects in Alternative 1 would be implemented over 5 to 7 years, which would substantially decrease annual estimated PM_{10} emissions.

Although the worst-case PM_{10} emissions from Alternative 1 exceed insignificance indicator levels, emissions would not be considered significant with respect to air quality impacts for the reasons outlined above. Therefore, implementation of Alternative 1 would not impede or prevent continued compliance with the NAAQS within the ROI. These emission findings, and a detailed emissions report, are documented in the Record of Air Analysis, and are contained in **Appendix C**.

Typically, construction projects use basic dust control measures that include watering, chemical stabilization, or reduction of surface wind speed with windbreaks or source enclosures. **Table 3.5-3** lists the types of BMPs for dust control in outside areas, a combination of which would likely be incorporated into site-specific projects implemented under Alternative 1.

Table 3.5-3 Recommended Best Management Practices for Fugitive Dust Control

Potential Areas	Recommended Practices
Unpaved Haul and Service Roads	• Apply water or an approved chemical dust suppressant on a regular basis. • Limit vehicle speeds to 5 mph in unpaved areas. • Pave frequently used haul roads with concrete or asphalt. • Conduct inspections using visual emissions observations such as USEPA Method 9 or Method 22 at least daily while heavy trucks are using the roadway.
Material Transfer Points	• Limit the material drop distance between the offloading point and stockpile to no more than 3 feet and restrict the flow of material using dead boxes, socks, and drop-down spouts/sleeves. • Install and maintain dust curtains around material transfer points, such as vehicle loading stations, to reduce air movement and isolate dust forming operations. • Enclose conveyor belts and use belt wipers when possible. • Spray water or an approved dust suppressant at the conveyor feed during material transfer. • Clean up spillage at conveyor transfer points.
Storage Piles	• Monitor the moisture content and size of exposed material. • Apply water or an approved chemical dust suppressant on a regular basis. • Cover and stabilize or enclose material piles if not frequently accessed. • Install wind breaks or barriers around the storage pile.

Source: USEPA, 2022

Before site-specific projects would be implemented under Alternative 1, proponents would submit AF Form 813 to the Eglin AFB EPO for review. These reviews would include consideration of air pollutant emissions during both the construction (short-term) and operational (long-term) phases of the proposed project. Opportunities to minimize emissions from proposed projects, such as incorporating BMPs to minimize fugitive dust during construction and efficient heating equipment to reduce long-term emissions, would be addressed as applicable.

Greenhouse Gases

Table 3.5-4 summarizes estimated increases in maximum annual GHG emissions through the projected life cycle of Alternative 1 and provides its relative significance in a national and global context.

The annual increase in GHG emissions from Alternative 1 is estimated to be 7,155 metric tpy CO_2e, which would result from the use of fossil fuel in combustion equipment and vehicles. This increase would be far less than the insignificance indicator thresholds for GHG, and as such would

account for approximately 0.0031 percent of total GHG emissions in the state of Florida and approximately 0.0001 percent of total U.S. GHG emissions. At these low levels, Alternative 1 would not result in significant impact on GHG emissions at a regional, national, or global scale.

Table 3.5-4 Net Change in GHG Emissions from Alternative 1

Cantonment Area [1]	Emissions (metric tpy)					
	CO_2	CH_4	N_2O	CO_2e	Threshold[2]	Exceedance
Eglin Main Base	2,446	0	0	2,506	68,039	No
Camp Rudder	1,081	0	0	1,093	68,039	No
Camp Bull Simons	1,037	0	0	1,051	68,039	No
Duke Field	1,746	0	0	1,779	68,039	No
Site C-6	723	0	0	726	68,039	No
TOTAL	**7,033**	**0**	**0**	**7,155**	**68,039**	**No**
Total GHG (CO_2e) Relative Significance						
Percent of State Totals	0.0031%					
Percent of U.S. Totals	0.0001%					

Notes:
[1] ACAM output results of GHG emissions for construction emissions. (see **Appendix C.1.7**).
[2] Air Force PSD threshold for GHG of 75,000 tpy of CO_2e (or 68,039 metric tpy) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas.

3.5.3.3 Alternative 2 – Reduced Levels of Development

Criteria pollutant emissions for Alternative 2 were estimated using the same methodology and assumptions described for Alternative 1 **(Section 3.5.3.2)**.

Table 3.5-5 presents the total annual estimated emissions for Alternative 2. The combined annual emissions from all proposed construction and development included in Alternative 2 would be well below the insignificant indicator for all pollutants, except for PM_{10}, which would exceed the insignificant indicator of 250 tpy. Emissions from Alternative 2 would be lower than for Alternative 1 because of reduced levels of proposed development. The emissions findings and impacts for Alternative 2 would be the same as those discussed for Alternative 1 **(Section 3.5.3.2)**.

Table 3.5-5 Net Change in Criteria Pollutant Emissions from Alternative 2

Cantonment Area	Emissions (tpy)							
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	Pb	NH_3
Eglin Main Base	10.06	6.73	7.42	0.02	178.35	0.20	0.00	0.07
Camp Rudder	1.97	3.98	5.12	0.01	36.48	0.13	0.00	0.02
Camp Bull Simons	1.67	3.57	4.62	0.01	11.70	0.12	0.00	0.01
Duke Field	5.61	5.57	6.42	0.01	107.41	0.18	0.00	0.04
Site C-6	0.53	3.31	4.38	0.01	1.43	0.11	0.00	0.01
TOTAL	**19.86**	**23.15**	**27.96**	**0.05**	**335.38**	**0.74**	**0.00**	**0.16**
Insignificance Indicator (ton/yr)	250	250	250	250	250	250	25	250
Exceeds threshold/indicator	No	No	No	No	Yes	No	No	No

Source: ACAM output **(Appendix C)**

The worst-case PM_{10} emissions for Alternative 2 are less than those for Alternative 1 by almost 90 tpy; however, the annual PM_{10} emissions still exceed insignificance indicators. The emissions impacts and the discussion on fugitive dust controls would be similar to Alternative 1.

Furthermore, for the same reasons as discussed for Alternative 1, emissions for Alternative 2 would not be considered significant with respect to air quality impacts. Implementation of Alternative 2 would not prevent or impede continued compliance with the NAAQS. Proposed construction and development projects in Alternative 2 would be implemented over 5 to 7 years, which would substantially decrease annual estimated PM_{10} emissions. These emission findings, along with a detailed emissions report, are documented in the Record of Air Analysis and are contained in **Appendix C**.

Before site-specific projects would be implemented under Alternative 2, proponents would submit AF Form 813 to the Eglin AFB EPO for review. These reviews would include consideration of air pollutant emissions during both the construction (short-term) and operational (long-term) phases of the proposed project. Opportunities to minimize emissions from proposed projects, such as incorporating BMPs to minimize fugitive dust during construction and efficient heating equipment to reduce long-term emissions, would be addressed as applicable.

Greenhouse Gases

Table 3.5-6 summarizes estimated increases in maximum annual GHG emissions through the projected life cycle of Alternative 2 and provides its relative significance in a national and global context.

The annual increase in GHG emissions from Alternative 2 is estimated to be 6,346 metric tpy CO_2e, which would result from the use of fossil fuel in combustion equipment and vehicles. The increase in GHG emissions for Alternative 2 is less than those for Alternative 1 by approximately 800 metric tpy. As with Alternative 1, the increase in GHG emissions for Alternative 2 would be far less than the insignificance indicator thresholds for GHG, and as such would account for approximately 0.0028 percent of total GHG emissions in the state of Florida and approximately 0.0001 percent of total U.S. GHG emissions. At these low levels, Alternative 2 would not result in significant impact on GHG emissions at a regional, national, or global scale.

Table 3.5-6 Net Change in GHG Emissions from Alternative 2

Cantonment Area [1]	Emissions (metric tpy)					
	CO_2	CH_4	N_2O	CO_2e	Threshold[2]	Exceedance
Eglin Main Base	2,157	0	0	2,206	68,039	No
Camp Rudder	979	0	0	989	68,039	No
Camp Bull Simons	829	0	0	836	68,039	No
Duke Field	1,565	0	0	1,592	68,039	No
Site C-6	720	0	0	723	68,039	No
TOTAL	6,250	0	0	6,346	**68,039**	**No**
Total GHG (CO_2e) Relative Significance						
Percent of State Totals	0.0028%					
Percent of U.S. Totals	0.0001%					

Notes:
[1] ACAM output results of GHG emissions for construction emissions. (see **Appendix C.1.7**).
[2] Air Force PSD threshold for GHG of 75,000 tpy of CO_2e (or 68,039 metric tpy) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas.

3.5.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA (**Section 1.1.2**) based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin AFB EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on air quality would not be significant.

3.5.3.5 Cumulative Effects

Criteria pollutants regulated by the NAAQS would be emitted during the construction and operational phases of the reasonably foreseeable future projects summarized in **Section 3.1.2**. Quantities of criteria pollutants emitted during each project would vary; however, these emissions would be regulated in accordance with applicable regulatory and permitting requirements to ensure that they do not contribute to the substantial degradation of local or regional air quality or result in a change to an AQCR attainment designation.

C&D projects included in the Proposed Action would generate very low levels of GHG emissions and would not be anticipated to contribute to global or national GHG emissions in any meaningful way. In a global context, its contribution would be negligible when considered with reasonably foreseeable future actions.

3.5.3.6 Mitigation

Potential impacts on air quality would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on air quality.

3.6 Noise

3.6.1 Definition of the Resource

Noise and sound share the same physical aspects, but noise is considered a disturbance while sound is defined as an auditory effect. The meaning of noise for this analysis is undesirable sound that interferes with verbal communication and hearing or is otherwise annoying (unwanted sound). Human response to increased noise levels varies according to the source type, characteristics of the noise source, distance between source and receptor, receptor sensitivity, and time of day.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The decibel is a logarithmic unit that expresses the ratio of a

sound pressure level to a standard reference level. Sound frequency is quantified using the units of hertz. Sound level measurements used to characterize sound levels that can be sensed by the human ear are designated "A-weighted" (dBA). A-weighted denotes the adjustment of the frequency content of a noise event to represent the way in which the average human ear responds to the noise event. The dBA noise metric describes steady noise levels, although very few noises are constant. The A-weighted Day-Night Level (DNL) is defined as the average sound energy in a 24-hour period with a 10-dB penalty added to nighttime levels (10 p.m. to 7 a.m.). The DNL is a useful descriptor for noise because it averages ongoing, yet intermittent noise and measures total sound energy over a 24-hour period. Noise levels used to characterize community noise effects from such activities as aircraft or building construction are measured in the DNL.

Most people are exposed to sound levels of DNL 50 to 55 dBA or higher daily. Studies specifically conducted to determine noise effects on various human activities show that about 90 percent of the population is not significantly bothered by outdoor sound levels below a DNL of 65 dBA (FICON, 1992). As shown in **Table 3.6-1**, sound levels in a normal suburban area are about 55 dBA, which increases to 60 dBA for an urban residential area and 80 dBA in the downtown area of a city. Sound levels generated by common household items range from 50 dBA for a running refrigerator to 90 dBA for an active garbage disposal.

Table 3.6-1 Noise Levels of Common Locations and Items

Outdoor	Sound Level (dBA)	Indoor
Motorcycle	100	Subway Train
Tractor	90	Garbage Disposal
Noisy Restaurant	85	Blender
Downtown (large city)	80	Ringing Telephone
Freeway Traffic	75	TV Audio
Very Noisy Urban Residential Area	70	Hair Dryer
Noisy Urban Residential Area	65	Vacuum
Normal Conversation	60	Sewing Machine
Suburban Residential Area	55	Coffee Pot
Rainfall	50	Refrigerator
Quiet Residential Area	40	Library

Source: FICON, 1992; INAD, 2024

The Noise Control Act of 1972 (Public Law 92-574) directs federal agencies to comply with applicable federal, state, and local noise control regulations. In 1974, the USEPA provided information suggesting continuous and long-term noise levels greater than 65 dBA DNL are normally unacceptable for noise-sensitive receptors such as residences, schools, churches, and hospitals.

Given their locations in interior portions of Eglin AFB at least 2 miles or more inside the installation boundary, it is unlikely that noise associated with proposed construction and development projects at Camp Rudder, Camp Bull Simons, Duke Field, and Site C-6 would be experienced by listeners outside the base. Although aircraft operations are the predominant source of noise on Eglin Main Base, listeners could experience some intermittent noise in adjacent

portions of Okaloosa County from construction and development projects near the boundaries of Main Base. Therefore, the noise ROI consists of the cantonment areas addressed in this EA **(Section 1.1.2)** and portions of Okaloosa County adjacent to Eglin Main Base and Jackson Guard.

3.6.2 Affected Environment

The predominant sources of noise on Eglin Main Base, Duke Field, and Camp Rudder are aircraft noise and associated airfield operations, given the presence of active military airfields within or adjacent to the boundaries of those cantonment areas. Much of Eglin Main Base and most of Duke Field are within the 65 to 70 dBA noise contour associated with aircraft operations in those cantonment areas (Eglin AFB, 2018). Noise contours associated with Duke Field do not extend outside the boundaries of Eglin AFB, while portions of the 65 to 70 dBA and 70 to 75 dBA contours associated with Eglin Main Base extend into a portion of Valparaiso to the north and over portions of Choctawhatchee Bay to the east and south.

Generally, the ambient noise environment at Site C-6 can be characterized as relatively quiet, given its relative isolation on the eastern side of the base and the lack of nearby development. Noise conditions at Camp Bull Simons are influenced by the presence of active airfields associated with Duke Field and Camp Rudder to the east and west, and the camp's proximity to nearby training ranges on Eglin AFB.

Other than aircraft operations, sources of noise contributing to the ambient noise environment at Eglin AFB and the individual cantonment areas include vehicular traffic on on-base roads and highways, training on ranges (including the use of firearms and explosives), and ongoing construction and maintenance. Generally, the ambient noise environment at Eglin AFB is influenced by the relatively flat topography of lands on and around the base, the expansive open spaces around the aircraft runways, and the presence of existing development and vegetation. Facilities on Eglin AFB are generally sited, built, and operated in accordance with Air Force Instruction (AFI) 91-301, *Air Force Occupational and Environmental Safety, Fire Protection and Health (AFOSH) Program*, and AFOSH Standard 48-20, *Occupational Noise and Hearing Conservation Program*.

Existing facilities on Eglin AFB that could be considered potential noise-sensitive land uses include Eglin Elementary School, the Eglin Community Library, the Eglin AFB Hospital, and family housing areas. These facilities are on Eglin Main Base within an approximately 3-mile radius of the airfield. Given their proximity to the airfield, as well as their location on an active military installation, typical ambient noise conditions at these facilities may be louder than those that might be experienced at similar off-base facilities.

3.6.3 Environmental Consequences

3.6.3.1 Evaluation Criteria

Adverse impacts from noise would include temporary, localized increases in noise levels from construction activities, vehicles, and equipment that could annoy listeners near project sites. Potential impacts from noise associated with the Proposed Action would be considered significant

if noise levels (1) violated applicable noise regulations, (2) caused unsafe noise conditions for nearby receptors during construction, or (3) substantially affected normal operations of noise-sensitive sites.

3.6.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

In the short term, construction of the proposed construction and development projects would generate elevated noise levels from worker commuting vehicles and heavy trucks traveling to and from the project sites; heavy equipment used to excavate, grade, level, and compact soils; electric and pneumatic tools, and generators and compressors used to power those tools; and generally increased levels of human activity. Noise levels generated by representative types of common construction equipment that could be used to build the proposed projects are listed in **Table 3.6-1**.

Table 3.6-1 Construction Equipment Noise Levels

Equipment	Maximum Sound Level Measured at 50 feet (dBA)
Air Compressor	78
Backhoe	78
Concrete Mixer Truck	79
Concrete Saw	90
Crane	81
Bulldozer	82
Dump Truck	76
Excavator	81
Flatbed Truck	74
Front-end Loader	79
Generator	81
Impact Hammer	90
Paving Equipment	77
Pickup Truck	75
Roller	80
Welding	74

Source: USDOT, 2006

Before site-specific projects would be implemented, all proponents would submit AF Form 813 to the Eglin AFB EPO for review. Review of these forms would include consideration of potential effects from noise generated during both the construction (short-term) and operational (long-term) phases of the proposed project. To the extent feasible, proposed construction and development projects would be planned, constructed, and operated to prevent or minimize impacts on potential on-base and off-base noise-sensitive land uses, as applicable. Projects would incorporate and adhere to BMPs to minimize effects from construction noise on adjacent and nearby land uses, such as prohibiting engine idling while vehicles and equipment are not in use and performing construction or maintenance only during daytime hours (generally 7:00 a.m. to 5:00 p.m. local time). As applicable, construction workers would be required to use proper personal hearing protection in accordance with AFOSH Standard 48-20 to limit exposure.

Off-base listeners adjacent to Eglin Main Base could experience some construction or maintenance noise intermittently during projects near the installation boundaries. However, it is likely that most

projects would occur farther within the interior of Eglin Main Base and, thus, would be indistinguishable from sounds contributing to the typical ambient noise environment on and around Eglin AFB. None of the proposed projects would be expected to impede or prevent the continued operation of existing land uses on or outside Eglin AFB.

Generally, elevated noise levels associated with proposed projects would be highly localized, would attenuate (diminish) with increased distance from the source, and would be unnoticeable or indistinguishable to listeners outside the boundaries of the installation. Predicted noise levels experienced at various distances from equipment operating at a maximum level of 100 dBA and a sustained level of 75 dBA are shown in **Table 3.6-2**. Depending on the equipment being used at any given time, noise levels associated with typical construction equipment would noticeably attenuate to below 65 dBA between approximately 500 and 3,000 feet from the source.

Table 3.6-2 Noise Attenuation

Construction Equipment at 50 feet (dBA)	Predicted Attenuated Noise Levels (dBA)					
	100 feet	500 feet	1,000 feet	2,000 feet	2,500 feet	3,000 feet
100 (maximum)	93.9	80	73.9	67.9	66.0	64.4
75 (sustained)	68.9	55.0	48.9	42.9	41.0	39.4

Sources: USEPA, 1971; FHWA, 2006

The distribution of the projects over several years, rather than occurring simultaneously, would aid in minimizing potential noise impacts. Noise from aircraft operations would remain the predominant source of noise at and around Eglin AFB during construction activities. All construction-related noise would cease when construction of the proposed projects is completed. Therefore, short-term impacts from construction-related noise under Alternative 1 would not be significant.

In the event that a proposed project would potentially create a new permanent source of elevated noise levels, such a facility or activity would be planned and sited appropriately to prevent annoyance to existing on-base and off-base land uses nearby. Generally, however, it is anticipated that the majority of proposed construction and development projects in the cantonment areas would not establish new permanent sources of noise. Noise associated with periodic maintenance of proposed facilities would be infrequent, widely distributed around the installation, and similar to noise resulting from similar activities already occurring at Eglin AFB. Such noise would not be particularly unusual or distinct from other sources contributing to the ambient noise environment on and around the base and would likely be unnoticeable outside the installation boundaries. Aircraft operations would continue to be the predominant source of noise on and around Eglin AFB. Noise associated with operation of proposed facilities would generally be consistent with the ambient noise environment of an active military installation and airfield. All proposed projects would be planned, constructed, and operated in accordance with AFI 91-301, AFOSH Standard 48-20, and other applicable noise regulations and requirements. For these reasons, long-term impacts from noise associated with Alternative 1 would not be significant.

3.6.3.3 Alternative 2 – Reduced Levels of Development

Short-term and long-term impacts from noise associated with Alternative 2 would be similar to those described for Alternative 1, except that there would be a somewhat reduced potential for noise impacts because fewer construction and development projects would be implemented. Short-term and long-term adverse impacts from noise under Alternative 2 would not be significant through review of AF Form 813 for each site-specific project, incorporation of and adherence to applicable BMPs to prevent or minimize construction and operational noise, and adherence to AFI 91-301, AFOSH Standard 48-20, and other applicable noise regulations and requirements.

3.6.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA (**Section 1.1.2**) based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (Categorical Exclusion [CATEX], EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts from noise would not be significant.

3.6.3.5 Cumulative Effects

Reasonably foreseeable actions and cumulative impacts summarized in **Section 3.1.2** could result in short-term and long-term impacts from noise. These impacts would vary based on the location of the noise source, duration and intensity of the noise that would be generated, and proximity to potential receptors. However, through consultation with applicable regulatory agencies and in accordance with applicable regulatory requirements, those projects would incorporate BMPs and other measures to prevent or minimize noise and ensure impacts from noise remain less than significant. Therefore, when considered with other reasonably foreseeable future actions and cumulative impacts, the Proposed Action would not contribute to cumulatively significant adverse impacts from noise.

3.6.3.6 Mitigation

Potential impacts from noise would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts from noise.

3.7 Land Use

3.7.1 Definition of the Resource

"Land use" generally refers to real property classifications that indicate natural conditions or the types of human activity and development occurring on a parcel. A primary focus of land use planning and management on a military installation such as Eglin AFB is to ensure that compatible uses, such as residential areas and recreational facilities, are sited in proximity to each other and that reasonable separation is maintained between incompatible uses, such as residential areas and airfields (including runways, taxiways, hangars, and maintenance facilities). Land use planning and management on installations with active airfields also focuses on ensuring facilities are planned and sited in accordance with the requirements of safety and operational zones associated with the airfield.

Guidance and requirements for land use planning on DoD and DAF installations are set forth in UFC 2-100-01 and DAFI 32-1015. UFC 2-100-01 encourages development of installation master plans that ensure "efficient and compatible land use (identifying and respecting natural and man-made constraints) and maximizes facility utilization." DAFI 32-1015 defines the Air Force vision for Integrated Installation Planning that "…requires an enduring comprehensive planning approach that guides decision-making for on- and off-installation land use and development." Additionally, land use on the base is planned and managed in accordance with noise compatibility criteria established in Air Force Handbook (AFH) 32-7084, *AICUZ Program Manager's Guide*.

The land use ROI consists of lands within the Eglin AFB cantonment areas. The Proposed Action would have no potential to affect land uses in areas of Eglin AFB outside the cantonment areas or in local jurisdictions outside Eglin AFB; therefore, land use in those areas and jurisdictions is not addressed in this EA.

3.7.2 Affected Environment

Facilities, operations, and activities at Eglin AFB are planned, sited, and managed in accordance with land use requirements set forth in the Eglin AFB IDP and applicable District Plans. The Eglin AFB IDP underwent a major update in 2017 and is now maintained through routine, ongoing updates via the Comprehensive Planning Platform. Overall goals for installation development expressed in the 2017 Eglin AFB IDP include the following (Eglin AFB, 2017):

- Goal 1: Integrated Installation – Establish logical connections between organizations that foster healthy relationships.
- Goal 2: Consolidated Campuses – Create connected developments that are self-sustaining with a mix of uses and flexible facilities.
- Goal 3: Sustainable Development – Create safe and efficient developments that protect, preserve, and enhance resources.
- Goal 4: Walkable Town Centers – Provide safe, convenient, and comfortable walks within identifiable districts.

District Plans are also prepared and routinely updated as needed for specific areas and districts on the base, including individual cantonment areas. Each District Plan focuses on the conceptual planning and design of a given area within the installation and establishes a framework for future development through consideration of mission requirements, physical conditions, constraints, opportunities for development, and aesthetic qualities.

Land use on Eglin AFB is characterized using 13 major land use categories. The area (acres) of cantonment area lands within each land use category is summarized in **Table 3.7-1** and shown on **Figure 3.7-1** through **Figure 3.7-5**. Lands categorized as Open Space Buffer Zone represent the largest total area of lands across all the cantonment areas (5,617.8 acres), followed by Airfield Clearance (2,712.9 acres) and Industrial (1,951.5 acres). Medical and Dental is the smallest land use category (76.8 acres) across the cantonment areas.

Table 3.7-1 Eglin AFB Cantonment Areas Existing Land Use

Land Use Category	Area (acres)					
	Eglin Main Base[1]	Camp Rudder	Camp Bull Simons	Duke Field	Site C-6	Total
Administration	191.7	5.9	104.5	25.4	0	327.5
Airfield	71.5	0	0	206.4	0	277.9
Airfield Clearance	1,988.7	17.6	0	706.6	0	2,712.9
Community Commercial	104.6	3.6	8.0	2.4	0	118.6
Community Service	255.2	0.4	26.4	2.6	0	284.6
Family Housing	1,148.4	11.7	0	0	0	1,160.1
Troop Housing	127.7	3.7	15.8	5.8	0	153.0
Industrial	1,359.1	25.4	139.5	413.3	14.2	1,951.5
Medical and Dental	69.9	0.4	6.5	0	0	76.8
Operations	396.7	4.6	0	291.9	0	693.2
Recreational	305.9	14.2	11.3	16.3	0	347.7
Research and Development	429.9	0	0	0	0	429.9
Reserved Land Buffer	4,748.9	199.5	187.7	481.7	0	5,617.8
Total	**11,198.2**	**287.0**	**499.7**	**2,152.4**	**14.2**	**14,151.5**

Notes:
[1] Includes Jackson Guard.
Source: Eglin AFB, 2024e

Land uses in the cantonment areas on Eglin AFB are planned and managed in consideration of noise levels associated with aircraft operations at adjacent or nearby airfields on the base. In accordance with AFH 32-7084, most land uses are considered compatible with areas where ambient noise levels do not typically exceed 65 dBA DNL. The development of land uses that could be sensitive to elevated noise levels, such as residential uses, schools, places of worship, and medical facilities, is generally discouraged in areas where noise levels are known or expected to regularly exceed 65 dBA DNL. Many types of nonresidential land uses may be located in areas where ambient noise levels may exceed 65 dBA DNL. However, it may be necessary to incorporate attenuation measures into design and construction of a structure to lower indoor noise levels. Most land uses defined in AFH 32-7084 are discouraged in areas where noise levels exceed 85 dBA DNL. Land use within each cantonment area is further described below.

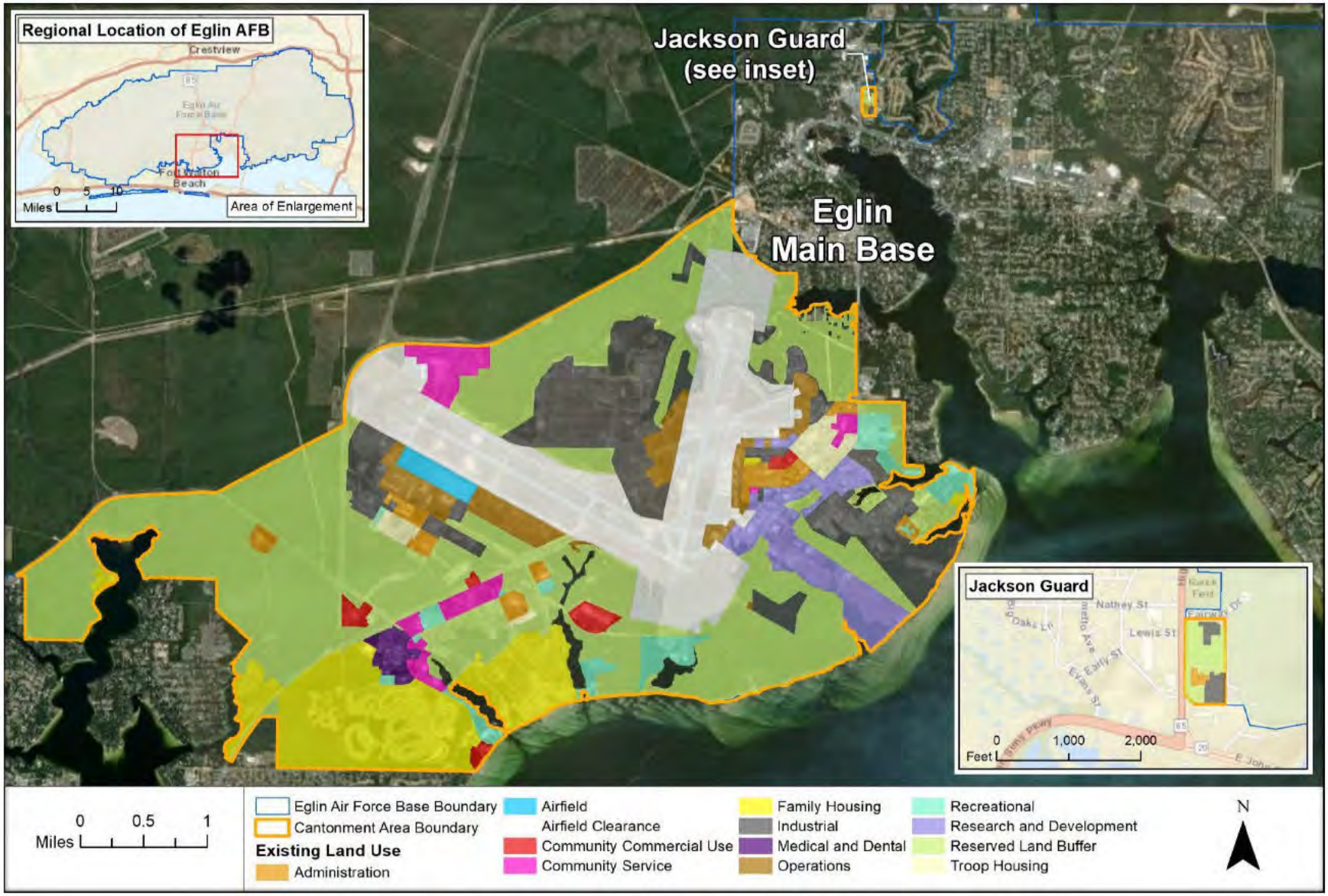

Figure 3.7-1 Eglin Main Base Existing Land Use (including Jackson Guard)

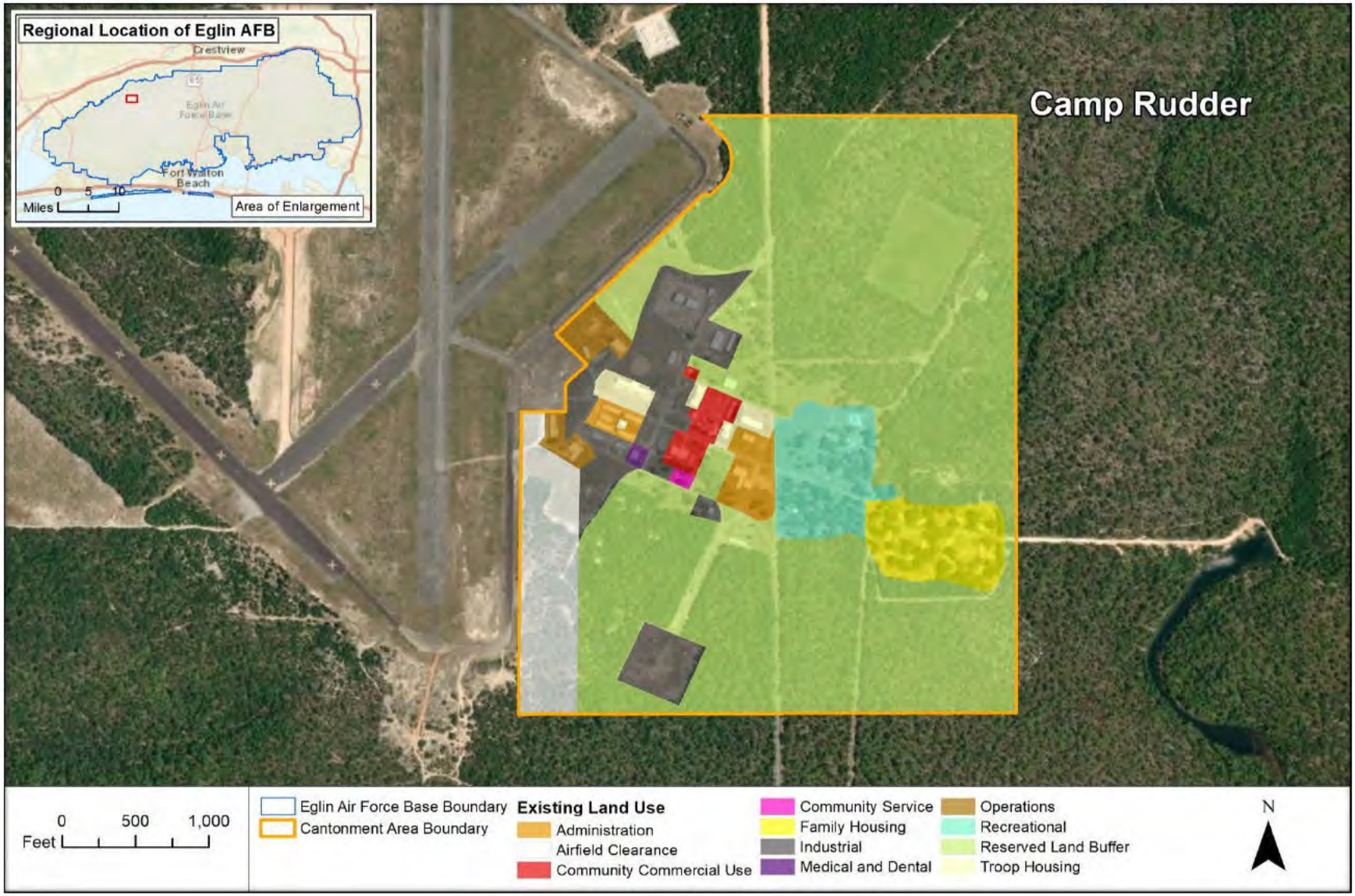

Figure 3.7-2 Camp Rudder Existing Land Use

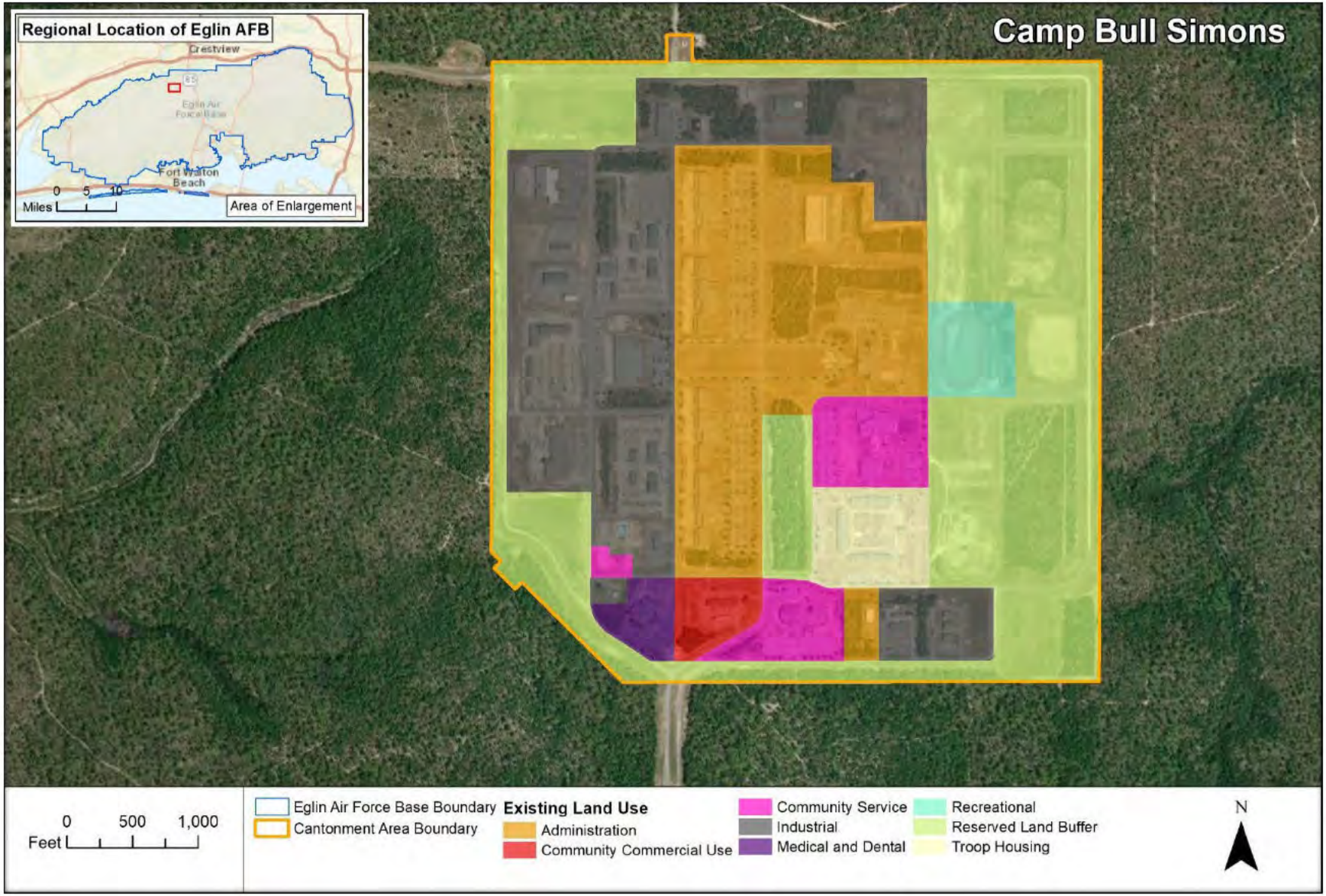

Figure 3.7-3 Camp Bull Simons Existing Land Use

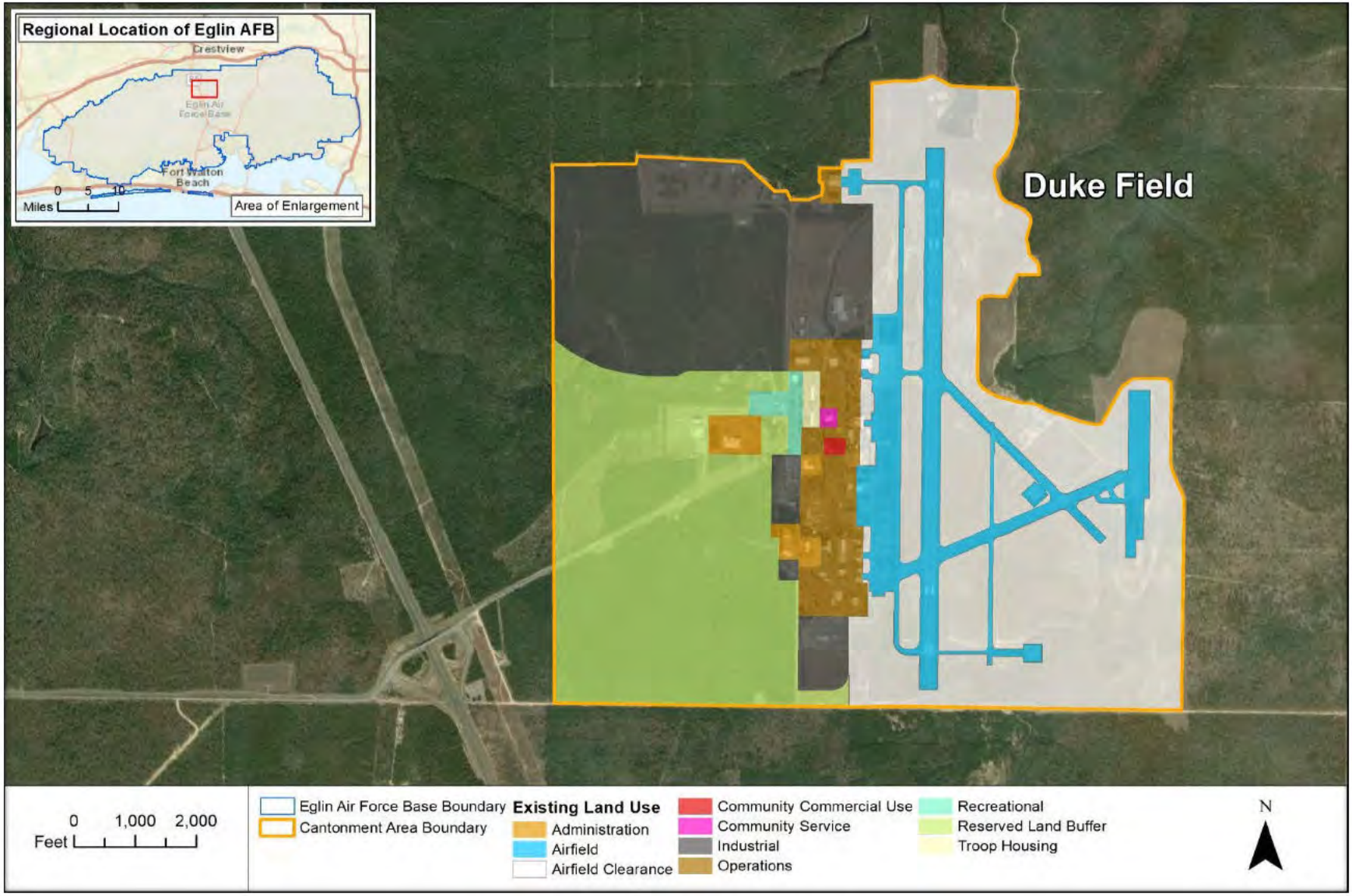

Figure 3.7-4 Duke Field Existing Land Use

Figure 3.7-5 Site C-6 Existing Land Use

3.7.2.1 Eglin Main Base Land Use

Eglin Main Base is the largest cantonment area in terms of land area and contains the largest land areas within each land use category relative to the other cantonment areas. Lands categorized as Airfield Clearance (1,988.7 acres), Industrial (1,359.1 acres), and Family Housing (1,148.4 acres) represent the largest land use categories on Eglin Main Base. All other categories contain less than 500 acres each. Land in the Open Space Buffer Zone category is primarily found around the perimeter of Eglin Main Base, while Industrial lands are concentrated toward the cantonment area's interior **(Figure 3.7-1)**. Family Housing is primarily concentrated on the southern side of the cantonment areas.

Table 3.7-2 shows the land use categories that are expected to increase (highlighted cells) in Eglin Main Base lands (Eglin AFB, 2017). Future planning objectives for Eglin Main Base expressed in the 2017 ADP include the following:

- Expansion of Industrial land use to accommodate proposed research, development, testing, and evaluation mission development.
- Conversion of selected Open Space lands to Community Commercial to align with future development of an enhanced use lease footprint.
- Planning for the possible future expansion of Aircraft Operations and Maintenance east of the adjacent Destin-Fort Walton Beach Airport.
- Conversion of selected Open Space lands to Administrative to correspond with proposed future development.
- Expansion of selected Administrative lands.

Table 3.7-2 Eglin Main Base Existing and Future Land Use

Land Use Category	Area (acres)	
	Existing Land Use [1]	Future Land Use [2]
Administration	191.7	435.8
Airfield	71.5	71.5
Airfield Clearance	1,988.7	1,988.7
Community Commercial	104.6	53.2
Community Service	255.2	314
Family Housing	1,148.4	937.7
Troop Housing	127.7	85.5
Industrial	1,359.1	1,907.4
Medical and Dental	69.9	74.5
Operations	396.7	523.5
Recreational	305.9	305.9
Research and Development	429.9	(Included in totals for the Industrial land use category)
Reserved Land Buffer	4,748.9	4,497.1

Notes:
[1] Includes Jackson Guard.
[2] Highlighted cells indicate land use categories that would increase under future land use conditions.
Source: Eglin AFB, 2017; Eglin AFB, 2024e

3.7.2.2 Camp Rudder Land Use

Camp Rudder is the second-smallest cantonment area on Eglin AFB, after Site C-6. Lands categorized as Industrial (25.4 acres), Airfield Clearance (17.6 acres), and Recreational (14.2 acres) represent the largest land uses on the cantonment area. Most land uses are concentrated toward the interior of the cantonment area **(Figure 3.7-2)**. As indicated by the highlighted cells in **Table 3.7-3**, most land use categories on Camp Rudder are projected to increase under future land use conditions, while the others would remain the same or decrease slightly. The largest increases are expected to occur in the Industrial and Operations categories, to a total of 38.4 acres and 22.2 acres.

Table 3.7-3 Camp Rudder Existing and Future Land Use

Land Use Category	Area (acres)	
	Existing Land Use	Future Land Use [1]
Administration	5.9	9.7
Airfield	0	0
Airfield Clearance	17.6	17.6
Community Commercial	3.6	5.4
Community Service	0.4	0
Family Housing	11.7	11.7
Troop Housing	3.7	4.8
Industrial	25.4	38.4
Medical and Dental	0.4	0.5
Operations	4.6	22.2
Recreational	14.2	14.2
Research and Development	0	0
Reserved Land Buffer	199.5	162.4

Notes:
[1] Highlighted cells indicate land use categories that would increase under future land use conditions.
Source: Eglin AFB, 2017; Eglin AFB, 2024e

3.7.2.3 Camp Bull Simons Land Use

The largest land use categories on Camp Bull Simons, after Reserved Land Buffer, are Industrial (139.5 acres), Administration (104.5 acres), and Community Service (26.4 acres). All other categories contain less than 20 acres. Administration land uses are primarily concentrated toward the interior, while Industrial uses are primarily along the northern, western, and southern sides of the cantonment area **(Figure 3.7-3)**. No airfield-related uses or family housing are located on Camp Bull Simons. Increases are expected to occur in the Community Service, Troop Housing, Industrial, and Recreational categories under future land use conditions (highlighted cells in **Table 3.7-4**). All other categories would stay the same except Reserved Land Buffer, which would decrease by approximately 25 acres.

Table 3.7-4 Camp Bull Simons Existing and Future Land Use

Land Use Category	Area (acres)	
	Existing Land Use	Future Land Use [1]
Administration	104.5	104.5
Airfield	0	0
Airfield Clearance	0	0
Community Commercial	8.0	8.0
Community Service	26.4	27.5
Troop Housing	15.8	30.2
Industrial	139.5	152.9
Medical and Dental	6.5	6.5
Operations	0	0
Recreational	11.3	25
Research and Development	0	0
Reserved Land Buffer	187.7	162.4

Notes:
[1] Highlighted cells indicate land use categories that would increase under future land use conditions.
Source: Eglin AFB, 2017; Eglin AFB, 2024e

3.7.2.4 Duke Field Land Use

After Eglin Main Base, Duke Field is the largest cantonment area on Eglin AFB. After Reserved Land Buffer, the largest land use categories on Duke Field are Airfield Clearance (706.6 acres), Industrial (413.3 acres), Operations (291.9 acres), and Airfield (206.4 acres). All other categories each contain less than 100 acres. Airfield-related land uses are primarily on the eastern half of Duke Field, while Administration uses are concentrated in the cantonment's central areas **(Figure 3.7-4)**. No Family Housing or Research and Development uses are on Duke Field.

As indicated by the highlighted cells in **Table 3.7-5**, most land use categories are expected to increase under future land use conditions. The area of lands categorized as Airfield Clearance, Operations, and Reserved Land Buffer would decrease somewhat.

Table 3.7-5 Duke Field Existing and Future Land Use

Land Use Category	Area (acres)	
	Existing Land Use	Future Land Use [1]
Administration	25.4	49.9
Airfield	206.4	223.3
Airfield Clearance	706.6	685.1
Community Commercial	2.4	8.7
Community Service	2.6	5.5
Troop Housing	5.8	21.6
Industrial	413.3	479.6
Medical and Dental	0	4.4
Operations	291.9	148.5

Table 3.7-5 Duke Field Existing and Future Land Use

Land Use Category	Area (acres)	
	Existing Land Use	Future Land Use [1]
Recreational	16.3	17.4
Research and Development	0	0
Reserved Land Buffer	481.7	299.6

Notes:
[1] Highlighted cells indicate land use categories that would increase under future land use conditions.
Source: Eglin AFB, 2017; Eglin AFB, 2024e

3.7.2.5 Site C-6 Land Use

Site C-6 is the smallest cantonment area on Eglin AFB, covering 14.2 acres. The entirety of Site C-6 is categorized as Industrial land use **(Table 3.7-1, Figure 3.7-5)**. No changes to this categorization are projected under future land use conditions in the 2017 Eglin AFB IDP (Eglin AFB, 2017).

3.7.3 Environmental Consequences

3.7.3.1 Evaluation Criteria

Potential impacts on land use would be considered adverse if a proposed land use was inconsistent with the underlying land use designation or incompatible with adjacent or nearby land uses. An adverse impact on land use would be considered significant if a proposed land use impeded or precluded the continued use of adjacent or nearby land uses or presented an uncontrollable risk to human health and safety, including Eglin AFB personnel, dependents, visitors, or members of the public outside the boundaries of Eglin AFB.

3.7.3.2 Alternative 1 – Proposed Action Alternative

Before site-specific projects would be implemented under Alternative 1, all proponents would submit AF Form 813 to the Eglin AFB EPO for review. These reviews would include consideration of potential effects on land use from both short-term construction and development as well as the long-term operations of proposed facilities. All proposed projects would be planned and sited in a manner that would be consistent with existing and future land use designations and planning objectives expressed in the Eglin AFB IDP and applicable District Plans, as well as the applicable requirements of UFC 2-100-01, DAFI 32-1015, and AFH 32-7084.

Siting proposed facilities outside the 65 dBA DNL contour associated with adjacent or nearby airfields would be considered, when practicable. Noise attenuation measures would be incorporated into project designs, as applicable, for facilities that could not be sited outside the 65 dBA DNL contour (including major renovations of existing facilities). Measures to avoid or minimize construction-related impacts on adjacent or nearby land uses — such as effects from noise, traffic, fugitive dust, and emissions of pollutants from construction vehicles and equipment — would be identified during the review of AF Form 813s for each project and incorporated into project planning and implementation.

Implementation of site-specific projects under Alternative 1 would not be expected to result in inconsistencies and incompatibilities in land use that would impede or preclude the continued use of adjacent or nearby land uses or present an uncontrollable risk to human health and safety. Proposed construction and development projects would not be expected to introduce new or unusual land uses at Eglin AFB that are not already present on the base. Potential construction-related impacts on land use would end when each project was completed and, therefore, would be temporary. The distribution of proposed projects over 5 to 7 years would ensure that potential effects on land use would not occur simultaneously, further minimizing land use impacts. For these reasons, Alternative 1 would have no significant short- or long-term adverse impacts on land use.

3.7.3.3 Alternative 2 – Reduced Levels of Development

Short-term and long-term impacts on land use associated with Alternative 2 would be similar to those described for Alternative 1, except that there would be a somewhat reduced potential for land use impacts because fewer construction and development projects would be implemented. Short-term and long-term adverse impacts on land use from Alternative 2 would not be significant through review of AF Form 813 for each site-specific project, incorporation and adherence to measures to avoid or minimize construction-related impacts, and adherence to the applicable goals, objectives, and requirements of the Eglin AFB IDP, District Plans, UFC 2-100-01, DAFI 32-1015, and AFH 32-7084.

3.7.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA (**Section 1.1.2**) based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on land use would not be significant.

3.7.3.5 Cumulative Effects

To varying degrees, the projects summarized in **Section 3.1.2** would have short- and long-term impacts on land use. The review and approval of these projects by applicable federal, state, and local regulatory authorities, and adherence to applicable permitting requirements and associated BMPs during the implementation of these projects, would ensure that short-term and long-term impacts on land use would not be significant. Therefore, the Proposed Action would not contribute to cumulatively significant adverse impacts on land use when considered with other reasonably foreseeable future actions.

3.7.3.6 Mitigation

Potential impacts on land use would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on land use.

3.8 Cultural Resources

3.8.1 Definition of the Resource

Cultural resources include archaeological and architectural sites that provide essential information to understand the prehistory and historical development of the United States. The primary federal law protecting cultural resources is the NHPA of 1966. Under Section 106 of the NHPA, federal agencies must consider the effects of their proposed actions (or undertakings) on any historic property (any district, site, building, structure, or object that is listed or eligible for listing in the National Register of Historic Places [NRHP]). To the extent possible, adverse effects on historic properties must be avoided, minimized, or mitigated in consultation with the SHPO and other consulting parties, as appropriate. The Florida Division of Historical Resources is the SHPO for the State of Florida.

Generally, if under Section 106 an action would have an adverse effect on a historic property listed in or eligible for the NRHP, the action would also have an adverse impact under NEPA. An adverse effect that is mitigated in consultation with the SHPO and other parties, as appropriate, can generally be considered a nonsignificant impact under NEPA. Section 106 requires federal agencies to assess the impact of their undertakings on historic properties in an undertaking's Area of Potential Effect (APE). The APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR 800.16[d]). The APE for cultural resources is the entirety of the cantonment areas evaluated in this EA (see **Figure 1.1-1** through **1.1-6** and **Table 1.1-1**). In January 2025, the DAF initiated consultation for the proposed undertaking with the Florida SHPO in accordance with Section 106 and requested concurrence with the APE. Section 106 correspondence is provided in **Appendix A**.

Properties of traditional religious and cultural importance, also referred to as traditional cultural properties, are places eligible for inclusion in the NRHP because of their association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (NPS, 2024a). E.O. 13007, Indian Sacred Sites, defines Indian sacred sites as "specific, discrete, narrowly delineated locations on Federal land that are identified by an Indian tribe…as sacred by virtue of their established religious significance to, or ceremonial use by, an Indian religion." Indian sacred sites are strictly religious places and can be recent in age, in contrast with traditional cultural properties which can be secular and must meet stricter NRHP eligibility criteria (ACHP, 2018). An

Indian sacred site can be a traditional cultural property, but not all traditional cultural properties are sacred sites. Indian sacred sites are considered under the NEPA process as part of the human environment.

Under the Native American Graves Protection and Repatriation Act, federal agencies are required to plan for and protect Native American human remains or cultural items that may be removed from federal lands and return such remains or items to lineal descendants or tribes (NPS, 2024b). DoD Instruction 4710.2, *DoD Interactions with Federally Recognized Tribes* (September 24, 2018) establishes policy, assigns responsibilities, and provides procedures for DoD interactions with federally recognized Native American tribes. The *2021 DoD Plan of Action on Tribal Consultation* (May 2021) outlines the DoD's commitment to improving implementation of E.O. 13175, Consultation and Coordination With Indian Tribal Governments.

The DAF has initiated government-to-government consultation with Native American tribes having historic, cultural, and religious ties to lands contained within Eglin AFB. Government-to-government correspondence is included in **Appendix A**.

3.8.2 Affected Environment

3.8.2.1 Eglin Main Base

Seventy-eight cultural resources surveys, totaling more than 15,000 acres, have been conducted on Eglin Main Base, resulting in documentation of 10 historic districts, 667 historic buildings, 73 archaeological sites, and 1 cemetery (Eglin AFB, 2024b). The 10 historic districts include 3 listed in the NRHP, 6 that are eligible for listing, and 1 that is determined ineligible. Of the 655 buildings with an NRHP status, 38 are contributing elements to a listed historic district, 65 are contributing elements to an eligible historic district, 17 are individually eligible, 17 are entered as "Eligible for the NRHP for the Purposes of a Program Alternative," 5 are noncontributing elements to a historic district, 488 were determined ineligible, 25 have not been evaluated, and 8 remain under review.

Archaeological sites on Eglin Main Base consist of 37 with prehistoric components, 20 with historical components, and 15 with both historical and prehistoric components. Fifty-five of the sites have been determined to be ineligible for listing in the NRHP, 14 are individually eligible, 1 is considered contributing to a listed resource, 1 has not been evaluated, and 2 are under review. The Davis Cemetery is potentially eligible for listing in the NRHP pending further investigation. The three resources on Eglin Main Base that are listed in the NRHP are listed in **Table 3.8-1**. All listed, eligible, and contributing resources, collectively referred to as "historic properties," are shown on **Figure 3.8.1**.

Table 3.8-1 NRHP-Listed Resources on Eglin Main Base

Listed Resources	Reference No.	Comments
Eglin Field Historic District	98001254	Encompasses remaining WWII infrastructure
Camp Pinchot Historic District	98001255	Original Forest Service Headquarters, ca. 1910
McKinley Climatic Laboratory Historic District	97001145	WWII-era facility designed to permit testing of aircraft and weapons under extreme environmental conditions

Figure 3.8-1 Locations of Eglin Main Base Historic Properties

To date, three cultural resources surveys have been conducted on Jackson Guard. As a result, 12 historic buildings and 1 historical archaeological site have been documented. Three of the buildings are individually eligible for listing in the NRHP, while the remaining resources have been determined ineligible. The Eglin AFB Eagle Golf Course and Driving Range is adjacent to Jackson Guard and has been determined eligible for listing in the NRHP as a historic landscape. No traditional cultural properties or Indian sacred sites have been identified within Eglin Main Base or Jackson Guard.

3.8.2.2 Camp Rudder

Four cultural resource surveys have been conducted at Camp Rudder. One historic district has been documented at Camp Rudder, consisting of the historical Biancur Field, which was constructed with Works Progress Administration labor during World War II. The historic district was determined ineligible for listing in the NRHP. None of the 66 historic buildings located on Camp Rudder are considered eligible for listing in the NRHP. No archaeological sites, cemeteries, traditional cultural properties, or Indian sacred sites have been identified on Camp Rudder.

3.8.2.3 Camp Bull Simons

Eight cultural resource surveys have been conducted on Camp Bull Simons. No historic districts or historic buildings have been identified on the cantonment area. One historical archaeological site identified on the cantonment was determined ineligible for listing in the NRHP. No cemeteries, traditional cultural properties, or Indian sacred sites have been identified on Camp Bull Simons.

3.8.2.4 Duke Field

In total, 17 cultural resource surveys have been conducted on Duke Field, resulting in documentation of 1 historic district, 71 historic buildings, and 7 archaeological sites. The historic district, consisting of the Duke Field runways, taxiways, and apron (ca. 1941 to 1974) was identified for its association with training for the Doolittle Raid on Japan and fighter and drone testing during the Cold War. This historic district was determined ineligible for listing in the NRHP.

Of the 71 historic buildings located within the boundaries of Duke Field, 67 have determined ineligible for listing in the NRHP, 1 is designated as "Eligible for the NRHP for the Purposes of a Program Alternative," and 3 are under review. **Figure 3.8-2** shows the location of the NRHP-eligible property.

Archaeological sites on Duke Field consist of three sites with historical components, one with a prehistoric component, and three with both historical and prehistoric components. Six of the seven archaeological sites have been determined ineligible for listing in the NRHP, and one site with a Late Paleoindian to Early Archaic component is under review. No cemeteries, traditional cultural properties, or Indian sacred sites have been identified on Duke Field.

Figure 3.8-2 Locations of Duke Field Historic Properties

3.8.2.5 Site C-6

In total, 12 cultural resources surveys have been conducted at Site C-6. No historic districts have been identified on the cantonment. Sixteen historic buildings and 6 archaeological sites have been documented. One of the historic buildings has been determined individually eligible for listing in the NRHP **(Figure 3.8-3)**. The rest of the historic buildings have been determined ineligible for listing in the NRHP.

The archaeological sites consist of three sites with historical components and three with both historical and prehistoric components. Three of the sites require evaluation and remain potentially eligible for listing in the NRHP, and three have been determined ineligible for listing. No cemeteries, traditional cultural properties, or Indian sacred sites have been identified at Site C-6.

3.8.3 Environmental Consequences

3.8.3.1 Evaluation Criteria

Effects on cultural resources could include physically altering, damaging, or destroying all or part of a resource or altering characteristics of the resource that make it eligible for listing in the NRHP. Those effects could include introducing visual or audible elements that are out of character with the property or its setting; neglecting the resource to the extent that it deteriorates or is destroyed; or the sale, transfer, or lease of the property out of agency ownership (or control) without adequate enforceable restrictions or conditions to ensure preservation of the property's historic significance. For this EA, an effect would be significant if it altered the integrity of a historic property (NRHP-listed or -eligible historic properties) or if it had the potential to adversely affect traditional cultural properties and the practices associated with the property.

3.8.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

To the extent feasible, proposed construction and development projects in the Eglin AFB cantonment areas would be planned in a manner that would avoid potential adverse effects on historic properties. Exceptions could include renovation or removal of buildings or structures that have exceeded their functional lifespan or that pose a documented or measurable risk to the health and safety of Eglin AFB personnel or visitors; or construction of new facilities or infrastructure that are critical to the missions of Eglin AFB, mission partners, or overall national security.

Before site-specific projects would be implemented, all proponents would submit AF Form 813 to the Eglin AFB EPO for review. Review of these forms would include consideration of a project's potential effects on historic properties on the base. As applicable, additional consultation would be conducted with the Florida SHPO and Native American tribes during these reviews to identify and mitigate potential adverse effects on historic properties in accordance with Section 106.

Figure 3.8-3 Locations of Site C-6 Historic Properties

The discovery of previously undocumented cultural resources, including human remains, during construction or other earth-disturbing activities associated with Alternative 1 is not anticipated. In the event of such a discovery, the procedures listed in **Table 4.1-1** would be implemented in accordance with the Standard Operating Procedures set forth in the Eglin AFB Integrated Cultural Resources Management Plan (Eglin AFB, 2024b). For these reasons, Alternative 1 would have no significant unmitigated adverse effects on cultural resources at Eglin AFB.

3.8.3.3 Alternative 2 – Reduced Levels of Development

Potential effects on historic properties from Alternative 2 would be similar to those described for Alternative 1. However, proposed levels of development under Alternative 2 would be somewhat smaller relative to Alternative 1, which could correspond to a reduced potential to adversely affect historic properties. To the extent feasible, proposed construction and development projects in the Eglin AFB cantonment areas would be planned in a manner that would avoid potential adverse effects on historic properties. Alternative 2 would have no significant unmitigated short-term or long-term adverse effects on cultural resources at Eglin AFB through review of AF Form 813 for site-specific projects, completion of additional site-specific Section 106 consultation for projects potentially affecting historic properties, and adherence to applicable procedures to manage inadvertent discoveries of previously undocumented cultural resources, including human remains.

3.8.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB personnel would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA **(Section 1.1.2)** based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EISEA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on cultural resources would not be significant.

3.8.3.5 Cumulative Effects

Reasonably foreseeable future actions summarized in **Section 3.1.2** would have the potential to affect cultural resources. Such effects would be avoided or mitigated through consultation with the SHPO, Native American tribes, and other relevant stakeholders. Potential adverse effects on historic properties from proposed construction and development projects in the Eglin AFB cantonment areas would be identified and mitigated as applicable through the Section 106 consultation process as part of site-specific project reviews. Therefore, when considered with other reasonably foreseeable future actions, the Proposed Action would not contribute to cumulatively significant adverse effects on cultural resources.

3.8.3.6 Mitigation

Potential impacts on cultural resources would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. Measures to mitigate potential adverse effects on cultural resources from site-specific projects, if determined necessary, would be coordinated by the Eglin AFB Cultural Resources office through consultation with the SHPO, Native American tribes, and other relevant stakeholders.

3.9 Socioeconomics

3.9.1 Definition of the Resource

This section evaluates the social and economic characteristics of populations or communities in or near the area where the Proposed Action would occur, and the Proposed Action's potential effects on those characteristics. An evaluation of socioeconomic impacts describes "how elements of the human environment such as population, employment, housing, and public services might be affected by the proposed action and alternative(s)" (USACE, 2020). Proposed activities on a military base could result in corresponding socioeconomic effects on military personnel, civilians, military retirees, and dependents at Eglin AFB, as well as local economic activity through creation of new jobs and increased income.

E.O. 13045, Protection of Children from Environmental Health Risks and Safety Risks (April 21, 1997) states that each federal agency "(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks."

The socioeconomics ROI consists of Eglin AFB and Okaloosa, Santa Rosa, and Walton Counties. Corresponding characteristics for the state of Florida are provided for reference and comparison, as applicable.

3.9.2 Affected Environment

3.9.2.1 Population

The ROI has experienced substantial growth over the past decade. **Table 3.9-1** shows the populations and growth rates of each county in the ROI. As shown in **Table 3.9-1**, Walton County has the smallest population of the three ROI jurisdictions but had the highest average annual growth rate, at 3.68 percent. Okaloosa County has the largest population of the three counties but the lowest annual growth. Average annual growth in all three counties exceeded that of the state between 2010 and 2020. Approximately one-third of Okaloosa County's population consists of retired or otherwise separated military members (FEDC, 2024).

Table 3.9-1 Population and Annual Growth Rates

Jurisdiction	2010 Population	2020 Population	Average Annual Growth Rate (percent)
Florida	18,801,310	21,538,187	1.46
Okaloosa County	180,822	211,668	1.71
Santa Rosa County	151,372	188,000	2.42
Walton County	55,043	75,305	3.68

Source: U.S. Census Bureau, 2020.

3.9.2.2 Race / Ethnicity

As shown in **Table 3.9-2**, persons identifying as White comprise more than 70 percent of each county in the ROI, well above the corresponding statewide percentage (59.9 percent). The three county-level jurisdictions have a lower percentage of persons identifying as Black or African American than that of the state (15.3 percent). The representation of persons identifying as Hispanic or Latino in the tri-county area is smaller than that of the state (26.7 percent) by 15 percentage points or more. The proportion of persons identifying racially as Some Other Race in each county in the ROI is lower than the statewide percentage (5.6 percent). The percentage of persons identifying as Two or More Races in each ROI county is lower than that of the state (16 percent) by 6 percentage points or more. All other racial and ethnic categories in **Table 3.9-2** represent 5 percent or less of the population of the state and the three counties within the ROI.

Table 3.9-2 Race and Ethnicity Distribution

Region	White	Black or African American	AI/AN	Asian	NH/PI	Some Other Race	Two or More Races	Hispanic/ Latino [1]
Florida	59.9%	15.3%	0.3%	2.9%	0.1%	5.6%	16.0%	26.7%
Okaloosa County	72.9%	9.4%	0.3%	3.3%	0.3%	3.9%	9.9%	10.8%
Santa Rosa County	81.3%	5.5%	0.2%	2.2%	0.2%	2.0%	8.6%	6.6%
Walton County	84.2%	3.8%	1.5%	1.1%	< 0.1%	3.1%	6.2%	8.2%

Notes:
[1] Persons identifying as Hispanic or Latino may be of any race and are counted in the percentages of other racial and ethnic groups presented in this table.
Source: U.S. Census Bureau, 2024
AI/AN = American Indian and Alaska Native
NH/PI = Native Hawaiian and Other Pacific Islander

3.9.2.3 Age

As shown in **Table 3.9-3**, the percentage of persons less than 18 years of age in the ROI is highest in Okaloosa County (22.6 percent) but is comparable to Santa Rosa County (22.0 percent). Walton County (20.8 percent) and the state (19.6 percent) have comparatively lower percentages. The percentage of persons 18 to 64 years of age in Okaloosa County (61 percent) is comparable to Santa Rosa County (61.6 percent); Walton County (59.5 percent) has the lowest percentage of persons aged 18 to 64 in the ROI but is comparable to the state (59.3 percent). The percentage of persons 65 years and older in each of the ROI counties is at least 1.3 percent lower than the state.

Table 3.9-3 Age Distribution

Region	18 Years of Age and Younger	18 to 64 Years of Age	65 Years of Age and Older
Florida	19.6%	59.3%	21.1%
Okaloosa County	22.6%	61.0%	16.4%
Santa Rosa County	22.0%	61.6%	16.5%
Walton County	20.8%	59.5%	19.8%

Source: U.S. Census Bureau, 2024

No facilities where high concentrations of children could be present are located in or near Site C-6, Duke Field, or Camp Bull Simons. Camp Rudder contains a small area designated as family housing **(Section 3.7.2.2)**. On Eglin Main Base, higher concentrations of children would likely be present at Eglin Elementary School and in family housing areas along the south side of the cantonment area.

3.9.2.4 Income and Poverty

As shown in **Table 3.9-4**, mean income per capita and median household income are lower in the state of Florida than the three ROI counties. Walton County has the highest mean income per capita ($49,119), while Santa Rosa County has the highest median household income ($88,968). The three county-level jurisdictions have a lower percentage of persons in poverty than the state (12.6 percent); Walton County (11.4 percent) has the highest percentage of persons in poverty in the tri-county area.

Table 3.9-4 Income and Poverty in the Past 12 Months

Region	Mean Income Per Capita (2023)[1]	Median Household Income (2023)[1]	Poverty Status in the Past 12 Months
Florida	$41,055	$71,711	12.6%
Okaloosa County	$42,261	$79,097	9.3%
Santa Rosa County	$41,388	$88,968	8.4%
Walton County	$49,119	$79,281	11.4%

Notes:
[1] Dollar values were adjusted for inflation
Source: U.S. Census Bureau, 2024

3.9.2.5 Economic Activity

The presence of Eglin AFB has a substantial impact on the local economy. Approximately one in four jobs in Okaloosa County and one in six jobs in Santa Rosa County are in the government sector; Eglin AFB is the largest single-site employer in Okaloosa County (Eglin AFB, 2017). In 2024, the primary employment industries in Okaloosa County were Services, employing 41,685 people; Retail Trade, employing 22,574 people; and Finance, Insurance, and Real Estate, employing 8,425 people (FEDC, 2024). The unemployment rate in Okaloosa County ranged from 2.0 to 2.8 percent during 2023. Employment in Santa Rosa County is similar to that of Okaloosa

County, with Services, Retail Trade, and Construction as the top employment industries. The unemployment rate in Santa Rosa County is approximately 3.0 percent (SREDO, 2024). Employed persons in Walton County work predominantly in Leisure and Hospitality (24.3 percent), Trade, Transportation, and Utilities (20 percent), and Professional and Business Services (12.8 percent). Unemployment in Walton County is approximately 2.8 percent (FOEDR, 2024).

3.9.2.6 Military

Most of the Eglin AFB population is located within Okaloosa County. In 2022, the population of Eglin AFB included 84,134 personnel, including 13,052 active-duty, reserve, and trainee service members; 6,936 appropriated fund civilians; 412 nonappropriated fund and private business civilians; 17,021 retirees; and 46,713 dependents. The base directly supports 20,440 jobs and indirectly supports 16,234 jobs, with an annual payroll of approximately $2 billion. Eglin AFB's total economic impact is estimated at approximately $4.2 billion. More than 30 mission partners from the DoD, federal and local governments, and the local community are hosted at Eglin AFB, further establishing its status as a critical economic and operational installation in the region (Eglin AFB, 2022b).

3.9.3 Environmental Consequences

3.9.3.1 Evaluation Criteria

Adverse impacts on socioeconomics could include temporary declines in economic activity or temporary increases in demand for housing or services within a community. Adverse socioeconomic impacts would be significant if one or more of the following resulted from implementation of the Proposed Action or the No Action Alternative:

- A population increase that would exceed a community’s capacity to provide services such as schools/public education or police and fire/emergency services
- A loss of tax revenue from a population decrease, layoffs or job losses, or disinvestment
- Other economic loss that impairs a community’s ability to provide services to its residents

3.9.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Alternative 1 does not include changes to the number of military or civilian personnel or dependents assigned to Eglin AFB. Therefore, Alternative 1 would have no effect on population or demography in the ROI.

Proposed construction and development projects that could be implemented under Alternative 1 would be anticipated to generate a temporary increase in construction workers in the ROI as well as revenue to the local economy through purchase of materials, supplies, and equipment. This increase would represent a beneficial effect on the local economy in the ROI; however, these effects would end after C&D projects had been completed and, thus, would be temporary.

Although the percentage of children in the ROI is somewhat higher than the state as a whole, no particularly high or unusual concentrations of children are present in the cantonment areas, with

the exception of family housing areas and Eglin Elementary School on Eglin Main Base. Based on the review of AF Form 813 for site-specific projects that could be implemented under Alternative 1, measures would be identified and incorporated as applicable to prevent disproportionate impacts on children's health and safety from projects that could occur in or near these areas of Eglin Main Base. As such, Alternative 1 would have no disproportionate impacts on children's health and safety.

The level of development that would be authorized under Alternative 1 would support ongoing operations of Eglin AFB in furtherance of its mission, thereby resulting in a continued long-term beneficial effect on socioeconomic conditions in the ROI. However, while these effects would be beneficial, they would likely be small in the context of Eglin AFB's annual $2.5 billion impact on the local economy.

3.9.3.3 Alternative 2 – Reduced Levels of Development

Short-term and long-term impacts on socioeconomics from Alternative 2 would be similar to those described for Alternative 1, except that there would be a somewhat reduced potential for beneficial effects on the local economy because fewer construction and development projects would be implemented. Alternative 2 would have short-term and long-term beneficial effects and no significant adverse impacts on socioeconomics through review of AF Form 813 for each site-specific project and incorporation of and adherence to applicable measures to prevent disproportionately adverse impacts on children's health and safety.

3.9.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA **(Section 1.1.2)** based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on socioeconomics would not be significant.

3.9.3.5 Cumulative Effects

To varying degrees, the reasonably foreseeable future actions summarized in **Section 3.1.2** would have the potential to affect socioeconomics in the ROI. As applicable, it is anticipated that these projects would be coordinated with local and regional authorities to identify and prevent potentially significant short-term and long-term impacts on socioeconomic conditions. Therefore, when considered with other reasonably foreseeable future actions, the Proposed Action would not contribute to cumulatively significant adverse effects on socioeconomics.

3.9.3.6 Mitigation

Potential impacts on socioeconomics would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions listed in **Chapter 4**, which would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources, would help to further avoid or minimize adverse effects on socioeconomic resources and conditions. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on socioeconomics.

3.10 Safety

3.10.1 Definition of the Resource

A safe environment is one where there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. DAF safety regulations are established in documents including AFI 91-301 and DAF Manual (DAFMAN) 91-201, *Explosives Safety Standards*. Generally, DAF activities are required to comply with AFOSH guidelines and with Occupational Safety and Health Act regulations (29 CFR § 1910 et seq.). Safety, as addressed in this EA, includes worker health and safety during proposed C&D; public safety during construction and subsequent operations; consideration of safety zones associated with airfields and munitions storage facilities; the potential presence of unexploded ordnance (UXO); and Antiterrorism and Force Protection (AT/FP) requirements established by the DoD and DAF that are intended to safeguard personnel, visitors, facilities, and equipment on military installations.

The safety ROI consists of the Eglin AFB cantonment areas evaluated in this EA.

3.10.2 Affected Environment

Day-to-day operation and maintenance at Eglin AFB are performed in accordance with applicable DAF safety regulations, published DAF Technical Orders, and standards prescribed by AFOSH requirements. These regulations and standards are intended to reduce occupational risks to government personnel and contractors and to protect other individuals that reside on, visit, or are near the base.

Construction is an inherently dangerous activity, and job site safety and accident prevention are an ongoing activity on every Eglin AFB construction site. All contractors involved in construction are responsible for following workers' compensation programs and complying with DAF safety requirements and Occupational Safety and Health Administration (OSHA) regulations and are required to conduct activities in a manner that does not pose undue risk to workers or personnel. All personnel involved with DAF activities on Eglin AFB are responsible for following ground safety regulations. Construction contractors are responsible for reviewing potentially hazardous workplace operations, monitoring exposure to workplace chemicals (such as asbestos, lead, and hazardous materials), physical hazards (for example, noise propagation, slips, trips, and falls), and biological agents (including infectious waste, wildlife, and poisonous plants). Construction

contractors are required to recommend and evaluate controls (preventative, administrative, and engineering) to ensure personnel are properly protected and to implement a medical surveillance program to provide occupational health physicals for workers with potential for exposure to accidental chemical exposures.

AT/FP measures are intended to protect active-duty DoD personnel, civilian employees and family members, as well as facilities and equipment in all locations and situations. The AT/FP program is accomplished through the planned and integrated application of anti-terrorism measures, physical security, operations security, and personal protective services. These guidelines address a range of considerations that include access to Eglin AFB, access to facilities on the base, facility siting, exterior design, interior infrastructure design, and landscaping. UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*, establishes minimum standoff distances that must be maintained between buildings, structures, and designated areas. AT/FP design guidance is intended to improve security, minimize fatalities, and limit damage to facilities and personnel in the event of a terrorist attack at Eglin AFB. Applicable AT/FP requirements are incorporated into construction and substantial renovation of all facilities at Eglin AFB.

3.10.2.1 Eglin Main Base

DAFMAN 91-201, *Explosive Safety Standards*, establishes the size of clearance zones around facilities used to store, handle, and maintain munitions based on the quantity-distance criteria. Explosive Safety Quantity Distance (ESQD) arcs are established by the Eglin AFB Safety Office around facilities and activities that handle, test, or store explosive materials to protect human health and safety and avoid or minimize potential property damage. Nineteen ESQD arcs containing 1,841 acres are designated on Eglin Main Base **(Figure 3.10-1)**. (Note that the boundaries of overlapping ESQD arcs shown on figures in this section have been generalized to show only their outermost boundaries.) Most of these ESQD arcs are associated with the munitions storage areas (MSAs) north of the airfield, with smaller arcs east and south of the airfield's runways. Smaller arcs are also associated with Eglin Main Base facilities east of and outside the immediate area of the airfield.

UXO contamination is considered probable in the southeast areas of the base near Choctawhatchee Bay. No areas of probable UXO contamination have been identified within the Jackson Guard Compound (Eglin AFB, 2013).

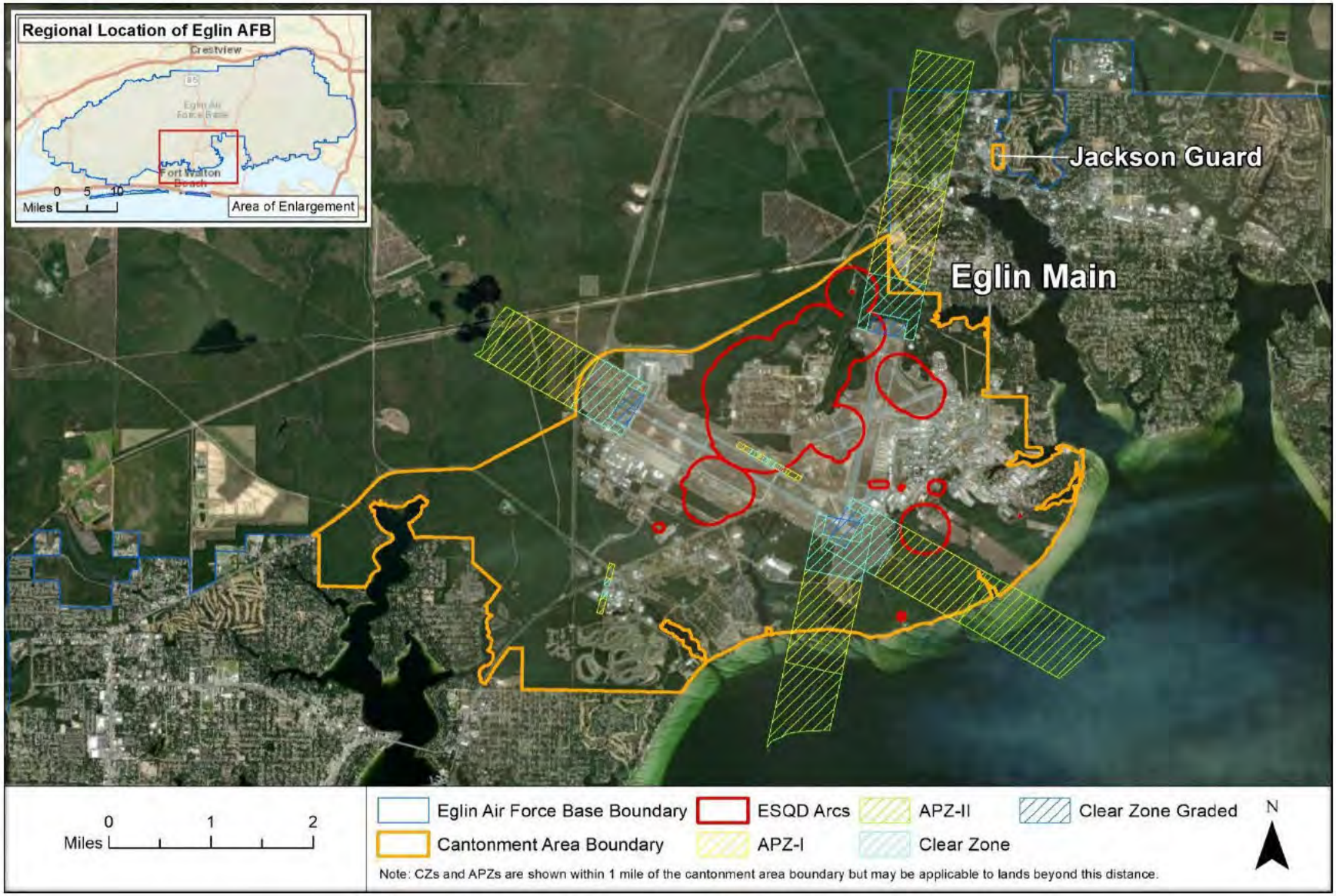

Figure 3.10-1 Eglin Main Base ESQD Arcs, CZs, and APZs

Safety concerns regarding aircraft operations include accidents and mishaps involving mid-air collisions, collisions with structures or terrain, weather-related accidents, mechanical failure, pilot error, or bird-aircraft collisions (DAFI, 2023). Based on guidance set forth in AFI 32-7063, *Air Installations Compatible Use Zones Program*, clear zones (CZs) have been established at the ends of each runway and represent the area of highest accident potential; CZs extend 3,000 feet from the end of the runway **(Figure 3.10-1)**. Accident potential zone (APZ) I and APZ II lie beyond the CZs and represent areas of lesser accident potential but of a magnitude great enough to warrant land use restrictions and recommendations. APZ I begins at the end of the CZ and extends an additional 5,000 feet in length; APZ I is 3,000 feet wide. APZ II begins at the end of APZ I and is 7,000 feet long and 3,000 feet wide. Primary surface CZs, APZ CZs, APZ I and 50:1 approach/departure slopes exist on Eglin Main Base for Runway 01/19 and Runway 12/30. No APZ II areas lie within the Eglin Main Base cantonment boundary (Eglin AFB, 2017). (Note that CZs and APZs are shown on figures in this section within 1 mile of cantonment area boundaries but may extend beyond this distance in some locations).

3.10.2.2 Camp Rudder

An ESQD arc associated with a munitions and training equipment storage facility is located on the southern side of Camp Rudder **(Figure 3.10-2)**. UXO contamination at Camp Rudder is considered probable on the far western portion of the cantonment area and possible in the central-western portion of the base (Eglin AFB, 2012a). A CZ associated with the adjacent runway overlaps the southwestern corner of Camp Rudder, including a portion of the munitions and training equipment storage facility **(Figure 3.10-2)**.

3.10.2.3 Camp Bull Simons

A small ESQD arc has been established adjacent to a facility on the northern side of Camp Bull Simons **(Figure 3.10-3)**. Although much of the cantonment has undergone disturbance through construction of facilities and infrastructure, the potential for UXO contamination is considered probable throughout the camp. No CZs or APZs are present on Camp Bull Simons.

3.10.2.4 Duke Field

Four ESQD arcs at Duke Field are associated with an MSA in the northwest corner of the cantonment, two hot cargo pads, and one live ordnance loading area **(Figure 3.10-3)** (Eglin AFB, 2017). The largest ESQD arc is associated with the MSA, while the smallest is associated with the live ordnance loading area.

Possible UXO contamination associated with the MSA has been identified in the northwestern corner of Duke Field (Eglin AFB, 2012b) Airfield constraints at Duke Field consist of primary surface CZs, APZ CZs, and 50:1 A/D slopes for Runway 18/36, as well as APZ I and APZ II CZs **(Figure 3.10-3)** (Eglin AFB, 2017).

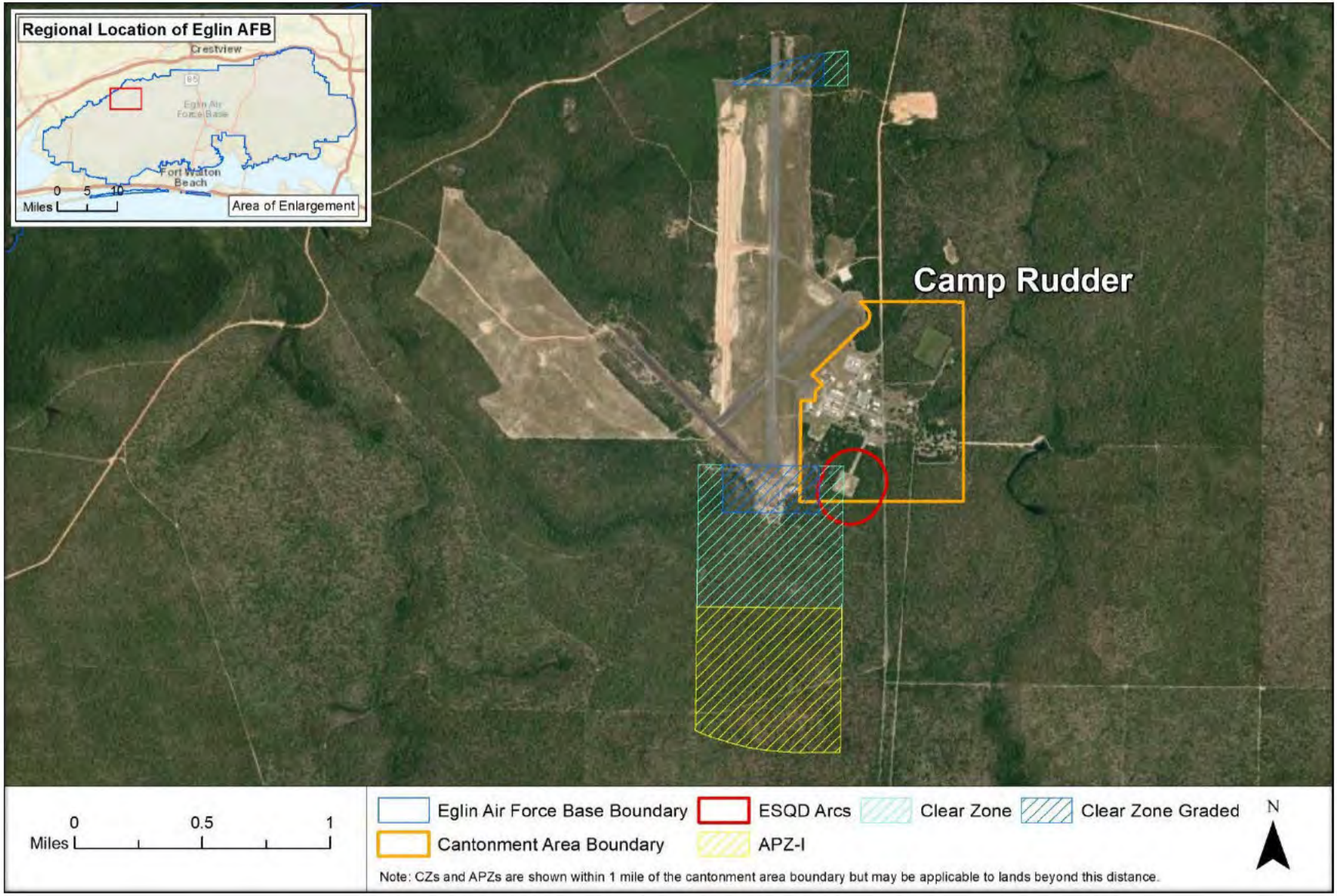

Figure 3.10-2 Camp Rudder ESQD Arcs, CZs, and APZs

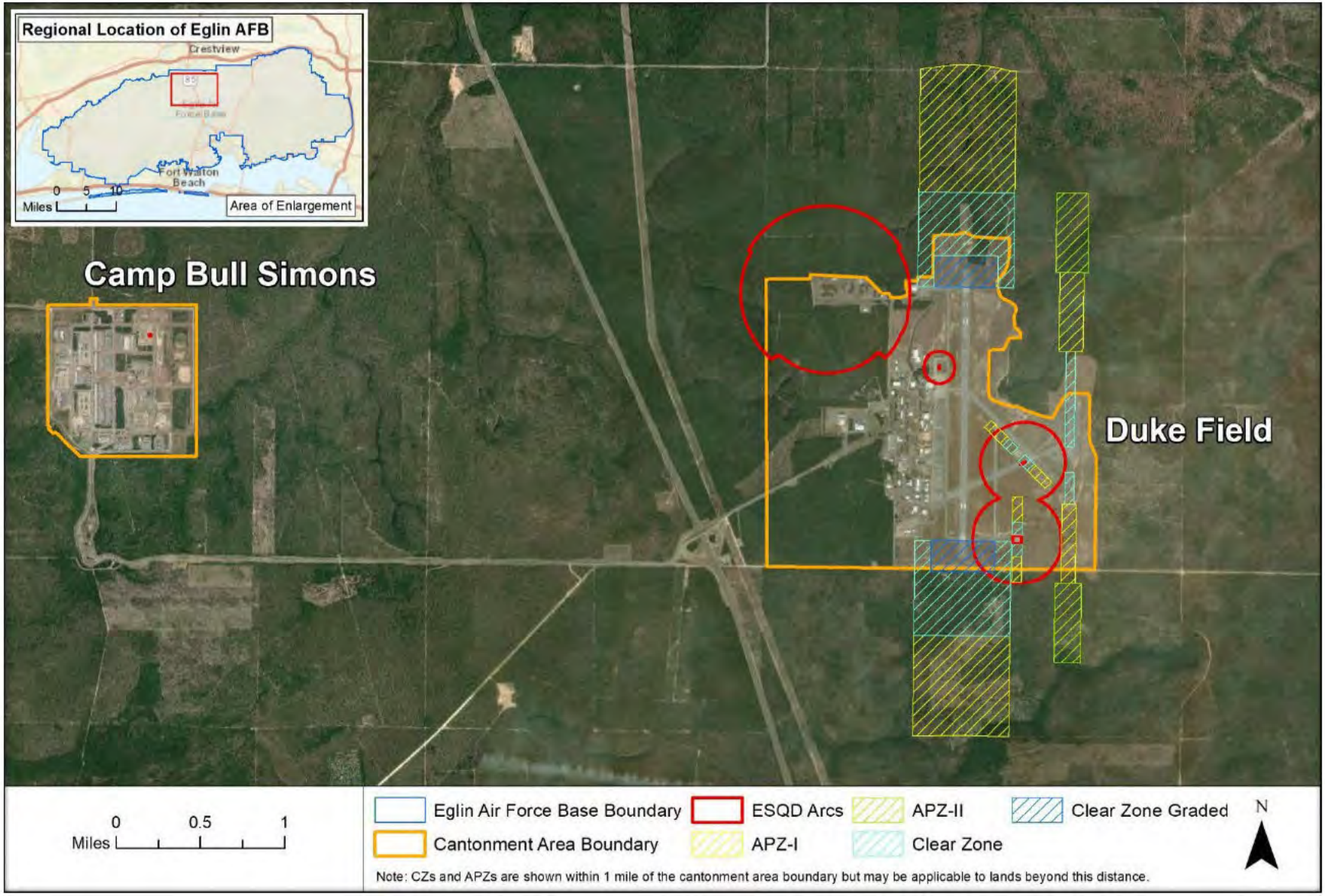

Figure 3.10-3 Camp Bull Simons and Duke Field ESQD Arcs, CZs, and APZs

3.10.2.5 Site C-6

No ESQD arcs have been established on Site C-6. The entirety of Site C-6 and the surrounding Eglin Test Range are considered "probable" for UXO contamination. The probability of finding UXO within Site C-6 is considered moderate to high. (Eglin AFB, 2012c). No CZ or APZ areas are located at Site C-6; however, airspace is restricted within 2.5 nautical miles of the cantonment area.

3.10.3 Environmental Consequences

3.10.3.1 Evaluation Criteria

Adverse impacts on safety could include an increased risk to human health and safety during construction. Adverse impacts on safety would be significant if the Proposed Action and Alternatives resulted in an increased risk of accidents, injury to person, or threats to Eglin AFB's operations and overall mission that could not be optimally reduced through adherence to applicable safety regulations and established procedures.

3.10.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Under Alternative 1, the explosives and munitions safety program at Eglin AFB would continue to be conducted in accordance with DAFMAN 91-201. Construction of new munitions storage facilities would require preparation and submittal of Explosive Site Plan packages in accordance with DAFMAN 91-201. Existing coordination procedures would continue to be implemented to ensure the safety of all personnel while working in areas associated with increased risk of explosives and munitions. When required, signage would be posted to prohibit public entry in restricted areas. Adherence to existing requirements and procedures would ensure that Alternative 1 would have no significant impacts on explosives and munitions safety.

UXO management and clearance on active ranges supporting current missions would continue to be managed by the Safety Office (96 TW/Systems Engineering [SE]), the Range Support Squadron (96 RANSS) and the 96 CEG. Activities taking place in areas considered probable for UXO contamination would be surveyed and remediated before 96 TW/SE would approve ground disturbance. Coordination with the 96 RANSS and 96 CEG would occur prior to construction or initiation of other ground-disturbing activities proposed in areas of possible or probable UXO contamination. Thus, Alternative 1 would have no significant adverse impacts from UXO.

In accordance with DoD Instruction 4165.57, Air Installations Compatible Use Zones (AICUZ), facilities within a CZ or APZ would be constructed or altered in accordance with applicable AICUZ guidance. Therefore, Alternative 1 would have no significant adverse impacts on flight safety.

Operations and maintenance procedures would continue to be conducted in accordance with applicable regulations, technical orders, and AFOSH standards pertaining to ground safety. The AT/FP security program would continue in accordance with regulations and force protection standards at Eglin AFB. As such, Alternative 1 would have no significant adverse impacts on ground safety or the Eglin AFB AT/FP program. The renovation or demolition and replacement of

facilities that do not meet current AT/FP requirements would represent a long-term beneficial effect on the AT/FP program at Eglin AFB.

All C&D associated with Alternative 1 would be conducted in compliance with all applicable OSHA regulations to protect workers. DAF and OSHA excavation safety procedures and regulations would be followed at each phase of each project to help ensure the safety of all involved. Clear demarcation of the work area as well as fencing would be needed to keep construction or demolition activities and debris in construction areas and bystanders out of potentially dangerous work areas. Construction employees would be given the proper training to identify hazards as well as all necessary personal protective equipment (PPE) to perform their jobs safely. PPE would include hard hats, steel-toed boots, hearing protection, work gloves, reflective vests, safety harnesses, signaling flags, communication devices, and any other equipment deemed necessary. The use of PPE and appropriate signage and fencing or other appropriate barriers around active construction sites would ensure that potential adverse effects on the health and safety of construction workers and nearby bystanders would not be significant.

Before site-specific projects would be implemented, proponents would submit AF Form 813 to the Eglin AFB EPO for review. Review of these forms would include consideration of potential effects on safety at the base, including AT/FP, UXO, flight safety, ESQD, and the health and safety of construction workers, Eglin AFB personnel, dependents, visitors, and members of the public outside the cantonment areas. Proposed construction and development projects would be planned, constructed, and operated in accordance with all applicable health and safety regulations and procedures to prevent or minimize adverse impacts on safety. Through review of site-specific projects before they are implemented and incorporation of and adherence to all applicable health and safety requirements, short-term and long-term adverse impacts on safety from Alternative 1 would not be significant.

3.10.3.3 Alternative 2 – Reduced Levels of Development

Impacts on safety from Alternative 2 would be similar to those described for Alternative 1, except that there would be a reduced potential for adverse health and safety effects because fewer construction and development projects would be implemented. Through review of AF Form 813 for each site-specific project and incorporation of and adherence to all applicable health and safety requirements, short-term and long-term adverse impacts on safety from Alternative 2 would not be significant.

3.10.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA **(Section 1.1.2)** based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Additionally, all proposed construction and development projects in the cantonment areas would

be implemented in accordance with applicable federal and state safety requirements, including those established by OSHA, the DoD, and DAF. Construction contractors would be required to prepare and submit project-specific health and safety plans to the Eglin Health and Safety Office for review and approval before each project would be implemented. Review of proposed cantonment area projects by Eglin AFB officials and fulfillment of NEPA and other applicable environmental compliance and safety requirements would ensure that potential impacts on safety would not be significant.

3.10.3.5 Cumulative Effects

Other reasonably foreseeable future actions summarized in **Section 3.1.2** would adhere to applicable health and safety requirements to prevent or minimize safety risks to workers, employees, and visitors to the extent possible and ensure they remain less than significant. Therefore, when considered with other reasonably foreseeable future actions, the Proposed Action would not contribute to cumulatively significant adverse effects on safety.

3.10.3.6 Mitigation

Potential impacts on safety would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on safety.

3.11 Utilities

3.11.1 Definition of the Resource

Utilities include electrical, water, sanitary sewer, stormwater management, telecommunications, natural gas, and solid waste management infrastructure necessary to support the operations and mission of Eglin AFB. The utilities ROI includes utility infrastructure that serves and supports the functions and operations of the Eglin AFB cantonment areas.

3.11.2 Affected Environment

3.11.2.1 Utilities Overview

In the past 10 years, Eglin AFB has privatized electricity, potable water, wastewater (sanitary sewer), and natural gas infrastructure on base, saving a projected $161 million over the lifespans of the current contracts (AFCEC, 2016). Initial development of the cantonment areas (and their associated utility lines) occurred in:

- Eglin Main Base – Initial construction in 1941 (former 1933 Valparaiso Airport), with expansions in 1969 to 1983 (south of airfield), 1999 to 2007 (residential areas to the southwest, and airfield expansion to the northwest), and 2007 to 2010 (southwest of airfield)

- Camp Rudder – Initial construction in 1951, with facility expansions in 1973 to 1983 (new wastewater treatment system to northeast, barracks demolition, and new barracks construction)
- Camp Bull Simons – Initial construction in 2010
- Duke Field – Initial construction in 1941, with recent facility expansions in 1999 to 2007 (new buildings to the north and south, additional treatment pond to northeast), 2010 to 2013 (additional runway to the east), and 2013 to 2015 (new buildings to the west)
- Site C-6 – Initial construction in 1962 (operation in 1968), with facility expansion in 1973 to 1983 (new wastewater treatment system to the northeast)

The ages of on-site facilities above correspond to the age of some utility infrastructure within each cantonment area, though many individual system components and lines have been periodically replaced and upgraded over time.

3.11.2.2 Electricity

Florida Power and Light provides electricity to northwest Florida and sells power to a variety of local electric cooperatives for distribution. Following a 2016 Defense Logistics Agency decision to privatize electricity services at Eglin AFB, the Choctawhatchee Electric Cooperative (CHELCO) manages electrical infrastructure in the cantonment areas evaluated in this EA (AFCEC, 2016). In the past 9 years, CHELCO has constructed new lines and upgraded controls to create interconnection between what had previously been two separate electrical systems. This work substantially improved on-base electric grid reliability and resiliency. The local electric system has been designed for redundancy in case of emergencies or severe weather, and distribution utility lines are installed underground when possible (to help minimize the risk of electricity loss caused by storm damage). Mission-critical systems, buildings, and activities are also supported by independent on-site back-up generators (typically diesel-fueled). Upgrades to improve capacity, distribution, and redundancy are planned and implemented on a nearly continuous basis on Eglin AFB, and electrical power infrastructure is generally considered sufficient to support ongoing operations on the base and its cantonment areas.

3.11.2.3 Water

Potable water infrastructure in the cantonment areas is managed by Emerald Coast Utility Services (ECUS) (a subsidiary of American States Utility Services [ASUS]) (ASUS, 2025) under a part of a 50-year privatization contract. ECUS maintains, repairs, and upgrades water system components on an as-needed basis, and in response to projected future development. ECUS also ensures water system compliance with FDEP regulations through routine water sampling, effective system operation, and reporting.

Potable water systems in the cantonment areas provide water for drinking, food preparation, sanitation, and firefighting. At Eglin Main Base, potable water service is provided via an underground looped distribution system connected to public water mains. At Duke Field, on-site wells are the primary potable water source, while five elevated storage tanks help increase water

pressure. Water is distributed from these tanks via 8-inch-diameter mainlines, and the distribution system can be connected to a 30-inch Okaloosa County main for additional supply in the future, if necessary (Eglin AFB, 2017). The replacement of some water line segments may be required in the near term as a result of age and associated deterioration.

At Camp Bull Simons, two on-site wells (up to 288,000 gallons per day [GPD] yield combined) and two elevated water tanks (400,000-gallon combined capacity) supply water to a looped distribution system of 8-inch mains and smaller diameter supply lines (Eglin AFB, 2017). To help minimize demands on the potable water system at this cantonment, separate shallow wells are used to provide water specifically for landscape irrigation. At Camp Rudder, potable water is provided by two on-site wells, two elevated water tanks (to provide increased pressure and storage), and a looped distribution system. Potable water for Site C-6 is sourced from one on-site well near Building 8638, with two water tanks to increase storage and pressure.

Generally, portions of the potable water infrastructure are more than 50 years old in four of the cantonment areas, having been installed prior to 1969, and some components need replacement.

3.11.2.4 Sanitary Sewer

Sanitary sewer (wastewater) collection and treatment infrastructure in the cantonment areas is managed by ECUS under a 50-year privatization contract (AFCEC, 2016). ECUS maintains, repairs, and upgrades wastewater collection system components on an as-needed basis, and in response to projected future development. ECUS also ensures the wastewater system complies with FDEP regulations, through routine water sampling, effective system operation, reporting, and treated biosolids disposal.

Wastewater from Eglin Main Base is treated at the Arbennie Pritchett Water Reclamation Facility (WRF) in Fort Walton Beach, Florida (Eglin AFB, 2017) and is conveyed via two lift stations and 7 miles of piping (Okaloosa County, 2014). This WRF is operated and maintained by Okaloosa County and is approximately 0.5 miles west of Eglin Main Base. The capacity of the WRF was expanded from 10 million gallons per day (MGD) to 15 MGD in 2020 (Ardurra, 2025). Wastewater from the other four cantonment areas is treated at each cantonment site. Duke Field uses a network of mains, interceptors, and lift stations to convey untreated wastewater to the on-site Duke Field Wastewater Treatment Plant (WWTP), which has a maximum capacity of 125,000 GPD. Average flow to this WWTP is currently 15,000 to 24,000 GPD (Eglin AFB, 2017).

The sanitary sewer system at Camp Bull Simons consists of gravity flow mains, a lift station, and a force main along the western property line conveying flow to the Arbennie Pritchett WRF (Eglin AFB, 2017). The Camp Bull Simons wastewater treatment system has the capacity to transport 345,000 GPD, though typical daily flows average 26,000 GPD (Eglin AFB, 2017). Wastewater generated on Camp Rudder is conveyed via gravity sewer to an on-site package WWTP to the northeast, which currently operates at approximately 35 percent of maximum capacity. The Site C-6 sanitary sewer system consists of gravity lines that convey wastewater to an off-site package WWTP immediately east of the cantonment area (Eglin AFB, 2017). Treated wastewater spray fields are located: (1) northwest of Eglin Main Runway 12/30, (2) west of Garnier Bayou (at the Arbennie Pritchett WRF), (3) east of Duke Field Runway 18/36, (4) in northeastern Camp Rudder,

and (5) northeast of Site C-6 (outside the cantonment area, but adjacent to it). Approximately 200 acres of Eglin AFB property are also currently leased by Holley-Navarre Water System, Santa Rosa County, and the City of Gulf Breeze for land application (spraying) of treated wastewater, replacing a previous discharge to Navarre Beach and Santa Rosa Sound (Blanks, 2020).Portions of the aging underground piping systems are more than 40 years old in four of the cantonment areas (having last been upgraded between 1973 and 1983), and some individual segments/components need replacement. The oldest sections of sanitary sewer system piping in the cantonments were installed between 1940 and 1969 at Eglin Main Base, Camp Rudder, Duke Field, and Site C-6. Camp Bull Simons sanitary sewer infrastructure was primarily installed around 2010 and as such is approximately 15 years old. Lift station pumps and controls at Eglin Main Base, Camp Bull Simons, and Duke Field are periodically replaced as part of routine maintenance.

3.11.2.5 Storm Sewer

The high permeability of the sandy soils underlying the majority of the cantonments helps ensure rapid precipitation infiltration into the soil, hereby limiting the volume of stormwater runoff. Roadway culverts within the cantonments provide stormwater conveyance during large precipitation events, while also maintaining safe vehicular traffic flow. Camp Bull Simons, the most recently constructed cantonment, has four large stormwater management basins (to the northwest, east, southeast, and southwest).

Eglin AFB developed an installation-specific Environmental Management Plan/SWPPP in 2020 for Eglin Main Base and Duke Field (Eglin AFB, 2020). Eglin AFB follows FDEP Multi-Sector Generic Permit requirements for industrial facilities and monitors stormwater discharges from 22 individual stormwater outfalls (discharge locations). The 96 CEG CEIEC maintains the FDEP General Permit (Facility ID FLR05C197-004, expires August 14, 2025) and is responsible for implementing the SWPPP.

Individual culverts are periodically cleaned out and replaced as part of ongoing maintenance. In practice, replacement culverts are identical in diameter to the culverts being replaced, or are up-sized when feasible, to increase the capacity of stormwater conveyance.

3.11.2.6 Telecommunications

An extensive network of telephone, fiber optic, television, and internet (secure and public/nonsecure) is present throughout Eglin AFB and the cantonment areas. In addition to secure DoD communications networks, Eglin AFB is serviced by multiple commercial providers of public (unsecured) fiber optic, cable, satellite, telephone service, and digital subscriber line (Eglin AFB, 2017 and Vibrato, 2025). Telephone service is provided by CenturyLink, Viasat, and HughesNet. Classified and nonclassified telecommunication infrastructure in the cantonment areas uses a combination of metallic cable and fiber optic lines for telephone, data transfer, and internet (Eglin AFB, 2017). Closed-circuit television and video monitoring networks are also present within the cantonments. Additional capacity expansion is planned in the future as existing lines are upgraded to fiber optic.

3.11.2.7 Gas

Okaloosa Gas has managed natural gas infrastructure in the cantonment areas since 2005 (AFCEC, 2016). Gas service is generally provided by on-site distribution networks and 4-inch high-pressure mains to Eglin Main Base, Duke Field, and Camp Bull Simons. No underground natural gas service is currently provided to Camp Rudder or Site C-6. Above-ground propane tanks provide gas for on-site uses at Camp Rudder. No provision for propane service is currently present at Site C-6. An estimated 97 percent of the local natural supply is from North America sources (OGD, 2025).

3.11.2.8 Solid Waste Disposal

Municipal solid waste (MSW) disposal services at Eglin AFB are primarily provided by Republic Services (Republic, 2025), with additional coverage by DLA Disposition Services and Waste Removal USA (Vibrato, 2025). C&D (C&D) waste is typically disposed of at the Arena Landfill & Sand facility or at the Crestview Landfill (Okaloosa County, 2025). Yard waste is generally disposed of at the Wright Yard Waste Facility. Tires, MSW, and household hazardous waste are normally taken to the Class I Baker Landfill in Baker, Florida. Okaloosa County also maintains a transfer station in Fort Walton Beach (Okaloosa County, 2025). Within Walton County (eastern portion of Eglin AFB, including Site C-6), MSW is often taken to the Walton County Central Landfill. This Class III landfill facility was upgraded in 1990, 2018, and 2020 (as Cell 1 reached capacity and Cell 2 was opened) (Walton County, 2025).

3.11.3 Environmental Consequences

3.11.3.1 Evaluation Criteria

Utilities impacts would be adverse if utility services to Eglin AFB and the cantonment areas were temporarily disrupted because existing capacity was exceeded, system components failed, or unplanned outages occurred during construction. Adverse impacts on utilities would be considered significant if the ongoing fulfillment of Eglin AFB's mission and operations was impeded or prevented by insufficient capacity or compromises of utility systems serving the base and its cantonment areas.

3.11.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Before site-specific projects would be implemented, proponents would submit AF Form 813 to the Eglin AFB EPO for review. Review of these forms would include consideration of potential effects on utility systems and any necessary upgrades to support planned facilities and activities. Locations of existing utility infrastructure would be identified and marked in the field as needed before any projects involving land disturbance would begin. Temporary disruptions of utility service or capacity during construction would be identified and potentially affected facilities would be notified well in advance to implement workarounds if such disruptions could not be avoided. Any temporary service disruptions needed during construction would be minimized to the extent feasible and would not impede ongoing operations. Therefore, short-term impacts on utilities would not be significant.

In the long term, through ongoing maintenance and planned upgrades of system components, the capacity of existing electric, water, wastewater/sanitary sewer, natural gas, telecommunications, and solid waste infrastructure on Eglin AFB and the cantonments is considered sufficient to accommodate proposed construction and development projects that could be implemented under Alternative 1. Utilities systems serving Eglin AFB and the cantonment areas would continue to be maintained and upgraded as needed to provide continuous and redundant service and sufficient capacity in support of ongoing and future operations. Service and capacity needs would be considered during the review of AF Form 813 for each site-specific project, and upgrades or other measures to provide sufficient utility service and capacity to proposed projects would be identified and incorporated as needed. Generally, upgrades or replacement of older infrastructure system components with new, more efficient components would represent a beneficial effect on infrastructure at Eglin AFB and the cantonment areas. Overall, long-term impacts on utilities from Alternative 1 would not be significant.

3.11.3.3 Alternative 2 – Reduced Levels of Development

Impacts on utilities from Alternative 2 would be similar to those described for Alternative 1, except that there would be a somewhat reduced potential for noise impacts because fewer construction and development projects would be implemented. Short-term and long-term adverse impacts on utilities from Alternative 2 would not be significant through review of AF Form 813 for each site-specific project, continued maintenance and upgrades of utility systems serving Eglin AFB and the cantonment areas, consideration of applicable utility service and capacity requirements, and incorporation of necessary utility system upgrades for individual projects,.

3.11.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA **(Section 1.1.2)** based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin AFB EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts on utilities would not be significant.

3.11.3.5 Cumulative Effects

To varying degrees, reasonably foreseeable future actions summarized in **Section 3.1.2** would have the potential to affect utility systems on and around Eglin AFB, including generation, capacity, distribution, and redundancy. Through coordination with relevant regulatory authorities and adherence to applicable permitting requirements, proponents of each project would incorporate applicable measures to minimize potential impacts on utility systems. Furthermore, improvements or upgrades would be implemented as needed to maintain or increase service capacity and reliability and avoid disruptions to other utility customers. Therefore, when considered with other

reasonably foreseeable future actions, the Proposed Action would not contribute to cumulatively significant adverse impacts on utilities.

3.11.3.6 Mitigation

Potential impacts on utilities would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on utilities.

3.12 Hazardous Materials and Waste

3.12.1 Definition of the Resource

Hazardous materials and hazardous waste are those substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. §§ 9601-9675), the Toxic Substances Control Act (TSCA) (15 U.S.C. §§ 2601-2671), the Solid Waste Disposal Act as amended by RCRA (42 U.S.C. §§ 6901-6992), and the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136 et seq.). Notification and reporting of hazardous materials are regulated by the Emergency Planning and Community Right-to-Know Act (42 U.S.C. §§ 11001-11050). Hazardous materials are further defined in DAFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, to include items covered by OSHA (29 CFR § 1910, Subpart H).

Hazardous waste are defined as “a solid waste, or combination of solid waste, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed” (42 U.S.C. § 6903(5), as amended). DoD and DAF requirements for the use, handling, transport, reporting, documentation, storage, and disposal of hazardous materials and hazardous waste are established by the following:

- AFI 32-7020, *Environmental Restoration Program*
- AFI 32-7086, *Hazardous Materials Management*
- DAFMAN 32-7002, *Environmental Compliance and Pollution Prevention*
- Defense Environmental Restoration Program (DERP), 10 U.S.C. §§ 2700-2711

Hazardous substances that might pose a risk to human health are addressed separately from other hazardous substances and are referred to as special hazards. Special hazards include asbestos-containing material (ACM), polychlorinated biphenyls (PCBs), and lead-based paint (LBP). The USEPA regulates these special hazard substances under the authority of TSCA (15 U.S.C. § 53). USEPA has established regulations regarding asbestos abatement and worker safety (40 CFR §

763), with additional emissions regulations (40 CFR § 61). Depending on quantity or concentration, the disposal of LBP is regulated by RCRA (40 CFR § 260), whether from abatement or other activities. The disposal of PCBs is addressed in 40 CFR §§ 750 and 761.

The DERP was established by Section 211 of the Superfund Amendments and Reauthorization Act of 1986 (10 U.S.C. §§ 2701-2707). The DERP was developed to facilitate thorough investigation and cleanup of contaminated sites on military installations (active installations, installations subject to Base Realignment and Closure, and Formerly Used Defense Sites). The Installation Restoration Program (IRP) and Military Munitions Response Program (MMRP) are components of the DERP and are managed by the Air Force Civil Engineer Center. The IRP requires each DoD installation to identify, investigate, and clean up hazardous waste disposal or release sites. The MMRP addresses nonoperational rangelands that are suspected or known to contain unexploded ordnance, discarded military munitions, or munitions constituent contamination. For DAF, the management of hazardous materials, hazardous wastes, and special hazards is addressed in AFPD 32-70, *Environmental Considerations in Air Force Programs and Activities*, and the AFI 32-7000 series, which incorporates the requirements of all federal regulations and other AFIs and DoD Directives.

The ROI for hazardous materials and hazardous waste consists of the Eglin AFB cantonment areas and adjacent or nearby lands where adverse effects from hazardous materials and hazardous waste could occur.

3.12.2 Affected Environment

3.12.2.1 Hazardous Materials

AFI 32-7086, *Hazardous Materials Management*, establishes procedures and standards that govern management of hazardous materials throughout the DAF. It applies to all DAF personnel who authorize, procure, issue, use, or dispose of hazardous materials, and to those who manage, monitor, or track any of those activities. Under AFI 32-7086, the DAF has established roles, responsibilities, and requirements for a Hazardous Materials Plan. The purpose of the Hazardous Materials Plan is to control procurement, storage, and use of hazardous materials to support DAF missions, ensure the safety and health of personnel and surrounding communities, and minimize DAF dependence on hazardous materials. Ongoing activities and operations that typically involve the use of hazardous materials at Eglin AFB include:

- Aircraft fueling, defueling, and deicing
- Aircraft maintenance and repair
- Aerospace ground equipment maintenance
- Ammunition supply and weapons maintenance
- Vehicle maintenance and washing
- Facilities maintenance and repair

Hazardous materials used in these types of activities include fuels and lubricating oils, chlorinated solvents and other solvents/degreasers, paints and thinners, antifreeze and deicing compounds, and

acids. Hazardous materials are managed by the Environmental Compliance (96 CEG/CEIEC) in accordance with AFI 32-7086.

3.12.2.2 Hazardous Waste

Eglin AFB implements a comprehensive HWMP which addresses mandatory hazardous waste management requirements of the FDEP, DAF, and USEPA (Eglin AFB, 2024f). The HWMP establishes procedures and policies and assigns responsibilities associated with generation, handling, use, management, transportation, and disposal of hazardous materials and waste at Eglin AFB in accordance with AFI 32-7042, *Solid and Hazardous Waste Compliance*. Procedures and responsibilities for responding to a hazardous waste spill or other incident are addressed in the Eglin AFB SPCC.

Eglin AFB is a Large Quantity Generator of hazardous waste under USEPA ID FL8570024366, which means approximately 1,000 kilograms per month or more of hazardous waste are generated on the installation (USEPA, 2024). There are two designated Hazardous Waste Accumulation Sites at Eglin AFB: Building 524 is maintained by 96 CEG/CEIEC, and Building 1911 is maintained by the Air Force Research Laboratory (Eglin AFB, 2024e). Within 90 days, accumulated waste are transported off the installation and disposed of in accordance with applicable federal, state, and local regulations and Eglin AFB management procedures.

3.12.2.3 Solid Waste

Solid waste may include garbage, refuse, discarded materials and debris, sludge, or any other waste material resulting from industrial, commercial, mining, and agricultural operations and community activities. The Solid Waste Disposal Act (42 U.S.C. 3251 et seq.) established guidelines for solid waste collection, transport, separation, recovery, and disposal systems. RCRA (42 U.S.C. 6901 et seq.) amended this act by shifting the emphasis from disposal to recycling and reuse of recoverable materials. Florida also has established solid waste management regulations pertaining to solid waste facilities; resource recovery and management programs; certification of resource recovery equipment; as well as used oil and domestic sludge classification, utilization, and disposal criteria.

The 96 CEG/CEIEC manages the solid waste management program and has implemented the *Eglin AFB Integrated Solid Waste Management Plan* (ISWMP). Annually, Eglin AFB generates approximately 9,860 tons of construction debris and successfully diverts approximately 6,892 tons, or approximately 70 percent of the generated amount, away from landfills or incinerators through recycling or recovery efforts (Eglin AFB, 2017). This 70 percent diversion rate exceeds base, DAF, and U.S. Government goals for solid waste diversion.

3.12.2.4 ACM and LBP

ACM includes materials that contain more than 1 percent asbestos; it is categorized as either friable or nonfriable. Friable ACM is any material containing more than 1 percent asbestos, and that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Nonfriable ACM is any ACM that does not meet the criteria for friable ACM described above.

AFI 32-1052, *Facilities Asbestos Management*, which implements AFPD 32-10, *Installations and Facilities*, ensures compliance with 40 CFR Part 61 Subpart M, *National Emissions Standard for Asbestos*, and 29 CFR 1926.1101, Toxic and Hazardous Substances: Asbestos. AFI 32-1052 assigns responsibilities and establishes requirements to incorporate facility asbestos management principles and practices into all DAF programs. Additionally, it requires installations to develop an asbestos management plan for maintaining permanent records of the status and condition of ACM in installation facilities. DAF regulations prohibit the use of ACM in new construction.

Eglin AFB manages ACM in accordance with its *Asbestos Management Plan*, which specifies procedures for removal, encapsulations, enclosure, and repair. Contact or disturbance of ACM may occur during C&D. ACM that could be encountered during these activities include, but are not limited to, flooring, siding, tiles, roofing, and pipe insulation. In accordance with the *Asbestos Management Plan* and the *Asbestos Operations Plan*, materials suspected of being ACM are addressed on an as-needed basis prior to disturbance of the material.

Lead is a naturally occurring metal found in the Earth's surface and was used in paint for coloration and durability purposes. Although the federal government banned LBP in 1978, most buildings constructed prior to 1978 are assumed to contain LBP unless documentation or evidence of LBP removal is available. The primary hazard from exposure to LBP is from chipping, cracking, peeling, and flaking paint chips that can generate lead dust during demolition or renovation. The TSCA and the Occupational Safety and Health Act also regulate proper disposal of lead-containing waste, including their disposal at approved facilities.

The Eglin AFB *Lead-Based Paint Management Plan* provides guidance on LBP identification and management. LBP waste generated during maintenance, repair, or renovation work at Eglin AFB may be regulated as hazardous waste under RCRA or State of Florida hazardous waste regulations.

3.12.2.5 Mercury and PCBs

Mercury and PCBs are regulated under TSCA. The manufacture and use of PCBs was banned in the United States in 1979. However, demolition and renovation projects at Eglin AFB could have the potential to disturb PCBs that may still be present in certain types of equipment and building materials that were manufactured before 1979. Mercury may be present in thermostats and switches, fluorescent light bulbs, compact fluorescent lamps, and fluorescent lighting fixture ballasts.

PCB-contaminated equipment must be reported to the 96 CEG/CEIEC in accordance with the Eglin AFB HWMP when PCB-contaminated equipment is identified on the base (Eglin AFB, 2024f). In addition to regulation under the TSCA, PCBs in Florida are regulated as non-RCRA hazardous waste. The HWMP also establishes procedures for proper management and disposal of mercury-containing items, such as fluorescent lamps, mercury switches, and thermostats as universal waste.

3.12.2.6 Environmental Restoration Sites

The DoD began conducting environmental restoration activities in 1975 under the IRP (DoD, 2016), now known as the Environmental Restoration Program. In 2001, DoD established the MMRP to address sites known or suspected to contain UXO, discarded military munitions or their constituents. In accordance with DAF policy, all IRP sites at Eglin AFB are addressed in a manner consistent with the CERCLA or RCRA processes, which require federal installations to investigate and remediate or mitigate health risks associated with releases of contaminants into the environment. Eglin AFB holds a RCRA Part B Corrective Action Permit, which is updated every 5 years and was most recently updated March 11, 2022 (Eglin AFB, 2024g).

Eglin AFB is required to implement and maintain land use restrictions and controls at most IRP sites to prevent certain types of land uses and thereby protect local populations from unacceptable exposure to contaminants. Land use controls (LUCs), defined as "any restriction or control arising from the need to protect human health and/or the environment, that limits the use of and/or exposure to, environmentally contaminated media," are specified for IRP sites in accordance with the LUC Memorandum of Agreement between USEPA, FDEP, and Eglin AFB (Eglin AFB, 2024g)

Eglin AFB currently has a total of 343 IRP sites, of which 55 are active (Eglin AFB, 2024g). Primary site types at Eglin AFB include spill sites, landfills, disposal pits, storage tanks, low level radioactive waste, and fire training areas. Of the 55 active IRP sites, 44 are located within the cantonment areas evaluated in this EA: 37 on Eglin Main Base and 7 on Duke Field. No active IRP sites are located on Camp Rudder, Camp Bull Simons, Site C-6, or Jackson Guard. Although not within the cantonment area boundaries, IRP site SS-296P includes two separate areas at the northern and southern ends of the airfield adjacent to Camp Rudder, and IRP site SS-297P is immediately east of Site C-6. Active IRP sites within or near the Eglin AFB cantonment areas are listed in **Table 3.12-1** and shown on **Figure 3.12-1** through **Figure 3.12-4**.

Table 3.12-1 Active IRP Sites within or Near Eglin AFB Cantonment Areas

Site ID	Site Name	Cantonment Area
CF-288	Military Family Housing Pesticides	Eglin Main Base
DP-084	Jacks Lake Limb Disposal Area	Eglin Main Base
DP-257A	Area Receiving Stormwater-West of Postl Lake	Eglin Main Base
DP-261	Building 914 Dump Site	Eglin Main Base
FT-028	Eglin Main Base Old Fire Training Area	Eglin Main Base
FT-028P-SUB	PF Sub Site Eglin Main Base Old Fire Training Area	Eglin Main Base
LF-003	Eglin Main Landfill, DRMO, CE Storage Yard	Eglin Main Base
LF-005	Former Eglin Main Landfill	Eglin Main Base
LF-008	Receiver Area Landfill	Eglin Main Base
LF-051	Upper Memorial Lake	Eglin Main Base
POI-727	LF-08 Receiver Landfill	Eglin Main Base
SS-026	Elin Hardstand 7	Eglin Main Base
SS-036	POL Tank Farm	Eglin Main Base
SS-086	Exterior Electric Shop/Entomology Shop	Eglin Main Base
SS-275	Air Combat Command Tank Farm	Eglin Main Base
SS-280	33rd W Hot Pit (Pipelines SS 280) LP Number 7	Eglin Main Base

Table 3.12-1 Active IRP Sites within or Near Eglin AFB Cantonment Areas

Site ID	Site Name	Cantonment Area
SS-281	Deep TCE Plume 33rd Fighter Wing	Eglin Main Base
SS-283	JP-8 Spill Site (Upgradient of Site ST-065)	Eglin Main Base
SS-286P-SUB	PF Sub Site McKinley Lab Fire Site	Eglin Main Base
SS-287	Building 92	Eglin Main Base
SS-290P	Eglin WWTP	Eglin Main Base
SS-291P	Building 71 & Building 72	Eglin Main Base
SS-292P	Building 138	Eglin Main Base
SS-293P	Building 1386	Eglin Main Base
SS-294P	Building 1412	Eglin Main Base
SS-295P	Nozzle Spray Test Area Main Base Eglin	Eglin Main Base
SS-299P	Eglin WWTP Spray Field	Eglin Main Base
SS-304P	Building 500, 96 LRS Maintenance Building	Eglin Main Base
SS-305P	2011 Eglin Auro Club Beech C24R Crash Site	Eglin Main Base
SS-306P	AFFF Holding Pond	Eglin Main Base
SS-310P	Former Eglin Skeet Range	Eglin Main Base
SS-314	Gulf Power West Gate Substation Site	Eglin Main Base
SS-316P	1997 F-15 Fire	Eglin Main Base
SS-318P	F-16 Mishap	Eglin Main Base
SS-319	2022 Bulk Storage Diesel Fuel Spill	Eglin Main Base
ST-059	Ben's Lake Marina	Eglin Main Base
ST-099	Okaloosa County Air Terminal	Eglin Main Base
SS-296P	Nozzle Spray Test Area Field 6 (Ranger Camp)	Camp Rudder
AOC-014	Duke Field Sanitary Landfill	Duke Field
SS-298P	Former WWTP and Spray Field at Duke Field	Duke Field
SS-307P	Building 3087	Duke Field
SS-308P	Building 3057	Duke Field
SS-309P	Hangar 3150 (Duke Field)	Duke Field
SS-311P	Nozzle Spray Test Area Duke Field	Duke Field
ST-069	Building 3073, Waste Oil Tank	Duke Field
SS-297P	Nozzle Spray Test Area Site C-6	Site C-6

Source: Eglin AFB, 2024f

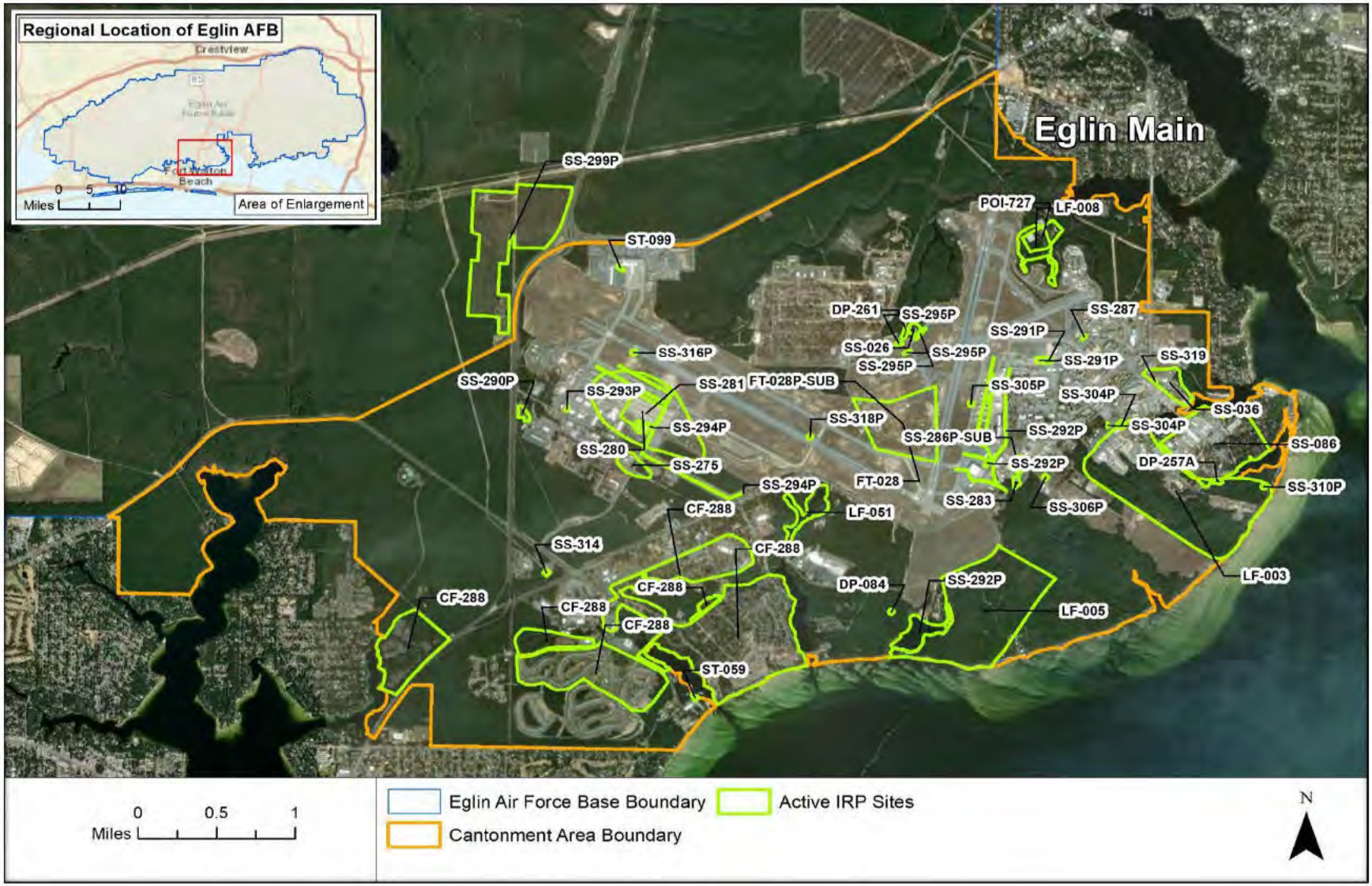

Figure 3.12-1 Eglin Main Base Active IRP Sites

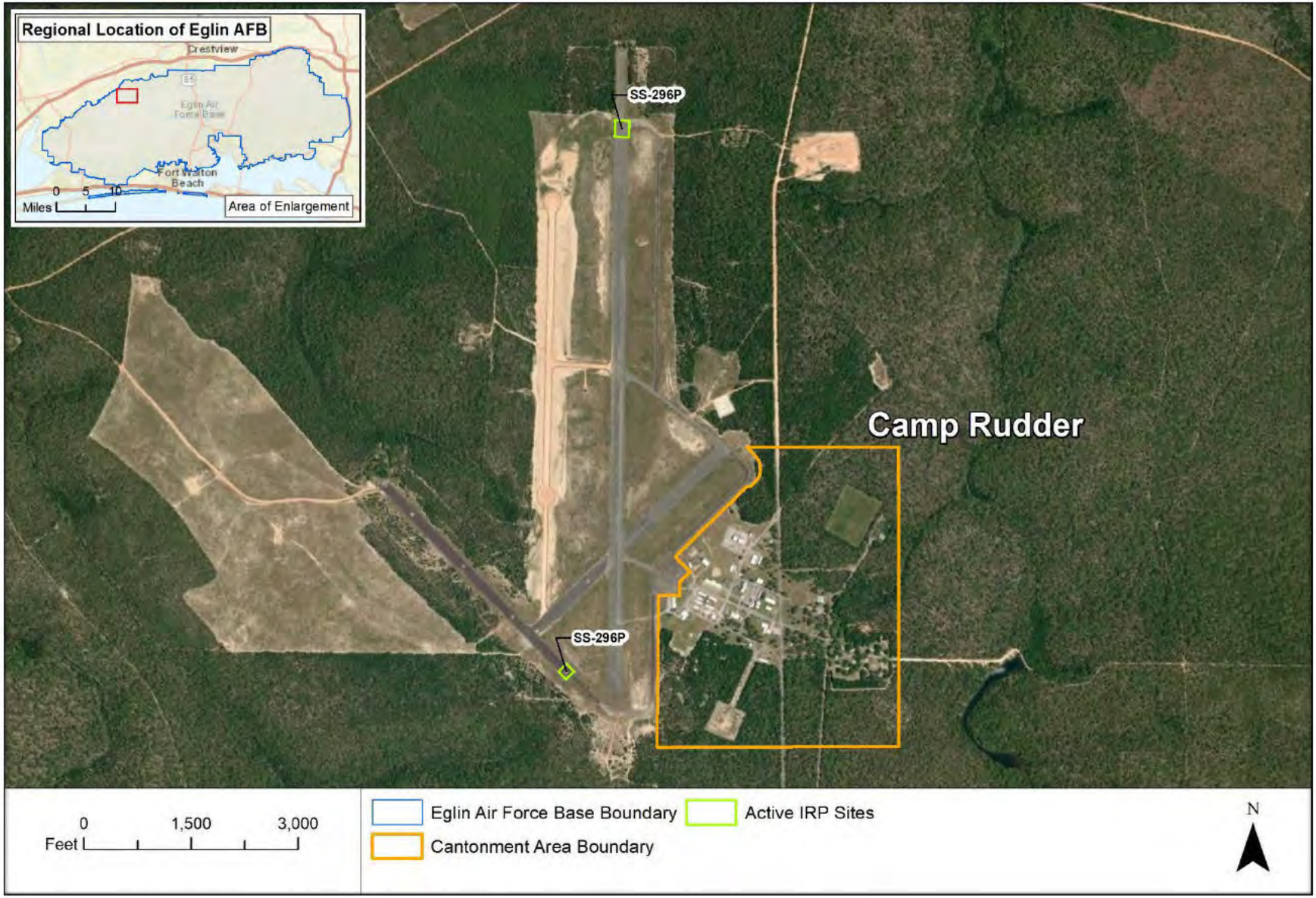

Figure 3.12-2 Camp Rudder Active IRP Sites

Figure 3.12-3 Duke Field Active IRP Sites

Figure 3.12-4 Site C-6 Active IRP Sites

3.12.3 Environmental Consequences

3.12.3.1 Evaluation Criteria

Adverse impacts would include the increased use of hazardous materials and increased generation of hazardous waste during C&D projects. Adverse impacts on or from hazardous materials and waste would be significant if one or more of the following resulted from implementation of the Proposed Action or the No Action Alternative:

- Increases in the risk of exposure of Eglin AFB personnel, dependents, visitors, and the general public to hazardous material and hazardous waste that could not be managed to acceptable levels through adherence to established procedures and BMPs.
- Generation of types or quantities of hazardous or nonhazardous solid waste that could not be accomodated by current management systems.
- Disturbance of a DERP site that would pose a potential for environmental health impacts or result in additional remediation measures.

3.12.3.2 Alternative 1 – Proposed Action Alternative (Preferred Alternative)

Generally, before site-specific projects would be implemented, proponents would submit AF Form 813 to the Eglin AFB EPO for review. Review of these forms would include consideration of potential effects to and from hazardous materials and waste associated with each project. All proposed projects would incorporate and adhere to the applicable requirements of AFI 32-7086, the Eglin AFB HWMP, DAFMAN 32-7002, the Eglin AFB SPCC and ISWMP, AFI 32-1052, and other relevant policies, regulatory requirements, and procedures regarding the use, handling, storage, management, and disposal of hazardous materials, hazardous and nonhazardous solid waste, and other regulated or known substances that could pose a hazard to human health and safety. Through adherence to these requirements and procedures, short-term and long-term effects from hazardous materials, hazardous waste, and associated substances would not be significant.

Potential effects from hazardous materials, hazardous waste, and associated substances are discussed in additional detail below.

Hazardous Materials

Proposed construction and development projects implemented under Alternative 1 could result in short- and long-term adverse impacts from the use of hazardous materials on project sites. The use and management of hazardous materials during construction and operation of proposed construction and development projects would be in accordance with applicable requirements of AFI 32-7086 and the Eglin AFB HWMP (Eglin AFB, 2024f). Adherence to established processes for proper hazardous materials management during demolition and construction would prevent or minimize potential adverse impacts that could result from an accidental spill or release. All hazardous materials would be managed in accordance with applicable DAF regulations and federal, state, and local requirements as well as the Eglin AFB HWMP. Therefore, short-term and long-term adverse impacts from hazardous materials under Alternative 1 would not be significant.

Hazardous Waste

Proposed construction and development projects involving the use of hazardous materials under Alternative 1 would have the potential to generate proportionate quantities of hazardous waste. Accidental spills or releases of fuel or oils could result from the use of construction vehicles and equipment on project sites; however, any such spills would be immediately contained and remediated in accordance with the Eglin AFB HWMP and the Eglin AFB SPCC Plan to minimize the quantity and extent of the spilled material and associated contamination. Hazardous waste generated during construction and operation of proposed facilities would be collected, managed, and disposed of in accordance with federal, state, and local laws and regulations, and the Eglin AFB HWMP. The generation of hazardous waste during construction or operation of proposed projects under Alternative 1 would not be expected to exceed the ability or capacity of Eglin AFB to manage such waste. Therefore, short-term and long-term adverse impacts from hazardous waste associated with Alternative 1 would not be significant.

Solid Waste

Solid waste generated from proposed construction and development projects under Alternative 1 could include building materials such as concrete, asphalt, sheet rock, scrap metals, and lumber. Based on USEPA guidance for estimating C&D waste (USEPA, 2003), proposed C&D projects included in Alternative 1 would have the potential to generate approximately 25,317 tons of solid waste over the 5- to 7-year implementation period **(Table 3.12-2)**. This amount would equate to an average of approximately 3,617 tons of solid waste per year, for 7 years.

Table 3.12-2 Alternative 1 Estimated C&D Solid Waste

Cantonment Area	Solid Waste (tons)		
	Construction	Demolition	Total
Eglin Main Base [1]	2,182	16,789	18,971
Camp Rudder	348	645	994
Camp Bull Simons	549	1,104	1,653
Duke Field	1,159	2,463	3,622
Site C-6	28	50	77
Total	**4,266**	**21,051**	**25,317**

Notes:
[1] Includes proposed levels of development for Jackson Guard.

C&D debris would be recycled to the maximum extent practicable in accordance with applicable DAF policies and DAFMAN 32-7002, thereby diverting it from landfills. Contractors would manage and dispose of nonrecyclable C&D debris in accordance with the Eglin AFB ISWMP and applicable contract requirements. Clean C&D debris (concrete and asphalt) would be ground, recycled, and used for fill and roadwork rather than disposed of in a landfill, to the maximum extent practicable.

Solid waste generated by operation of new facilities constructed under Alternative 1 would be recycled to the extent practicable and otherwise would continue to be managed and disposed of in accordance with the Eglin AFB ISWMP and applicable federal, state, and local regulations. Generally, the generation of solid waste from Alternative 1 would not exceed the capacity of Eglin

AFB to manage and dispose of such waste. Therefore, short- and long-term adverse impacts from solid waste associated with Alternative 1 would not be significant.

ACM and LBP

As needed, surveys and abatement would be conducted in facilities known or suspected to contain ACM and LBP before proposed facility renovation and demolition projects would be implemented. The presence of ACM and LBP is not anticipated in Camp Bull Simons given that development of that cantonment area began in 2010. Abatement and disposal of ACM and LBP would be performed by licensed contractors in accordance with the Eglin AFB *Asbestos Management Plan*, *Asbestos Operations Plan*, and *Lead-Based Paint Management Plan*, and applicable federal, state, and DAF regulations. Adherence to these requirements would minimize the potential for short-term adverse effects associated with ACM and LBP exposure during proposed renovation and demolition projects and ensure such effects remain less than significant. The removal of ACM and LBP from facilities on Eglin AFB and its cantonment areas would represent a long-term beneficial effect. Alternative 1 would have no long-term adverse effects from ACM.

Mercury and PCBs

Surveys and abatement would be performed as needed in facilities known or suspected to contain mercury and PCBs before proposed facility renovation and demolition projects would be implemented. Equipment and materials would be removed and disposed of by licensed contractors in accordance with the Eglin AFB HWMP and applicable federal, state, and DAF regulations. Adherence to these requirements would minimize the potential for short-term adverse effects associated with exposure to mercury and PCBs during proposed renovation and demolition projects and ensure such effects remain less than significant. In the long term, removal and disposal of mercury and PCBs from facilities on Eglin AFB and its cantonment areas would represent a long-term beneficial effect. Alternative 1 would have no long-term adverse effects from mercury and PCBs.

Environmental Restoration Sites

Workers involved with proposed C&D projects could be exposed to contaminated groundwater or soils if projects occur in the vicinity of active IRP sites on or near the cantonment areas. Excavation and any associated dewatering during demolition would be reviewed by and coordinated with the Eglin AFB IRP Office to ensure proper worker safety and environmental controls are implemented and groundwater generated from dewatering is properly managed and disposed of. If contaminated groundwater or soil from nearby IRP sites is encountered during C&D, hazardous substances would be handled, stored, transported, and disposed of in accordance with applicable federal, state, and local regulations, DoD and DAF regulations, and Eglin AFB management procedures. Coordination with the Eglin AFB IRP Office and the 96 CEG/CEIEC would be undertaken prior to C&D projects to verify the presence and status of IRP sites and determine the suitability and compatibility of proposed projects with ongoing remediation activities or LUCs. Construction contractors would prepare and adhere to the requirements of site-specific health and safety plans before projects would be implemented that would have the potential to affect or be affected by active IRP sites. In the long term, proposed projects would be planned, sited, built, and operated in a manner that would not impede or prevent the achievement of remediation objectives on active

IRP sites. Therefore, short- and long-term adverse impacts on IRP sites on Eglin AFB and the cantonment areas would not be significant.

3.12.3.3 Alternative 2 – Reduced Levels of Development

Short-term and long-term impacts on and from hazardous materials and hazardous waste under Alternative 2 would be similar to those described for Alternative 1, except that there would be a somewhat reduced potential for impacts because fewer construction and development projects would be implemented. Proposed C&D projects included in Alternative 2 would have the potential to generate approximately 20,049 tons of solid waste over the 5- to 7-year implementation period **(Table 3.12-3)**. These quantities of solid waste associated with Alternative 2 would not exceed the capacity of Eglin AFB to manage and dispose of such waste. Through review of AF Form 813 for each site-specific project and adherence to applicable DoD, DAF, Eglin AFB, and federal, state, and local requirements and procedures, short- and long-term adverse effects on and from hazardous materials and waste would not be significant.

Table 3.12-3 Alternative 2 Estimated C&D Solid Waste

Cantonment Area	Solid Waste (tons)		
	Construction	Demolition	Total
Eglin Main Base [1]	1,745	13,431	15,176
Camp Rudder	279	516	795
Camp Bull Simons	234	884	1,118
Duke Field	928	1,970	2,898
Site C-6	22	40	62
Total	**3,208**	**16,841**	**20,049**

Notes:
[1] Includes proposed levels of development for Jackson Guard.

3.12.3.4 No Action Alternative

Under the No Action Alternative, Eglin AFB would continue to evaluate and authorize proposed construction and development projects in the cantonment areas addressed in this EA **(Section 1.1.2)** based on levels of development and environmental impacts evaluated in the 2020 Final EA and FONSI. Once these levels of development are met, proponents would be required to prepare and submit the appropriate level of environmental documentation (EA or EIS) and any additional required supporting documentation for each site-specific project to the Eglin EPO for review. Review of proposed cantonment area projects in this manner and fulfillment of NEPA and other applicable environmental compliance requirements would ensure that potential impacts from hazardous materials and waste would not be significant.

3.12.3.5 Cumulative Effects

Management of hazardous materials, hazardous waste, non-hazardous solid waste, and special hazards during the course of reasonably foreseeable future actions summarized in **Section 3.1.2** would ensure that any adverse effects from such materials and waste would not be significant. These actions would also have no potential to impede or prevent ongoing remediation activities or achievement of remediation objectives for DERP sites at Eglin AFB. Therefore, the Proposed

Action would not contribute to cumulatively significant adverse effects on hazardous materials, hazardous waste, nonhazardous solid waste, and DERP sites when considered with other reasonably foreseeable future actions.

3.12.3.6 Mitigation

Potential impacts from hazardous materials and waste would be avoided or minimized through adherence to applicable permits, licenses, and other authorizations listed in **Table 2.6-1**. Management actions that would be incorporated into the planning, construction, and operation of each project to prevent or minimize impacts on environmental resources are listed in **Chapter 4**. No mitigation measures would be required because implementation of the Proposed Action (Alternative 1 or Alternative 2) or the No Action Alternative would have no significant adverse impacts on or from hazardous materials and waste.

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CHAPTER 4 MANAGEMENT PRACTICES

4.1 Regulations, Plans, and Permits

Regulations, plans, and permits that would potentially be applicable to site-specific projects implemented in the cantonment areas are listed in **Table 2.6-1**. **Table 4.1-1** lists management actions that would be identified during the review of AF Form 813 for site-specific projects and incorporated into the planning, construction, and operation of each project as applicable to prevent or minimize impacts on environmental resources to the maximum extent practicable. Eglin AFB would maintain responsibility for ensuring that applicable management actions are implemented and adhered to during each project.

Table 4.1-1 Management Actions Potentially Applicable to Site-Specific Cantonment Area Projects

Resource	Management Action(s)
Air Quality	• Employ standard management measures such as watering of graded areas, covering soil stockpiles, and contour grading (if necessary) to minimize temporary generation of fugitive dust and particulate matter during construction activities. • Contractors will limit the idling time of diesel-powered highway and nonroad vehicles and engines used in construction except as necessary for safety, security, or to prevent property damage.
Biological Resources	• To ensure MBTA compliance, all projects must be reviewed by the Eglin AFB NRO. As determined necessary through these reviews, migratory bird surveys will be conducted on proposed project sites prior to vegetation clearing or other applicable site disturbance. • To help reduce the spread of invasive non-native species, all off-site equipment and vehicles will be cleaned prior to on-site use. Construction materials (imported fill soil, straw mulch, seed) will also be checked to reduce the introduction of such species. • Only native species will be used for landscaping. • If an eastern indigo snake is encountered at a project site, all activities (clearing, grading, construction, training) will cease until the snake is safely out of harm's way. • If an eastern indigo snake, black bear, or gopher tortoise is observed at a project site, Eglin AFB Natural Resources Section personnel will be immediately notified. • Eglin AFB NRO personnel will review proposed projects, and gopher tortoise surveys may be necessary for some sites (prior to land disturbance). Any tortoises identified by a pre-construction survey will be relocated by a qualified biologist in compliance with FWC requirements. Perimeter silt fencing may also be necessary at these sites, to help prevent tortoise movement back onto the site. Gopher tortoise burrows must be assessed for potential eastern indigo snake presence before being collapsed. • Waste will be disposed of in bear-proof dumpsters and bear-resistant garbage cans. • To help protect aquatic habitat, an undisturbed vegetated riparian buffer at least 100 feet wide will be maintained between grading / construction activities and surface waters. • Eglin AFB NRO will continue to monitor RCW populations and habitats near the cantonment areas. • Prescribed burns will periodically be conducted in RCW foraging habitat.

Table 4.1-1 Management Actions Potentially Applicable to Site-Specific Cantonment Area Projects

Resource	Management Action(s)
Cultural Resources	• All ground-disturbing activities would be coordinated with the 96 CEG/CEIEA in order to determine precise locations to be avoided to protect cultural resources. • Any archaeological artifacts discovered would be left in place and their locations immediately reported to the 96 CEG/CEIEA. Construction or demolition activities would cease and efforts to protect the resource from further impact would be made. • Vehicle movements would be restricted near water bodies, on steep slopes, or in areas where the soil is soft and/or devoid of vegetation, or in areas where artifacts are located on the surface of the ground. • In the event of the discovery of potential Native American artifacts and/or remains, construction and operational activities would cease and the THPO would be notified immediately. • No ground-disturbing activities would occur in the vicinity of Davis Cemetery on Eglin Main Base. • Should proposed projects involve renovation of existing facilities or demolition of outdated or obsolete facilities that are eligible or potentially eligible for listing on the NRHP, the 96 CEG/CEIEA would follow procedures for the treatment of historic properties as set forth in Chapter 2 of DAFMAN 32-7003, Environmental Conservation (i.e., use and reuse historic properties to the maximum extent feasible per Section 110 of NHPA) and the Cultural Resources Management Playbook.
Hazardous Materials and Waste	• All hazardous materials; petroleum products; and hazardous, universal, and petroleum waste used or generated during construction and maintenance will be contained, stored, and managed appropriately (e.g., secondary containment, inspections, spill kits) in coordination with the 96 CEG/CEIEA and in accordance with the Eglin AFB HWMP; SPCC Plan; and federal, state, and DAF-applicable regulations to minimize the potential for releases. Nonhazardous solid waste generated from construction activities will be managed in accordance with Eglin AFB's Integrated Solid Waste Management Plan and recycled to the greatest extent possible. • The weights of all materials disposed and those diverted for recycling or reuse will be reported to the Eglin AFB Solid Waste Program to be credited toward the DoD-mandated C&D diversion goal. Nonhazardous C&D waste that is not recyclable or reusable would be transported to off-installation landfills that accept C&D waste. • Equip all construction sites with adequate waste disposal receptacles for solid, liquid, and hazardous waste to prevent C&D debris from leaving the work site. • All construction equipment will be maintained according to the manufacturer's specifications, and drip mats will be placed under parked equipment as needed to contain minor spills and drips. • Refueling of equipment will be completed in accordance with the Eglin AFB or project-specific SPCC Plan and will not occur within 100 feet of any drainage.
Noise	• To reduce effects on noise sensitive receptors, heavy construction equipment will include noise abatement components such as mufflers, engine enclosures, engine vibration isolators, or other sound dampening supplements that could reduce the sound level by up to 10 dBA. Construction will be limited to normal weekday business hours (generally 7:00 a.m. to 6:00 p.m.). • As applicable, construction equipment will remain within a project area for the duration of the construction period, reducing the frequency of increased truck

Table 4.1-1 Management Actions Potentially Applicable to Site-Specific Cantonment Area Projects

Resource	Management Action(s)
Noise *(continued)*	traffic and associated noise levels. Construction contractors will select material transportation routes as far away from sensitive receptors as possible. • Area users will be notified before noisy construction activities occur and will be provided updates, as necessary, as to when and where construction actions will occur. Signage will be posted at the entry points of the construction site providing current construction information, including schedule and activity, as applicable. • Construction contractors will coordinate issuance of a notice in advance of noisy or disruptive construction activities so civilian and commercial users operating within the area will have adequate awareness of the planned activities and time to plan for avoidance.
Safety	• Coordination with the 96 TW/SE, 96 TW/RANSS, and 96th Civil Engineering Squadron/Explosive Ordnance Disposal Squadron will be conducted for any ground disturbing activity occurring within the Eglin AFB Range Complex. Surface or subsurface activities occurring within an area delineated as probable UXO contamination will require surveying and remediation prior to 96 TW/SE approval. • Physical barriers and "no trespassing" signs will be placed around demolition and construction sites to deter unauthorized personnel. All construction vehicles and equipment will be locked or otherwise secured when not in use. • All construction equipment will be maintained according to manufacturer specifications to minimize effects associated with safety and minimize impacts from construction noise. • To prevent effects on construction crew safety from elevated noise levels, contractors will require construction personnel and equipment operators to wear hearing protection to limit exposure to noise and protect hearing and ensure compliance with OSHA Standards; AFOSH Program; and DAF Instruction 48-127, Occupational Noise and Hearing Conservation Program
Socioeconomics	• Eglin NRO review of AF Form 813 for each site-specific project and adherence to the other requirements listed in this table will prevent or minimize potential impacts on socioeconomic conditions in the cantonment areas, including potential effects on children who may be present in residential areas, day care centers, and schools at Eglin AFB.
Soils	• A site-specific SWPPP will be prepared for each project site, as applicable. • Erosion and sediment control BMPs will be implemented and maintained on project sites during land-clearing, grading, and construction efforts, to help minimize soil erosion. These may include perimeter controls (silt fencing, filter socks), diversions (diversion dikes, stabilized swales, riprap-lined ditches), detention (sediment traps, basins), level spreaders (water bars), stabilized temporary stream crossings, and vegetative stabilization (temporary seeding, permanent seeding, mulching, soil amendments, filter strips). Vegetation planting may include wetland plants, native species, and woody tree/shrub saplings. • Project sites will be inspected in accordance with permitting requirements during land clearing, soil disturbance, grading, construction, and stabilization. Any observed issues will be promptly addressed and resolved. • Land-clearing, grubbing, and grading will be conducted to minimize the extent of exposed / disturbed soil. Clearing and grading will not be conducted during periods of wet weather. Construction activities will incorporate stabilization of all disturbed soils. • Limit of disturbance (LOD) extents will be clearly marked (with flagging and stakes) prior to land clearing and grading. Unauthorized off-road vehicle traffic will be

Table 4.1-1 Management Actions Potentially Applicable to Site-Specific Cantonment Area Projects

Resource	Management Action(s)
Soils *(continued)*	prevented in these areas during grading and construction efforts. Equipment, vehicles, and construction materials will be stored appropriately (at least 100 feet away from surface waters) within permitted LOD areas. • Project planning efforts will include sampling and remediation plans for any contaminated soil encountered on project sites. • Projects will comply with the Eglin AFB Erosion Control Component Plan.
Utilities	• Coordination with all utility providers will be required prior to any ground-disturbing activities to ensure worker safety, prevent unplanned service interruptions, and minimize potential conflicts between providers. • Sunshine 811 public utility locating service will be contacted by Eglin AFB personnel at least 3 days prior to soil disturbance to locate existing utility lines at proposed project sites. • Prior to construction activities, Eglin AFB facilities in areas potentially subject to temporary construction-related utility service interruptions will be notified in advance to prevent or minimize impacts on ongoing operations.
Water Resources	• Existing roads will be used for vehicle crossings of streams, wetlands, and open waters. • Erosion and sediment control BMPs will be implemented and maintained on project sites during land-clearing, grading, and construction efforts, to help protect downstream water quality. These may include perimeter controls (silt fencing, filter socks), diversions (diversion dikes, stabilized swales, riprap-lined ditches), detention (sediment traps, basins), level spreaders (water bars), stabilized temporary stream crossings, and vegetative stabilization (temporary seeding, permanent seeding, mulching, soil amendments, filter strips). Vegetation planting may include wetland plants, native species, and woody tree/shrub saplings. • Project sites will be inspected in accordance with permitting requirements during land clearing, soil disturbance, grading, construction, and stabilization. Any observed issues will be promptly addressed and resolved. • Vehicles, equipment, and potential pollutants (liquids and solids) will be kept at least 100 feet from surface waters. • An undisturbed vegetated riparian buffer at least 100 feet wide will be maintained between grading / construction activities and surface waters. • No new soil disturbance will occur on project sites until all areas within the limits of disturbance have been evaluated for the presence of potentially jurisdictional streams, wetlands, and open waters by a qualified surface water delineator. If no streams, wetlands, or open waters are present, then no additional CWA permitting actions should be required. • Potentially jurisdictional streams, wetlands, and open waters determined to be present on a proposed project site will be delineated/mapped. Projects will be planned and designed to avoid and minimize impacts on these features to the maximum extent practicable. CWA requirements will be reviewed for projects where impacts on potentially jurisdictional streams, wetlands, or open waters would be unavoidable or likely to occur. A joint permit application will be prepared and submitted to USACE and FDEP if CWA pre-construction notification (written permitting) is required. Compensatory mitigation may be required for projects with impacts that would exceed 0.10 acres. • Vegetated riparian buffers will be maintained along surface waters (streams, wetlands, and open waters) whenever practicable.

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APPENDICES

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PUBLIC INVOLVEMENT

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APPENDIX A – PUBLIC INVOLVEMENT

A.1 INTRODUCTION

Scoping is an early and open process for developing the breadth of issues to be addressed in an Environmental Assessment (EA) and for identifying significant concerns related to an action. Per the requirements of Executive Order (E.O.) 12372, Intergovernmental Review of Federal Programs, as amended by E.O. 12416, federal, state, and local agencies with jurisdiction that could be affected by the Proposed Action or alternatives were notified during the development of this EA.

The Intergovernmental Coordination Act and E.O. 12372 require federal agencies to cooperate with and consider state and local views in implementing a federal proposal. Through the coordination process, potentially interested and affected government agencies, government representatives, elected officials, and interested parties that could be affected by the Proposed Action and alternatives were notified during the development of this EA. The recipient mailing list and agency and intergovernmental coordination letters and responses are included in this appendix.

A.1.1 Agency Consultations

Implementation of the Proposed Action involves coordination with several organizations and agencies. Compliance with Section 7 of the Endangered Species Act and implementing regulations (50 Code of Federal Regulations [CFR] Part 402), requires communication with the U.S. Fish and Wildlife Service (USFWS) in cases where a federal action could affect listed threatened or endangered species, species proposed for listing, or candidates for listing. The primary focus of this consultation is to identify such species that are known or have potential to occur in the project area. The Department of the Air Force (DAF) would then make a determination of potential adverse impacts on species known or having potential to be present.

The National Historic Preservation Act (NHPA) of 1966 (54 United States Code § 300101 et seq.) established the National Register of Historic Places (NRHP) and outlines procedures for managing cultural resources on federal property. The NHPA requires federal agencies to consider the potential impacts of federal undertakings on historic properties that are listed, nominated to, or eligible for listing in the NRHP; designated as a National Historic Landmark; or valued by modern American Indians for maintaining their traditional culture. Section 106 of the NHPA requires federal agencies to consult with State Historic Preservation Officers, and others, if their undertakings have the potential to adversely affect historic properties and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings.

A.1.2 Government-to-Government Consultation

Consistent with the NHPA's implementing regulations (36 CFR Part 800), DoD Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, DAF Instruction 90-2002, *Interactions with Federally Recognized Tribes*, and DAF Manual 32-7003, *Environmental Conservation*, the DAF has a responsibility to consult in good faith with federally recognized tribes who have a documented interest in DAF lands and activities, even though the tribe may not be geographically located near the installation or its airspace, regarding a proposed action's potential to affect properties of cultural, historical, or religious significance to the tribes. The tribal coordination process is distinct from National Environmental Policy Act consultation and the

intergovernmental coordination processes and requires separate notification of all relevant tribes. The timelines for tribal consultation are also distinct from those of intergovernmental consultations. The installation commander's role in tribal government-to-government consultation is similar to the commander's role with an ambassador. The installation commander may also designate a civilian government employee as the Installation Tribal Liaison Officer. The Installation Tribal Liaison Officer must be a high-level civilian who is able to interact directly with base leaders and is allowed access to the installation commander without multiple chain of command impediments.

Government-to-government consultation is included in this appendix.

A.2 PUBLIC AND AGENCY REVIEW OF ENVIRONMENTAL ASSESSMENT

The Draft EA and Proposed Finding of No Significant Impact (FONSI) were provided to Native American tribes for a 30-business day review and comment period from June to August 2025. In an email dated July 9, 2025, the Seminole Nation of Oklahoma stated that it had no questions regarding the Proposed Action. No other comments were received during the government-to-government consultation period. Government-to-government consultation correspondence regarding the Proposed Action is included in this appendix.

The DAF did not initiate Section 7 consultation regarding the Proposed Action due to the programmatic nature of the analysis presented in the EA. However, the USFWS was notified of the preparation of the Draft EA and invited to review the EA upon request. Per a response dated July 25, 2025, the Final EA and signed FONSI will be provided to the USFWS for its records when available. Eglin AFB would initiate Section 7 consultation with USFWS as applicable for future site-specific projects in the cantonment areas that would have the potential to adversely affect federally listed species. Correspondence with USFWS is included in this appendix.

The Draft EA and Proposed FONSI were made available for a 30-day public comment period. A Notice of Availability for the Draft EA and Proposed FONSI was published in the *Northwest Florida Daily News* inviting the public to review and comment on the Draft EA during the 30-day review period. Comments on the Draft EA will be considered in the Final EA, as applicable.

The Draft EA and Proposed FONSI are available on the Eglin AFB website at https://www.eglin.af.mil/About-Us/Eglin-Documents/. Local libraries provide internet access and librarians can assist in accessing these documents. Comments or inquiries on the Draft EA and Proposed FONSI should be submitted to Ms. Ilka Cole, 96th Test Wing Public Affairs, 101 West D Avenue, Room 238, Eglin AFB, FL 32542, or via e-mail at 96CEG.CEIEA.NEPA PublicComments@us.af.mil.

The list of stakeholders who were notified and consulted regarding the Proposed Action is provided in **Appendix A.4**.

A.3 INTERGOVERNMENTAL AND STAKEHOLDER COORDINATION

A.3.1 Representative Government-to-Government Scoping Letter

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH TEST WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

24 January 2025

[redacted]
Chief, Environmental Assets Section
[redacted]

[redacted]
Tribal Historic Preservation Officer
Muscogee Creek Nation
[redacted]
Sent via email to: [redacted]

Subject: Environmental Assessment and Request to Initiate Government-to-Government Consultation for Proposed Cantonment Area Construction and Development Projects, Eglin Air Force Base, Florida

Dear [redacted]

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to implement future construction and development projects in the five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. The location of Eglin AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action would provide facilities and infrastructure to support the ongoing mission, operations, and security requirements of Eglin AFB. All proposed activities evaluated in the EA would be implemented within the existing boundaries of Eglin AFB's five cantonment areas where most existing development on the base is concentrated: Eglin Main Base (including Jackson Guard), Duke Field, Camp Bull Simons, Camp Rudder, and Site C-6 20th Space Control Squadron (20 SPCS) (see Figure 1). At this time, individual projects included in the Proposed Action are conceptual and will be evaluated at a programmatic level of analysis in the EA based on estimated levels of disturbance from activities such as site preparation, construction of new facilities, new impervious surface, and facility demolitions.

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, the DAF will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural

MISSION-PEOPLE-PARTNERS

resources, traditional cultural properties, or other cultural resources. The DAF is not aware of any traditional cultural properties or other historic properties of religious or tribal significance located within the cantonment areas on Eglin AFB.

In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, the DAF is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer (SHPO) with respect to the proposed undertaking. The DAF would conduct additional Section 106 consultation with the Florida SHPO and Native American tribes in the future as site-specific plans for the types of projects analyzed in the EA are further refined. As proposed projects are implemented in the future, Eglin AFB would prevent or minimize adverse effects on historic properties, including previously undocumented archaeological resources, through adherence to all applicable requirements of the installation's *Integrated Cultural Resources Management Plan*, the 2021 *Programmatic Agreement Among Eglin Air Force Base, the Florida State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Management of Historic Properties at Eglin Air Force Base, Florida*, and associated cultural resources management plans, policies, and documents.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, the DAF requests your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to Ms. [redacted] at [redacted], Eglin Air Force Base, Florida 32542-5105 or via email to [redacted] Thank you for your assistance.

Sincerely

[redacted]

Attachment:
1. Figure 1 – Location of Eglin Air Force Base

2

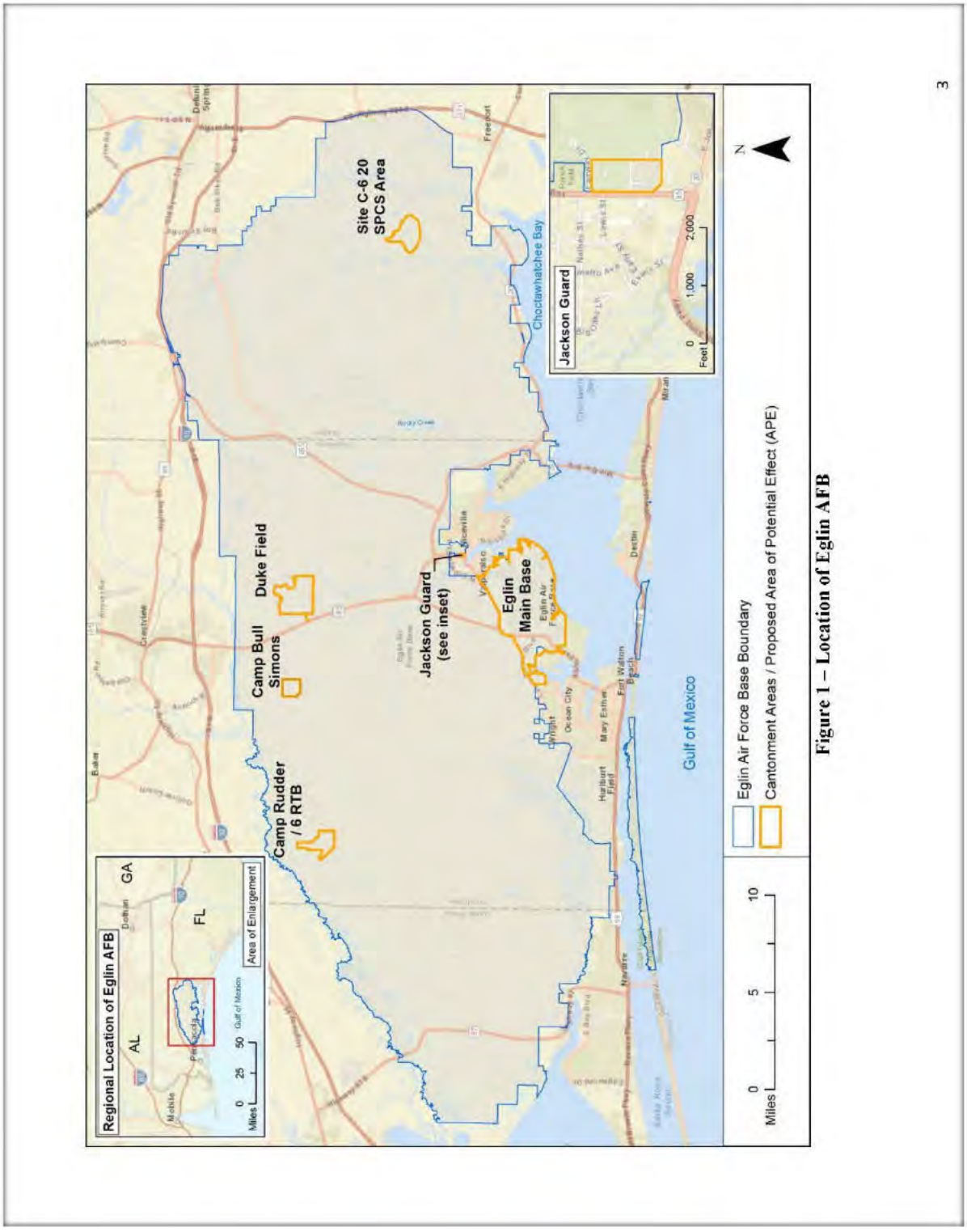

Figure 1 – Location of Eglin AFB

A.3.2 State Historic Preservation Officer Scoping Letter

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH TEST WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

24 January 2025

[redacted]
Chief, Environmental Assets Section
[redacted]

[redacted]
State Historic Preservation Officer
Division of Historical Resources
[redacted]
Sent via email to: [redacted]

Subject: Environmental Assessment and Request to Initiate Section 106 Consultation for Proposed Cantonment Area Construction and Development Projects, Eglin Air Force Base, Florida

Dear [redacted]

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to implement future construction and development projects in the five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. The location of Eglin AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action would provide facilities and infrastructure to support the ongoing mission, operations, and security requirements of Eglin AFB. All proposed activities evaluated in the EA would be implemented within the existing boundaries of Eglin AFB's five cantonment areas where most existing development on the base is concentrated: Eglin Main Base (including Jackson Guard), Duke Field, Camp Bull Simons, Camp Rudder, and Site C-6 20th Space Control Squadron (20 SPCS) (see Figure 1). At this time, individual projects included in the Proposed Action are conceptual and will be evaluated at a programmatic level of analysis in the EA based on estimated levels of disturbance from activities such as site preparation, construction of new facilities, new impervious surface, and facility demolitions.

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The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. Therefore, the purpose of this letter is to initiate Section 106 consultation with your office regarding the proposed undertaking. The DAF also requests concurrence with the Area of Potential Effect (APE) for the proposed undertaking, which is defined as the boundaries of the cantonment areas shown on Figure 1.

The DAF is initiating consultation with Native American tribes regarding the proposed undertaking in accordance with Section 106 of the National Historic Preservation Act, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*. The DAF would conduct additional Section 106 consultation with your office and Native American tribes in the future as site-specific plans for the types of projects analyzed in the EA are further refined. As proposed projects are implemented in the future, Eglin AFB would prevent or minimize adverse effects on historic properties, including previously undocumented archaeological resources, through adherence to all applicable requirements of the installation's *Integrated Cultural Resources Management Plan*, the 2021 *Programmatic Agreement Among Eglin Air Force Base, the Florida State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Management of Historic Properties at Eglin Air Force Base, Florida*, and associated cultural resources management plans, policies, and documents.

The DAF respectfully requests your concurrence with the APE as well as your written comments and other input on the proposed undertaking. Your response is requested within 30 days of receipt of this letter so it can be considered during preparation of the Draft EA and Federal Consistency Determination. When available, the Draft EA will be provided to your office for review and concurrence with the DAF's determination of effects on historic properties. Please send your response and any comments, questions, or requests for additional information to [redacted], [redacted], at [redacted], Eglin Air Force Base, Florida 32542-5105 or via email to [redacted] Thank you for your assistance.

Sincerely

[redacted]

Attachment:
1. Figure 1 – Location of Eglin Air Force Base and Proposed Area of Potential Effect (APE)

2

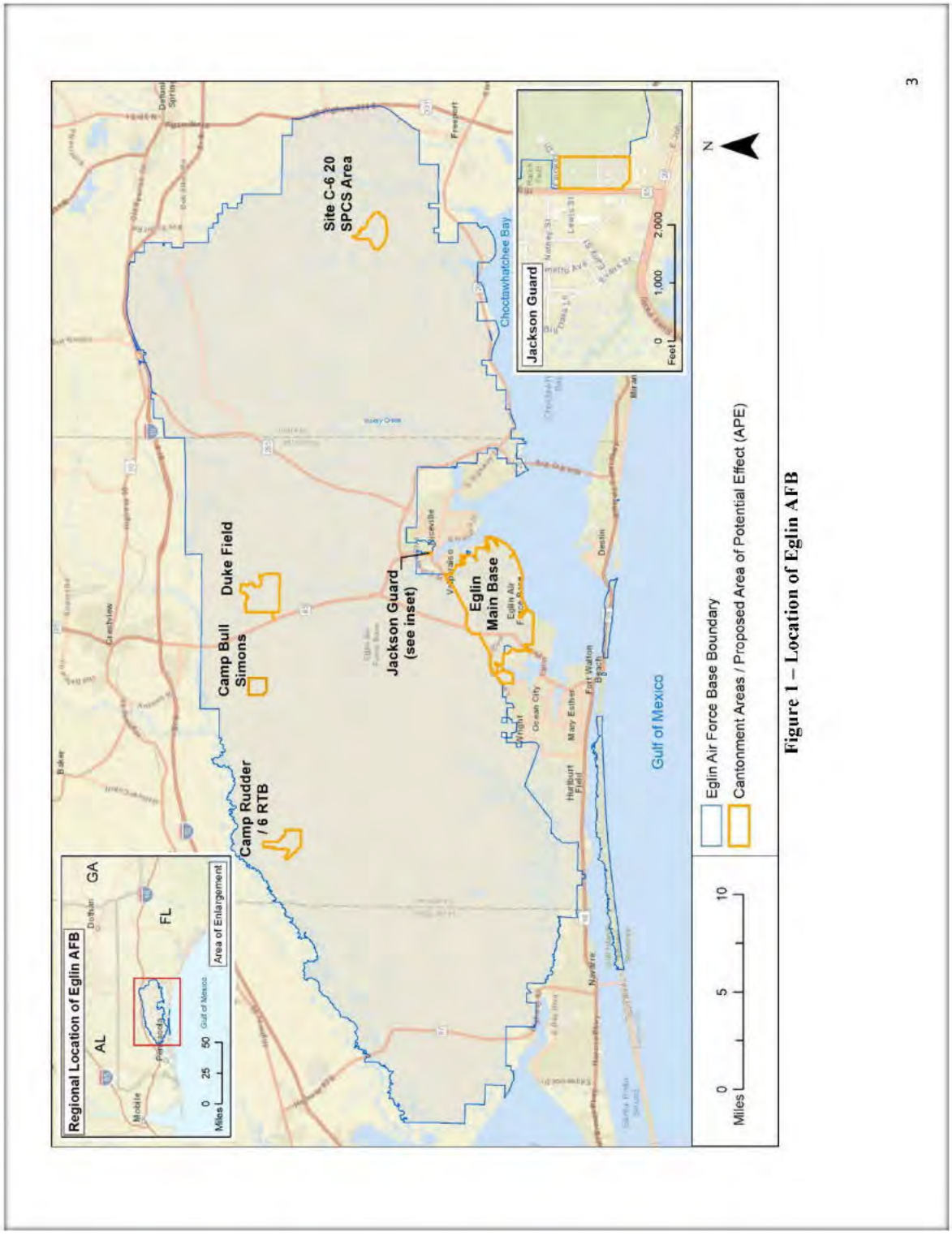

Figure 1 – Location of Eglin AFB

A.3.3 Representative Government-to-Government Consultation Letter

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH TEST WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

27 June 2025

[redacted]
Chief, Environmental Assets Section
[redacted]

[redacted]
Tribal Historic Preservation Officer
The Muscogee (Creek) Nation
[redacted]

Subject: Draft Environmental Assessment and Proposed Finding of No Significant Impact for Eglin Air Force Base Cantonment Areas Environmental Assessment, Eglin Air Force Base, Florida

Dear [redacted]

The Department of the Air Force (DAF) has prepared a Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) to evaluate the potential environmental impacts from the Proposed Action to implement construction and development projects in five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. Eglin AFB covers more than 724 square miles of land on the Florida Panhandle within portions of Okaloosa, Santa Rosa, and Walton Counties. The EA was prepared in accordance with the National Environmental Policy Act of 1969 and the DAF Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. In January 2025, the DAF sent a letter to you requesting government-to-government consultation in accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*. The purpose of this letter is to continue Section 106 consultation and notify you of the availability of the Draft EA and Proposed FONSI for review and comment.

No adverse effects on traditional cultural properties or other historic properties of religious or tribal significance are identified in the Draft EA. As plans for site-specific projects are further refined, proponents will submit Air Force Form 813, *Request for Environmental Impact Analysis* to the Eglin AFB Environmental Planning Office for review. During these reviews, the DAF would conduct additional Section 106 consultation with the Florida SHPO and Native American tribes, as applicable, for projects that could have the potential to affect historic properties or traditional cultural properties. As proposed projects are implemented, Eglin AFB and its mission partners would avoid or minimize adverse effects on historic properties,

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including previously undocumented archaeological resources, through adherence to applicable requirements of the installation's *Integrated Cultural Resources Management Plan*, the 2021 *Programmatic Agreement Among Eglin Air Force Base, the Florida State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Management of Historic Properties at Eglin Air Force Base, Florida*, and associated cultural resources management plans, policies, and documents.

The Draft EA and Proposed FONSI may be downloaded via the DoD SAFE notification that you will receive via a separate email. Your comments on the Draft EA and Proposed FONSI are requested within 30 business days of receipt of this letter so they can be considered during preparation of the Final EA and FONSI. Responses provided after 30 days will also be considered.

Please send your response and any comments, questions, or requests for additional information to [redacted], Eglin AFB Cultural Resources Manager, at [redacted] or via email to [redacted]. Thank you for your assistance.

Sincerely

[redacted]
Digitally signed by [redacted]
Date: 2025.06.27 11:57:10 -05'00'
[redacted]
Chief, Environmental Assets Section

Attachments
1. Location Map
2. Draft Environmental Assessment for Eglin Air Force Base Cantonment Areas, Eglin Air Force Base, Florida
3. Proposed Finding of No Significant Impact for Eglin Air Force Base Cantonment Areas Environmental Assessment, Eglin Air Force Base, Florida

2

Figure 1 – Location of Eglin AFB

3

A.3.4 U.S. Fish and Wildlife Service Notification Letter

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 96TH TEST WING (AFMC)
EGLIN AIR FORCE BASE FLORIDA

30 June 2025

[redacted]
Chief, Natural Resources Office
[redacted]

[redacted]
USFWS Florida Air Force Partnership Coordinator
Florida Ecological Services Office
Panama City Branch Office
[redacted]

Subject: Request for Review of Eglin Air Force Base Cantonment Areas Draft Environmental Assessment and Proposed Finding of No Significant Impact, Eglin Air Force Base, Florida (USFWS Project Code 2025-0020818)

Dear [redacted]

The Department of the Air Force (DAF) has prepared a Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) to evaluate the potential environmental impacts from the Proposed Action to implement construction and development projects in five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. Eglin AFB covers more than 724 square miles of land on the Florida Panhandle within portions of Okaloosa, Santa Rosa, and Walton Counties. The EA was prepared in accordance with the National Environmental Policy Act of 1969 and the DAF Environmental Impact Analysis Process (32 Code of Federal Regulations Part 989).

The purpose of this letter is to notify you of the availability of the Draft EA and Proposed FONSI for review and comment. The Proposed Action would provide facilities and infrastructure to support the ongoing mission, operations, and security requirements of Eglin AFB. All proposed activities evaluated in the EA would be implemented within the existing boundaries of five Eglin AFB cantonment areas where most existing development on the base is concentrated: Eglin Main Base (including the Jackson Guard Natural Resources Compound), Camp Rudder, Camp Bull Simons, Duke Field, and Site C-6.

At this time, individual projects included in the Proposed Action are conceptual and are evaluated at a programmatic level of analysis in the EA based on estimated levels of disturbance from activities such as site preparation, construction of new facilities, new impervious surface, and facility demolitions. The Proposed Action does not include modifications of the existing cantonment area boundaries or overall Eglin AFB installation boundary; changes or modifications to the number of military or civilian personnel or dependents working and living at Eglin AFB;

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the number or types of aircraft operating at the base; the number or types of flight operations occurring at Eglin AFB; or the boundaries or uses of overland or offshore airspace managed by Eglin AFB.

As with the previous Cantonment Areas consultation (FWS Log No. 04EF 3000-2014-TA-0037), no adverse effects on federally listed threatened and endangered species and critical habitat are identified in the Draft EA. As plans for site-specific projects are further refined, proponents would submit Air Force Form 813, *Request for Environmental Impact Analysis* to the Eglin AFB Environmental Planning Office for review. If necessary, the DAF would conduct additional Section 7 consultation with your office during these reviews, as applicable, for projects that could have the potential to affect federally listed species or critical habitat. As proposed projects are implemented, Eglin AFB and its mission partners would avoid or minimize adverse effects on vegetation and wildlife, including federally listed species, through adherence to applicable requirements of the installation's *Integrated Natural Resources Management Plan* and conservation measures specified in USFWS-issued Biological and/or Conference Opinions.

The Draft EA and Proposed FONSI can be provided at your request by contacting [redacted]. Please contact [redacted], via email at [redacted] or via telephone at [redacted] with any questions, comments or concerns. Thank you for your assistance.

Sincerely

[redacted]
Digitally signed by [redacted]
Date: 2025.07.01 10:17:30 -05'00'

[redacted]
Chief, Natural Resources Office

2

A.4 STAKEHOLDER LIST

The following is the stakeholder list for correspondence associated with this Environmental Assessment:

Government-to-Government

- Miccosukee Tribe
- Muscogee Creek Nation
- Poarch Creek Indians
- Seminole Tribe of Florida
- Seminole Nation of Oklahoma
- Thlopthlocco Tribal Town

Florida State Historic Preservation Office

Division of Historical Resources

Florida State Clearinghouse

Florida Department of Environmental Protection

U.S. Fish and Wildlife Service

Air Force Partnership Coordinator
Florida Ecological Services Office

A.5 AGENCY AND TRIBAL COMMENT LETTERS

From: THPO <[redacted]>
Sent: Tuesday, January 28, 2025 9:48 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Subject: [Non-DoD Source] RE: Eglin AFB Cantonments EA Notification Letter

Greetings from Thlopthlocco Creek Tribal Town

We appreciate the invitation to consult. Some of our people separated and relocated to your area during the colonization of Alabama. So based on our ancestral footprint there please keep us abreast of any further risk od adverse effects.

Thank you,

David Frank
THPO
Thlopthlocco Tribal Town
[redacted]
Okemah, OK [redacted]
([redacted])

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]
Sent: Tuesday, January 28, 2025 9:07 AM
To: [redacted]
Cc: ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA <[redacted]; RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA <[redacted]>; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Subject: Eglin AFB Cantonments EA Notification Letter

Good morning,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to implement future construction and development projects in the five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989). In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, DoD Interactions with Federally Recognized Tribes, the DAF is inviting you to participate in government-to-government consultation regarding the proposed undertaking.

Please reach out to our office if there are any questions or concerns.

Thank you very much for your time.

Respectfully,
Jessica Conrad

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB, FL [redacted]
Office: [redacted]
Cell: [redacted]

From: Victoria Menchaca <[redacted]>
Sent: Thursday, February 6, 2025 8:41 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Cc: THPO Compliance <[redacted]; ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA [redacted]>; RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA <[redacted]>; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Subject: [Non-DoD Source] RE: Eglin AFB Cantonments EA Notification Letter

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE
THPO PHONE: (863) 983-6549
THPO TRIBAL CONSULTATION EMAIL: THPOCOMPLIANCE@SEMTRIBE.COM
THPO WEBSITE: WWW.STOFTHPO.COM

TRIBAL OFFICERS
MARCELLUS W. OSCEOLA JR.
CHAIRMAN
HOLLY TIGER
VICE CHAIRWOMAN
NAOMI R. WILSON
SECRETARY
PETER A. HAHN
TREASURER

February 06, 2024

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
[redacted]
Email: [redacted]

Subject: Environmental Assessment for Proposed Cantonment Area Construction and Development Projects, Eglin Air Force Base, Florida

THPO Compliance Tracking Number: 0034663

In order to expedite the THPO review process:

1. Please correspond via email and provide documents as attachments,
2. Please send all emails to THPOCompliance@semtribe.com,
3. Please reference the THPO Compliance Tracking Number if one has been assigned.

Dear Jessica Conrad,

Thank you for contacting the Seminole Tribe of Florida Tribal Historic Preservation Office (STOF THPO) Compliance Section regarding the *Environmental Assessment for Proposed Cantonment Area Construction and Development Projects, Eglin Air Force Base, Florida*.

The proposed undertaking does fall within the STOF Area of Interest. Therefore, we would like to accept your invitation to consult on this project pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800). Our preferred methods of engagement are written correspondence and supplemental virtual and/or in-person Government-to-Government consultations.

It is our hope that any formal engagement with our office will facilitate meaningful discussion and integrate Indigenous Traditional Ecological Knowledge (ITEK), and general comments, into project design/implementation.

Written notifications/correspondences should be submitted to THPOCompliance@semtribe.com and the following contacts/STOF personnel:

- Danielle Simon [redacted] THPO Compliance Manager
- Victoria Menchaca [redacted] THPO Compliance Analyst II

Please continue to consult with our office and feel free to contact us with any questions or concerns.

Sincerely,
Victoria L. Menchaca, MA, Compliance Analyst II
STOF THPO, Compliance Section
Phone: [redacted]
Email: [redacted]

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]
Sent: Tuesday, January 28, 2025 10:05 AM
To: Tina Osceola <[redacted]; THPO Compliance <[redacted]>; Danielle Simon <[redacted]>; Domonique deBeaubien [redacted]>; Victoria Menchaca <[redacted]
Cc: ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA <[redacted]>; RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA <[redacted]>; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: Eglin AFB Cantonments EA Notification Letter

Good morning,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to implement future construction and development projects in the five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989). In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, the DAF is inviting you to participate in government-to-government consultation regarding the proposed undertaking.

Please reach out to our office if there are any questions or concerns.

Thank you very much for your time.

Respectfully,

Jessica Conrad

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
[redacted]
Office: [redacted]
Cell: [redacted]

From: Section106 <[redacted]>
Sent: Monday, February 24, 2025 8:48 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Subject: [Non-DoD Source] Re: Eglin AFB Cantonments EA Notification Letter

Good morning Ms. Conrad,

Thank you for getting back to me. Yes, if you could send the preliminary draft EA to us that would be helpful. If you could also send me the Programmatic Agreement in this email chain that would be very helpful as well, as I just started reviewing our consultation requests for Florida.

Mvto,

Logan Guthrie, MA
Cultural Technician
Historic and Cultural Preservation Department
The Muscogee (Creek) Nation
[redacted]
https://www.muscogeenation.com/

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Sent: Monday, February 24, 2025 8:31 AM
To: Section106 <[redacted]>
Cc: ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA <[redacted]>; RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA <[redacted]>; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Subject: RE: Eglin AFB Cantonments EA Notification Letter

Good morning Mr. Guthrie,

Three of the five cantonment areas identified in this programmatic environmental assessment (EA) have all been partially culturally surveyed. The 7SFG and Camp Rudder Cantonments have high probability areas (HPA) that are fully culturally surveyed. Other areas are un-surveyed and are considered areas of low probability for cultural resources. Others are un-surveyed and are considered areas of high probability for cultural resources. I have culturally surveyed areas and high probability areas (HPA) marked on the maps I will be sending via DoDSafe. The methods and report on the high probability areas are described in the Programmatic Agreement, signed in 2021. The 2021 Programmatic Agreement Annual Report was sent to your office in November 2024; please let me know if I should resend it.

As mentioned above, I will send maps, via DoDSafe Drop-off, of the cantonment areas with a 1-mile buffer with identified cultural resources shown. Some of the areas are large enough that I split them into multiple maps for ease of viewing. Please let me know if there are any issues viewing the maps. Please note that the EA will be a public document and so the maps that I will send will not be included in the document for the protection of the cultural resources. Therefore, the maps I will be sending are Controlled Unclassified Information (CUI) and are not for public dissemination.

The password for the encrypted DoDSafe Drop-off will be: [redacted].

For the SHPO response, we have not received their response for this EA notification yet.

There is no official finding for the programmatic EA yet as this is for the notification and request for consultation for the EA. There may be certain specific undertakings and missions which may adversely affect cultural resources, but as each project and location is defined an Air Force Form 813 (AFF) will be submitted. The AFF 813 submitted follows the environmental impact analysis process (EIAP); the cultural resources office reviews each AFF 813, and any effects are examined at that time. If adverse effects are expected per that review, then steps to consult, avoid, and/or mitigate are taken.

Though this is just the notification, if your office would prefer, the preliminary draft EA can be sent to your office for review when it is ready. Our office's goal is to ensure cultural resources are covered in that document, along with expected management methods.

Thank you very much for your time. Please reach out to our office if you would like to have any discussion.

Respectfully,

Jessica Conrad
USAF 96 CEG/CEIEA Cultural
Resources Manager [redacted]

From: Section106 <[redacted]
Sent: Monday, February 10, 2025 10:28 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: [Non-DoD Source] Re: Eglin AFB Cantonments EA Notification Letter

Good morning Ms. Conrad,

My name is Logan Guthrie, I'm the Muscogee Nation's Section 106 Reviewer for the State of Florida. Before we can comment on the likelihood of this project affecting Muscogee historic or sacred sites, we would like to know if this area has been previously surveyed for archaeological resources. Also, please provide us a color topographic map indicating the area that has been surveyed and any archaeological, cultural or historical resources within 1 mile of the project area so that we can better assess any direct and indirect affect to cultural resources, and if possible SHPO comments. We also request your official finding based on your background research as to whether any historic properties will be affected by this project. Please feel free to contact me with any further questions or concerns.

Mvto,

Logan Guthrie, MA
Cultural Technician
Historic and Cultural Preservation Department
The Muscogee (Creek) Nation
[redacted] | Okmulgee, OK [redacted]
T [redacted] | F [redacted]
[redacted]
https://www.muscogeenation.com/

THE MUSCOGEE NATION

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]>
Sent: Wednesday, February 5, 2025 7:23 AM
To: Section106 <[redacted]>; Savannah Waters <[redacted]>
Subject: RE: Eglin AFB Cantonments EA Notification Letter

Good morning,

As a follow-up, are there any questions or concerns with the subject EA notification? Would you like our office to send an updated notification letter?

Additionally, there will be one more correspondence coming in for a different EA that was originally addressed to Mr. Hunt. It was in the process of being sent when I received your email. Future correspondences will have the correct contact information.

Please let me know if there are any questions or concerns.

Thank you.

Respectfully,

Jessica Conrad

USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB, FL [redacted]
Office: [redacted]
Cell: [redacted]

From: Section106 <[redacted]>
Sent: Tuesday, February 4, 2025 2:00 PM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Subject: [Non-DoD Source] Re: Eglin AFB Cantonments EA Notification Letter

Hello Jessica,

My name is Savannah Waters and I am the new THPO for the Muscogee (Creek) Nation. Can you please remove Turner Hunt from the email group? Also, can you please add my email [redacted] to future communications?

I look forward to working with you.

Mvto,

Savannah J. Waters, PhD
Tribal Historic Preservation Officer
Historic and Cultural Preservation Department
The Muscogee (Creek) Nation
[redacted] | Okmulgee, OK [redacted]
T [redacted] | F [redacted]
https://www.muscogeenation.com/

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA <[redacted]>
Sent: Tuesday, January 28, 2025 9:01 AM
To: Turner Hunt [redacted] Section106 <[redacted]>; RaeLynn Butler <[redacted]>; Emman Spain <[redacted]>; Robin Soweka Jr [redacted]
Cc: ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA <[redacted]> RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA [redacted]; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: Eglin AFB Cantonments EA Notification Letter

Good morning,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to implement future construction and development projects in the five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989). In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, the DAF is inviting you to participate in government-to-government consultation regarding the proposed undertaking.

Please reach out to our office if there are any questions or concerns.

Thank you very much for your time.

Respectfully,

Jessica Conrad

USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB, FL [redacted]
Office: [redacted]
Cell: [redacted]

From: Jeffery Harjo <[redacted]>
Sent: Tuesday, January 28, 2025 9:08 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]>
Subject: [Non-DoD Source] Re: Eglin AFB Cantonments EA Notification Letter

I received your message and please include me in any further consultations.

Thank you,

Jeff Harjo, BA

Director, Historic Preservation Office
Seminole Nation of Oklahoma
[redacted]
Wewoka, OK [redacted]
Office: [redacted]
Mobile: [redacted]

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]>
Sent: Tuesday, January 28, 2025 9:03 AM
To: Jeffery Harjo [redacted]>; Jeana Tiger [redacted]>
Cc: ROGERS, MELINDA A CIV USAF AFMC 96 CEG/CEIEA [redacted]>; RILEY, PAULA R CIV USAF AFMC 96 CEG/CEIEA [redacted]>; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA [redacted]>
Subject: Eglin AFB Cantonments EA Notification Letter

Good morning,

The Department of the Air Force (DAF) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to implement future construction and development projects in the five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989). In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, the DAF is inviting you to participate in government-to-government consultation regarding the proposed undertaking.

Please reach out to our office if there are any questions or concerns.

Thank you very much for your time.

Respectfully,

Jessica Conrad

USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB, FL [redacted]
Office: [redacted]
Cell: [redacted]

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA
To: SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA; KNIGHT, KELLY E CIV USAF AFMC 96 CEG/CEIEA
Subject: FW: Eglin AFB Cantonments Draft EA and Draft FONSI
Date: Wednesday, July 9, 2025 9:52:44 AM

Good morning,

Please see the Seminole Nation of Oklahoma's response below.

Respectfully,
Jessica

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB [redacted]

From: Jeffery Harjo [redacted]
Sent: Wednesday, July 9, 2025 9:45 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: [Non-DoD Source] Re: Eglin AFB Cantonments Draft EA and Draft FONSI

I think we are good. I understand the project and don't have any questions.

Thank you,

Jeff Harjo, BA
Director and THPO
Historic Preservation Office
Seminole Nation of Oklahoma
[redacted]

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]
Sent: Wednesday, July 9, 2025 8:47 AM
To: Jeffery Harjo [redacted]
Subject: RE: Eglin AFB Cantonments Draft EA and Draft FONSI

I understand completely. Do you need me to re-send the DoDSafe Package?

Thank you.

Respectfully,
Jessica Conrad

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB [redacted]

From: Jeffery Harjo [redacted]
Sent: Wednesday, July 9, 2025 8:45 AM
To: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: [Non-DoD Source] Re: Eglin AFB Cantonments Draft EA and Draft FONSI

Last week was really busy and I don't believe I attempted to pick up the documents.

Thank you,

Jeff Harjo, BA
Director and THPO
Historic Preservation Office
Seminole Nation of Oklahoma
[redacted]

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA [redacted]
Sent: Wednesday, July 9, 2025 8:24 AM
To: Jeffery Harjo [redacted]
Subject: FW: Eglin AFB Cantonments Draft EA and Draft FONSI

Good morning,

I am following up on my email from last week. I sent the DoDSafe Package with the Draft Environmental Assessment on 6/30/2025 but did not receive the confirmation that the

package was picked up.

Was your office able to pick up the DoDSafe Package?

Please let me know if there are any issues downloading the file for review.

Thank you very much.

Respectfully,
Jessica Conrad

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB [redacted]

From: CONRAD, JESSICA H CIV USAF AFMC 96 CEG/CEIEA
Sent: Monday, June 30, 2025 7:56 AM
To: Jeffery Harjo [redacted]
Cc: SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA [redacted]; KNIGHT, KELLY E CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: Eglin AFB Cantonments Draft EA and Draft FONSI

Good morning,

The Department of the Air Force (DAF) has prepared a Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) to evaluate the potential environmental impacts from the Proposed Action to implement construction and development projects in five cantonment areas of Eglin Air Force Base (AFB) over the next five to seven years. Eglin AFB covers more than 724 square miles of land on the Florida Panhandle within portions of Okaloosa, Santa Rosa, and Walton Counties. The EA was prepared in accordance with the National Environmental Policy Act of 1969 and the DAF Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989). The purpose of the attached letter is to continue Section 106 consultation and notify you of the availability of the Draft EA and Proposed FONSI for review and comment.

In addition to the above attachments, your office will receive a DoDSafe package that contains the Draft EA, as it was too large for this email. The link will expire 7-days from the date it is sent. Please let our office know if there are any questions or concerns, and if there are any issues downloading the files from DoDSafe.

Thank you very much for your time.

Respectfully,
Jessica Conrad

Jessica Conrad
USAF 96 CEG/CEIEA
Cultural Resources Manager
Eglin AFB [redacted]

From: Aldredge, Robert (Rob)
To: FELIX, RODNEY K JR CIV USAF AFMC 96 CEG/CEIEA
Cc: JOHNSON, JUSTIN T CIV USAF AFMC 96 CEG/96 CEG/CEIEA; PRESTON, JEREMY R CIV USAF AFMC 96 CEG/CEIEA; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA
Subject: [Non-DoD Source] Re: [EXTERNAL] An Eglin Environmental Assessment
Date: Friday, July 25, 2025 10:03:26 AM

You don't often get email from [redacted]. Learn why this is important

Sounds good, thanks Rodney. Once you have it, would you be able to forward a copy of the EA to me and Bill so we can have it for our records? I appreciate you reaching out about this.

Thanks,

Rob

Robert A. Aldredge, Ph.D.
Florida Air Force Partnership Coordinator
U.S. Fish and Wildlife Service
Florida Ecological Services Field Office
Gainesville, FL
[redacted]

From: FELIX, RODNEY K JR CIV USAF AFMC 96 CEG/CEIEA [redacted]
Sent: Tuesday, July 1, 2025 1:11 PM
To: Aldredge, Robert (Rob) [redacted]
Cc: JOHNSON, JUSTIN T CIV USAF AFMC 96 CEG/96 CEG/CEIEA [redacted]; PRESTON, JEREMY R CIV USAF AFMC 96 CEG/CEIEA [redacted]; SMITH, ERIN A CIV USAF AFMC 96 CEG/CEIEA [redacted]
Subject: [EXTERNAL] An Eglin Environmental Assessment

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Rob,
On Justin's and the Environmental Planning Office's behalf, passing along this letter that informs the Service of Eglin's updating its Cantonment Areas EA; we will provide a copy should you like one.
The proposed action considered is at a programmatic scope and scale, with individual project designs not yet known. Therefore for this EA update Eglin Natural Resources Office is choosing to not initiate Section 7 as was done years ago for an earlier programmatic

Cantonment EA, and instead will initiate consultation for individual projects as needed that result from their review under Eglin's Environmental Impacts Analysis Process.
Here if you have any questions or want the draft EA!
--Rodney

Rodney K Felix Jr | Endangered Species Biologist, Wildlife Section | Natural Resources Office | Eglin AFB, FL
[redacted]

APPENDIX B
FEDERAL CONSISTENCY DETERMINATION

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APPENDIX B – FEDERAL CONSISTENCY DETERMINATION

Pursuant to Section 307 of the Coastal Zone Management Act of 1972, as amended, and 15 Code of Federal Regulations (CFR) Subpart C, the Department of the Air Force (DAF) has prepared this Federal Coastal Consistency Determination for the Proposed Action to implement construction and development projects over the next 5 to 7 years in five cantonment areas on Eglin Air Force Base (AFB). Eglin AFB covers more than 724 square miles of land in northwestern Florida within portions of Okaloosa, Santa Rosa, and Walton Counties **(Figure B-1)**. (A small portion of Eglin AFB within Gulf County, Florida, would not be affected by the Proposed Action and is not discussed further in this document.)

The Proposed Action would enable the DAF, Eglin AFB, and its mission partners, to provide facilities and infrastructure that meet DoD criteria and support ongoing and future mission, security, and operational requirements. The Proposed Action would be implemented entirely within the boundaries of five cantonment areas on Eglin AFB (Main Base, including the Jackson Guard Natural Resources Compound, referred within the Environmental Assessment [EA] as Jackson Guard; Camp Rudder; Camp Bull Simons; Duke Field; and Site C-6). No modifications of the existing cantonment area boundaries, or of the overall Eglin AFB installation boundary, are proposed. The Proposed Action does not include and would not involve changes or modifications to the number of military or civilian personnel or dependents working and living at Eglin AFB; the number or types of aircraft operating at the base; the number or types of flight operations occurring at Eglin AFB; or the boundaries or uses of overland or offshore airspace managed by Eglin AFB.

The analysis presented in this consistency determination reflects the more detailed analyses of potential environmental impacts that are provided in the EA that the DAF has prepared in compliance with the National Environmental Policy Act (NEPA) of 1969. The Draft EA analyzes two alternatives for implementing the Proposed Action. The alternatives are evaluated at the programmatic, rather than site-specific, level of analysis based on estimated levels of disturbance from activities such as site preparation, construction of new facilities, new impervious surface, and facility demolitions. Eglin AFB personnel would conduct additional environmental analysis for each project in accordance with NEPA as site-specific plans for the types of conceptualized projects presented in this EA.

Levels of development that would be authorized under Alternatives 1 and 2 are summarized in **Table B-1** and **Table B-2**.

Table B-1 Proposed Levels of Development Under Alternative 1 (Preferred Alternative)

Cantonment Area	Total Area Disturbed (acres)	Facilities Construction (square feet)	Parking / Impervious Surface (acres)	Roads / Infrastructure (acres)	Demolition (square feet)
Eglin Main Base[1]	444.5	994,083	156.8	45.8	212,520
Duke Field	251.1	528,206	97.5	28.8	31,171
Camp Bull Simons	47.1	250,000	5.0	5.0	13,979
Camp Rudder	76.3	158,685	21.3	22.5	8,168
Site C-6	5.0	12,605	1.3	0	630
Total	**824.0**	**1,943,579**	**281.9**	**102.1**	**266,468**

Notes:
[1]Includes proposed levels of development for Jackson Guard.

Table B-2 Proposed Levels of Development Under Alternative 2

Cantonment Area	Total Area Disturbed (acres)	Facilities Construction (square feet)	Parking / Impervious Surface (acres)	Roads / Infrastructure (acres)	Demolition (square feet)
Eglin Main Base[1]	355.6	795,266	125.4	36.6	170,016
Duke Field	200.9	422,565	78.0	23.0	24,937
Camp Bull Simons	37.7	106,729	4.0	4.0	11,183
Camp Rudder	61.0	126,948	17.0	18.0	6,534
Site C-6	4.0	10,084	1.0	0	504
Total	**659.2**	**1,461,592**	**225.4**	**81.6**	**213,174**

Notes:
[1]Includes proposed levels of development for Jackson Guard.

The EA also analyzes potential impacts from the No Action Alternative, which represents the continuation of the Proposed Action evaluated in the 2020 *Eglin Air Force Base Cantonment Areas Final Environmental Assessment* (2020 Final EA). The Florida Coastal Management Program (FCMP) concurred in February 2020 that the Proposed Action evaluated in the 2020 Final EA was consistent with the FCMP.

The Proposed Action would be implemented in accordance with all applicable federal, state, and local laws and regulatory requirements including the Endangered Species Act (ESA), National Historic Preservation Act, Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, and Migratory Bird Treaty Act. A summary of permits, licenses, and other authorizations that could be required before implementation of the Proposed Action is provided in the EA. The DAF, Eglin AFB, Eglin AFB mission partners, and construction contractors would incorporate and adhere to best management practices (BMPs) and other applicable measures to avoid or minimize adverse environmental impacts throughout implementation of the Proposed Action. These BMPs and other measures are discussed in the resource analysis in the EA, as applicable.

Based on the analyses presented in the EA, the DAF has determined that the Proposed Action would have no significant adverse impacts on the environment under Alternative 1 or 2 and would be consistent with the applicable statutes of the FCMP. A summary of the Proposed Action's consistency with or applicability to each of the enforceable policies is presented in **Table B-3**.

Pursuant to 15 CFR Section 930.41, the FCMP has 60 days to concur with or object to the Consistency Determination, or request for an extension under 15 CFR 930.41(b). The State's concurrence will be presumed if its response is not received by the DAF on the 60th day from receipt of this determination. The State's response should be sent to Ms. Erin Smith, [redacted] and Ms. Kelly Knight, [redacted], 96 CEG/CEIEA, 501 DeLeon Street, Suite 101, Eglin AFB, FL 32542-5105.

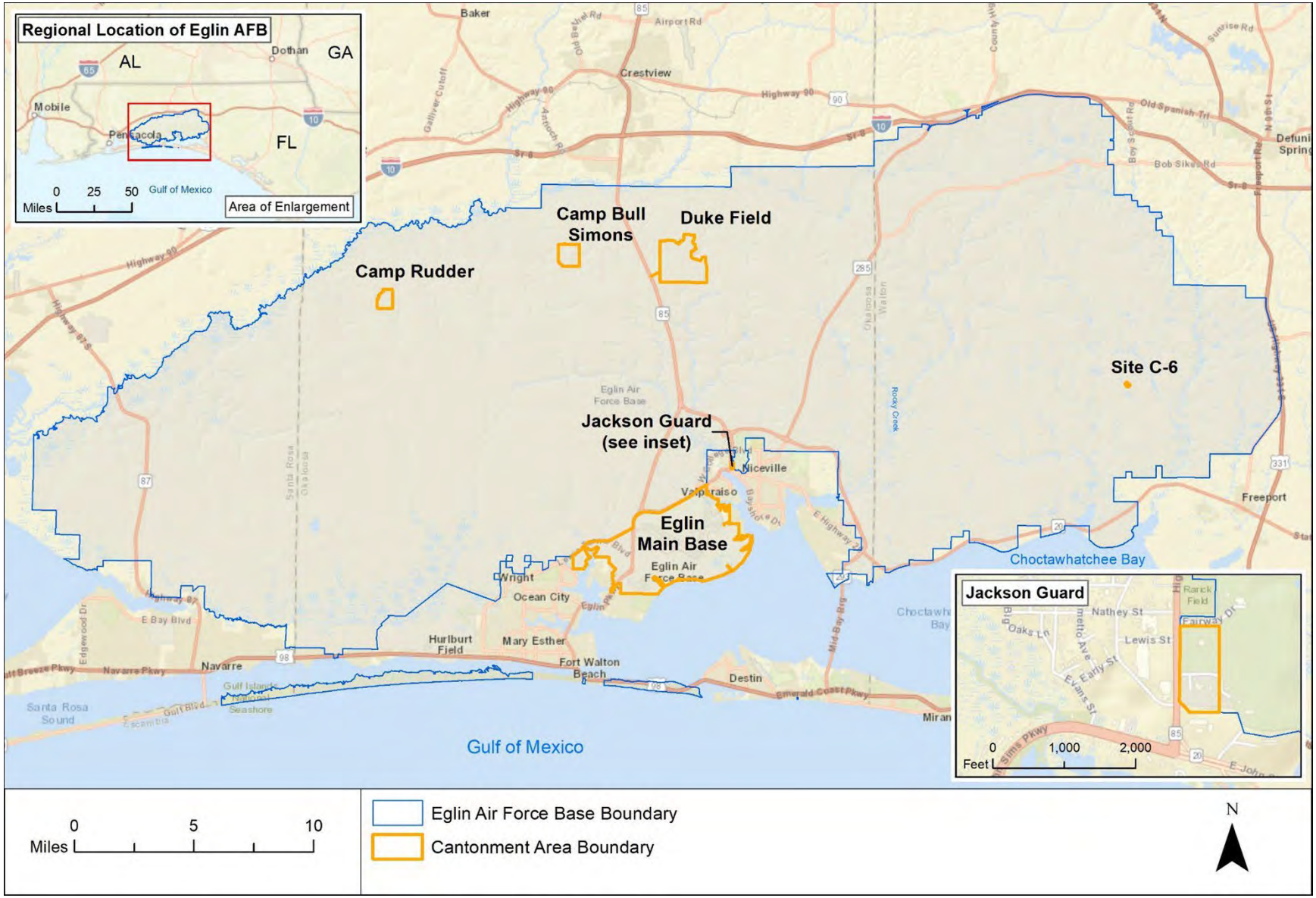

Figure B-1 Location of Eglin AFB and Cantonment Areas

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 161, Florida Statute (F.S.), *Beach and Shore Preservation*	Coastal areas are among the state's most valuable natural, aesthetic and economic resources. The state is required to protect coastal areas from imprudent activities that could: • Jeopardize the stability of the beach-dune system • Accelerate erosion • Provide inadequate protection to upland structures • Endanger adjacent properties • Interfere with public beach access. Coastal areas used, or likely to be used, by sea turtles are designated for nesting, and removal of vegetative cover that binds sand is prohibited. This statute provides policy for the regulation of construction, reconstruction and other physical activities related to the beaches and shores of the state. Additionally, this statute requires the restoration and maintenance of critically eroding beaches.	No effect. The Proposed Action would not involve temporary or permanent disturbance or other activities on beaches. As such, the Proposed Action would have no potential to jeopardize the stability of the beach-dune system, alter conditions that would adversely affect protection to upland structures, endanger adjacent properties, interfere with public beach access, or adversely affect nesting sea turtles or other wildlife, vegetation, or habitat in beach environments.
Chapter 163, Part II, F.S., *Intergovernmental Programs: Growth Policy, County and Municipal Planning: Land Development Regulation*	The purpose of this statute is to provide for implementation of comprehensive planning programs to guide and control future development in the state. The comprehensive planning process encourages units of local government to: • Preserve, promote, protect and improve the public health, safety, comfort, good order, appearance, convenience, law enforcement and fire prevention and general welfare • Prevent the overcrowding of land and avoid undue concentration of population • Facilitate the adequate and efficient provision of public facilities and services • Conserve, develop, utilize and protect natural resources within their jurisdictions.	No effect. The Proposed Action would have no potential to affect local government comprehensive planning programs or processes.
Chapter 186, F.S., *State and Regional Planning*	The state comprehensive plan provides basic policy direction to all levels of government regarding the orderly social, economic and physical growth of the state. The goals, objectives and policies of the state comprehensive plan are statewide in scope and are consistent and compatible with each other. The statute provides	Consistent. The Proposed Action could result in increases in the usage or consumption of electricity, potable water, and natural gas at Eglin AFB, but usage would be within permitted limits and could be accommodated without adverse

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 186, F.S., *State and Regional Planning (cont'd)*	direction for the delivery of governmental services, a means for defining and achieving the specific goals of the state and a method for evaluating the accomplishment of those goals.	impact on the electrical or natural gas supply in northwest Florida. Utility infrastructure would be installed or upgraded as needed to support the construction and operation of new or substantially renovated facilities on the cantonment areas. Generally, installation of new or substantially upgraded infrastructure to support the proposed cantonment area projects would offset inefficiencies of older infrastructure systems. The Proposed Action would not affect state plans for water use, land development, or transportation.
Chapter 252, F.S., *Emergency Management*	Florida is vulnerable to a wide range of emergencies, including natural, technological and manmade disasters. This vulnerability is exacerbated by the tremendous growth in the state's population. This statute directs the state to: • Reduce the vulnerability of its people and property to natural and manmade disasters • Prepare for, respond to and reduce the impacts of disasters • Decrease the time and resources needed to recover from disasters. Disaster mitigation is necessary to ensure the common defense of Floridians' lives and to protect the public peace, health and safety. The policies provide the means to assist in the prevention or mitigation of emergencies that may be caused or aggravated by inadequate planning or regulation. State agencies are directed to keep land uses and facility construction under continuing study and identify areas that are particularly susceptible to natural or manmade catastrophic occurrences.	No effect. The Proposed Action would have no potential to increase the vulnerability of the state's population or property to natural, technological, and manmade disasters. The Proposed Action would have no potential to adversely affect the state's planning and preparation for, mitigation of, or recovery from emergencies and disasters.
Chapter 253, F.S., *State Lands*	The Board of Trustees of the Internal Improvement Trust Fund (Trustees) is vested and charged with the acquisition, administration, management, control, supervision, conservation, protection and disposition of all lands owned by the State. Lands	No effect. The Proposed Action would occur entirely within the boundaries of Eglin AFB, a federally owned military installation, and would

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 253, F.S., *State Lands (cont'd)*	acquired for preservation, conservation and recreation serve the public interest by contributing to public health, welfare and economy. In carrying out the requirements of this statute, the Trustees are directed to take necessary action to fully: • Conserve and protect state lands • Maintain natural conditions • Protect and enhance natural areas and ecosystems • Prevent damage and depredation • Preserve archaeological and historical resources. All submerged lands are considered single-use lands to be maintained in natural condition for the propagation of fish and wildlife and for public recreation. Where multiple uses are permitted, ecosystem integrity, recreational benefits and wildlife values are conserved and protected.	have no potential to affect state lands, including submerged lands.
Chapter 258, F.S., *State Parks and Preserves*	The statute addresses the State's administration of state parks, aquatic preserves and recreation areas, which are acquired to emblemize the state's natural values and to ensure that these values are conserved for all time. Parks and preserves are managed for the non-depleting use, enjoyment, and benefit of Floridians and visitors and to contribute to the state's tourist appeal. Aquatic Preserves are recognized as having exceptional biological, aesthetic, and scientific value and are set aside for the benefit of future generations. Disruptive physical activities and polluting discharges are highly restricted in aquatic preserves. State-managed wild and scenic rivers possess exceptionally remarkable and unique ecological, fish and wildlife, and recreational values. These rivers are also designated for permanent preservation and enhancement for both the present and future.	No effect. The Proposed Action would have no potential to affect state parks, aquatic preserves, and recreation areas.
Chapter 259, F.S., *Land Acquisition for Conservation or Recreation*	The statute addresses public ownership of natural areas for purposes of: • Maintaining the state's unique natural resources • Protecting air, land and water quality	No effect. The Proposed Action would have no potential to affect state initiatives to acquire land for conservation and recreation purposes, or the public's access to such lands.

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapters 259, F.S., *Land Acquisition for Conservation or Recreation (cont'd)*	• Promoting water resource development to meet the needs of natural systems and residents of this state • Promoting restoration activities on public lands • Providing lands for natural resource-based recreation. Lands are managed to protect or restore their natural resource values, and provide the greatest benefit, including public access, to the residents of this state.	
Chapter 260, F.S., *Florida Greenways and Trails Act*	*Not applicable; as of August 29, 2016, Chapter 260, F.S., does not contain any enforceable policies for federal consistency purposes.*	
Chapter 267, F.S., *Historical Resources*	The management and preservation of the state's archaeological and historical resources are addressed by this statute. This statute recognizes the state's rich and unique heritage of historic resources and directs the state to locate, acquire, protect, preserve, operate, and interpret historic and archeological resources for the benefit of current and future generations of Floridians. Objects or artifacts with intrinsic historic or archeological value located on, or abandoned on, state-owned lands belong to the residents of the state. The state historic preservation program operates in conjunction with the National Historic Preservation Act of 1966 to require state and federal agencies to consider the effect of their direct or indirect actions on historic and archeological resources. These resources cannot be destroyed or altered unless no prudent alternative exists. Unavoidable impacts must be mitigated.	Consistent. The Proposed Action would be implemented entirely within the boundaries of Eglin AFB, a federally owned military installation. Therefore, the Proposed Action would have no potential to affect archaeological and historical resources on state-owned lands. Activities that would adversely affect the integrity of properties listed or determined eligible for listing in the National Register of Historic Places (NRHP) within the boundaries of Eglin AFB are not anticipated under the Proposed Action. The DAF would consult with the Florida SHPO and applicable Native American Tribes in compliance with Section 106 of the National Historic Preservation Act (NHPA) before site-specific projects would be implemented. Potentially adverse effects on historic or traditional cultural properties would be mitigated through consultation with the SHPO and tribes before projects that could result in such effects would be implemented. The inadvertent discovery of previously undocumented cultural resources, including human remains, during ground-disturbing activities is not anticipated. In the event of such a

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 267, F.S., *Historical Resources (cont'd)*		discovery, all ground-disturbing work in the area would cease and the 96 CEG/CEIEA Cultural Resources Office would be immediately notified. Any resources identified would be managed in compliance with federal law and DAF regulations.
Chapter 288, F.S., *Commercial Development and Capital Improvements*	The framework to promote and develop general business, trade and tourism components of the state economy are established in this statute. The statute includes requirements to: • Protect and promote the natural, coastal, historical, and cultural tourism assets of the state • Foster the development of nature-based tourism and recreation • Upgrade the image of Florida as a quality destination. Natural resource-based tourism and recreational activities are critical sectors of Florida's economy. The needs of the environment must be balanced with the need for growth and economic development.	No effect. The Proposed Action would have no potential to affect the state's natural, coastal, historical, and cultural tourism assets, including associated business, trade, and economic activity.
Chapter 334, F.S., *Transportation Administration*	*Not applicable; as of October 9th, 2017, Chapter 334, F.S., does not contain any enforceable policies for federal consistency purposes.*	
Chapter 339, F.S., *Transportation Finance and Planning*	The statute addresses the finance and planning needs of the state's transportation system.	No effect. The Proposed Action does not involve and would have no potential to affect the finance and planning needs of the state's transportation system.
Chapter 373, F.S., *Water Resources*	The waters in the state of Florida are managed and protected to conserve and preserve water resources, water quality and environmental quality. This statute addresses: • Sustainable water management • The conservation of surface and ground waters for full beneficial use • The preservation of natural resources, fish and wildlife, and protecting public land • Promoting the health and general welfare of Floridians.	Consistent. Construction or other temporary land-disturbing activities associated with the Proposed Action would have the potential to adversely affect water quality through the erosion of exposed soils and associated runoff to receiving water bodies. Contractors would incorporate and adhere to applicable BMPs during construction to prevent or minimize soil erosion and associated runoff.

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 373, F.S., *Water Resources (cont'd)*	The state manages and conserves water and related natural resources by determining whether activities will unreasonably consume water; degrade water quality; or adversely affect environmental values, such as protected species habitat, recreational pursuits, and marine productivity. Specifically, under Part IV of Chapter 373, Florida Department of Environmental Protection (FDEP), water management districts, and delegated local governments review and take agency action on wetland resource, environmental resource, and stormwater permit applications. These permits address construction, alteration, operation, maintenance, abandonment, and removal of any stormwater management system, dam, impoundment, reservoir, or appurtenant works, including dredging, filling, and other construction activities in, on, and over wetlands and other surface waters.	The Eglin AFB Water Resources Office (96 CEG/CEIEC) will coordinate all applicable permits for individual projects proposed for categorical exclusion under the EA in accordance with the Florida Administrative Code (FAC). Individual project proponents would be responsible for implementing all applicable permit requirements. Individual projects proposed for categorical exclusion under the EA may require an Environmental Resource Permit pursuant to Chapter 62-330 FAC when they either include more than 4,000 square feet of impervious or semi-impervious surfaces subject to vehicular traffic, include 9,000 square feet of total impervious surfaces, or the project area is more than 1 acre and is not part of a larger common plan of development. Individual projects proposed for categorical exclusion under the EA will require a National Pollutant Discharge Elimination System stormwater construction permit from FDEP pursuant to Chapter 62-621 FAC if they disturb more than 1 acre of soil.
Chapter 375, F.S., *Outdoor Recreation and Conservation Lands*	The statute addresses development of a comprehensive outdoor recreation plan. The purpose of the plan is to: • Document recreational supply and demand • Describe current recreational opportunities • Estimate the need for additional recreational opportunities • Propose the means to meet the needs identified.	No effect. The Proposed Action would have no potential to affect state planning for outdoor recreation and conservation lands.
Chapter 376, F.S., *Pollutant Discharge Prevention and Removal*	Regulating the transfer, storage and transportation of pollutants, and the cleanup of pollutant discharges is essential for maintaining coastal resources, specifically the coastal waters, estuaries, tidal flats, beaches, and public lands adjoining the seacoast, in as close	Consistent. Proposed construction, renovation, or demolition would generate small quantities of hazardous wastes, including containers or packaging containing petroleum-based residues,

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 376, F.S., *Pollutant Discharge Prevention and Removal (cont'd)*	to a pristine condition as possible. The preservation of the seacoast as a source of public and private recreation, along with the preservation of water and certain lands are matters of the highest urgency and priority. This statute provides a framework for the protection of the state's coastline from spills, discharges, and releases of pollutants. The discharge of pollutants into or on any coastal waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of the state is prohibited. The statute: • Provides for hazards and threats of danger and damages resulting from any pollutant discharge to be evaluated • Requires the prompt containment and removal of pollution; provides penalties for violations • Ensures the prompt payment of reasonable damages from a discharge. Portions of Chapter 376, F.S., serve as a complement to the national contingency plan portions of the federal Water Pollution Control Act.	asbestos containing materials, and lead-based paint. Hazardous wastes generated during the Proposed Action would be managed in accordance with applicable federal, state, local, DoD, and DAF regulations and procedures. No changes to existing permits, hazardous waste generator status, or management procedures would be required and no significant adverse environmental impacts are anticipated. Qualified Eglin AFB personnel would respond to hazardous material spills or other incidents according to established procedures. Development on or near any Environmental Restoration Program sites on Eglin AFB would be coordinated with the Eglin Environmental Office, the U.S. Environmental Protection Agency, FDEP, and other relevant stakeholders, as required. Proponents of individual projects proposed for categorical exclusion under the EA would take reasonable precautions to minimize fugitive particulate (dust) emissions during any ground disturbing / construction/renovation activities in accordance with Chapter 62-296 FAC Rule 62-296.
Chapter 377, F.S., *Energy Resources*	The statute addresses the regulation, planning and development of the energy resources of the state. The statute provides policy to conserve and control the oil and gas resources in the state, including products made therefrom and to safeguard the health, property and welfare of Floridians. FDEP is authorized to regulate all phases of exploration, drilling and production of oil, gas, natural gas and other petroleum products in the state. The statute describes the permitting requirements and criteria necessary to drill and develop for oil, gas, and natural gas. DEP rules ensure that all precautions are taken to prevent the spillage	No effect. The Proposed Action would not involve drilling, development, production, or transportation of oil, gas, natural gas, or other petroleum resources within the state, and would have no potential to result in associated pollution from such activities or resources.

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 377, F.S., *Energy Resources (cont'd)*	of oil or any other pollutant in all phases of extraction and transportation. The state explicitly prohibits pollution resulting from drilling and production activities. No person drilling for or producing oil, gas, natural gas or other petroleum products may: • Pollute land or water • Damage aquatic or marine life, wildlife, birds or public or private property • Allow any extraneous matter to enter or damage any mineral or freshwater-bearing formation. Penalties for violations of any provisions of this chapter are detailed.	
Chapter 379, F.S., *Fish and Wildlife Conservation*	The framework for management and protection of the state of Florida's wide diversity of fish and wildlife resources is established in this statute. It is the policy of the state to conserve and wisely manage these resources. Particular attention is given to those species defined as being endangered or threatened. This policy includes the acquisition or management of lands important to the conservation of fish and wildlife. This statute contains specific provisions for conservation and management of marine fisheries resources. These conservation and management measures permit reasonable means and quantities of annual harvest, consistent with maximum practicable sustainable stock abundance, as well as ensure the proper quality control of marine resources that enter commerce. Additionally, this statute supports and promotes hunting, fishing, and the taking of game opportunities in the state. Hunting, fishing, and the taking of game are considered an important part of the state's economy and in the conservation, preservation, and management of the state's natural areas and resources.	Consistent. The Proposed Action would have no significant impacts on the state's wildlife Resources. Proponents of site-specific projects would conduct additional consultation with the U.S. Fish and Wildlife Services (USFWS) in accordance with Section 7 of the Endangered Species Act and would incorporate and adhere to applicable conservation measures during construction and operation of proposed projects. The Proposed Action is covered under the Red-Cockaded Woodpecker Programmatic Biological Opinion and the Eastern Indigo Snake Programmatic Biological Opinion for Eglin AFB. Eglin AFB and its mission partners would adhere to all conservation measures specified in these consultations. Protected species surveys would be conducted in areas known or suspected to contain suitable habitat prior to ground disturbance or tree removal. Individual projects for which categorical exclusions are sought under the EA would also be evaluated for effects on other ESA-listed species as well as species protected under the

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 379, F.S., *Fish and Wildlife Conservation (cont'd)*		Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, and subject to consultation with USFWS as applicable.
Chapter 380, F.S., *Land and Water Management*	Land and water management policies are established to protect natural resources and the environment; and to guide and coordinate local decisions relating to growth and development. The statute provides that state land and water management policies be implemented by local governments through existing processes for the guidance of growth and development. The statute also provides that all the existing rights of private property be preserved in accord with constitutions of this state and of the United States. The chapter establishes the Areas of Critical State Concern designation, the Florida Communities Trust as well as the Florida Coastal Management Act. The Florida Coastal Management Act provides the basis for the Florida Coastal Management Program, which seeks to protect the natural, commercial, recreational, ecological, industrial and aesthetic resources of Florida's coast.	No effect. The Proposed Action would be implemented entirely within the boundaries of Eglin AFB, a federally owned military installation, and would have no potential to affect local implementation of state land and water management policies or private property rights.
Chapter 381, F.S., *Public Health: General Provisions*	The statute establishes public policy concerning the state's public health system, which is designated to promote, protect, and improve the health of all people in the state.	No effect. The Proposed Action would have no potential to affect the state's public health system.
Chapter 388, F.S., *Mosquito Control*	Mosquito control efforts of the state are designed to: • Achieve and maintain such levels of arthropod control as will protect human health and safety • Promote the economic development of the state • Facilitate the enjoyment of its natural attractions by reducing the number of pestiferous and disease-carrying arthropods. It is the policy of the state to conduct arthropod control in a manner consistent with protection of the environmental and ecological integrity of all lands and waters throughout the state.	Consistent. Pesticides associated with the Proposed Action within the Eglin AFB cantonment areas would be applied by licensed contractors in compliance with all applicable federal and state regulatory requirements and would have no potential to interfere with or otherwise adversely affect mosquito and arthropod control efforts of the state.
Chapter 403, F.S., *Environmental Control*	Environmental control policies help to conserve state waters; protect and improve water quality; and maintain air quality.	Consistent. The Proposed Action would be implemented in accordance with the state's environmental control policies, as applicable, to prevent or minimize adverse effects on

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 403, F.S., *Environmental Control (cont'd)*	This statute provides wide-ranging authority to address various environmental control concerns, including: • Air and water pollution • Electrical power plant and transmission line siting • The Interstate Environmental Control Compact • Resource recovery and management • Solid and hazardous waste management • Drinking water protection; pollution prevention • Ecosystem management • Natural gas transmission pipeline siting.	environmental resources regulated by the state. The Proposed Action would have no potential to interfere with or otherwise adversely affect implementation and enforcement of the policies of this statute in areas of the state outside the boundaries of Eglin AFB.
Chapter 553, F.S., *Building and Construction Standards*	The statute addresses building construction standards and provides for a unified Florida Building Code.	Consistent. The Proposed Action would be implemented in compliance with the Florida Building Code, as applicable.
Chapter 582, F.S., *Soil and Water Conservation*	It is the state's policy to preserve natural resources; control and prevent soil erosion; prevent floodwater and sediment damages; and to further the conservation, development, and use of soil and water resources. Farm, forest, and grazing lands are among the basic assets of the state; and the preservation of these lands is necessary to protect and promote the health, safety, and general welfare of its people. These measures help to: • Preserve state and private lands • Control floods • Maintain water quality • Prevent impairment of dams and reservoirs • Assist in maintaining the navigability of rivers and harbors • Preserve wildlife and protect wildlife habitat • Protect the tax base • Protect public lands • Protect and promote the health, safety, and general welfare of the people of this state.	Consistent. Individual projects under the Proposed Action would incorporate and adhere to applicable BMPs including erosion and sediment controls and stormwater management measures (also see response regarding consistency with Ch. 373, *Water Resources*).

Table B-3 Summary of the Proposed Action's Consistency with or Applicability to the Enforceable Policies of the Florida Coastal Management Program

Statute	Scope	Consistency or Applicability
Chapter 597, F.S., *Aquaculture*	The statute establishes public policy concerning cultivation of aquatic organisms in the state. The intent is to enhance the growth of aquaculture, while protecting Florida's environment. This intent includes a requirement for a state aquaculture plan that provides for: • The coordination and prioritization of state aquaculture efforts • The conservation and enhancement of aquatic resources • Mechanisms for increasing aquaculture production.	No effect. The Proposed Action would have no potential to affect aquaculture initiatives in the state.

Source: Florida Costal Management Program, 2024

APPENDIX C
AIR QUALITY ANALYSIS

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APPENDIX C – AIR QUALITY ANALYSIS

C.1 INTRODUCTION

Air quality is an indicator of the suitability of the atmosphere to support human life and the environment, generally described in terms of the types and levels of air pollutants present in outdoor air. This appendix presents an overview of the Clean Air Act (CAA) and the relevant air quality regulations for the State of Florida. It also presents emissions calculations and key assumptions used for the air quality analysis presented in the Air Quality sections of this EA.

C.1.1 Criteria Pollutants and National Ambient Air Quality Standards

The CAA directed the U.S. Environmental Protection Agency (USEPA) to develop, implement, and enforce strong environmental regulations that would ensure clean and healthy ambient air quality. To protect public health and welfare, the USEPA developed numerical concentration-based standards, National Ambient Air Quality Standards (NAAQS), for pollutants that have been determined to impact human health and the environment and established both primary and secondary NAAQS under the provisions of the CAA. NAAQS are currently established for six criteria air pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter (including particulates equal to or less than 10 microns in diameter [PM_{10}] and particulates equal to or less than 2.5 microns in diameter [$PM_{2.5}$]), and lead (Pb).

The USEPA has established Air Quality Control Regions (AQCRs) to evaluate compliance with the NAAQS. The air quality in each AQCR is measured by the concentration of various pollutants in the atmosphere. Measurements of these "criteria pollutants" in ambient air are expressed in units of parts per million or in units of micrograms per cubic meter. Regional air quality is a result of the types and quantities of atmospheric pollutants and pollutant sources in an area as well as surface topography, the size of the "air basin," and prevailing meteorological conditions.

The primary NAAQS represent maximum levels of background air pollution that are considered safe, with an adequate margin of safety to protect public health. Secondary NAAQS represent the maximum pollutant concentration necessary to protect vegetation, crops, and other public resources in addition to maintaining visibility standards. The primary and secondary NAAQS are presented in **Table C-1**.

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 limit atmospheric O_3 concentrations by controlling VOC pollutants (also identified as reactive organic gases) and NO_x.

The USEPA has recognized that particulate matter emissions can have different health effects, 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 or liquid mist or formed secondarily in the atmosphere as condensable particulate matter, typically forming nitrate and sulfate compounds. Ammonia (NH_3), for example, is evaluated as a precursor of $PM_{2.5}$. Secondary (indirect) emissions vary by region

depending on the predominant emission sources located there and thus which precursors are considered significant for $PM_{2.5}$ formation are identified for ultimate control.

Table C-1 National Ambient Air Quality Standards

Pollutant	Standard Value [6]		Standard Type
Carbon Monoxide (CO)			
8-hour average	9 ppm	(10 mg/m³)	Primary
1-hour average	35 ppm	(40 mg/m³)	Primary
Nitrogen Dioxide (NO_2)			
Annual arithmetic mean	0.053 ppm	(100 µg/m³)	Primary and Secondary
1-hour average [1]	0.100 ppm	(188 µg/m³)	Primary
Ozone (O_3)			
8-hour average [2]	0.070 ppm	(137 µg/m³)	Primary and Secondary
Lead (Pb)			
3-month average [3]		0.15 µg/m³	Primary and Secondary
Particulate <10 Micrometers (PM_{10})			
24-hour average [4]		150 µg/m³	Primary and Secondary
Particulate <2.5 Micrometers ($PM_{2.5}$)			
Annual arithmetic mean [4]		12 µg/m³	Primary
Annual arithmetic mean [4]		15 µg/m³	Secondary
24-hour average[4]		35 µg/m³	Primary and Secondary
Sulfur Dioxide (SO_2)			
1-hour average [5]	0.075 ppm	(196 µg/m³)	Primary
3-hour average [5]	0.5 ppm	(1,300 µg/m³)	Secondary

Notes:

Source: USEPA, 2023a

[1] In February 2010, the USEPA established a new 1-hour standard for NO_2 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 then-existing annual standard.

[2] In October 2015, the USEPA revised the level of the 8-hour standard to 0.070 ppm, based on the annual 4th highest daily maximum concentration, averaged over 3 years; the regulation became effective on 28 December 2015. The previous (2008) standard of 0.075 ppm remains in effect for some areas. A 1-hour standard no longer exists.

[3] In November 2008, USEPA revised the primary Pb standard to 0.15 µg/m³. USEPA revised the averaging time to a rolling 3-month average.

[4] In October 2006, USEPA revised the level of the 24-hour $PM_{2.5}$ standard to 35 µg/m³ and retained the level of the annual $PM_{2.5}$ standard at 15 µg/m³. In 2012, USEPA split standards for primary & secondary annual $PM_{2.5}$. All are averaged over 3 years, with the 24-hour average determined at the 98th percentile for the 24-hour standard. USEPA retained the 24-hour primary standard and revoked the annual primary standard for PM_{10}.

[5] In 2012, the USEPA retained a secondary 3-hour standard, which is not to be exceeded more than once per year. In June 2010, USEPA established a new 1-hour SO_2 standard at a level of 75 parts per billion, based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations.

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

µg/m³ = microgram(s) per cubic meter; mg/m³ = milligram(s) per cubic meter; ppm = part(s) per million

The CAA and USEPA delegated responsibility for ensuring compliance with NAAQS to the states and local agencies. As such, each state must develop air pollutant control programs and promulgate regulations and rules that focus on meeting NAAQS and maintaining healthy ambient air quality levels.

The Florida Department of Environmental Protection (FDEP) Division of Air Resource Management implements the federal CAA and related Florida statutes that are codified in Chapter 62 of the Florida Administrative Code. With respect to ambient air quality standards, Florida Administrative Code 62-204.800 adopts the National Primary and Secondary Ambient Air Quality Standards (40 Code of Federal Regulations [CFR] Part 50) by reference, thereby requiring use of the standards within the State of Florida.

Each AQCR encompasses regulatory areas that are designated as an attainment area or nonattainment area for each of the criteria pollutants, depending on whether it meets or exceeds the NAAQS. Areas designated as "attainment" have demonstrated compliance with NAAQS. An area is designated as unclassified if there is insufficient information for a compliance determination. Maintenance areas are those that were previously designated nonattainment but are now in compliance with the NAAQS. When a region or area fails to meet a NAAQS for a pollutant, that region is classified as "non-attainment" for that pollutant. In such cases, the affected state must develop a State Implementation Plan (SIP) that is subject to USEPA review and approval. A SIP is a compilation of regulations, strategies, schedules, and enforcement actions designed to move the state into compliance with all NAAQS. Any changes to the compliance schedule or plan (such as new regulations, emissions budgets, or controls) must be incorporated into the SIP and approved by USEPA.

Eglin AFB is located in Okaloosa, Santa Rosa, and Walton Counties, which are within the Mobile (Alabama)-Pensacola-Panama City (Florida)-Southern Mississippi Interstate AQCR (40 CFR 81.68). Generally, this AQCR is the region of influence (ROI) for the air quality analysis in this EA. However, effects from different types of pollutants may be experienced at different geographic scales. Potential effects from pollutants emitted directly from an emissions source, such as CO and SO_2, are typically confined to areas near the source of emissions and will typically be smaller. Effects from secondary pollutants, those formed via chemical reactions in the atmosphere after they have been emitted and formed some distance away from the source, typically occur over a larger regional area. Secondary pollutants include O3 and its precursors NOx and VOCs, and precursors of PM_{10} and $PM_{2.5}$. Greenhouse gases (GHG) are typically assessed at a regional or global scale.

Emission generated from the Proposed Action would primarily be associated with earth disturbance, operation of diesel-fuel construction equipment and vehicles hauling construction materials, worker trips on site, and paving and architectural coating applications.

State Implementation Program

Each state is required to develop a SIP that sets forth how CAA provisions will be imposed within the state. The SIP is the primary means for implementation, maintenance, and enforcement of the measures needed to attain and maintain the NAAQS within each state and includes control measures, emissions limitations, and other provisions required to attain and maintain the ambient air quality standards. The purpose of the SIP is twofold. First, it must provide a control strategy that will result in attainment and maintenance of the NAAQS. Second, it must demonstrate that progress is being made in attaining the standards in each nonattainment area. Maintenance areas are subject to a maintenance plan to ensure that compliance is maintained. To demonstrate progress toward attainment or maintenance status, air quality is monitored continuously using a network of monitors in every state. If standard is exceeded a certain number of times in a given period of time,

an area may be designated nonattainment. Florida's statewide air quality monitoring network is operated by both state and local environmental programs. The air is monitored for CO, Pb, NO_2, O_3, $PM_{2.5}$, PM_{10}, and SO_2. Not all pollutants are monitored in all areas. The network is composed of more than 180 monitors at 90 sites strategically positioned across the state. (FDEP, 2023).

Conformity Rules

The CAA required the USEPA draft general conformity regulations that are applicable in nonattainment areas or in designated maintenance areas. These regulations are designed to ensure that federal actions do not impede local efforts to achieve or maintain attainment with the NAAQS. The General Conformity Rule and the promulgated regulations found in 40 CFR Part 93, exempt certain federal actions from conformity determinations (for example, contaminated site cleanup and natural disaster response activities). Other federal actions are assumed to conform if total indirect and direct project emissions are below *de minimis* levels presented in 40 CFR § 93.153. The threshold levels (in tons of pollutant per year) depend on the nonattainment status that USEPA has assigned to a region. Once the net change in nonattainment pollutants is calculated, the federal agency must compare them with the *de minimis* thresholds. The General Conformity Rule would not apply to this Proposed Action because the ROI and the counties of concern for this Proposed Action are in attainment with the NAAQS for all criteria pollutants (ACAM, 2024).

New Source Performance Standards

Title I of the CAA Amendments of 1990 requires the federal government to reduce emissions from cars, trucks, and buses; from consumer products such as hair spray and window-washing compounds; and from ships and barges during loading and unloading of petroleum products to address urban air pollution problems of O_3, CO, and PM_{10}. Under Title I, the federal government develops the technical guidance that states need to control stationary sources of pollutants. For stationary sources, the CAA establishes New Source Performance Standards for specific source categories. Standards and compliance requirements are listed in Title 40 CFR Parts 60 - 61.

Title V Permitting

Title V of the CAA Amendments of 1990 requires state and local agencies to implement permitting programs for major stationary sources. A major stationary source is a facility (plant, base, activity, for example) that has the potential to emit more than 100 tons annually of any one criteria air pollutant in an attainment area. As a major source of criteria pollutants, Eglin AFB currently operates under a Title V Air Operation Permit (Permit No. 0910031-030-AV, valid until March 5, 2029) and issued by FDEP.

Prevention of Significant Deterioration

Prevention of Significant Deterioration (PSD) applies to new major sources or major modifications at existing sources for pollutants where the area the source is located is in attainment or unclassifiable with the NAAQS (USEPA, 2023b). The rule is intended to ensure that these sources are constructed or modified without causing significant adverse deterioration of the clean air in the area. Sources subject to PSD review are required to obtain a permit before construction commences. The permit process requires an extensive air quality review of all other major sources within a 50-mile radius and all Class 1 areas within a 62-mile radius of the facility. Emissions from any new or modified source must be controlled using the maximum degree of control that can be

achieved. The air quality, in combination with other PSD sources in the area, must not exceed the maximum allowable incremental increase as specified in the regulations. The rule also provides special protections for specific national parks or wilderness areas, known as Mandatory Federal Class 1 Areas (40 CFR Part 81), where any appreciable deterioration in air quality is considered significant. Class 1 areas are given special air quality and visibility protection under the CAA. PSD regulations also define air pollutant emissions from proposed major stationary sources or modifications to be "significant" if a proposed project's net emission increase meets or exceeds the rate of emissions listed in 40 CFR § 52.21(b)(23)(i); or a proposed project is within 10 miles of any Class 1 area (wilderness area greater than 5,000 acres or national park greater than 6,000 acres). The goals of the PSD program are to (1) ensure economic growth while preserving existing air quality; (2) protect public health and welfare from adverse effects that might occur even at pollutant levels better than the NAAQS; and (3) preserve, protect, and enhance the air quality in areas of special natural recreational, scenic, or historic value, such as national parks and wilderness areas.

The proposed action is not located within 100 kilometers (62 miles) of any USEPA-designated Class 1 areas protected by the Regional Haze Rule. No Class 1 areas would be affected by emissions associated with the Proposed Action. A designated Class 1 area in Florida, Bradwell Bay Wilderness, is approximately 187 miles from the ROI and would not be affected by emissions associated with the Proposed Action.

There are no major sources associated with the Proposed Action; thus, PSD does not apply.

C.1.2 Greenhouse Gases

GHG are gases, occurring from natural processes and human activities, that trap heat in the atmosphere. Natural sources of GHG include land use, such as through deforestation, land clearing for agriculture, and degradation of soils. The largest source of GHG from human activities in the United States is from burning fossil fuels for electricity, heat, and transportation. Combustion of fossil fuels (coal, oil, and natural gas) primarily generate three main GHG: carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). These three GHG alone represent more than 97 percent of the United States' total GHG emissions (USEPA, 2024).

Emissions from GHG are expressed in terms of the carbon dioxide equivalent emissions (CO_2e), which is a measure used to compare the emissions from various GHs based on their Global Warming Potential (GWP). The GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more that a given gas warms the Earth compared with CO_2 over the same time period. Analysts cumulatively compare emission estimates of different gases using standardized GWPs.

C.1.3 Air Conformity Applicability Analysis

Section 176(c) (1) of the CAA contains language that ensures federal activities conform to relevant SIPs and thus do not hamper local efforts to control air pollution. Conformity to a SIP is defined as conformity to a SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. As such, a general conformity analysis is required for areas of nonattainment or maintenance where a federal action is proposed.

The action can be shown to conform by demonstrating that the total direct and indirect emissions are below the *de minimis* levels **(Table C-2)**, or showing that the Proposed Action emissions are within the State- or Tribe-approved budget of the facility as part of the SIP or Tribal Implementation Plan (USEPA, 2010).

Direct emissions are those that occur as a direct result of the action. For example, emissions from new equipment that are a permanent component of the completed action (such as boilers, heaters, generators, and paint booths) are considered direct emissions. Indirect emissions are those that occur at a later time or at a distance from the Proposed Action. For example, increased vehicular/commuter traffic because of the action is considered an indirect emission. Construction emissions must also be considered. For example, the emissions from vehicles and equipment used to clear and grade building sites, build new buildings, and construct new roads must be evaluated. These types of emissions are considered direct emissions.

Table C-2 General Conformity Rule De Minimis Emission Thresholds

Pollutant	Attainment Classification	Tons per year
Ozone (VOC and NO_x)	Serious nonattainment	50
	Severe nonattainment	25
	Extreme nonattainment	10
	Other areas outside an ozone transport region	100
Ozone (NO_x)	Marginal and moderate nonattainment inside an ozone transport region	100
	Maintenance	100
Ozone (VOC)	Marginal and moderate nonattainment inside an ozone transport region	50
	Maintenance within an ozone transport region	50
	Maintenance outside an ozone transport region	100
CO, SO_2 and NO_2	All nonattainment and maintenance	100
PM_{10}	Serious nonattainment	70
	Moderate nonattainment and maintenance	100
$PM_{2.5}$ Direct emissions, SO_2, NO_x (unless determined not to be a significant precursor), VOC and ammonia (if determined to be significant precursors)	All nonattainment and maintenance	100
Lead	All nonattainment and maintenance	25

Source: USEPA, 2022

C.1.4 Significance Indicators and Evaluation Criteria

CAA Section 176(c), *General Conformity*, requires federal agencies to demonstrate that their proposed activities would conform to the applicable SIP for attainment of the NAAQS. General

conformity applies only to nonattainment and maintenance areas. If the emissions from a federal action proposed in a nonattainment area exceed annual *de minimis* thresholds identified in the rule, a formal conformity determination is required of that action. The thresholds are more restrictive as the severity of the nonattainment status of the region increases. The Council on Environmental Quality (CEQ) defines significance in terms of context and intensity in 40 CFR § 1508.27. This definition requires that the significance of the action be analyzed with respect to the setting of the Proposed Action and based relative to the severity of the impact. The National Environmental Policy Act regulations (40 CFR § 1508.27[b]) provide 10 key factors to consider in determining an impact's intensity.

Based on guidance in Chapter 4 of the *Air Force Air Quality Environmental Impact Analysis Process (EIAP) Guide*, *Volume II – Advanced Assessments* (Air Force, 2020), for air quality impact analysis, project criteria pollutant emissions were compared against the insignificance indicator of 250 tons per year (tpy) for Prevention of Significant Deterioration (PSD) major source permitting threshold for actions occurring in areas that are in attainment for all criteria pollutants (25 tpy for lead). These "Insignificance Indicators" were used in the analysis to provide an indication of the significance of potential impacts to air quality based on current ambient air quality relative to the NAAQS. These insignificance indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for each criteria pollutant is considered so insignificant that the action would not cause or contribute emissions that exceed one or more NAAQSs. Although PSD and Title V are not applicable to mobile sources, the PSD major source thresholds provide a benchmark to compare air emissions against and to determine project impacts.

For a Proposed Action that would occur in nonattainment/maintenance areas, the net-change emissions estimated for the relevant criteria pollutants are compared against General Conformity *de minimis* values to perform a General Conformity evaluation. If the estimated annual net emissions for each relevant pollutant from the Proposed Action are below the corresponding *de minimis* threshold values, General Conformity Rule requirements would not be applicable. The net emissions from the Proposed Action Alternatives are assessed in the EA and compared with applicable insignificance indicators.

GHG

The Air Conformity Applicability Model (ACAM) version 5.0.24a (ACAM, 2024) was used to evaluate GHG emissions.

A GHG Emissions Evaluation establishes the quantity of speciated GHG and CO_2e, determines if an action's emissions are insignificant, and provides a relative significance comparison. For the analysis, the PSD threshold for GHG of 75,000 tpy of CO_2e (or 68,039 metric tpy) was used as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (*de minimis*, too trivial or minor to merit consideration). Actions with a net change in GHG (CO_2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO_2e) emissions above the insignificance indicator (threshold) are considered only potentially significant and require further assessment to determine if the action poses a significant impact. The action related GHG have no significant impact to local air quality. However, from a global perspective, individual actions with GHG emissions each make a relatively small addition

to global atmospheric GHG concentrations. If activities involve *de minimis* (insignificant) GHG emissions, then on a global scale they are effectively zero and irrelevant (AFCEC, 2023).

C.1.5 Emissions Calculations and Assumptions

The following assumptions were used in the air quality analysis for the proposed alternative actions:

- The proposed construction projects are assumed to occur within a single calendar year based on DAF guidance and to provide a conservative estimate of emissions. The duration of the construction project is assumed to be 12 months from the assumed start date of January 2026.
- Long-term operational emissions (from new boilers and new generators) were not considered for the analysis since these details of the projects are not specified at this time. The size, scope, and implementation date for these projects across the cantonment areas have not been identified under Alternative 1 and Alternative 2 at the current time.
- No new personnel are proposed to be working at the new or renovated facilities after construction of the project has been completed; therefore, emissions from new employee commute are not considered.
- The calculations in ACAM do not include any controls to reduce fugitive emissions. It is assumed that reasonable mitigation measures would be used during construction and demolition to reduce particulate matter emissions.
- Construction-phase emissions for the Proposed Action Alternative 1 are included for demolition, grading, trenching, construction, architectural coating, and paving.
- The proposed levels of development proposed for Alternative 1 and Alternative 2 were used as the basis to derive ACAM activity input values.
- Construction and demolition (or renovation) maximum building height is assumed to be 50 feet and average height for pavement/road construction is assumed to be 1 foot slab.
- Duration of the construction phase was estimated based on the area proposed for construction or renovation.
- Typically, area for grading was assumed to be twice the total area proposed for facilities construction or renovation. For parking lots, pavements, and roads, the entire area proposed for construction was assumed to be graded.
- Some additional fill dirt is assumed to be required to help grade the earth. Ten percent of total area for construction, parking, and roads is assumed for materials to be hauled in.
- In the absence of trenching data, trenching in linear feet for utility was derived based on the size of the project. An estimated trench depth and trench width are assumed based on the nature of the project. Assume trenching area is 10 percent of total facilities construction area. Assume 5 percent of area proposed for parking and roads would be trenched for drainage, lighting, and fencing.

C.1.6 References

ACAM. 2024. Air Conformity Applicability Model. Air Impact Modeling Software by Solutio Environmental, Inc. for U.S. Air Force Civil Engineering Center (AFCEC/CZTQ), Version 5.0.24a, 2024.

AFCEC. 2024. Air Force Civil Engineer Center. Compliance Technical Support Branch (CZTQ). 2023. *DAF Greenhouse Gas (GHG) & Climate Change Assessment Guide*. December. https://www.aqhelp.com/AQdocs.html. Accessed January 2024.

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FDEP. 2023. Florida Department of Environmental Protection. 2023 Annual Ambient Air Monitoring Network Plan https://floridadep.gov/sites/default/files/Annual%20Network%20Plan_2023.pdf. Accessed March 2025.

USEPA. 2010. U.S. Environmental Protection Agency. 40 CFR Parts 51 and 93, Revisions to the General Conformity Regulations. 75 Federal Register 14283, EPA-HQ-OAR-2006-0669; FRL-9131-7. 24. March.

USEPA. 2022. *General Conformity: De Minimis Tables*. https://www.epa.gov/general-conformity/de-minimis-tables. July.

USEPA. 2023a. *NAAQS Table*. https://www.epa.gov/criteria-air-pollutants/naaqs-table. 15 March.

USEPA. 2023b. *Prevention of Significant Deterioration (PSD) Basic Information*. https://www.epa.gov/nsr/prevention-significant-deterioration-basic-information. 23 January

USEPA. 2024. *Overview of Greenhouse Gases*. https://www.epa.gov/ghgemissions/overview-greenhouse-gases. Accessed December 12, 2024.

C.1.7 Record of Air Analysis (ROAA), ACAM GHG Emissions, and ACAM Detail Report Sample

C.1.7.1 Record of Air Analysis (ROAA)

ALTERNATIVE 1

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Cantonment Main Base
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable

X not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS") latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving a steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	12.450	250	No
NOx	7.323	250	No
CO	7.827	250	No
SOx	0.016	250	No
PM 10	222.987	250	No
PM 2.5	0.215	250	No
Pb	0.000	25	No
NH3	0.091	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist May 08 2025

Name, Title **Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Duke Field
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:

- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:

- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most

accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	6.877	250	No
NOx	5.869	250	No
CO	6.810	250	No
SOx	0.013	250	No
PM 10	134.271	250	No
PM 2.5	0.188	250	No
Pb	0.000	25	No
NH3	0.051	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist	May 08 2025
Name, Title	**Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Camp Bull Simons
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are

described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	3.377	250	No
NOx	4.094	250	No
CO	5.038	250	No
SOx	0.009	250	No
PM 10	19.368	250	No
PM 2.5	0.130	250	No
Pb	0.000	25	No
NH3	0.023	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist — May 08 2025
Name, Title — **Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Camp Rudder
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are

described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	2.385	250	No
NOx	4.304	250	No
CO	5.445	250	No
SOx	0.010	250	No
PM 10	45.624	250	No
PM 2.5	0.145	250	No
Pb	0.000	25	No
NH3	0.020	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist — May 08 2025

Name, Title — **Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Site C-6
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
__X__ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are

described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.563	250	No
NOx	3.317	250	No
CO	4.383	250	No
SOx	0.008	250	No
PM 10	1.795	250	No
PM 2.5	0.110	250	No
Pb	0.000	25	No
NH3	0.007	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist — May 08 2025
Name, Title — **Date**

ALTERNATIVE 2

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Cantonment Main Base
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most

accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	10.063	250	No
NOx	6.727	250	No
CO	7.421	250	No
SOx	0.015	250	No
PM 10	178.353	250	No
PM 2.5	0.204	250	No
Pb	0.000	25	No
NH3	0.074	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist	May 08 2025
Name, Title	**Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Duke Field
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are

described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	5.613	250	No
NOx	5.570	250	No
CO	6.424	250	No
SOx	0.012	250	No
PM 10	107.413	250	No
PM 2.5	0.178	250	No
Pb	0.000	25	No
NH3	0.042	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist — May 08 2025
Name, Title — **Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Camp Bull Simons
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): M/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are

described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.674	250	No
NOx	3.568	250	No
CO	4.616	250	No
SOx	0.008	250	No
PM 10	11.703	250	No
PM 2.5	0.116	250	No
Pb	0.000	25	No
NH3	0.014	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist — May 08 2025

Name, Title — **Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Camp Rudder
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
_X_ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" ("SS" no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are

described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.974	250	No
NOx	3.978	250	No
CO	5.122	250	No
SOx	0.009	250	No
PM 10	36.483	250	No
PM 2.5	0.133	250	No
Pb	0.000	25	No
NH3	0.018	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist	May 08 2025
Name, Title	**Date**

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The

analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Site C-6
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the GCR are:

____ applicable
__X__ not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving “steady state” (“SS” no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" ("Attainment" not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators.*

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

Analysis Summary:

2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.533	250	No
NOx	3.310	250	No
CO	4.378	250	No
SOx	0.008	250	No
PM 10	1.425	250	No
PM 2.5	0.110	250	No
Pb	0.000	25	No
NH3	0.007	250	No

2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	250	No
NOx	0.000	250	No
CO	0.000	250	No
SOx	0.000	250	No
PM 10	0.000	250	No
PM 2.5	0.000	250	No
Pb	0.000	25	No
NH3	0.000	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

Radhika Narayanan, Environmental Scientist — May 08 2025

Name, Title — **Date**

C.1.7.2 ACAM GHG Emissions

ALTERNATIVE 1

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Cantonment Main Base
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:
GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are

typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	2,446	0.06292213	0.19556104	2,506	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only

potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	2,446	0.062922	0.195561	2,506
Percent of State Totals		0.00053776%	0.00000570%	0.00016845%	0.00048510%
Percent of U.S. Totals		0.00002381%	0.00000012%	0.00000652%	0.00002004%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000269%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Duke Field
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
□ Total Area Disturbed: 824 acres
□ Facilities Construction: 1,943,579 square feet

- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:

- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	1,746	0.05188749	0.10532692	1,779	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA

National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	1,746	0.051887	0.105327	1,779
Percent of State Totals		0.00038386%	0.00000470%	0.00009072%	0.00034433%
Percent of U.S. Totals		0.00001699%	0.00000010%	0.00000351%	0.00001422%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000191%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Camp Bull Simons
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar

radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	1,037	0.03483208	0.04275141	1,051	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	1,037	0.034832	0.042751	1,051
Percent of State Totals		0.00022803%	0.00000315%	0.00003682%	0.00020343%
Percent of U.S. Totals		0.00001010%	0.00000007%	0.00000142%	0.00000840%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000113%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Camp Rudder
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	1,081	0.03778105	0.03739371	1,093	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	1,081	0.037781	0.037394	1,093
Percent of State Totals		0.00023774%	0.00000342%	0.00003221%	0.00021168%
Percent of U.S. Totals		0.00001053%	0.00000007%	0.00000125%	0.00000874%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000117%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*

and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Site C-6
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force

Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	723	0.02867123	0.00808075	726	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG are gauged through the quantity of GHG associated with the action as compared to a baseline of the state,

U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	723	0.028671	0.008081	726
Percent of State Totals		0.00015891%	0.00000260%	0.00000696%	0.00014053%
Percent of U.S. Totals		0.00000704%	0.00000006%	0.00000027%	0.00000581%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000078%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

ALTERNATIVE 2

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Cantonment Main Base
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	2,157	0.05842569	0.15814969	2,206	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)

YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	2,157	0.058426	0.15815	2,206
Percent of State Totals		0.00047436%	0.00000529%	0.00013622%	0.00042710%
Percent of U.S. Totals		0.00002100%	0.00000011%	0.00000527%	0.00001764%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000236%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*

and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:

Base: EGLIN AFB Duke Field
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force

Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	1,565	0.04828571	0.08568295	1,592	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net

change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	1,565	0.048286	0.085683	1,592
Percent of State Totals		0.00034406%	0.00000437%	0.00007380%	0.00030814%
Percent of U.S. Totals		0.00001523%	0.00000009%	0.00000285%	0.00001273%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000171%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Camp Bull Simons
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): M/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:

- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	829	0.030169	0.02262539	836	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572

2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	829	0.030169	0.022625	836
Percent of State Totals		0.00018224%	0.00000273%	0.00001949%	0.00016192%
Percent of U.S. Totals		0.00000807%	0.00000006%	0.00000075%	0.00000669%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000090%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Camp Rudder
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
□ Total Area Disturbed: 824 acres
□ Facilities Construction: 1,943,579 square feet
□ Parking/Impervious Surface: 281.9 acres
□ Roads/Infrastructure: 102.1 acres
□ Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
□ Total Area Disturbed: 659.2 acres
□ Facilities Construction: 1,461,592 square feet
□ Parking/Impervious Surface: 225.4 acres
□ Roads/Infrastructure: 81.6 acres
□ Demolition: 213,174 square feet

f. Point of Contact:
Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	979	0.03479979	0.03090336	989	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	979	0.0348	0.030903	989
Percent of State Totals		0.00021526%	0.00000315%	0.00002662%	0.00019150%
Percent of U.S. Totals		0.00000953%	0.00000007%	0.00000103%	0.00000791%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000106%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention* and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

a. Action Location:
Base: EGLIN AFB Site C-6
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL

c. Project Number/s (if applicable): N/A

d. Projected Action Start Date: 1 / 2026

e. Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres

- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

f. Point of Contact:

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: rnarayanan@versar.com
Phone Number: -

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2026	720	0.02862256	0.00767844	723	68,039	No
2027 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2026	227,404,647	552,428	58,049	258,255,572
2027 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)

YEAR	CO2	CH4	N2O	CO2e
2026	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2027 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG is global. Therefore, the intensity or degree of the proposed action's GHG effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2026-2027	State Total	454,809,294	1,104,855	116,098	516,511,144
2026-2027	U.S. Total	10,272,908,358	51,253,823	3,001,415	12,503,390,459
2026-2027	Action	720	0.028623	0.007678	723
Percent of State Totals		0.00015823%	0.00000259%	0.00000661%	0.00013991%
Percent of U.S. Totals		0.00000701%	0.00000006%	0.00000026%	0.00000578%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000077%.*

* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

C.1.7.3 ACAM Detail Report Sample

ALTERNATIVE 1

1. General Information

- Action Location

Base: EGLIN AFB
State: Florida
County(s): Okaloosa; Santa Rosa; Walton
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Cantonment Areas Construction and Development Projects, Eglin AFB, FL, Camp Bull Simons

- Project Number/s (if applicable): N/A

- Projected Action Start Date: 1 / 2026

- Action Purpose and Need:

The purpose of the Proposed Action is to provide facilities and infrastructure at Eglin AFB as identified or recommended in the current IDP and District Plan that meet current DoD and DAF criteria and support ongoing and future security, mission, and operational requirements. Evaluating potential impacts from proposed projects at the programmatic level of analysis presented in this EA will establish thresholds for comparison of impacts from site-specific projects in the future and reduce the time needed to complete applicable environmental compliance processes for such projects, including NEPA and the DAF EIAP.

The Proposed Action is needed to provide and maintain facilities and infrastructure at Eglin AFB that:

- Support DAF mission requirements and the quality of life of DoD and civilian personnel hosted by the installation.
- Meet applicable DoD installation master planning criteria, consistent with UFC 2-100-01, Installation Master Planning; AFI 32-1015 Integrated Installation Planning; and AFPD 32-10, Installations and Facilities.
- Comply with applicable federal, state, local, and DoD laws and regulations, including the Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Clean Water Act (CWA), Clean Air Act, Resource Conservation and Recovery Act, and Migratory Bird Treaty Act.

- Action Description:

Under Alternative 1, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 824 acres
- Facilities Construction: 1,943,579 square feet
- Parking/Impervious Surface: 281.9 acres
- Roads/Infrastructure: 102.1 acres
- Demolition: 266,468 square feet

Under Alternative 2, Eglin AFB would evaluate and authorize the following levels of development for proposed construction and development projects in the five cantonment areas:
- Total Area Disturbed: 659.2 acres
- Facilities Construction: 1,461,592 square feet
- Parking/Impervious Surface: 225.4 acres
- Roads/Infrastructure: 81.6 acres
- Demolition: 213,174 square feet

- Point of Contact

Name: Radhika Narayanan
Title: Environmental Scientist
Organization: Versar Global Solutions
Email: [redacted]
Phone Number: -

Report generated with ACAM
version: 5.0.24a

- **Activity List:**

	Activity Type	Activity Title
2.	Construction / Demolition	Alternative 1: Eglin AFB Camp Bull Simons
3.	Construction / Demolition	Alternative 1: Eglin AFB Camp Bull Simons (Road Construction Only)

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- **Activity Location**
  County: Okaloosa; Santa Rosa; Walton
  Regulatory Area(s): NOT IN A REGULATORY AREA

- **Activity Title:** Alternative 1: Eglin AFB Camp Bull Simons

- **Activity Description:**
  Total Area Disturbed: 47.1 acres
  Facilities Construction: 250,000 sq.ft
  Parking / Impervious Surface: 5 acres
  Roads / Infrastructure: 5 acres
  Demolition: 13,979 sq.ft

- **Activity Start Date**
  Start Month: 1
  Start Month: 2026

- **Activity End Date**
  Indefinite: False
  End Month: 12
  End Month: 2026

- **Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	3.211468
SO_x	0.006179
NO_x	2.777119
CO	3.241888

Pollutant	Total Emissions (TONs)
PM 10	19.321588
PM 2.5	0.087217
Pb	0.000000
NH_3	0.019401

- **Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Total Emissions (TONs)
CH_4	0.026146
N_2O	0.043266

Pollutant	Total Emissions (TONs)
CO_2	832.314478
CO_2e	845.858333

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- **Phase Start Date**
  Start Month: 1

Start Quarter: 1
Start Year: 2026

- Phase Duration
Number of Month: 1
Number of Days: 0

2.1.2 Demolition Phase Assumptions

- General Demolition Information
Area of Building to be demolished (ft^2): 13979
Height of Building to be demolished (ft): 50

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.41257	0.00743	3.52633	4.31513	0.08509	0.07828
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.35280	0.00491	3.22260	2.72624	0.14205	0.13069
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.18406	0.00489	1.88476	3.48102	0.06347	0.05839

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]				
	CH_4	N_2O	CO_2	CO_2e

Emission Factors	0.02330	0.00466	574.35707	576.32812
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02160	0.00432	532.54993	534.37751
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02149	0.00430	529.70686	531.52468

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

2.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (0.00042 * BA * BH) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft^3)
BA: Area of Building to be demolished (ft^2)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
HP: Equipment Horsepower
LF: Equipment Load Factor
EF_{POL}: Emission Factor for Pollutant (g/hp-hour)
0.002205: Conversion Factor grams to pounds
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft^2)
BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date
Start Month: 2
Start Quarter: 1
Start Year: 2026

- Phase Duration
Number of Month: 2
Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information
Area of Site to be Graded (ft^2): 935600
Amount of Material to be Hauled On-Site (yd^3): 2659
Amount of Material to be Hauled Off-Site (yd^3): 1852

- **Site Grading Default Settings**
  Default Settings Used: Yes
  Average Day(s) worked per week: 5 (default)

- **Construction Exhaust (default)**

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rollers Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	3	8
Tractors/Loaders/Backhoes Composite	3	8

- **Vehicle Exhaust**
  Average Hauling Truck Capacity (yd^3): 20 (default)
  Average Hauling Truck Round Trip Commute (mile): 20 (default)

- **Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- **Worker Trips**
  Average Worker Round Trip Commute (mile): 20 (default)

- **Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- **Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)**

Excavators Composite [HP: 36] [LF: 0.38]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.39317	0.00542	3.40690	4.22083	0.09860	0.09071
Graders Composite [HP: 148] [LF: 0.41]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.31292	0.00490	2.52757	3.39734	0.14041	0.12918
Other Construction Equipment Composite [HP: 82] [LF: 0.42]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.28160	0.00487	2.73375	3.50416	0.15811	0.14546
Rollers Composite [HP: 36] [LF: 0.38]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.54202	0.00541	3.61396	4.09268	0.15387	0.14156
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.35280	0.00491	3.22260	2.72624	0.14205	0.13069
Scrapers Composite [HP: 423] [LF: 0.48]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.19606	0.00488	1.74061	1.53912	0.06788	0.06245
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.18406	0.00489	1.88476	3.48102	0.06347	0.05839

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02381	0.00476	587.02896	589.04350
Graders Composite [HP: 148] [LF: 0.41]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02153	0.00431	530.81500	532.63663
Other Construction Equipment Composite [HP: 82] [LF: 0.42]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02140	0.00428	527.54121	529.35159
Rollers Composite [HP: 36] [LF: 0.38]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02381	0.00476	586.91372	588.92786
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02160	0.00432	532.54993	534.37751
Scrapers Composite [HP: 423] [LF: 0.48]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02145	0.00429	528.85412	530.66901
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02149	0.00430	529.70686	531.52468

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
HP: Equipment Horsepower
LF: Equipment Load Factor
EF_{POL}: Emission Factor for Pollutant (g/hp-hour)
0.002205: Conversion Factor grams to pounds
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Trenching/Excavating Phase

2.3.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date
Start Month: 4
Start Quarter: 1

Start Year: 2026

- Phase Duration
Number of Month: 1
Number of Days: 0

2.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information
Area of Site to be Trenched/Excavated (ft^2): 46780
Amount of Material to be Hauled On-Site (yd^3): 0
Amount of Material to be Hauled Off-Site (yd^3): 1852

- Trenching Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.39317	0.00542	3.40690	4.22083	0.09860	0.09071
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.45335	0.00542	3.58824	4.59368	0.11309	0.10404
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.18406	0.00489	1.88476	3.48102	0.06347	0.05839

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]				
	CH_4	N_2O	CO_2	CO_2e

Emission Factors	0.02381	0.00476	587.02896	589.04350
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02385	0.00477	587.87714	589.89459
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02149	0.00430	529.70686	531.52468

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

2.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
HP: Equipment Horsepower
LF: Equipment Load Factor
EF_{POL}: Emission Factor for Pollutant (g/hp-hour)
0.002205: Conversion Factor grams to pounds
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.4 Building Construction Phase

2.4.1 Building Construction Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2026

- Phase Duration
Number of Month: 12
Number of Days: 0

2.4.2 Building Construction Phase Assumptions

- General Building Construction Information
Building Category: Office or Industrial
Area of Building (ft^2): 250000
Height of Building (ft): 50
Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	7
Forklifts Composite	2	7
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips
Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.4.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.19758	0.00487	1.83652	1.63713	0.07527	0.06925
Forklifts Composite [HP: 82] [LF: 0.2]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.24594	0.00487	2.34179	3.57902	0.11182	0.10287
Generator Sets Composite [HP: 14] [LF: 0.74]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.53947	0.00793	4.32399	2.85973	0.17412	0.16019
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.18406	0.00489	1.88476	3.48102	0.06347	0.05839
Welders Composite [HP: 46] [LF: 0.45]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.46472	0.00735	3.57020	4.49314	0.09550	0.08786

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]				
	CH_4	N_2O	CO_2	CO_2e

Emission Factors	0.02140	0.00428	527.46069	529.27080
Forklifts Composite [HP: 82] [LF: 0.2]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02138	0.00428	527.09717	528.90603
Generator Sets Composite [HP: 14] [LF: 0.74]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02305	0.00461	568.32694	570.27730
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02149	0.00430	529.70686	531.52468
Welders Composite [HP: 46] [LF: 0.45]				
	CH_4	**N_2O**	**CO_2**	**CO_2e**
Emission Factors	0.02305	0.00461	568.29068	570.24091

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

2.4.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
HP: Equipment Horsepower
LF: Equipment Load Factor
EF_{POL}: Emission Factor for Pollutant (g/hp-hour)
0.002205: Conversion Factor grams to pounds
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft^3 to trips (0.42 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase
$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft^3 to trips (0.38 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.5 Architectural Coatings Phase

2.5.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date
Start Month: 11
Start Quarter: 1
Start Year: 2026

- **Phase Duration**
  Number of Month: 1
  Number of Days: 0

2.5.2 Architectural Coatings Phase Assumptions

- **General Architectural Coatings Information**
  Building Category: Non-Residential
  Total Square Footage (ft^2): 250000
  Number of Units: N/A

- **Architectural Coatings Default Settings**
  Default Settings Used: Yes
  Average Day(s) worked per week: 5 (default)

- **Worker Trips**
  Average Worker Round Trip Commute (mile): 20 (default)

- **Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Architectural Coatings Phase Emission Factor(s)

- **Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- **Worker Trips Greenhouse Gasses Emission Factors (grams/mile)**

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

2.5.4 Architectural Coatings Phase Formula(s)

- **Worker Trips Emissions per Phase**

$VMT_{WT} = (1 * WT * PA) / 800$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
1: Conversion Factor man days to trips (1 trip / 1 man * day)
WT: Average Worker Round Trip Commute (mile)
PA: Paint Area (ft^2)
800: Conversion Factor square feet to man days (1 ft^2 / 1 man * day)

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase
$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft^2)
2.0: Conversion Factor total area to coated area (2.0 ft^2 coated area / total area)
0.0116: Emission Factor (lb/ft^2)
2000: Conversion Factor pounds to tons

2.6 Paving Phase

2.6.1 Paving Phase Timeline Assumptions

- Phase Start Date
Start Month: 7
Start Quarter: 1
Start Year: 2026

- Phase Duration
Number of Month: 1
Number of Days: 0

2.6.2 Paving Phase Assumptions

- General Paving Information
Paving Area (ft^2): 435600

- Paving Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

- Vehicle Exhaust
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.6.3 Paving Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Pavers Composite [HP: 81] [LF: 0.42]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.23717	0.00486	2.53335	3.43109	0.12904	0.11872
Paving Equipment Composite [HP: 89] [LF: 0.36]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.18995	0.00487	2.06537	3.40278	0.08031	0.07388
Rollers Composite [HP: 36] [LF: 0.38]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.54202	0.00541	3.61396	4.09268	0.15387	0.14156

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Pavers Composite [HP: 81] [LF: 0.42]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02133	0.00427	525.80405	527.60847
Paving Equipment Composite [HP: 89] [LF: 0.36]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02141	0.00428	527.70636	529.51732
Rollers Composite [HP: 36] [LF: 0.38]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02381	0.00476	586.91372	588.92786

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

2.6.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

- Construction Exhaust Emissions per Phase
CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL}* 0.002205) / 2000

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
HP: Equipment Horsepower
LF: Equipment Load Factor
EF_{POL}: Emission Factor for Pollutant (g/hp-hour)
0.002205: Conversion Factor grams to pounds
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft^2)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
VMT_{WT} = WD * WT * 1.25 * NE

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase
VOC_P = (2.62 * PA) / 43560 / 2000

VOC_P: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)

PA: Paving Area (ft^2)
43560: Conversion Factor square feet to acre (43560 ft2 / acre)^2 / acre)
2000: Conversion Factor square pounds to TONs (2000 lb / TON)

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- **Activity Location**
  County: Okaloosa; Santa Rosa; Walton
  Regulatory Area(s): NOT IN A REGULATORY AREA

- **Activity Title:** Alternative 1: Eglin AFB Camp Bull Simons (Road Construction Only)

- **Activity Description:**
  Roads / Infrastructure: 5 acres

- **Activity Start Date**
  Start Month: 1
  Start Month: 2026

- **Activity End Date**
  Indefinite: False
  End Month: 12
  End Month: 2026

- **Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	0.165617
SO_x	0.003086
NO_x	1.317229
CO	1.796105

Pollutant	Total Emissions (TONs)
PM 10	0.046280
PM 2.5	0.042570
Pb	0.000000
NH_3	0.003209

- **Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Total Emissions (TONs)
CH_4	0.012250
N_2O	0.003859

Pollutant	Total Emissions (TONs)
CO_2	310.917378
CO_2e	312.373020

3.1 Building Construction Phase

3.1.1 Building Construction Phase Timeline Assumptions

- **Phase Start Date**
  Start Month: 1
  Start Quarter: 1
  Start Year: 2026

- **Phase Duration**
  Number of Month: 12
  Number of Days: 0

3.1.2 Building Construction Phase Assumptions

- **General Building Construction Information**

Building Category: Office or Industrial
Area of Building (ft^2): 435600
Height of Building (ft): 1
Number of Units: N/A

- Building Construction Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	7
Forklifts Composite	2	7
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips
Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

3.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.19758	0.00487	1.83652	1.63713	0.07527	0.06925
Forklifts Composite [HP: 82] [LF: 0.2]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.24594	0.00487	2.34179	3.57902	0.11182	0.10287
Generator Sets Composite [HP: 14] [LF: 0.74]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.53947	0.00793	4.32399	2.85973	0.17412	0.16019
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.18406	0.00489	1.88476	3.48102	0.06347	0.05839
Welders Composite [HP: 46] [LF: 0.45]						

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5
Emission Factors	0.46472	0.00735	3.57020	4.49314	0.09550	0.08786

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02140	0.00428	527.46069	529.27080
Forklifts Composite [HP: 82] [LF: 0.2]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02138	0.00428	527.09717	528.90603
Generator Sets Composite [HP: 14] [LF: 0.74]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02305	0.00461	568.32694	570.27730
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02149	0.00430	529.70686	531.52468
Welders Composite [HP: 46] [LF: 0.45]				
	CH_4	N_2O	CO_2	CO_2e
Emission Factors	0.02305	0.00461	568.29068	570.24091

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	NH_3
LDGV	0.30919	0.00284	0.11347	4.53889	0.02452	0.00746	0.05155
LDGT	0.26441	0.00357	0.16673	4.15025	0.02544	0.00839	0.04331
HDGV	0.86518	0.00768	0.60380	10.32821	0.05358	0.02478	0.09044
LDDV	0.10849	0.00133	0.16923	6.81953	0.02585	0.00833	0.01688
LDDT	0.18226	0.00135	0.30624	4.58701	0.02597	0.00982	0.01664
HDDV	0.11915	0.00430	2.58738	1.69518	0.18154	0.08779	0.06616
MC	2.91656	0.00331	0.53768	11.64899	0.03308	0.02177	0.05214

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH_4	N_2O	CO_2	CO_2e
LDGV	0.01488	0.00507	338.87521	340.63551
LDGT	0.01603	0.00741	426.31862	428.73081
HDGV	0.05162	0.02582	915.95668	924.24503
LDDV	0.04375	0.00074	395.37005	396.79020
LDDT	0.02250	0.00109	401.49415	402.41201
HDDV	0.02061	0.16317	1278.58677	1322.40331
MC	0.10643	0.00322	390.86633	394.69952

3.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
HP: Equipment Horsepower
LF: Equipment Load Factor
EF_{POL}: Emission Factor for Pollutant (g/hp-hour)
0.002205: Conversion Factor grams to pounds
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft^3 to trips (0.42 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft^3 to trips (0.38 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

APPENDIX D
PREPARERS AND CONTRIBUTORS

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APPENDIX D – PREPARERS AND CONTRIBUTORS

The following individuals assisted in the preparation of this Environmental Assessment:

Table D-1 List of Preparers and Contributors

Consultants – Versar, Inc.

Name	Education	EA Role	Years of Experience
Christopher Bowen	MA, Archaeology and Heritage	Cultural Resources	33
Craig Carver	Master of Urban and Regional Planning	Project Management, Quality Control, Land Use, Federal Consistency Determination	15
Rahul Chettri	MS, Environmental Studies	Air Quality	42
Kenneth Erwin	MS, Natural Resources	Project Management, Technical Review	11
Benjamin Leatherland	MA, Geography/ Environmental Planning	Biological Resources, Water Resources, Soils, Utilities	29
Radhika Narayanan	MS, Environmental Science	Air Quality	29
Alex Noble	BS, Environmental Science; BA, Biological Sciences	Socioeconomics, Noise, Safety, Hazardous Materials, Reasonably Foreseeable Future Actions	3
Angela Northrop	BS, Marketing	Technical Editing	27
Christa Stumpf	MS, Forest Resources and Land Use Planning	Senior Technical Review	30

Consultants – Swift River

Name	Education	EA Role	Years of Experience
Tonya Arthur	BS, Geography and Computer Science, GIS Certificate	GIS	16
Butch Fries	MA, Mass Communication	Technical Editing	46

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