Draft
Environmental Assessment for Proposed Area Development Plan Projects at Joint Base San Antonio, Randolph, Bexar County, Texas

September 2022

Prepared for:
United States Air Force
502d Air Base Wing

PRIVACY ADVISORY

This Environmental Assessment (EA) is provided for public comment in accordance with the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) NEPA regulations (40 CFR Parts 1500–1508), and 32 CFR Part 989, *Environmental Impact Analysis Process (EIAP)*.

The EIAP provides an opportunity for public input on Air Force decision-making, allows the public to offer inputs on alternative ways for the Air Force to accomplish what it is proposing, and solicits comments on the Air Force's analysis of environmental effects.

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COVER SHEET
Draft Environmental Assessment for
Proposed Area Development Plan Projects at Joint Base San Antonio, Randolph, Texas

a. *Responsible Agency: United States Air Force*

b. *Location: Joint Base San Antonio, Randolph, Texas*

c. *Designation: Draft Environmental Assessment*

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Abstract:

This Environmental Assessment (EA) has been prepared pursuant to provisions of the National Environmental Policy Act, Title 42 *United States Code*, §§ 4321–4370, implemented by Council on Environmental Quality Regulations at Title 40, *Code of Federal Regulations* (CFR) Parts 1500–1508, and 32 CFR Part 989, *Environmental Impact Analysis Process (EIAP)*. Potentially affected environmental resources were identified in coordination with local, state, and federal agencies. Specific environmental resources with the potential for environmental consequences include land use; air quality; noise; earth resources; water resources; biological resources; environmental justice and protection of children; infrastructure, transportation, and utilities; hazardous materials and wastes, and safety.

The purpose of the Proposed Action is to develop, improve, and maintain JBSA-Randolph (RND) and Seguin Auxiliary Field (SAF) to accommodate future mission growth. JBSA-RND and SAF perform critical tasks for the Air Force and other Department of Defense components in training pilots to fly, maneuver, operate, and maintain aircraft in preparation for deployment. For continued mission success, the Base must be modernized to be more efficient and provide the necessary mission support capabilities to train pilots and others involved in air operations. The future development of JBSA-RND and SAF must also retain the unique characteristics of the Base and ensure land use that is compatible, connected, safe, and secure.

The analysis of the affected environmental and environmental consequences of implementing the Proposed Action and No Action Alternative concluded that by implementing standing environmental protection measures and Best Management Practices, there would be no significant adverse impacts from the actions at JBSA-RND or SAF on the environmental resources. JBSA-RND and SAF are active installations with aircraft operations, demolition, and new construction actions currently under way as well as future development currently in the planning phase. Impacts associated with construction, demolition, and renovation would be minor; therefore, significant cumulative impacts are not anticipated from activities associated with the Proposed Action and No Action Alternative when considered in conjunction with other past, present, or reasonably foreseeable environmental trends or future actions at JBSA-RND.

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	degree Fahrenheit
12 FTW	12th Flying Training Wing
AAFES	Army and Air Force Exchange Service
ABW	Air Base Wing
ac	acre
ACAM	Air Conformity Applicability Model
ACP	Access Control Point
ACM	asbestos-containing material
ADP	Area Development Plan
AETC	Air Education and Training Command
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFFF	Aqueous Film Forming Foam
AFI	Air Force Instruction
AICUZ	Air Installation Compatible Use Zones
Air Force	United States Air Force
APE	Area of Potential Effect
APZ	Accident Potential Zones
AST	Above Ground Storage Tank
BASH	Bird and Wildlife Air Strike Hazard
BMP	best management practices
BFE	Base Flood Elevation
CAA	Clean Air Act
CATEX	Categorical Exclusion
CATM	Combat Arms Training and Maintenance
CCD	Census County Division
CE	Civil Engineer
802 CEC	802d Civil Engineer Squadron
CEG	Civil Engineer Group
CEIE	Center for Environmental Information and Education
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
COB	County of Bexar
COSA	City of San Antonio
CWA	Clean Water Act
CZ	Clear Zone
dBA	A-weighted decibels
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DoDI	Department of Defense Instruction
EA	Environmental Assessment
EAA	Edwards Aquifer Authority
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order
EPN	early public notice
ERP	Environmental Restoration Program
ESA	*Endangered Species Act*
FEMA	Federal Emergency Management Agency
FFRMS	Federal Flood Risk Management Standard
FO	Flight Operations (District)

FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
GBI	Green Building Initiative
GHG	greenhouse gas
HAZMAT	hazardous materials
HWMP	Hazardous Waste Management Plan
I-10	Interstate 10
IDP	Installation Development Plan
IICEP	Interagency/Intergovernmental Coordination for Environmental Planning
INRMP	Integrated Natural Resources Management Plan
JBSA	Joint Base San Antonio
lb	pound
LBP	lead-based pain
LID	Low Impact Development
LVIP	large vehicle inspection point
µg/m^3	microgram per cubic meter
MS4	municipal separate storm sewer system
MSA	metropolitan statistical area
MMRP	Military Munitions Response Program
MTC	Mission Training Facility
NAAQS	National Ambient Air Quality Standards
NEPA	*National Environmental Policy Act*
NFA	no further action
NHPA	*National Historic Preservation Act*
NHLD	National Historic Landmark District
NOI	Notice of Intent
NPS	National Park Services
NRHP	National Register of Historic Places
NW	northwest
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PBR	Permit by Rule
PCB	polychlorinated biphenyls
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluoro octane sulfonate
ppb	part per billion
ppm	part per million
RCRA	*Resource Conservation and Recovery Act*
RI	remedial investigation
ROI	Region of Influence
RND	Randolph Air Force Base
RPA	Remotely Piloted Aircraft
SAF	Seguin Auxiliary Airfield
SARA	San Antonio River Authority
sf	square feet
SHPO	State Historic Preservation Office(r)
SI	site investigation
SIP	state implementation plan
SPCC	Spill Prevention, Control, and Countermeasure Plan
SS	Support Services (District)
SW	southwest
SWP3	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCP	Traditional Cultural Property

TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
tpy	ton per year
TWDB	Texas Water Development Board
UFC	Unified Facilities Criteria
US	United States
US-90	United States Highway 90
USACE	United States Army Corps of Engineers
USC	United States Code
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council
UST	Underground Storage Tank
UU/UE	unlimited use/unrestricted exposure
UXO	unexploded ordinance

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CHAPTER 1 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The United States (US) Air Force (Air Force) 502d Air Base Wing (ABW) at Joint Base San Antonio (JBSA) proposes to implement installation development projects at JBSA, Randolph (JBSA-RND). The proposed projects were recommended in the *Support Services Area Development Plan* and *Flight Operations Area Development Plan* (Air Force, 2019a, 2019b) as necessary to maintain, improve, and modernize JBSA-RND in the short term. As required by Air Force Instruction (AFI) 32-1015*, Integrated Installation Planning*, area development plans (ADPs) inventory and evaluate the real property assets of an installation at a planning district level. ADPs also analyze constraints to development and establish short-, mid-, and long-term phases of development over a 20-year timeframe. JBSA-RND contains two geographic areas that are subject to an ADP: the Support Services (SS) District and Flight Operations (FO) District. The proposed development projects were selected from the short-term phase of the ADPs for implementation within the next approximately 5 years, from 2023 to 2027. This Environmental Assessment (EA) evaluates the potential environmental, cultural, and socioeconomic effects of the proposed ADP projects at JBSA-RND. The individual ADP projects are further described throughout this EA and collectively referred to as the "Proposed Action."

This EA is prepared in accordance with the *National Environmental Policy Act of 1969*, as amended (42 *United States Code* [USC] § 4321 et seq.) (NEPA); the Council on Environmental Quality (CEQ) NEPA regulations (40 *Code of Federal Regulations* [CFR] Parts 1500–1508); and the Air Force NEPA regulations at 32 CFR Part 989, *Environmental Impact Analysis Process (EIAP)*. Per the updated CEQ NEPA regulations, this EIAP complies with the prescriptive timeline and page limits for an EA. Other applicable provisions of 40 CFR Parts 1500–1508 are cited below. EIAP informs decision-makers, regulatory agencies, and the public about an Air Force proposed action before any decision is made on whether to implement the action. During the EIAP, if analyses in the EA determine that potential significant adverse effects would be likely to occur, the Air Force would publish a Notice of Intent (NOI) in the *Federal Register* to prepare an Environmental Impact Statement (EIS).

The CEQ NEPA regulations at 40 CFR § 1500.1(b), 40 CFR § 1506.6(b) and (c), and 40 CFR § 1507.4 provide purpose and direction for streamlining the NEPA process. CEQ memoranda (e.g., March 6, 2012) and guidance on modernizing the NEPA process (CEQ, 2003) identify opportunities to streamline the NEPA process, including the use of technology for communications and information dissemination. This EA satisfies the requirements of NEPA in accordance with the CEQ regulations and promotes NEPA streamlining through the implementation of the Air Force EIAP. To render this document more concise, links are provided to online data sources to which the reader can refer for more information. Should the reader not have internet access, please contact the Air Force point of contact listed on the **Cover Sheet** of this EA and accommodations will be made to provide printed copies of relevant information requested.

1.2 JOINT BASE SAN ANTONIO

A main objective of the Department of Defense (DoD) joint basing program is to combine the support functions of two or more DoD installations that are in close proximity to one another. JBSA was formed in 2010, merging the support functions of three geographically separate installations in and around the city of San Antonio, Texas (**Figure 1-1**). This joint basing action brought Lackland Air Force Base (AFB), Randolph, and Fort Sam Houston (formerly an Army Base) under the management of the 502 ABW. Camp Bullis, an Army training camp under Fort Sam Houston, also became part of the Joint Base. JBSA is currently the single largest entity in the DoD, accomplishing diverse missions such as training, flying, medical, cyber, and intelligence.

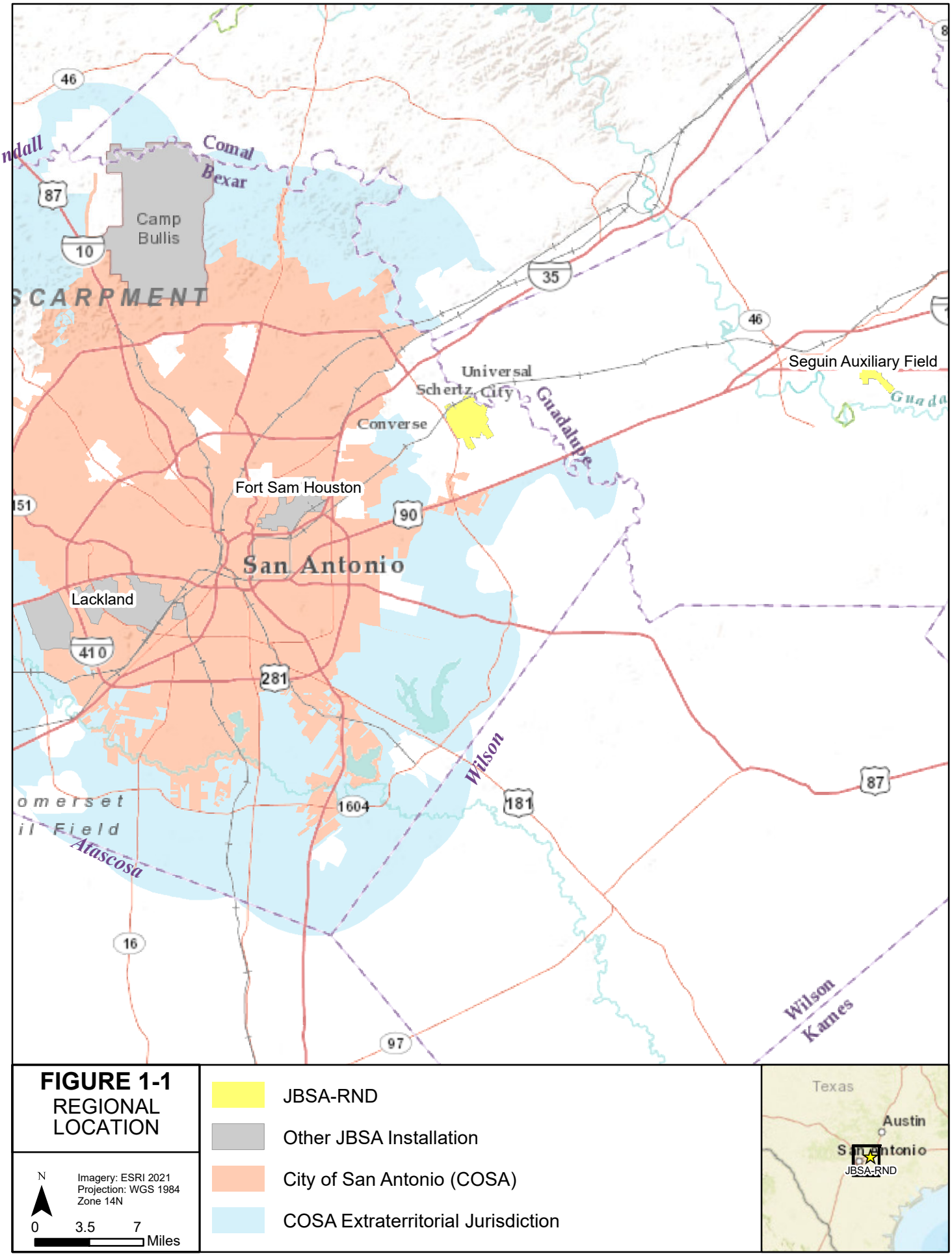


FIGURE 1-1
REGIONAL LOCATION

JBSA-RND

Other JBSA Installation

City of San Antonio (COSA)

COSA Extraterritorial Jurisdiction

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 3.5 7 Miles

1.2.1 Integrated Installation Planning

Department of Defense Instruction (DoDI) 4165.70, *Real Property Management* and Unified Facilities Criteria (UFC) 2-100-01, *Installation Master Planning,* prescribe the minimum requirements for development planning on military installations. AFI 32-1015 describes and implements the development planning process for Air Force installations.

The *Joint Base San Antonio Installation Development Plan* (IDP), or "Master Plan" as defined in DoDI 4165.70, outlines a future vision for JBSA activities over the next 25 years. The IDP also sets forth a "blueprint" for the future development of JBSA regionally. While development must conform to the IDP, ADPs require more detailed planning on a smaller scale. **Figure 1-2** depicts the planning elements combined and consolidated by the IDP, including the ADP.

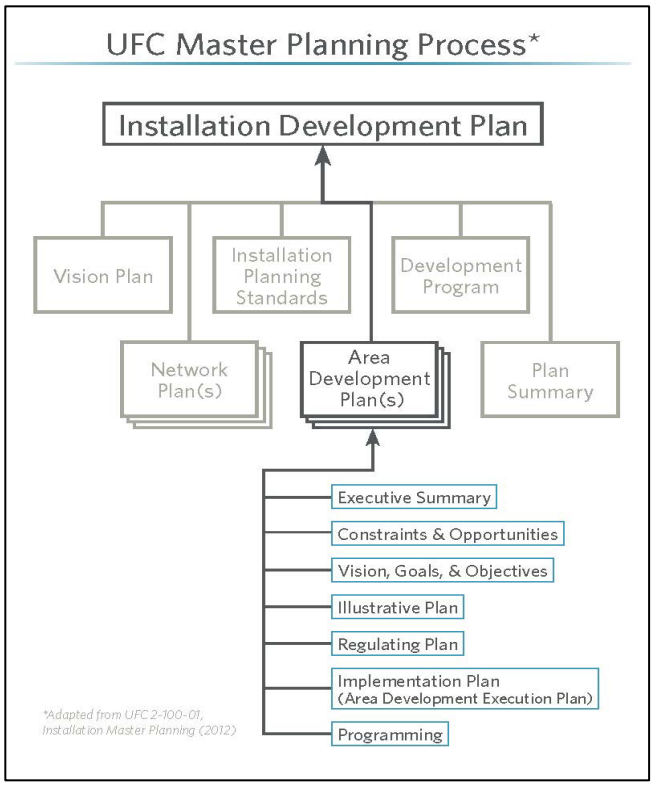


Figure 1-2 UFC Master Planning Process

1.3 JOINT BASE SAN ANTONIO, RANDOLPH

JBSA-RND is situated between Interstate 10 (I-10) and I-35, approximately 14 miles northeast of downtown San Antonio, Texas. The 2,900-acre Base is surrounded by the jurisdictions of Universal City, Converse, and Schertz, Texas, to the north, west, and east, respectively. Established in 1931, the Base's present-day mission remains much the same, supporting more than 200,000 flight operations each year. Nearly 12,000 active, reserve, and civilian personnel and their dependents reside on JBSA-RND. Seguin Auxiliary Airfield (SAF) is a sub-installation of JBSA-RND, located 30 miles to the east near the city of Seguin, Texas. Situated along the I-10/US Highway 90 (US-90) corridor, SAF provides additional mission support and capacity for JBSA-RND's instructor pilot training programs.

JBSA-RND operates two runways designed to support large, heavy, and high-performance aircraft. Located on opposite sides of the Base, the runways are flanked by mission support functions that make up the interior portion of JBSA-RND. The 12th Flying Training Wing (12 FTW), composed of three flying groups and a maintenance group, conducts pilot instructional training at JBSA-RND. The 12 FTW also administers training programs for remotely operated platforms, combat systems, and sensor operations. Additionally, JBSA-RND is the headquarters location of the Air Education and Training Command (AETC) and Air Force Personnel Center.

Figure 1-3 depicts the JBSA-RND Planning Districts. Despite its geographic separation from JBSA-RND, SAF is incorporated into the FO District due to its mission support function. **Sections 1.3.1** and **1.3.2** briefly describe the districts in more detail.

1.3.1 Support Services

The SS District is 653 acres—23 percent of total land area on JBSA-RND. The district includes the non-flight areas of the Base and is bounded on three sides by the FO District. Land use in the SS District is characterized by the administrative, headquarters, and community support functions of the Base, including housing for its permanent resident population. However, some mission-related functions are in the SS District, most along its periphery to the northeast and southwest.

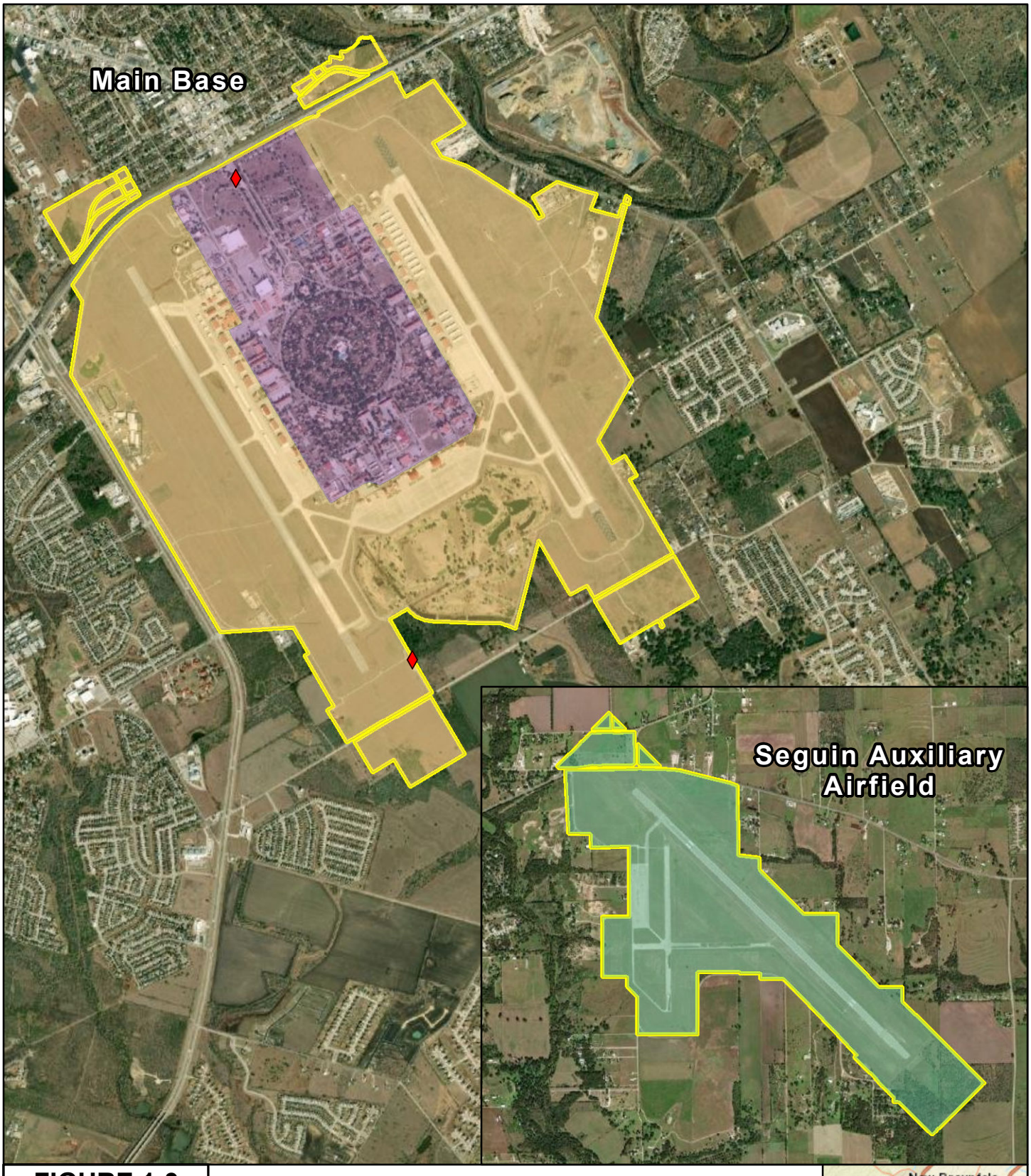


FIGURE 1-3
JBSA-RND PLANNING DISTRICTS

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.25 0.5 Miles

JBSA-Randolph

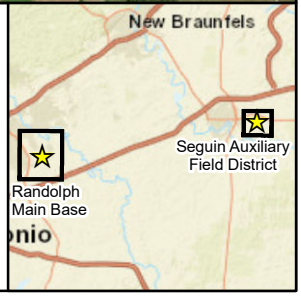
Entry Control Point

Planning Districts

Flight Operations

Support Services

Seguin Auxiliary Field



1.3.2 Flight Operations

The FO District is 2,223 acres—77 percent of total land area on JBSA-RND. To support more than 225,000 flight operations per year, most land in this district is dedicated to runways, aprons, ramps, and other operational support infrastructure. The runways orient flight operations to/from the district to the northwest and southeast of the Base. Facilities in the FO District are oriented to the airfield based on their operational support function (e.g., air traffic control, maintenance, and parking). The Randolph Oaks Golf Course is on the southeastern portion of the FO District.

Situated along the I-10/US-90 corridor, SAF is a 956-acre training field with a runway, taxiway, ramp, and fire station. Because SAF is not equipped for air traffic control, two manned runway supervisory units observe and monitor the airspace for safety control during flight operations. SAF is primarily used for "touch-and-go" operations but accommodates flight training exercises. The airfield is also used intermittently by the Federal Emergency Management Agency and Defense Logistics Agency for disaster response support.

1.4 PURPOSE AND NEED OF THE ACTION

The following sections describe the purpose of and need for the Proposed Action at JBSA-RND. Because of the unique geographic and functional relationships between the SS District and FO District and SAF's mission support function, **Sections 1.4.1** and **1.4.2** contextualize the Proposed Action from the perspective of the Installation or Planning District, as appropriate. In describing the purpose and need, references to JBSA-RND or the FO District are inclusive of the SAF.

1.4.1 Purpose of the Action

The **purpose** of the Proposed Action at JBSA-RND is to develop, improve, and maintain JBSA-RND to accommodate future mission growth. JBSA-RND performs a critical task for the Air Force and other DoD components in training pilots to fly, maneuver, operate, and maintain aircraft in preparation for deployment. For continued mission success, the Base must be modernized to be more efficient and provide the necessary mission support capabilities to train pilots and others involved in air operations (Air Force, 2020a). The future development of JBSA-RND must also retain the unique characteristics of the Base and ensure land use that is compatible, connected, safe, and secure.

A secondary **purpose** of the Proposed Action is to develop JBSA-RND in a manner that provides flexibility to meet future mission requirements, some of which are not yet known. The Proposed Action must be consistent with the planning processes and principles of AFI 32-1015. Development plans for JBSA-RND need to consider and evaluate limiting factors such as space, natural and cultural resources, and operational standards or requirements. The Proposed Action would accomplish these objectives in the short term by implementing the selected projects at JBSA-RND and SAF from approximately 2023 to 2027, consistent with the *Support Services Area Development Plan* and *Flight Operations Area Development Plan* (Air Force, 2019a, 2019b).

1.4.2 Need for the Action

The Proposed Action is **needed** to address the condition and capability of facilities and infrastructure at JBSA-RND. Many buildings and infrastructure systems are outdated and in poor condition; others lack the functionality required to accomplish the mission. These real-property assets require maintenance, renovation, expansion, or replacement to sustain current operational levels and support future mission expansion. The Proposed Action would begin to address these deficiencies by implementing the selected projects in the short term.

The Proposed Action is also **needed** to improve the connectivity and function between the SS District and FO District of JBSA-RND. The amount of developable land on JBSA-RND is limited by various constraints. The Proposed Action is necessary to consolidate missions and use space more efficiently. As required by AFI 32-1015, the Proposed Action would chart a more flexible, phased approach for the future development

of JBSA-RND by implementing the selected short-term projects in a strategic, orderly, efficient, and sustainable manner.

1.5 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The Air Force NEPA regulations at 32 CFR § 989.11 require an assessment of potential environmental impacts for Air Force projects recommended in a comprehensive plan such as an ADP. In accordance with 40 CFR § 1501.3, the Air Force determined the appropriate level for this analysis is an EA. An EA is a concise public document that briefly discusses the purpose and need, alternatives, and potential environmental impacts of a proposed federal action. It aids in agency planning and decision-making, or facilitates the preparation of an EIS, as necessary (40 CFR § 1501.5).

This EA evaluates the potential environmental consequences of implementing the Proposed Action and Alternatives for short-term (i.e., from 2023 to 2027) ADP projects at JBSA-RND and SAF. This EA serves as a basis for the Air Force to determine whether the selected ADP projects—individually or cumulatively—would result in a significant impact on the human environment.

If the EA determines that potential impacts would be less than significant, the Air Force would select an alternative to implement and document its decision by issuance of a Finding of No Significant Impact (FONSI). If the EA determines that potential impacts would or likely would be significant, the Air Force would announce its intent to prepare an EIS or choose to take no action. In lieu of preparing an EIS, the Air Force may also "mitigate" potentially significant environmental impacts found during preparation of an EA to less-than-significant levels. Any required and agreed upon mitigation for this purpose would be documented in the FONSI. Should the Proposed Action and Alternatives affect floodplains or wetlands subject to Executive Order (EO) 11988, *Floodplain Management*, or EO 11990, *Protection of Wetlands* (see **Section 1.8.1**), the Air Force would also prepare a Finding of No Practical Alternative.

AFI 32-1015 requires a flexible approach to planning the future development of Air Force installations. Accordingly, the scope of this EA is designed for that purpose. The Air Force may decide to implement the full scope of the Proposed Action or implement a reduced scope of the Proposed Action. The ability to evolve and adapt the scope of the Proposed Action during the EIAP is necessary to address planning, design, and funding uncertainty associated with the Proposed Action. This decision-making flexibility is also needed to implement the Proposed Action in compliance with applicable environmental laws and regulations. For example, should one or more individual ADP project(s) require further environmental review, other ADP projects included in the Proposed Action could move forward to comply with NEPA.

This EA addresses the potential effects of the Proposed Action and Alternatives on resource areas subject to potential impacts. **Chapter 3** presents information on the existing conditions of each resource area, includes the environmental impacts analysis, and, when appropriate, recommends best practices and mitigation measures. In accordance with 40 CFR § 1502.15, the existing conditions presented in **Chapter 3** also describe other relevant trends and planned actions, if any, in area(s) that could be affected by the Proposed Action and Alternatives, now or in the future. Accordingly, the impact analyses in **Chapter 3** consider the cumulative impacts of the Proposed Action in conjunction with other past, present, and reasonably foreseeable environmental trends and actions at BUL-RND within each resource-specific study area. Resource areas eliminated from further, more detailed analysis, as well as the rationale for eliminating those resource areas, are presented in **Section 3.2**.

1.6 DECISIONS TO BE MADE

The decision to be made is whether to implement the Proposed Action. Should the Air Force choose to implement the Proposed Action, this EA will assist in determining an appropriate scope of action to minimize potential adverse environmental impacts and allow for additional, project-specific environmental review in compliance with NEPA. The decision-making framework for this EA is described as follows:

- Do not implement the Proposed Action.

- Implement the Proposed Action as documented in a FONSI for this EA and, when appropriate, via categorical exclusion (CATEX) [1] as defined in 32 CFR Part 989, Appendix B.
- Implement a reduced scope of the Proposed Action as documented in a FONSI for this EA and, when appropriate, via CATEX as defined in 32 CFR Part 989, Appendix B.
- Publish a NOI in the *Federal Register* to prepare an EIS for the Proposed Action or one or more ADP project(s).

Should the Air Force decide to implement the Proposed Action as noted above, this EA will identify any actions the Air Force would commit to undertake to minimize environmental effects and comply with NEPA.

1.7 ENVIRONMENTAL IMPACT ANALYSIS PROCESS

NEPA requires federal agencies to consider the potential environmental impacts of their proposed actions on the human and natural environment. The EIAP implements Air Force compliance with NEPA in accordance with the CEQ NEPA regulations and guidance.

1.7.1 Interagency and Intergovernmental Coordination and Consultation

Interagency and intergovernmental coordination for environmental planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding a federal proposed action. The Air Force complies with the IICEP mandate through the scoping[2] process (40 CFR § 1501.9) and public involvement (see 40 CFR § 1506.6 and **Section 1.7.2** of this EA). The Air Force sent scoping letters dated 17 March 2022, concerning the Proposed Action and Alternatives to government agencies. Agency responses to the scoping letters are summarized as follows:

- Texas Commission on Environmental Quality (TCEQ) – 11 April 2022
- Texas Parks & Wildlife Division (TWPD) – 14 April 2022
- U.S. Army Corps of Engineers (USACE) – 27 May 2022

A list of agencies that received scoping letters and copies of IICEP correspondence are provided in **Appendix A**.

1.7.2 Public and Agency Review

The intent of this EA is to inform decision-makers and the public of the potential environmental effects of the Proposed Action and Alternatives prior to making a federal decision to move forward with any Alternative. This allows the Air Force to make a fully informed decision, aware of any potential environmental effects. Overall, this EA:

- documents the NEPA process or EIAP;
- provides an opportunity for the public, regulatory agencies, and Native American Tribes to participate in the Air Force's decision-making process; and
- considers input on the possible environmental effects of the Proposed Action and Alternatives, including methods to reduce such effects.

The Air Force invites the public and other interested stakeholders to review and comment on this EA. Accordingly, a notice of availability of the Draft EA and Draft FONSI was published in the following local newspapers to commence a 30-day public comment period:

[1] A CATEX refers to a category of actions that do not individually or cumulatively have the potential for significant effects on the environment and, therefore, do not require further environmental analysis (32 CFR § 989.13).
[2] Scoping is a process for determining the scope of issues to be addressed and analyzed in a NEPA document.

- *The San Antonio Express News*
- *The San Antonio Business Journal*
- *The Northeast Herald*
- *Seguin Gazette*

The public comment period of the Draft EA and FONSI concludes on **[**XX MONTH**]** 2022. During the public comment period, the Draft EA and Draft FONSI are available for view or download online at: https://www.jbsa.mil/Resources/Environmental/. Additionally, printed copies of the Draft EA and Draft FONSI are available by request and placed at the following local libraries for review:

- San Antonio Public Library, 600 Soledad Street, San Antonio, TX
- Universal City Public Library, 100 Northview Drive, Universal City, TX
- Seguin Public Library, 313 W Nolte Street, Seguin, TX

The Final EA will address all substantive comments received on the Draft EA and Draft FONSI; written comments will be included as an appendix to the Final EA. If appropriate, the Air Force will subsequently issue a Final (signed) FONSI to comply with NEPA.

1.8 Integration of Other Environmental Statutes and Regulations

This EA organizes separate, but related, environmental compliance requirements associated with the Proposed Action and Alternatives in a single compliance document. In accordance with NEPA and CEQ regulations, the Air Force addresses these requirements concurrently with the EIAP to the extent possible.

The Air Force is working closely with relevant federal, state, and local agencies, as well as federally recognized Native American Tribes, with purview over the Proposed Action. **Sections 1.8.1–1.8.4** summarize relevant environmental compliance requirements and their concurrency with this EA. Copies of relevant correspondence concerning these requirements are provided in **Appendix A**. These and other applicable environmental statutes and regulations are further described in **Chapter 3**.

1.8.1 Floodplain Management and Protection of Wetlands

EO 11988, *Floodplain Management*, directs federal agencies to determine whether a proposed action would occur within a floodplain and to avoid or minimize adverse impacts on floodplains. If an agency considers avoiding adverse impacts on a floodplain and determines that no practicable alternative to undertaking the action is feasible, EO 11988 requires minimizing impacts by design or modification. In such cases, agencies must also prepare and circulate a notice to explain how avoidance was not practicable and describe minimization measures. The planning and evaluation steps required by EO 11988 also apply to EO 11990, *Protection of Wetlands*, a similar directive requiring federal agencies to avoid or minimize adverse impacts on wetlands. As applicable, this EA documents Air Force compliance with EOs 11988 and 11990.

To comply with the EOs noted above, the Air Force placed an early public notice (EPN) in the San Antonio Express News (11 and 12 March 2022) and San Antonio Business Journal (11 March 2022) regarding the Proposed Action and its potential to affect floodplain and wetland resources on JBSA-RND (**Appendix B**). No public comments in response to the EPN were received.

1.8.2 Historic Preservation

Section 106 of the *National Historic Preservation Act* (54 USC § 300101 et seq.) (NHPA) requires that federal agencies consider the potential effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. This EA assists the Air Force in identifying relevant or interested consulting parties and initiates the Section 106 process for the proposed undertaking concurrent with the NEPA process.

The Air Force uses scoping to determine an appropriate level of analysis for potential effects on cultural resources, including historic properties. This EA is also used to document the Air Force's compliance with Section 106, as follows:

1. Determine if the Proposed Action, or elements of the Proposed Action, would potentially affect historic properties or sites.

2. Determine the area of potential effect (APE) for any affected historic properties or sites, as appropriate.

3. Consult with the State Historic Preservation Office (SHPO) and other relevant or interested parties to establish an appropriate level of effort for gathering additional information by inventory or investigation within the APE.

If no historic properties are identified or are present but would not be affected, this EA would be used to provide a "no historic properties affected" finding to the SHPO and other consulting parties for review.

1.8.3 Federally Recognized Tribal Governments

Numerous federal laws, regulations, policies, and directives protect the rights of indigenous communities and resources that preserve their heritage, culture, or religious beliefs. These include the NHPA, NEPA, *Native American Graves Protection and Repatriation Act* (25 USC § 3001 et seq.), and more recent federal policy directives.[3] DoDI 4710.02, *DOD Interactions with Federally Recognized Tribes*, describes and implements the DoD policy for engaging with tribal governments.

In accordance with Department of Air Force Instruction (DAFI) 90-2002, *Interactions with Federally Recognized Tribes*, the Air Force engages with federally recognized Native American Tribes that have potential historic or cultural affiliations to installation lands or lands under managed airspace. As part of the scoping process for this EA, the Air Force identified federally recognized Native American Tribes with a potential interest in the Proposed Action and Alternatives. Those Tribes that expressed an interest in the Proposed Action were invited to participate in this EIAP and as consulting parties under Section 106 of the NHPA.

The Air Force sent scoping letters concerning the Proposed Action and Alternatives to three federally recognized Native American Tribes: The Comanche Nation, Oklahoma; the Mescalero Apache Tribe of the Mescalero Reservation; and the Tonkawa Tribe of Oklahoma. Copies of tribal government correspondence are included in **Appendix A**.

1.8.4 Endangered Species Act

Section 7 of the *Endangered Species Act* (16 USC § 1531 et seq.) (ESA) requires federal agencies to consider the potential impacts of their proposed actions on ESA-listed threatened and endangered species or habitat considered essential to their recovery, otherwise defined and designated as "critical habitat" under the ESA.

As all formal consultations under ESA, Section 7, must be completed prior to the issuance of a NEPA decision document, federal agencies must consult with the US Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration, as applicable, for actions that may affect federally listed threatened and endangered species or their critical habitat. This EA is aligned with informal consultation under ESA, Section 7, for possible effects of the Proposed Action and Alternatives on threatened or

[3] For example, Presidential Memorandums on *Tribal Consultation and Strengthening Nation-to-Nation Relationships* (26 January 2021); *Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking* (27 January 2021); and *Indigenous Traditional Ecological Knowledge and Federal Decision Making* (15 November 2021).

endangered species known or with potential to occur at JBSA-RND; no ESA-designated critical habitat is present on the JBSA-RND.

By letter dated 17 March 2022, the Air Force informed the USFWS about the Proposed Action and Alternatives.

On 13 July 2022, the Air Force initiated Section 7 consultation under the ESA for the Proposed Action using the USFWS' Information for Planning and Consultation (IPaC) tool. Basic information concerning the location and nature of the projects included in the Proposed Action was input into IPaC to obtain an official species list from the USFWS (**Appendix A**). The list identified threatened and endangered species and other protected species (e.g., migratory birds) with potential to be affected by the Proposed Action. This information was reviewed and incorporated into this EA where applicable.

1.9 APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS

Other laws and regulations applicable to the Proposed Action include, but are not limited to:

- *Clean Water Act* (33 USC § 1251 et seq.)
- *Resource Conservation and Recovery Act* (42 USC § 6901 et seq.)
- Section 438 of the *Energy Independence and Security Act* (Public Law 110-140)
- *Comprehensive Environmental Response, Compensation, and Liability Act* (42 USC § 9601 et seq.)
- Federal *Clean Air Act* (42 USC § 7401 et seq., as amended)
- *Migratory Bird Treaty Act* (16 USC § 703 et seq.)
- *Toxic Substances Control Act* (15 USC § 2601 et seq.)
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994)
- EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (1997), as amended by EO 13296 (2003)

CHAPTER 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The ADP projects defined as the Proposed Action were selected based on a reasonable likelihood that each would receive funding and could be implemented within approximately 5 years. Most of these projects were conceived prior to the ADP planning phases that concluded in 2019. Project plans continued to evolve through the ADP phase to present day in accordance with AFI 32-1015. More recently, the Air Force determined these projects to be of a higher priority and ready for environmental review (40 CFR § 1502.5). These development actions and real-property improvements would be incorporated into the Proposed Action to support JBSA-RND's military mission in the short term. This EA also considers potential effects of mid- and long-term projects put forth by the ADPs.

The ADP projects encompassed by the Proposed Action vary in *context* and *intensity* from new construction, expansion, and demolition actions to repairs, renovations, and upgrades. The order, timing, and duration of the individual ADP projects would be determined, in part, by this EA. To provide a more comprehensive accounting of potential environmental effects for the multiple types of actions under the Proposed Action, this EA classifies the ADP projects into three categories:

- **Construction** projects include new development and redevelopment for expansion of the existing built environment, including new buildings, building additions, and new or expanded infrastructure for operational support (e.g., parking and utilities).
- **Demolition** projects include the temporary or permanent removal of existing buildings and structures in support of new development or redevelopment, or to provide future land use flexibility.
- **Infrastructure** projects address deficient components of the existing built environment through repair, renovation, maintenance, or improvement actions. Infrastructure projects range from routine management actions (e.g., road, sidewalk, or utility system repairs or maintenance activities) to renovation or modernization of buildings for continued mission support.

As defined, the project categories (see **Tables 2-1**–**2-3** below) provide a framework for analysis in the EA.

2.2 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action would implement a total of **27** short-term development actions and real-property improvements on JBSA-RND and SAF from approximately 2023 to 2027. Of this total, **15** projects would involve construction or demotion and **12** would involve infrastructure actions.

As part of the ADP phasing plans, the Proposed Action would incorporate the associated planning considerations, as required by AFI 32-1015. For example, the Proposed Action would adhere to development standards for siting the new facilities and regulate design parameters such as height, scale, and orientation. Because the ADP conforms to the IDP, the Proposed Action would also incorporate elements of the IDP. When appropriate, the standards and component plans of the ADP and IDP are discussed and referenced throughout this EA.

The planning principles set forth in AFI 32-1015, and included in the IDP and ADP, are also incorporated into the Proposed Action by design. These principles set objectives for sustainable development, including guidelines and requirements for land, water, and energy conservation. Standards and requirements common to the "planning, design, construction, sustainment, restoration, and modernization of DoD-owned facilities" are included in the Proposed Action, as applicable.[4] These standards and requirements include:

[4] The UFC Program develops, maintains, and organizes all technical criteria and guide specifications for the DOD.

- UFC 1-200-02, *High Performance and Sustainable Building Requirements* (2016, as updated), and UFC 3-210-10, *Low Impact Development* (2015, as updated), in accordance with *Guiding Principles for Sustainable Federal Buildings and Associated Instructions* (CEQ, 2020) and implemented by AFI 32-1023, *Designing and Constructing Military Construction Projects*, and the Air Force Corporate Facilities Standards.
- US Green Building Council (USGBC) or Green Building Initiative (GBI) certification for applicable projects as required by the *Air Force Sustainable Design and Development Implementing Guidance Memorandum* (Air Force Civil Engineer Center [AFCEC], 2017; Air Force, 2011). Applicable projects include:
  - New buildings larger than 5,000 square feet (sf) with construction costs greater than $3 million; and
  - Building renovations of more than 5,000 sf with construction costs greater than $3 million and an estimated 50-percent replacement cost.

Under the Proposed Action, USGBC- or GBI-certified projects would meet the federal sustainability requirements as detailed in UFC 1-200-2. Green building designs and practices would also be incorporated into all other ADP projects (i.e., below the thresholds noted above) to the extent practicable.

As components of the IDP, Installation facility standards and Installation-wide plans, such as those for transportation, energy, and natural and cultural resources management, implement these design and development standards and requirements at the Base level (Air Force, 2018a, 2018b). Those measures that serve to prevent or reduce adverse environmental impacts are incorporated into the Proposed Action by design and described in this EA, where appropriate.

Tables 2-1 and **2-2** list the projects included in the Proposed Action at JBSA-RND. These projects are shown on **Figure 2-1**. **Table 2-3** lists the projects included in the Proposed Action at SAF. These projects are shown on **Figure 2-2**.

Table 2-1
List of Proposed Construction and Demolition Projects at JBSA-RND

Map ID[a]	Project	Approx. Size or Footprint[b]
Flight Operations District		
C1	Add field-level repair facility in H-7.	29,460
D2	Demolish B-1040 (clinic) parking lot in the NW airfield CZ.	-56,223
D3	Demolish existing CATM in the SW airfield CZ.	-5,124
C4/D4	Construct an east ACP gate outside the airfield CZ, including a guard house, sentry booths, and entry lanes; demolish existing east ACP gate.	4 ac
C5/D5	Construct a new west ACP gate system with LVIP and road behind the school; demolish existing south ACP gate.	6 ac
C6	Construct a reinforced access road between the east runway and East Perimeter Road.	30,000
D7	Remove athletic fields and demolish their associated buildings and infrastructure in the NE CZ.	199,122
Support Services District		
C8	Construct a Child Development Center.	28,835
C9	Construct a consolidated MSC for CE.	194,246 -26,167

Map ID[a]	Project	Approx. Size or Footprint[b]
C10	Construct a multi-purpose service station with fuel pumps.	8,250
C11	Construct addition to RPA medical administrative facility (i.e., flight surgeon).	33,639
C12/D12	Relocate Eberle Park to Heritage Park by demolition of six buildings (B-1180, B-1181, B-1183, B-1184, B-1185, B-1187); remove trees and return area to grass.	300,000

Notes:
a Numeric Map IDs correspond with **Figure 2-1**.
b Approximate size in square feet unless note otherwise.
ac = acre(s); ACP = Access Control Point; B = Building (e.g., Building 1040 is B-1040); C = construction project; CATM = Combat Arms Training and Maintenance; CE = Civil Engineering; CZ = Clear Zone; D = demolition project; H = Hangar (aircraft); LVIP = large vehicle inspection point; MSC = Mission Support Complex; NW = northwest; RPA = Remotely Piloted Aircraft; SW = southwest

Table 2-2
List of Proposed Infrastructure Projects at JBSA-RND

Map ID[a]	Project	Approx. Size or Footprint[b]
Flight Operations District		
I1	Realign golf course to clear trees and remove brush along the South Gate perimeter fence line for operational safety.	84,213
I2	Renovate MTC H-62.	18,940
I3	Repair west runway, including drainage improvements.	3,000,000
I4	Pave/resurface the east and south taxiway shoulders.	126,000
Support Services District		
I5	Renovate B-675.	65,274
I6	Right-size transportation facilities and hardstand; make vehicle maintenance improvements.	-
I7	Make road, safety, and parking improvements; create a transit route and construct transient stops.	54 mi
I8	Repurpose Arts and Crafts for CE Complex.	15,059
I9	Renovate B-663.	65,231
I10	Renovate B-494.	27,596

Notes:
a Alphabetic Map IDs correspond with **Figure 2-1**.
b Approximate size in square feet unless noted otherwise.
B = Building (e.g., Building 675 is B-675); CE = Civil Engineering; H = Hangar (aircraft); I = infrastructure project; mi = mile(s); MTC = Mission Training Complex

Table 2-3
List of Proposed Construction, Demolition, and Infrastructure Projects at SAF

Map ID[a]	Project	Approx. Size or Footprint[b]
Construction and Demolition		
C13	Secure Airfield with UFC-compliant fence	-
C14	Construct emergency access road with shoulders at Seguin Airfield.	200,000
C15/ D15	Demolish portions of the runway and taxiway; construct new shoulders.	12 ft (width)
Infrastructure		
I11	Repair/resurface Seguin Airfield apron to comply with UFC.	20 ac
I12	Renovate Flight Line Fire Station (B-415).	4.456

Notes:
a Alpha/Numeric Map IDs correspond with **Figure 2-2**.
b Approximate size in square feet unless noted otherwise.
ac = acre(s); B = Building (e.g., Building 415 is B-415); C = construction project; D = demolition project; I = infrastructure project; UFC = Unified Facilities Criteria

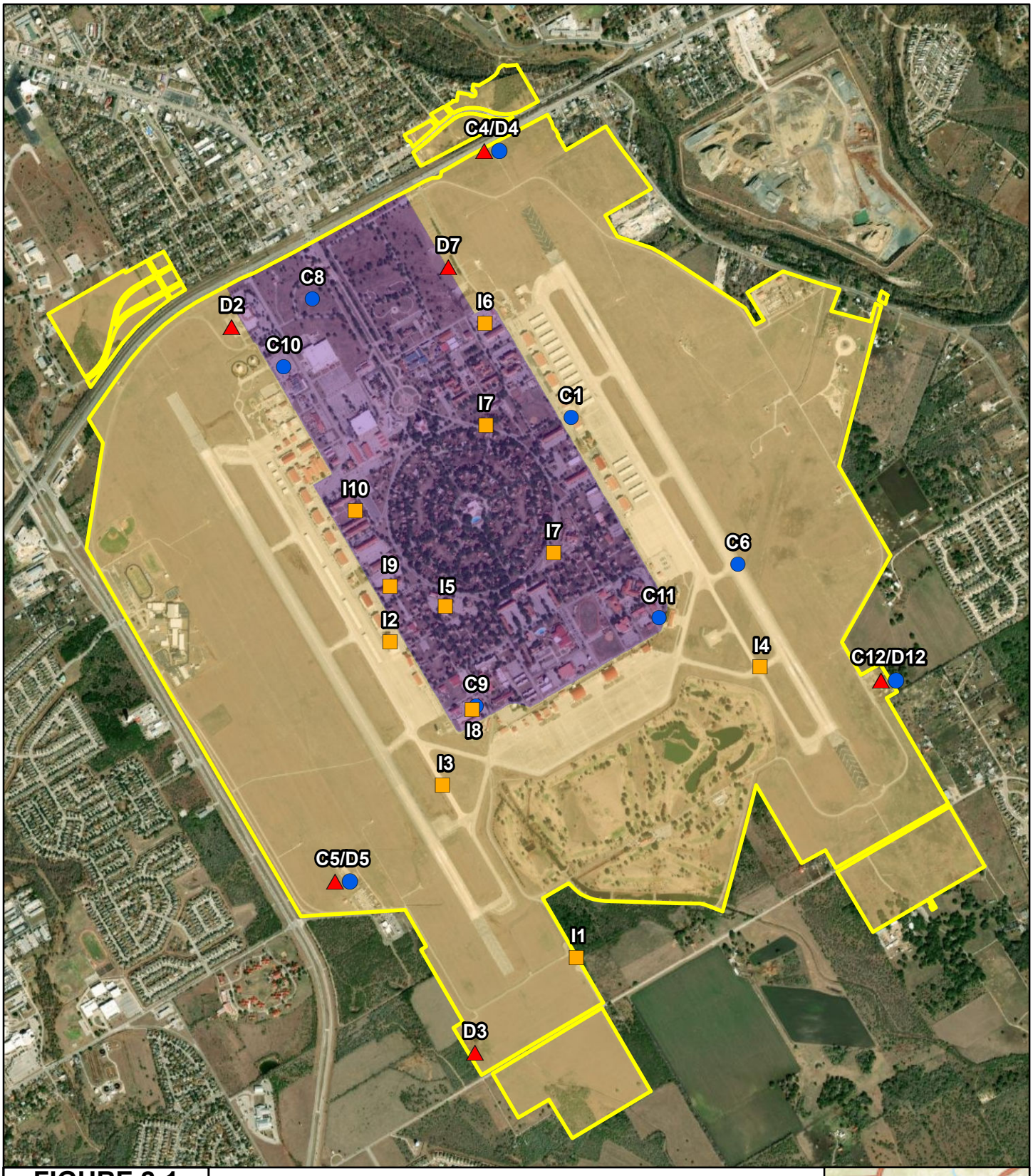


FIGURE 2-1
ADP PROJECTS UNDER THE PROPOSED ACTION – JBSA-RND

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.2 0.4 Miles

JBSA-Randolph

Proposed Project

- Construction
- Demolition
- Infrastructure

Flight Operations District

Support Services District

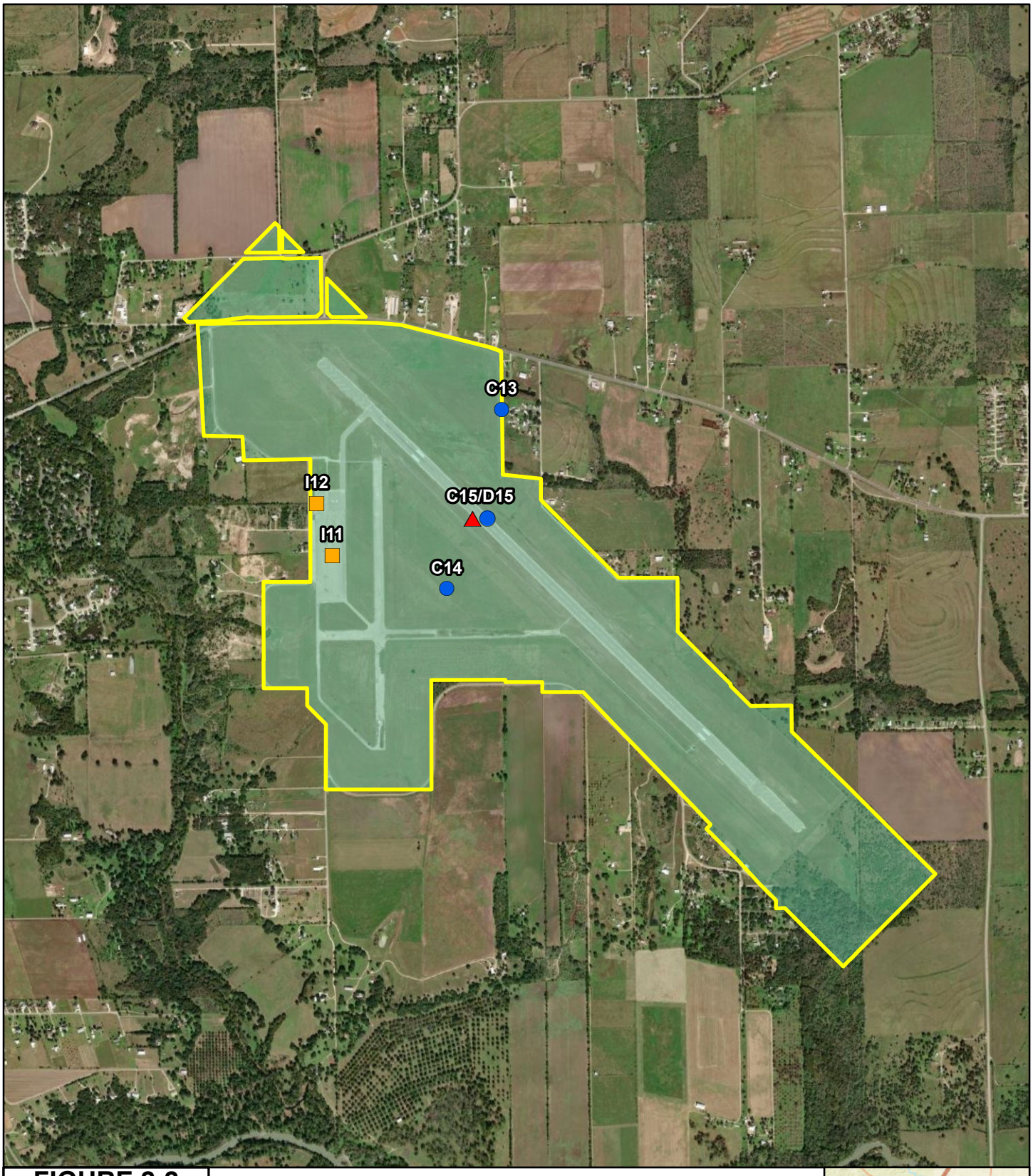


FIGURE 2-2
ADP PROJECTS UNDER THE PROPOSED ACTION – SAF

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.2 0.4 Miles

JBSA-Randolph

Seguin Auxiliary Field Planning District

Proposed Project

- Construction
- Demolition
- Infrastructure

2.3 ALTERNATIVES SCREENING PROCESS

NEPA requires federal agencies to objectively explore and evaluate all reasonable alternatives to the Proposed Action. Alternatives not found to be reasonable can be eliminated from detailed evaluation provided the EA or EIS includes a brief rationale for their elimination (40 CFR § 1502.14(a)).

2.3.1 Selection Standards for Alternative Screening

Consistent with 32 CFR § 989.8(c), the following selection standards meet the purpose of and need for the Proposed Action (see **Sections 1.4.1** and **1.4.2**) and were used to identify reasonable alternatives for analysis in this EA.

- **Mission –** Ensure the continued mission support capabilities of flight operations at JBSA-RND and SAF through targeted infrastructure investment, improvement, and maintenance.
- **Land Use –** Preserve developable land for future mission growth through more efficient and functional land use; consolidate mission and support functions into campus areas.
- **Safety –** Minimize aircraft interactions with vehicles and pedestrians by design. Comply with airfield safety criteria (e.g., remove obstructions) and ensure new development is compatible with flight operations.
- **Security –** Comply with applicable security/setback and access control requirements.
- **Community –** Enhance quality of life at JBSA-RND via infrastructure investments (e.g., safe, efficient, well-connected multimodal transport options) that also preserve its unique history and character.
- **Environmental –** Avoid adverse effects on sensitive or beneficial environmental resources to the extent practicable.
- **Sustainability –** Comply with federal and Air Force mandates for sustainable design and development.

Based on the screening criteria, the Air Force determined that only the Proposed Action (i.e., the full suite of proposed ADP projects) would meet the purpose and need.

Section 2.3.2 describes the alternatives considered but eliminated from detailed analysis as part of the ADP planning process. Additional, site-specific alternatives considered but eliminated from detailed analysis are briefly discussed in **Section 2.3.3**. **Section 2.3.4** describes the alternatives retained for more detailed analysis, including the No Action Alternative.

2.3.2 Alternatives Considered but Eliminated from Detailed Analysis

In 2019, as part of the ADP planning process, the Air Force evaluated alternatives to guide the future development of JBSA-RND, including SAF. Because of the unique design and layout of JBSA-RND, the Air Force conducted a single ADP workshop encompassing the entire Base. This multi-day workshop brought together key mission partners to identify the development program requirements for both the SS District and FO District of the Base. The workshop participants conducted an analysis to define the existing conditions of JBSA-RND and prepared a conceptual development plan to support the military mission.

The next phase of the ADP workshop identified possible development scenarios (i.e., alternatives) that would allow JBSA-RND to accomplish its mission-related and mission-support-related objectives. Participants used various constraints to the future development of JBSA-RND identified during prior analyses to screen the alternatives and identify those that would be subject to further evaluation. Through this process, multiple development scenarios or alternatives (hereafter, the alternatives) were considered and dismissed as being unable to meet current or future mission requirements. The workshop participants identified five alternatives for additional review and analysis.

The five alternatives, described below, encompass a range of development options that vary by scope, location, and potential impact. The latter was based upon the existing conditions and constraints to development previously identified.

- **Alternative 1 –** Focus on improvements to the airfield (i.e., FO District) and noncompliance with operational safety criteria. Remove all facilities from the airfield's clear zones in breach of these criteria and acquire land to prevent future encroachment therein. This alternative also includes construction of a new main gate complex with perimeter road access.
- **Alternative 2 –** Focus on the interior portions of JBSA-RND (i.e., SS District), including an area between the main gate and Building 100. Use infill development when practicable and address traffic patterns and congestion across the Base. This alternative also includes construction of new gate complexes (east and west) that comply with setback requirements.
- **Alternative 3 –** Redevelop the golf course as a new residential neighborhood using infill development when practicable. This alternative also includes construction of a new parking garage and administrative facilities.
- **Alternative 4 –** Redevelop the golf course as a mission-specific campus area using infill development when practicable. This alternative also includes roadway improvements and renovation of an elementary school.
- **Alternative 5 –** Prioritize and phase the future development of JBSA-RND based on specific mission and mission support requirements. This alternative incorporates and considers the development plans under Alternatives 1–4.

It was concluded that only Alternative 5 would allow JBSA-RND to sustain its mission over the long term.

Because the ADP projects under the Proposed Action are products of the ADP planning process, the alternatives screening and evaluation process described above is applicable to this EA.

2.3.3 Other Alternatives Considered but Eliminated from Detailed Analysis

Since publication of the two ADPs in 2019, in consultation with individual project proponents, the Air Force has continued to evaluate and consider alternatives for the ADP projects under the Proposed Action. Because development planning on military installations is a fluid process, **Appendix C** summarizes available, relevant information about the ADP projects from more recent studies and evaluations conducted at a project-specific level. For analysis purposes in this EA, this information is supplementary to the ADPs developed for JBSA-RND. **Chapter 3** of this EA also includes project-specific considerations based on the potential resource or resource area effects of the Proposed Action and Alternatives.

2.3.4 Alternatives Retained for Detailed Analysis

As described above, the Proposed Action is the only reasonable alternative that would meet the Air Force's purpose and need. Therefore, the Proposed Action is retained as an alternative for more detailed analysis in this EA, along with the No Action Alternative.

No Action Alternative

Under the No Action Alternative, the Air Force would not implement the ADP projects and JBSA-RND would continue to operate under current conditions. The facility and infrastructure assets of the Base would continue to degrade or become outdated. In the short term, flight training operations would continue at JBSA-RND in accordance with the status quo. Over time, the mission support capabilities of the Base would diminish along with its ability to support the future missions and requirements of its tenant activities.

While the No Action Alternative would not satisfy the purpose of and need for the Proposed Action, this alternative is retained to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under the CEQ regulations (40 CFR § 1502.14(c)). The No Action Alternative

reflects the status quo and serves as a benchmark against which the effects of the Proposed Action can be evaluated.

2.4 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Table 2-4 summarizes the potential impacts under the Proposed Action and No Action Alternative. The summary is based on information discussed in detail in **Chapters 3** and **4** of this EA and includes a concise definition of the issues addressed and the potential environmental impacts associated with each alternative.

Table 2-4
Summary of Environmental Consequences

Resource Area	Proposed Action	No Action Alternative
Land Use	No significant adverse effects on land use.	No effects on land use.
Air Quality	No significant adverse effects on air quality within San Antonio-New Braunfels MSA or Bexar County, Texas.	No effects on air quality.
Noise	No significant adverse effects on the noise environment around JBSA-RND.	No effects on the noise environment.
Earth Resources	No significant adverse effects on or from earth resources within JBSA-RND.	No effects on or from earth resources.
Water Resources	No significant adverse effects on water resources on or adjacent to JBSA-RND.	No effects on water resources.
Biological Resources	No significant adverse effects on biological resources on or around JBSA-RND.	No effects on biological resources.
Cultural Resources	No significant adverse effects on cultural resources.	No effects on cultural resources
Environmental Justice and Protection of Children	No significant adverse effects on disadvantaged minority or low-income populations of the San Antonio East CCD or Seguin CCD.	No effects on environmental justice, including children.
Infrastructure, Transportation, and Utilities	No significant adverse effects on utility or transportation infrastructure associated with JBSA-RND.	No effects on infrastructure, transportation, or utilities.
Hazardous Materials and Waste	No significant adverse effects on or from hazardous materials and waste on JBSA-RND or SAF.	No effect on hazardous materials and waste.
Safety	No significant adverse effects to flight and ground safety at JBSA-RND or SAF	No effect to flight and ground safety

CCD = Census County Division; MSA = metropolitan statistical area

CHAPTER 3 EXISTING CONDITIONS AND ENVIRONMENTAL CONSEQUENCES

This section describes the baseline resource conditions and environmental consequences of the Proposed Action and No Action Alternative.

The methodology used to analyze potential adverse effects that could result from the Proposed Action or No Action Alternative is briefly described in **Section 3.1**. Resources considered but dismissed from detailed analysis in this EA, including a brief justification for their dismissal, are discussed in **Section 3.2**. Resources carried forward for analysis are identified in **Section 3.3**. These resources are further described and analyzed in **Sections 3.4** through **3.15**.

3.1 FRAMEWORK FOR ANALYSIS

To provide a framework for the analyses in this EA, the Air Force defined a study area specific to each resource or sub-resource area. Referred to as a Region of Influence (ROI), these areas delineate a boundary where possible effects from the considered alternatives would have a reasonable likelihood to occur. Beyond these ROIs, potential adverse effects on resources would not be anticipated. For the purposes of analysis, potential effects are described as follows:

- **Beneficial –** positive effects that improve or enhance resource conditions.
- **Negligible –** adverse effects likely to occur but at levels not readily observable by evaluation.
- **Minor –** observable, measurable, tangible adverse effects qualified as below one or more significance threshold(s).
- **Significant –** obvious, observable, verifiable adverse effects qualified as above one or more significance threshold(s); not mitigable to below significance.

When relevant to the analyses in this EA, potential effects are further defined as direct or indirect; short- or long-term; and temporary, intermittent, or permanent.

To determine the potential for "significant" effects under the Proposed Action, the Air Force defined impact thresholds to support the analyses in this EA. Based upon the nature of the Proposed Action and the affected environment, both qualitative and quantitative thresholds were used as benchmarks to qualify effects that may require further Air Force management or mitigation. Further, each resource analysis section (i.e., **Sections 3.5–3.15**) concludes with a cumulative effects analysis considering the Proposed Action in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions at JBSA-RND.

On JBSA-RND, the Air Force considered reasonably foreseeable future actions to include the other development program recommendations put forth in the JBSA-RND ADPs for the Flight Operations District and Support Services District (Air Force, 2019a, 2019b) that have not yet been implemented at the Base. These include various short-, mid-, and long-term phase ADP projects not included in the Proposed Action. The Air Force also identified reasonably foreseeable environmental trends and planned actions external to JBSA-RND that could overlap in time and space with the Proposed Action to result in adverse cumulative effects. **Table 3-1** briefly describes the proposed or planned projects identified by review of available online data that could combine with the Proposed Action on a regional scale.

Table 3-1
Past, Present, and Reasonably Foreseeable Environmental Trends and Planned Actions

Name	Description	Timeframe	Approximate Distance from Base
Runway Airfield Maintenance and Rubber Removal	Maintenance to include spall repair, crack seal, crack repair, joint seal, patching, edge scraping, back fill stormwater washouts, clean out storm water grates, repaint existing marking, remove rubber in all touchdown zones	Completed	N/A
5th Street East Mill and Overlay	5th Street East mill and overlay in two sections. Mill 3 inches and overlay 3 inches. Repaint to local standards	Completed	N/A
B-100 TAJ Dome Tile Repair	Repair of the Taj Mahal building (B-100) dome roof to replace missing, cracked, broken, and surface-delaminated ceramic roof tiles on the dome roof	Active	N/A
T-7A Recapitalization	JBSA-RND to receive 72 T-7A aircraft and reduce T-38C Talon aircraft. EIS ROD signed 21 June 2022	Active	N/A
Bird/Wildlife Aircraft Strike Hazard Risk Mitigation	Habitat management implementation at JBSA-RND through reduction in tree and shrub density	Within 1 Year	N/A
Stormwater System Maintenance	Renovation of retention ponds on the south end of JBSA-RND near the golf course	Within 4 Years	N/A
SL 1604 – Expansion	Expansion of the four-lane divided roadway to a four-lane expressway from I-35 to Farm to Market 78 at the northwestern boundary of JBSA-RND	Within 1 Year	0.25 mi
SH 218 – Safety	Road safety improvements on SH 218 from I-35 to Aviation Blvd., stopping at the northern entrance to JBSA-RND	Within 4 Years	0.25 mi
County Commission Precinct 4 Facility – New Construction	Construction of a new 30,230 sf facility for the Precinct 4 constable, justice of the peace, a tax assessor/collector branch office, and a satellite office for the commissioner	Within 4 Years	0.25 mi
FM 1518 – Widening	Road widening along the eastern boundary of JBSA-RND	Within 4 Years	0.1 mi
US 90 – Safety	Road safety improvements along US-90 along the northern boundary of SAF	Within 4 Years	0.1 mi
Cimarron Subdivision – Natural Waterway Conveyance	Channel construction in and along West Salitrillo Creek to Martinez Dam No. 4	Within 4 Years	2.0 mi

Source: Air Force, 2022; County of Bexar [COB], 2022; JBSA, 2018, 2022; Texas Clear Lane, 2022; Texas Department of Transportation, 2022; VBX, 2021

3.2 RESOURCES ELIMINATED FROM DETAILED ANALYSIS

CEQ regulations state that federal agencies should "identify and eliminate from detailed study the issues which are not significant, or which have be en covered by prior environmental review" (40 CFR § 1506.3). Accordingly, the Air Force considered but eliminated from further analysis the following resources:

- **Airspace Management –** The Proposed Action would involve projects that would improve the surface and drainage features of the existing runways at JBSA-RND and SAF; however, these activities would not alter the current JBSA-RND airspace configurations. The frequency, tempo, and volume of current aircraft training and operations would not change.

- **Socioeconomics –** The Proposed Action would not increase the number of military personnel or training activities at JBSA-RND from the current state. During construction, minor, beneficial effects on local economic conditions would likely result from increased expenditures (e.g., procurement of construction materials and temporary jobs) and incidental spending. No adverse socioeconomic effects would be anticipated.
- **Coastal Zone Management –** JBSA-RND lies outside the jurisdiction of the federally approved Texas Coastal Zone Management Program.

3.3 RESOURCES CARRIED FORWARD FOR DETAILED ANALYSIS

Based on the results of internal and external scoping (see **Section 1.7**), the following resources were carried forward for analysis: land use; air quality; noise, earth, water, biological, and cultural resources; environmental justice and protection of children; infrastructure, transportation, and utilities; hazardous materials and waste, and safety. To provide context for the resource analysis sections, **Section 3.4** briefly describes the environmental setting on and around JBSA-RND.

3.4 ENVIRONMENTAL SETTING

The city of San Antonio is located centrally in Bexar County, Texas, with JBSA-RND located approximately 14.8 miles east-northeast of downtown San Antonio. SAF is located approximately 30 miles northeast of San Antonio, just outside of Seguin, Texas, within Guadalupe County; however, both Installations are part of the larger San Antonio-New Braunfels metropolitan statistical area.

The regional climate is typified by warm, temperate weather conditions. On average, temperatures range from 62 to 95 degrees Fahrenheit (°F) in the summer and from 39 to 74°F in the winter. Average annual precipitation is approximately 33 inches per year. Throughout the year, common weather conditions for San Antonio and the surrounding region include clear, sunny skies, and low wind speeds.

3.5 LAND USE

Land use describes the natural or developed condition of a given parcel of land or area and the type of functions and structures it supports. Land use designations vary by jurisdiction, but commonly used terms include residential, commercial, industrial, agricultural, and recreation/open space. Land use is typically guided and regulated by management plans, policies, regulations, and ordinances that determine the type and extent of land use allowable in specific areas, including specially designated or environmental conservation lands.

The ROI for land use includes JBSA-RND and all areas within 0.5 mile of the Base boundary.

3.5.1 Existing Conditions

As described in **Section 1.3**, JBSA-RND is divided into the SS District and FO District; the FO District includes SAF due to its mission support function despite its geographic separation from JBSA-RND (see **Figure 1-3**).

General land use goals for JBSA-RND include limiting development surrounding the Base that would otherwise interfere with Base operations, maintaining and continuing the missions and objectives of JBSA-RND and its training facilities, ensuring global readiness, and continuing to support community economics and growth (Air Force, 2018a). JBSA-RND contains 13 land uses across the main Base and SAF (**Figures 3-1** and **3-2**).

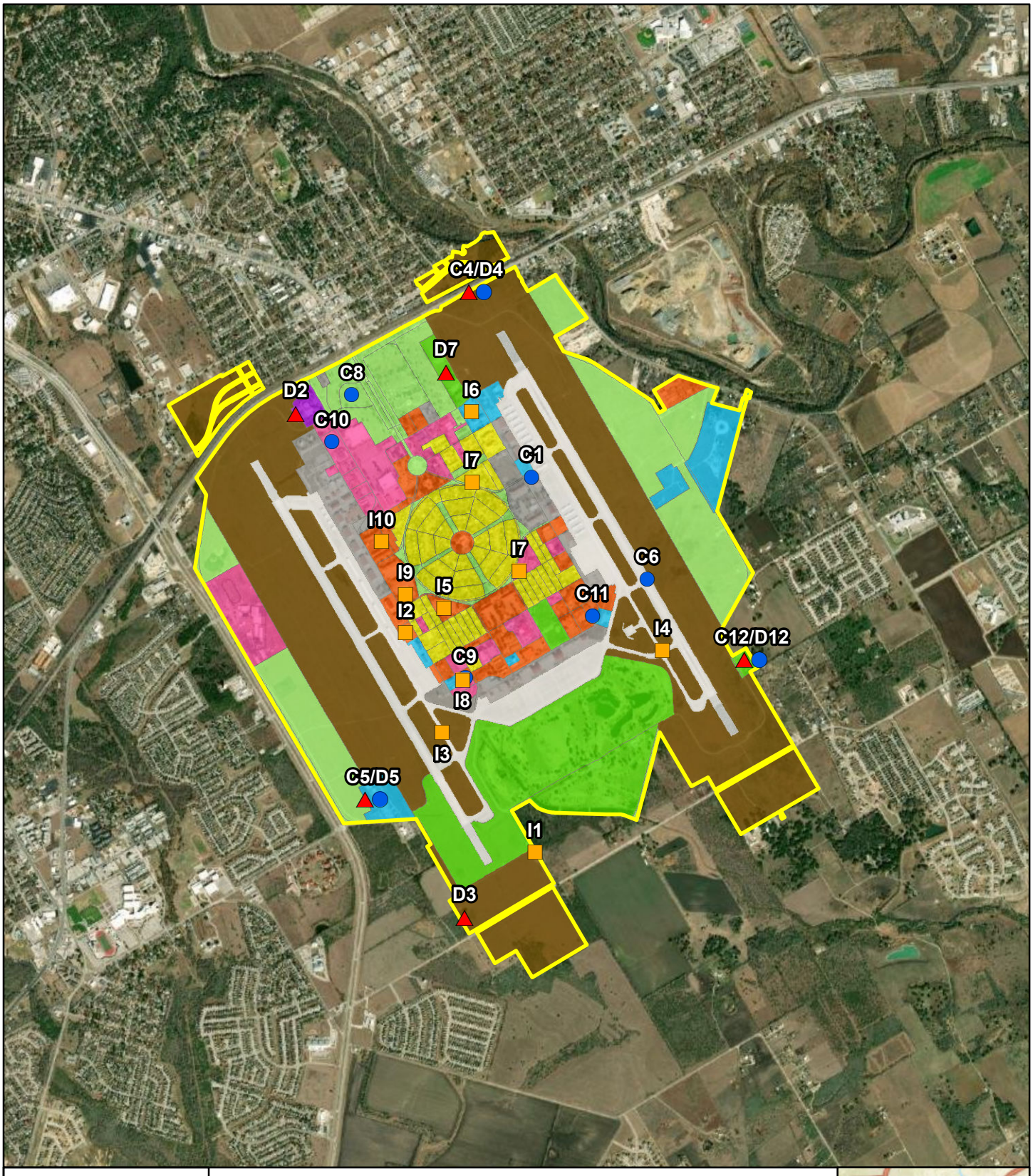


FIGURE 3-1
LAND USE – JBSA-RND

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.25 0.5 Miles

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-Randolph

Land Use Categories

- Administration
- Airfield Clearance
- Airfield Pavement
- Community Service
- Housing
- Industrial
- Medical/ Dental
- Open Space/ Buffer Zone
- Outdoor Recreation

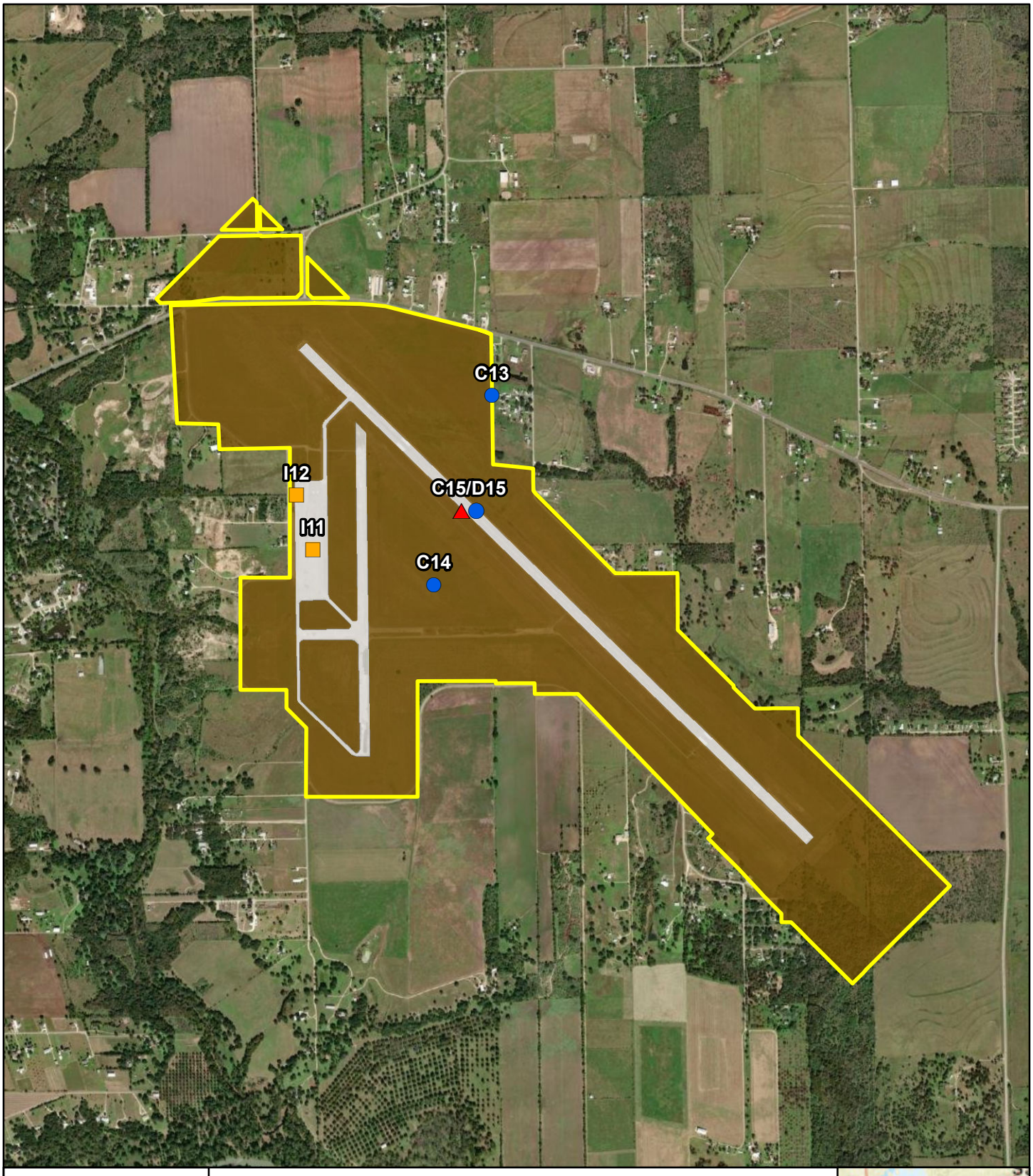


FIGURE 3-2
LAND USE –SAF

N
Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N
0 1,000 2,000 Feet

Proposed Project
- Construction
- Demolition
- Infrastructure

JBSA-Randolph

Land Use Categories
- Airfield Clearance
- Airfield Pavement

The City of San Antonio's Comprehensive Plan (City of San Antonio [COSA], 2016) includes land within its municipal boundary and extraterritorial jurisdiction in unincorporated Bexar County. The plan establishes an overarching planning framework for the San Antonio metropolitan area and includes three main components: the Comprehensive Plan, Sustainability Plan, and Multimodal Transportation Plan. The Comprehensive Plan regulates and guides land use across the city through regional, functional, and more detailed sub-area plans applicable to specific geographies and functions. However, as a framework plan, it does not alter or negate land use plans for other jurisdictions within the city. With respect to development, Chapter 35 of the Municipal Code collates all associated ordinances to include zoning maps, subdivision regulations, and policies and plans.

JBSA-RND is located near Universal City, Texas. Land affected by JBSA-RND operations is predominantly located within the cities of Universal City and Schertz, Texas. JBSA-RND is bound by North Texas State Highway Loop 1604/Charles W. Anderson Loop to the west, Farm to Market 78/Gordon A Blake Hwy to the north, Farm to Market 1518 to the east, and Lower Seguin Road to the south.

Land use in the vicinity of JBSA-RND to the north generally consists of low and medium-density residential with commercial and retail development interspersed with open park spaces. Old Town residential properties are located in close proximity to the Base's northern ACPs. The area west of JBSA-RND consists of single-family residences, with retail, commercial, and light-industrial developments. The areas east and south of JBSA-RND contains single-family residential and agricultural developments, with some manufacturing in the area.

Located in Guadalupe County, SAF is situated along the I-10/US-90 corridor. The area surrounding SAF is less developed than that of JBSA-RND. The western and southern areas outside the Base are characterized by the presence of Geronimo Creek and consist primarily of agricultural land and low-density rural residential properties. On the northeastern side, more commercial and retail development can be found due to the proximity to US-90.

Land Use Restrictions

Land use at JBSA-RND is generally restricted within the clear zone (CZ) and accident potential zones (APZs) associated with the airfield due to risks from aircraft accidents. However, there are exceptions to restrictions, and some types of land use are permitted depending on the zone. The Air Installation Compatible Use Zones (AICUZ) Program recommends that noise levels, CZs, APZs, and flight clearance requirements associated with military airfield operations be incorporated into local community planning programs in order to maintain the airfield's operational requirements while minimizing the impact to residents in the surrounding community.

The 2017 JBSA-Randolph AICUZ Study reaffirms the Air Force policy of assisting local, regional, state, and federal officials in the areas surrounding JBSA-RND and SAF by promoting compatible development within the AICUZ area of influence and protecting Air Force operational capability from the effects of land use that are incompatible with aircraft operations. The information provided in the AICUZ Study is intended to assist local communities with future planning (Air Force, 2017).

3.5.2 Environmental Consequences

The Air Force defines a significant effect on or from land use within the ROI as one or both of the following:

- land use that would discontinue or substantially change existing or adjacent land use; and
- land use that would be inconsistent with applicable management plans, policies, regulations, and ordinances.

3.5.2.1 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.5.2.2 Proposed Action

Under the Proposed Action, construction, demolition, and infrastructure activities would occur within the existing boundaries of the Installation and the airfield. The projects that would occur under the Proposed Action would be implemented in areas of existing land use including airfield operations, industrial, administrative, training, community service, and community commercial, all of which have been previously established. In addition, there would be minor beneficial long-term impacts with the implementation of the Proposed Action. Existing infrastructure within land use zones would be improved and allow for JBSA-RND to continue to meet its mission goals. New construction and stabilizing activities would continue to be designed to meet the land use needs of the Base.

Existing land use and land use compatibility under implementation of the Proposed Action would remain generally unchanged. No impacts to land use outside of the boundary of JBSA-RND would be anticipated. The Proposed Action would be consistent with applicable land use plans and policies on and around JBSA-RND and SAF. Therefore, when considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects to land use would not be likely to occur.

3.5.3 Best Management Practices and Mitigation Measures

Multiple planning documents contributed to the development of the JBSA IDP and JBSA-RND ADP for both the SS and FO districts. No additional best management practices (BMPs) are recommended for land use beyond those previously incorporated in these planning documents.

No mitigation measures for potential effects on land use under the Proposed Action are recommended.

3.6 AIR QUALITY

3.6.1 Definition of the Resource

Ambient air quality refers to the atmospheric concentration of a specific compound (amount of pollutants in a specified volume of air) that occurs at a particular geographic location. The ambient air quality levels measured at a particular location are determined by the interaction of emissions, meteorology, and chemistry. Meteorological considerations include wind and precipitation patterns affecting the distribution, dilution, and removal of pollutant emissions. Chemical reactions can transform pollutant emissions into other chemical substances.

Air pollution is a threat to human health and damages trees, crops, other plants, lakes, and animals. It creates haze or smog that reduces visibility in national parks and cities and interferes with aviation. To improve air quality and reduce air pollution, Congress passed the *Clean Air Act of 1963* (42 USC § 7401) (CAA) and its amendments in 1970 and 1990, which set regulatory limits on air pollutants and help to ensure basic health and environmental protection from air pollution.

3.6.1.1 Criteria Pollutants

In accordance with CAA requirements, the air quality in a given region or area 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 and prevailing meteorological conditions.

The CAA directed the US Environmental Protection Agency (USEPA) to develop, implement, and enforce environmental regulations that would ensure clean and healthy ambient air quality. To protect public health and welfare, the USEPA developed National Ambient Air Quality Standards (NAAQS), numerical concentration-based standards, 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. 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. NAAQS are currently established for the criteria air pollutants ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter (including coarse particulates equal to or less than 10 microns in diameter [PM_{10}] and fine particulates equal to or less than 2.5 microns in diameter), and lead (**Table 3-2**).

Table 3-2
National Ambient Air Quality Standards

Pollutant	Primary/ Secondary[a,b]	Averaging Time	Level[c]	Form
Carbon monoxide	Primary	8 hours	9 ppm	Not to be exceeded morethan once per year
		1 hour	35 ppm	
Lead[d]	Primary and secondary	Rolling 3-month average	0.15 µg/m^3	Not to be exceeded
Nitrogen dioxide[e]	Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and Secondary	1 year	53 ppb	Annual mean
Ozone[f]	Primary and Secondary	8 hours	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
$PM_{2.5}$	Primary	1 year	12.0 µg/m^3	Annual mean, averaged over3 years
	Secondary	1 year	15.0 µg/m^3	Annual mean, averaged over3 years
	Primary and Secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
PM_{10}	Primary and Secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year onaverage over 3 years
Sulfur dioxide[g]	Primary	1 hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Source: USEPA NAAQS table
Notes:
a. Primary Standards: the levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the USEPA.
b. Secondary Standards: the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
c. Concentrations are expressed first in units in which they were promulgated.
d. In areas designated nonattainment for the lead standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.
e. The level of the annual nitrogen dioxide standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

f. Final rule was signed October 1, 2015, effective December 28, 2015. The previous (2008) ozone standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) ozone standards.
g. The previous sulfur dioxide standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous sulfur dioxide standards or is not meeting the requirements of a SIP call under the previous sulfur dioxide standards (40 CFR 50.4(3)). A SIP call is a USEPA action requiring a state to resubmit all or part of its SIP to demonstrate attainment of the required NAAQS.

$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; PM_{10} = particulate matter less than or equal to 10 microns in diameter; ppb = parts per billion; ppm = parts per million

Ozone is not usually emitted directly into the air but is formed in the atmosphere by photochemical reactions involving sunlight and previously emitted pollutants, or "ozone precursors." These ozone precursors consist primarily of nitrogen oxides and volatile organic compounds that are directly emitted from a wide range of emission sources. For this reason, regulatory agencies limit atmospheric ozone concentrations by controlling volatile organic compound pollutants (also identified as reactive organic gases) and nitrogen oxides.

When a region or area meets NAAQS for a criteria pollutant, that region or area is classified as "attainment" for that pollutant. When a region or area fails to meet NAAQS for a criteria pollutant, that region or area is classified as "nonattainment" for that pollutant. In cases of nonattainment, the affected state, territory, or local agency must develop a state implementation plan (SIP) for USEPA review and approval. The SIP is an enforceable plan developed at the state level that lays out a pathway for how the state will comply with air quality standards. If air quality improves in region that is classified as nonattainment and the improvement results in the region meeting the criteria for classification as attainment, then that region is classified as a "maintenance" area.

3.6.1.2 Greenhouse Gas

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. These emissions are generated by both natural processes and human activities. The accumulation of GHGs in the atmosphere helps regulate the earth's temperature and contribute to global climate change. GHGs include water vapor, carbon dioxide, methane, nitrous oxide, ozone, and several hydrocarbons and chlorofluorocarbons. Each GHG has an estimated global warming potential, which is a function of its atmospheric lifetime and its ability to absorb and radiate infrared energy emitted from the earth's surface. The global warming potential of a particular gas provides a relative basis for calculating its carbon dioxide equivalent (CO_2e) or the amount of CO_2e of the emissions of that gas. Carbon dioxide has a global warming potential of 1 and is therefore the standard by which all other GHGs are measured. The GHGs are multiplied by their global warming potential, and the resulting values are added together to estimate the total CO_2e.

The USEPA regulates GHG primarily through a permitting program known as the GHG Tailoring Rule. This rule applies to GHG emissions from large stationary sources. Additionally, the USEPA promulgated a rule for large GHG emission stationary sources, fuel and industrial gas suppliers, and carbon dioxide injection sites if they emit 25,000 metric tons or more of CO_2e per year (40 CFR § 98.2(a)(2)).

3.6.2 Existing Conditions

JBSA-RND is located in Bexar County and SAF is located in Guadalupe County, Texas. Both counties are within the Metropolitan San Antonio Intrastate Air Quality Control Region (40 CFR § 81.40). The ROI for air quality is JBSA-RND and SAF. Bexar County is currently designated as "marginal nonattainment" for ozone; however, the USEPA has announced a proposed action to move Bexar County from "marginal" to "moderate nonattainment" for ozone. If finalized, this new designation would require the San Antonio area to comply with new USEPA air quality regulations and meet the ozone standard of 70 parts per billion by 24 September 2024 (COSA, 2022). Bexar County is "in attainment" for all other criteria air pollutants. Guadalupe County is designated "in attainment" for all criteria air pollutants.

As a federal installation that is considered a "minor source" contributor for air pollution, JBSA-RND operates under a TCEQ-issued air permit by rule (PBR). A PBR is the state air authorization for activities that produce

more than a *de minimis* level of emissions but less than New Source Review permitting options. Facilities operating under a PBR are required to monitor emissions and report the findings.

3.6.2.1 Air Emission Sources at JBSA-RND and SAF

There are numerous sources for air emissions at JBSA-RND and SAF that contribute to the total emissions reported at the end of each calendar year, in accordance with Title 40, Chapter 106, *Permits by Rule*, of the Texas Administrative Code (40 TAC 106). Emissions sources include but are not limited to the following at JBSA-RND:

- internal combustion sources; e.g., emergency generators (diesel fuel) and general-purpose generators (diesel fuel)
- external combustion sources; e.g., boilers, heaters, spray booth heaters and bake-off ovens
- abrasive blasting
- welding activities
- munitions
- fuel storage tanks; e.g., jet fuel and diesel tanks
- gasoline delivery vessel testing and use
- vehicle refinishing
- surface and spray coating operations; e.g., surface and spray coating (paint booth) operations
- solvent cleaning (degreasing) operations and material usage; e.g., solvent cleaning equipment
- woodworking operations; e.g., dust-collection operations

Emissions sources include but are not limited to the following at SAF:

- jet engine testing
- fuel storage tanks; e.g., jet fuel and diesel tanks
- gasoline delivery vessel testing and use
- vehicle use

3.6.2.2 Regional Meteorology

JBSA-RND and SAF share regional meteorological conditions due to their proximity. The region has a transitional humid subtropical climate to a semi-arid climate that features very hot, long, and humid summers and mild-to-cool winters. The geographic area that encompasses JBSA-RND and SAF is subject to descending northern cold fronts in the winter that result in cool-to-cold nights that reach temperatures at or near freezing. In the spring and fall, the region experiences high humidity and warm weather.

JBSA-RND and SAF receive about a dozen subfreezing nights each year, typically accompanied by snow, sleet, or freezing rain; accumulation of snow is very rare. Winters may pass without any frozen precipitation at all, and up to a decade has passed between snowfalls in the past. According to the National Weather Service, there have been 32 instances of snowfall (a trace or more) in the city of San Antonio in the past 122 years. Prior to 2021 snow was most recently seen on 7 December 2017, when 1.9 inches of snow coated the city and surrounding areas.

In the geographic region of JBSA-RND and SAF, July and August are the average warmest months, with an average high of 95°F. The highest recorded temperature was 111°F on 5 September 2000. The average coolest month is January. The lowest recorded temperature was 0°F on 31 January 1949. May, June, and October experience the most precipitation for that area, and flooding can occur. The average annual

precipitation is 29.03 inches, with maximum and minimum annual accumulations of 52.28 inches and 10.11 inches, respectively.

3.6.3 Environmental Consequences

3.6.3.1 Evaluation Criteria

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

In accordance with 40 CFR § 93.153 a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a federal action would be equal to or exceed any of the rates in paragraphs 40 CFR § 93.153(b)(1) or (2). Paragraph (b)(1) of 40 CFR § 93.153 lists *de minimis* values based on the severity of nonattainment. Bexar County is considered to be in "marginal nonattainment"; therefore, *de minimis* value for ozone is 100 tons per year (tpy).

For attainment area criteria pollutants other than lead, the project air quality analysis used USEPA's Prevention of Significant Deterioration (PSD) permitting threshold of 250 tpy as an initial indicator of the local significance of potential impacts to air quality. Due to the toxicity of lead, using the PSD of 250 tpy attainment area lead threshold as an indicator of potential air quality impact insignificance would not be protective of human health or the environment. Therefore, the *de minimis* value of 25 tpy is used instead.

In the context of criteria pollutants, the analysis compared the annual net increase in emissions estimated for the Proposed Action to the applicable threshold(s). If the annual net increase in emissions in Bexar County is below 100 tpy for ozone precursors (nitrogen oxides or volatile organic compounds), 25 tpy for lead, and 250 tpy for the remaining criteria pollutants, then the Proposed Action would not be subject to any further conformity determination, and the air quality impacts would not be considered significant. Likewise, if the annual net increase in emissions in Guadalupe County is below 25 tpy for lead and 250 tpy for all other criteria pollutants, the Proposed Action would not be subject to any further conformity determination and the air quality impacts would not be considered significant.

The environmental impact methodology for air quality impacts presented in this EA is derived from Air Force Manual (AFMAN) 32-7002, *Environmental Compliance and Pollution Prevention* (2020). The Proposed Action is broken down into basic units. For example, a basic development project that consists of replacing a building with a new building could be broken down into demolition (sf), grading (sf), building construction (sf and height), architectural coatings (sf), and paving (sf). These data are then input into the Air Force's Air Conformity Applicability Model (ACAM), which models emissions based on the inputs and estimates air emissions for each specific criteria and precursor pollutant, as defined in the NAAQS. Assumptions of the model, methods, and detailed summary results are provided in **Appendix D** of this EA.

3.6.3.2 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.6.3.3 Proposed Action

The Proposed Action would involve construction, demolition, improvement, and maintenance projects at JBSA-RND and SAF. Construction activities associated with the projects would occur in phases from approximately 2023 to 2027. The proposed activities at JBSA-RND would include an estimated total of 11,267,218 sf of paving, 14,097,978 sf of grading, 457,570 sf of new construction, and 289,641 sf of demolition. The proposed activities at SAF would include an estimated 1,174,400 sf of paving, 1,532,580 sf of grading activities, 4,456 sf of new construction, and 4,456 sf of demolition.

The projects are in a conceptual phase and no construction schedule has been developed as of the writing of this EA. As such, the activities in the Proposed Action have been combined and entered into ACAM as one large project spanning 5 years, except for Project I3, which would have a defined project implementation time of 9 months. Under the Proposed Action, temporary construction workers would support the individual construction projects, but no permanent, long-term increase to the population of JBSA-RND is anticipated to occur.

Tables 3-3 and **3-4** summarize the results of the ACAM analysis for JBSA-RND and SAF for the duration of construction, demolition, improvement, and maintenance projects under the Proposed Action. The tables compare the cumulative emissions of regulated criteria pollutants under the Proposed Action (2023–2027) with their applicable annual PSD thresholds. The insignificance indicator is not exceeded for any constituents at JBSA-RND or SAF.

For all criteria pollutants, the net change in emissions is anticipated to be short term and negligible. The "steady state" emissions shown for 2028 represent anticipated long-term emissions resulting from the project. The calculated emissions are minimal for the Proposed Action and represent a conservative estimate of emissions as a byproduct of heating the buildings.

Emissions for CO_2e do not have a regulatory threshold; however, estimated emissions for CO_2e are presented to demonstrate that CO_2e emissions would also be low when compared to GHG emissions of 25,000 metric tons or more associated with large GHG sources.

Under the Proposed Action, Bexar and Guadalupe counties and the City of San Antonio would continue to revise and implement the SIP for attainment of ozone and to maintain attainment status for all other criteria pollutants. Enforcement of the General Conformity Rule would also continue within Bexar and Guadalupe counties and the Metropolitan San Antonio Intrastate ACQR. When considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects to air quality would not be likely to occur.

Table 3-3
ACAM Calculations for JBSA-RND

Year	Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
			Indicator (ton/yr)	Exceedance (Yes or No)
	NOT IN A REGULATORY AREA			
2023	VOC	1.600	100	No
	NOx	3.114	100	No
	CO	3.384	250	No
	SOx	0.008	250	No
	PM_{10}	34.721	250	No
	$PM_{2.5}$	0.131	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	831.1	N/A	N/A

Year	Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
			Indicator (ton/yr)	Exceedance (Yes or No)
2024	VOC	2.044	100	No
	NOx	5.628	100	No
	CO	5.984	250	No
	SOx	0.016	250	No
	PM_{10}	154.192	250	No
	$PM_{2.5}$	0.226	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	1619.9	N/A	N/A
2025	VOC	2.175	100	No
	NOx	6.753	100	No
	CO	7.162	250	No
	SOx	0.022	250	No
	PM_{10}	184.100	250	No
	$PM_{2.5}$	0.290	250	No
	Pb	0.000	25	No
	NH_3	0.004	250	No
	CO_2e	2595.0	N/A	N/A
2026	VOC	1.601	100	No
	NOx	3.537	100	No
	CO	4.064	250	No
	SOx	0.014	250	No
	PM_{10}	34.760	250	No
	$PM_{2.5}$	0.170	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	1868.2	N/A	N/A
2027	VOC	1.601	100	No
	NOx	3.537	100	No
	CO	4.064	250	No
	SOx	0.014	250	No
	PM_{10}	34.760	250	No
	$PM_{2.5}$	0.170	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	1868.2	N/A	N/A
2028 – Steady State	VOC	0.047	100	No
	NOx	0.862	100	No
	CO	0.724	250	No
	SOx	0.005	250	No
	PM_{10}	0.065	250	No
	$PM_{2.5}$	0.065	250	No
	Pb	0.000	25	No
	NH_3	0.000	250	No
	CO_2e	1037.2	N/A	N/A

CO = carbon monoxide; CO_2e = carbon dioxide equivalent; N/A = not applicable; NH_3 = ammonia; NOx = nitrogen oxides; Pb = lead; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; PM_{10} = particulate matter less than or equal to 10 microns in diameter; SO_2 = sulfur dioxide; VOC = volatile organic compound

Table 3-4
ACAM Calculations for SAF

Year	Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
			Indicator (ton/yr)	Exceedance (Yes or No)
	NOT IN A REGULATORY AREA			
2023	VOC	1.311	250	No
	NOx	7.748	250	No
	CO	7.838	250	No
	SOx	0.020	250	No
	PM_{10}	183.291	250	No
	$PM_{2.5}$	0.339	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	2012.9	N/A	N/A
2024	VOC	1.439	250	No
	NOx	8.512	250	No
	CO	8.967	250	No
	SOx	0.022	250	No
	PM_{10}	183.334	250	No
	$PM_{2.5}$	0.371	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	2215.2	N/A	N/A
2025	VOC	1.425	250	No
	NOx	8.341	250	No
	CO	8.794	250	No
	SOx	0.022	250	No
	PM_{10}	183.317	250	No
	$PM_{2.5}$	0.362	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	2212.4	N/A	N/A
2026	VOC	1.453	250	No
	NOx	8.450	250	No
	CO	9.025	250	No
	SOx	0.023	250	No
	PM_{10}	183.318	250	No
	$PM_{2.5}$	0.365	250	No
	Pb	0.000	25	No
	NH_3	0.003	250	No
	CO_2e	2274.8	N/A	N/A
2027	VOC	0.794	250	No
	NOx	4.468	250	No
	CO	4.774	250	No
	SOx	0.012	250	No
	PM_{10}	91.674	250	No
	$PM_{2.5}$	0.198	250	No
	Pb	0.000	25	No
	NH_3	0.002	250	No
	CO_2e	1175.9	N/A	N/A

Year	Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
			Indicator (ton/yr)	Exceedance (Yes or No)
2028 - Steady State	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
	NH_3	0.000	250	No
	CO_2e	0.0	N/A	N/A

CO = carbon monoxide; CO_2e = carbon dioxide equivalent; N/A = not applicable; NH_3 = ammonia; NOx = nitrogen oxides; Pb = lead; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter; PM_{10} = particulate matter less than or equal to 10 microns in diameter; SO_2 = sulfur dioxide; VOC = volatile organic compound

3.6.4 Best Management Practices and Mitigation Measures

The Air Force would require contractors to implement the following BMPs to reduce the potential air quality effects of the Proposed Action:

- Comply with JBSA environmental specifications during construction projects.
- Minimize vehicle idling by turning off equipment and vehicles when not in use.
- Cover dump truck beds while in transit or not in use to minimize fugitive dust emissions.
- Regularly water stockpiles or unpaved areas to minimize fugitive dust emissions.

No mitigation measures for potential effects on air quality under the Proposed Action are recommended.

3.7 NOISE

Noise is undesirable or unwanted sound that interferes with verbal communication and hearing. Sound pressure level, described in decibels, is used to quantify sound intensity. Sound level measurements used to characterize sound levels sensed by the human ear are designated “A-weighted” decibels (dBA).

The *Noise Control Act of 1972* (42 USC §§ 4901–4918) 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 are normally unacceptable for noise-sensitive receptors, such as residences, schools, churches, and hospitals.

3.7.1 Existing Conditions

As is normal for military installations with a flying mission, the primary driver of noise at JBSA-RND is aircraft operations. At the main base, the airfield is equipped with two parallel runways running northwest/southeast on opposite sides of the Base perimeter. The airfield operates Monday through Friday from 7 am to 7 pm, Sunday from 1 pm to 4 pm, and is closed on Saturday and federal holidays. Flight operations at JBSA-RND involve both turboprop and jet aircraft. Based aircraft at JBSA-RND include T-1 Jayhawk, the T-38C Talon, and the T-6A Texan II, which represents the majority of flight operations at JBSA-RND (Air Force, 2017).

SAF is used as a training field and facilitates T-38 and T-6 approaches and touch-and-go operations; no aircraft is stationed at SAF. The airfield operates sunrise to sunset Monday through Friday and is closed on the weekends and federal holidays. JBSA-RND and SAF conduct more than 200,000 operations or over-flights in its local airspace annually. An operation is defined as a single takeoff or landing.

Noise contours align with the runways at JBSA-RND and SAF and follow the main flight paths for arrivals, departures, and other training flight patterns at each of the airfields. The highest noise levels are

concentrated over the airfield and along the runways. The Air Force uses the Day-Night Average Sound Level (DNL) metric to describe the cumulative noise exposure that results from all aircraft operations. DNL is a standard noise metric created by the USEPA to describe the effects of noise on humans and is used throughout the US.

Flight operations at JBSA-RND have increased since 2008; however, the 2017 overall off-Base noise exposure area (65 dB DNL or greater) is approximately 513 acres smaller than the 2008 exposure area. Flight patterns have not substantially changed, and the difference can be attributed to changes in runway utilization, modified flight tracks to avoid noise-sensitive areas, and/or improvements to aircraft or engines that result in less noise. The near elimination of night-flight operations helps to reduce the noise contour size.

The overall off-Base noise exposure area at SAF has increased by approximately 366 acres since the year 2000 due to doubling of project flight operations. The area surrounding SAF is generally rural, and the larger noise contours do not result in a significant increase in the number of individuals exposed.

Noise is also generated from the day-to-day activities from operations, maintenance, and the industrial functions associated with airfield operations, as well as ground equipment and vehicular transportation. Noise from aircraft operations remains the dominant noise source.

Sensitive noise receptors that could potentially be exposed to noise from Installation activities can be found on all sides of JBSA-RND, particularly the northern and western portions of the Installation. One school is located at the northern end of JBSA-RND, and several schools are located within 2 miles of the Installation boundary on all sides. Additionally, large areas of housing are situated to the north and west of JBSA-RND, just outside of the Installation boundary across the highway.

3.7.2 Environmental Consequences

3.7.2.1 Evaluation Criteria

When evaluating noise effects, several aspects are examined:

- the degree to which noise levels generated by training and operations, as well as construction, demolition, and renovation activities, would be higher than the ambient noise levels;
- the degree to which there would be hearing loss and/or annoyance; and
- the proximity of noise-sensitive receptors (e.g., residences, schools, hospitals, parks) to the noise source.

An environmental analysis of noise includes the potential effects on the local population and estimates the extent and magnitude of the noise generated by the Proposed Action and Alternatives.

3.7.2.2 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.7.2.3 Proposed Action

Proposed projects under the Proposed Action would include construction, demolition, and infrastructure activities that would occur entirely within the boundaries of JBSA-RND and SAF. The affected environment for noise effects from the Proposed Action and ongoing operations is focused within 0.5 mile to 1 mile of the proposed projects.

Noise modeling results indicate that existing DNLs range from 60 dBA DNL to 85 dBA across JBSA-RND and SAF and within the vicinities of the proposed projects (Air Force, 2017). Noise associated with the operation of construction equipment is generally short term, intermittent, and localized, with the loudest machinery typically producing peak sound pressure levels ranging from 86 to 95 dBA at a 50-foot distance from the source (**Table 3-5**).

Table 3-5
Peak Sound Pressure Level of Construction Equipment from 50 Feet

Equipment	Sound Pressure Level (dBA)
Bulldozer	95
Scraper	94
Front Loader	94
Backhoe	92
Grader	91
Crane	86

Source: Reagan and Grant, 1977
dBA = A-weighted decibel

Construction noise typically does not generate a predicted noise exposure of 65 dBA DNL or greater even at extremely high rates of operation because the equipment itself does not generate noise that would produce a 65-dBA DNL when averaged over a year. Additionally, adherence to standard Air Force Occupational Safety and Health regulations that require hearing protection along with other personal protective equipment and safety training would minimize the risk of hearing loss to construction workers. Projects would continue to be planned in accordance with local AICUZ studies to maintain the existing noise environment. Therefore, when considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects to the noise environment would not be likely to occur.

There would be no operational increases in noise resulting from implementation of the Proposed Action.

3.7.3 Best Management Practices and Mitigation Measures

No additional BMPs are recommended for noise beyond those currently in practice. No mitigation measures for potential effects from noise under the Proposed Action are recommended.

3.8 Earth Resources

Earth resources include geology, topography, and soils. Geology refers to the structure and configuration of surface and subsurface features. Characteristics of geology include geomorphology, subsurface rock types, and structural elements. Topography refers to the shape, height, and position of the land surface. Soil refers to the unconsolidated materials overlying bedrock or other parent material. Soils are defined by their composition, slope, and physical characteristics. Attributes of soil, such as elasticity, load-bearing capacity, shrink-swell potential, and erodibility, determine its suitability to support a particular land use.

Prime farmland, as defined by the US Department of Agriculture (USDA) in the *Farmland Protection Policy Act* (7 USC §§ 4201–4209), is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses (USDA, 1993).

The ROI for earth resources is the Installation boundaries of JBSA-RND and SAF.

3.8.1 Existing Conditions

3.8.1.1 Geology

JBSA-RND and SAF are situated just south of the edge of the Edwards Plateau, which is part of the Great Plains physiographic province. A large, faulted limestone formation, the Balcones Escarpment, forms the southern and eastern portions of the Edwards Plateau. JBSA-RND and SAF are located at the base of this escarpment and within the Blackland Prairie physiographic area.

3.8.1.2 Topography

JBSA-RND and SAF are characterized by the Great Plains Province, specifically in the Blackland Prairie. The Blackland Prairie is dominated by rolling hills that vary in elevation from 700 to 1,000 feet above sea level (Air Force, 2020b). Most of the Installation is generally flat with slopes of 1 to 5 percent. The steeper topography is found in the northernmost areas of the Base at JBSA-RND and slopes downward toward the south thereafter. As a result, surface drainage is generally oriented south to southeast across the Base (USDA, 1966). Topography at SAF shows a similar pattern with slightly higher elevations at the northwestern end of the Installation and lower elevations to the southeastern end.

3.8.1.3 Soils

Soils present at JBSA-RND are primarily Branyon clay, 0 to 1 percent slopes, with the second most prominent being Lewisville silty clay, 0 to 1 percent slopes. These soils are characterized by low slopes, efficient drainage, and low erosion potentials. Runoff potential is considered to be low to medium. Runoff is limited and contained due to the gravel surface portion of these soils. Most soils at JBSA-RND have been previously disturbed and developed or used for military purposes. They are suitable for development and do not pose structural complications or high erosion potentials.

Soil composition at SAF is less diverse overall; however, the two predominant soil types are also Branyon clay and Lewisville silty clay, making up more than 90 percent of the total soils on the Installation. These soils are characterized by the same low slopes, efficient drainage, and low erosion potential and do not pose structural complications for development.

Tables 3-6 and **3-7** summarize and **Figures 3-3** and **3-4** depict the soils found on JBSA-RND and SAF, respectively.

Table 3-6
Soil Types Associated with the Proposed Action – JBSA-RND

Map Unit Symbol	Map Unit Name	Slope	Drainage Rating	Acres in ROI	Percent of ROI
Bo	Bosque and Seguin soils	-	Well drained	3.1	0.1%
HsB	Houston black clay	1-3%	Moderately well drained	198.9	6.7%
HsC	Houston black clay	3-5%	Moderately well drained	27.5	0.9%
HtA	Branyon clay	0-1%	Moderately well drained	1,515.4	51.0%
HtB	Branyon clay	1-3%	Moderately well drained	8.2	0.2%
HuC	Houston black gravelly clay	3-5%	Moderately well drained	18.7	0.6%
LvA	Lewisville silty clay	0-1%	Well drained	954.4	32.8%
PaB	Patrick soils	1-3%	Well drained	106.8	3.6%
PaC	Patrick soils	3-5%	Well drained	47.9	1.6%
Pt	Pits and Quarries	1-90%	Well drained	9.2	0.3%
Tc	Tinn clay	0-1%	Moderately well drained	7.5	0.3%
Tf	Tinn and Frio soils	0-1%	Moderately well drained	20.8	0.7%
VaA	Sunev loam	0-1%	Well drained	13.6	0.5%

Source: USDA, Natural Resources Conservation Service's Web Soil Survey Tool

Table 3-7
Soil Types Associated with the Proposed Action – SAF

Map Unit Symbol	Map unit name	Slope	Rating	Acres in AOI	Percent of AOI
BrA	Branyon clay	0-1%	Moderately well drained	656.5	71.9%
BrB	Branyon clay	1-3%	Moderately well drained	102.5	11.2%
BuA	Burleson clay	0-1%	Moderately well drained	22.0	2.4%
CfB	Crockett fine sandy loam	1-3%	Moderately well drained	32.1	3.5%
LeA	Lewisville silty clay	0-1%	Well drained	37.9	4.2%
LeB	Lewisville silty clay	1-3%	Well drained	44.8	4.9%
QeC	Queeny gravelly loam,	1-5%	Well drained	11.5	1.3%
Tw	Tinn clay	0-1%	Moderately well drained	5.2	0.6%

Source: USDA, Natural Resources Conservation Service's Web Soil Survey Tool

3.8.1.4 Prime Farmland

Several soils at JBSA-RND and SAF are considered to have the potential to be prime farmland soils: Houston black clay and Houston black gravelly clay are found at JBSA-RND, and Lewisville silty clays are found at both JBSA-RND and SAF. However, agriculture and irrigation are not current operations at JBSA-RND or SAF and are not planned for future operations. Given JBSA-RND's and SAF's historic use for military training, these soils would not be considered prime farmland or warrant future designation under the *Farmland Protection Policy Act*.

3.8.2 Environmental Consequences

The Air Force defines a significant effect on earth resources within the ROI as one or more of the following:

- substantial alteration of unique or valued geologic or topographic conditions;
- substantial soil erosion, sedimentation, and/or loss of natural function (e.g., compaction); and
- development on soils with characteristics that do not support the intended land use.

3.8.2.1 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.8.2.2 Proposed Action

The Proposed Action would involve earthwork, including excavation, backfilling, and compacting of soils or fill materials, on and immediately adjacent to the project sites. These activities would expose soils and increase their susceptibility to water and wind erosion. Inclement weather (e.g., rain or wind) could increase the probability and severity of these potential effects. The underlying geology of the area would not change under the Proposed Action.

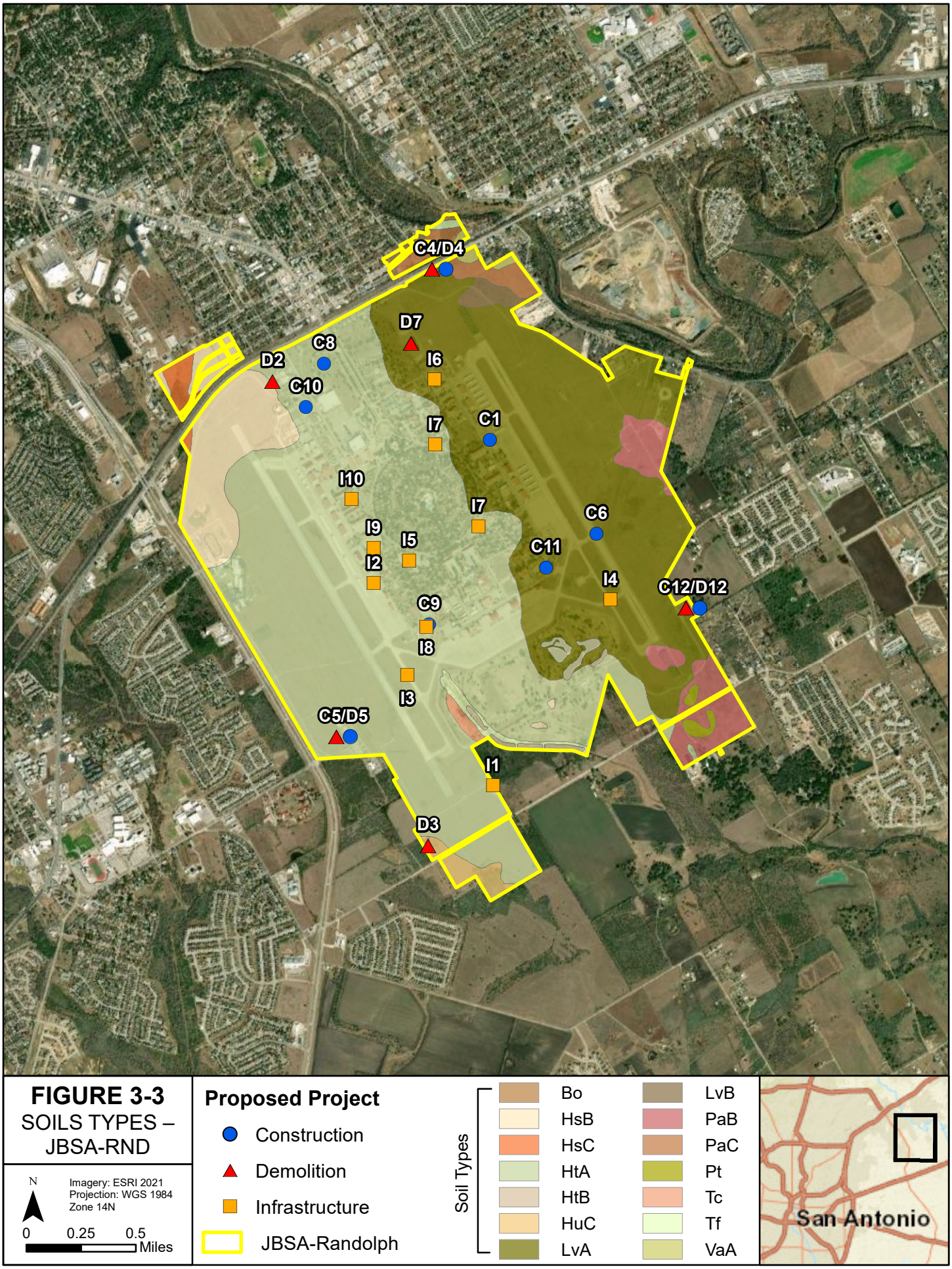


FIGURE 3-3
SOILS TYPES – JBSA-RND

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.25 0.5 Miles

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-Randolph

Soil Types

Bo	LvB
HsB	PaB
HsC	PaC
HtA	Pt
HtB	Tc
HuC	Tf
LvA	VaA

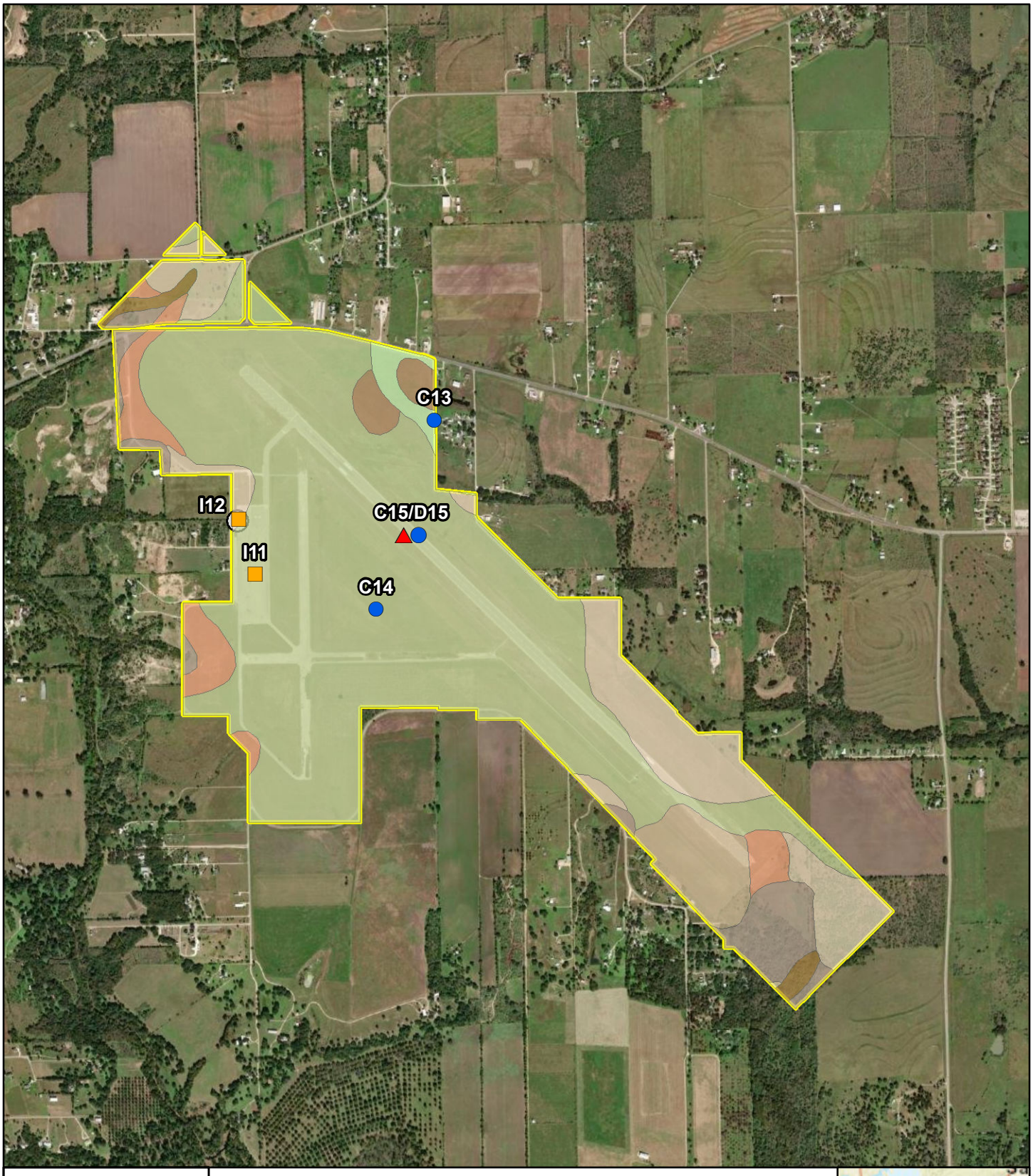


FIGURE 3-4
SOILS TYPES – SAF

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 1,000 2,000 Feet

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-Randolph

Soil Types

BrA	LeA
BrB	LeB
BuA	QeC
CfB	Tw

Under the Proposed Action, potential adverse effects on soils, including soil loss, contamination, and structural alteration, would be managed at an individual project level. When applicable, the construction contractor would obtain and comply with a construction general permit (CGP) under the TCEQ-administered Texas Pollutant Discharge Elimination System (TPDES) program (see **Section 3.9.1.2**) when projects would disturb 1 acre or more of land. The CGP would require the preparation, approval, and implementation of a site-specific Stormwater Pollution Prevention Plan (SWP3) prior to construction, including appropriate structural and non-structural erosion, sediment, and waste control BMPs. Additional measures may include planning and operational considerations such as staging construction equipment and materials on existing gravel or paved surfaces or minimizing or restricting vehicle movements to select areas on JBSA-RND.

Where excavation and backfill are required, soil structure, composition, and function could be altered. Projects C1, D2, C5/D5, C6, D7, C8, C9, C10, C11, C12/D12, C14, and C15/D15 (see **Tables 2-1** and **2-2**) are all construction or demolition projects with the potential for soil disturbance in areas with slopes reported between 0 and 3 percent. Projects I1, I3, I4, I6, I7, and I11 would involve soil disturbance and occur within 0 to 3 percent slope conditions. Projects D3 and C4/D4 would occur on soils with slopes ranging from 3 to 5 percent. All soils present in the vicinity of JBSA-RND and SAF project locations are characterized by efficient drainage and low erosion potentials. The soils at JBSA-RND at these project locations have been previously disturbed, developed, or used for military purposes. All project sites would be considered suitable for further development and do not pose structural complications or high erosion potentials; however, the Air Force would validate soil conditions at each site prior to construction to address any limiting factors by management or design.

During construction, crews would adhere to BMPs for soil erosion, as determined by the JBSA-RND Natural Resources Officer, to minimize runoff potential. After placing and compacting reuse or fill soils, superficial soils would be graded to conform to local topography to maintain efficient drainage. Additionally, construction phasing under the Proposed Action would minimize potential adverse effects to soils. During implementation, project-specific measures would be taken and remain in place during all stages of the Proposed Action, resulting in negligible and temporary effects on soils in the ROI. No permanent, long-term effects on soils would occur under the Proposed Action.

Demolition and construction of facilities anticipated under the Proposed Action would not involve extensive modification of surface features. The Proposed Action has the potential to increase soil erosion during the construction periods; however, impacts would be minimized by use of standard engineering practices (e.g., application of water for dust control) that reduce wind erosion or silt fences that reduce runoff erosion.

Under the Proposed Action, reasonably foreseeable development plans and projects within and around the San Antonio metropolitan area also would be subject to regulation under the NPDES permitting program. Depending on the nature and size of development, regulatory compliance measures would be in place to prevent or minimize potential effects on or from earth resources. Therefore, when considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects to earth resources would not be likely to occur.

3.8.3 Best Management Practices and Mitigation Measures

The Air Force would require contractors to implement the following BMPs to reduce potential effects on or from earth resources under the Proposed Action:

- Prior to construction, obtain an applicable TPDES permit to manage stormwater on a site-specific basis. Prepare a State-approved SWP3 and submit a NOI as appropriate. Adhere to the permit conditions during construction to minimize soil erosion, sedimentation, and compaction under the Proposed Action.

- When practicable or in compliance with applicable laws and regulations, incorporate low-impact development (LID)[5] features and techniques into the design of the Proposed Action to increase stormwater retention and infiltration on the project sites.
- When practicable, identify and implement BMPs for construction and post-construction stormwater management in accordance with the USEPA's National Menu of BMPs for Stormwater or other technical guidance.

No mitigation measures for potential effects on earth resources under the Proposed Action are recommended.

3.9 WATER RESOURCES

Water resources include surface waters such as streams and wetlands, groundwater, and associated features and functions that protect water quality (e.g., floodplains and stormwater management).

The ROI for water resources includes JBSA-RND, SAF, and areas downstream that are entirely within the San Antonio River and Guadalupe River basins.

3.9.1 Existing Conditions

3.9.1.1 Watershed Management

Bexar County is part of the 4,180-square-mile San Antonio River Basin. One of 23 river basins in Texas, the San Antonio River Basin occupies a large swath of south-central Texas, draining portions of 14 Texas counties. The basin drains nearly all of Bexar County, where JBSA-RND resides. This basin holds six major watersheds, including Cibolo Creek where JBSA-RND is located. The principal tributaries of the basin include the Medina River, Leon Creek, Cibolo Creek, and Salado Creek. JBSA-RND outfalls into the Woman Hollering Creek watershed (Air Force, 2020b).

The Guadalupe River Basin forms in Kerr County, Texas, and follows the Guadalupe River south to the San Antonio Bay, where it drains into the Gulf of Mexico in the southeastern portion of Texas (Texas Water Development Board [TWDB], 2022a). The 5,953-square-mile Guadalupe River Basin extends southeasterly across the majority of Guadalupe County. SAF is located entirely within the Guadalupe River Basin. The Installation primarily drains into Geronimo Creek to the west side and Saul Creek to the east (TWDB, 2022b).

The TWDB administers a program for the long-term planning and development of state water resources. The TWDB divides Texas into 16 regional water planning areas for this purpose. Each regional water planning area is tasked with developing a regional water plan that feeds into a state water plan prepared by the TWDB. Bexar and Guadalupe counties are part of the Region L regional water planning area.

3.9.1.2 Surface Waters and Water Quality

Surface Waters

To the east of JBSA-RND, Cibolo Creek flows north to south (see **Figure 3-5**) with an oxbow turn heading west from the Base. Cibolo Creek is a long, flowing perennial stream that meets the San Antonio River near Panna Maria, Texas, approximately 55 miles from the Base. The Salitrillo Creek, an ephemeral stream, is approximately 0.5 mile west of JBSA-RND. This creek is approximately 3 miles in length and flows north to south adjacent to the Installation through Converse, Texas. Woman Hollering Creek, also classified as ephemeral, flows from the southern boundary of the Installation before converging with Martinez Creek,

[5] LID measures include filtration, infiltration, evaporation, plant transpiration, and rainwater reuse to retain and treat stormwater on site, in contrast to conventional management practices that temporarily store and ultimately discharge stormwater to receiving waterbodies.

roughly 6.5 miles to the south. Both Salitrillo Creek and Cibolo Creek are classified as impaired waterways by the USEPA. Woman Hollering Creek is the primary drainage for JBSA-RND, with three impoundments originally designed as detention ponds to reduce flood risk. Currently, these ponds retain water year-round, as proper maintenance has not been established.

There are no creeks or water systems located directly within SAF (Air Force, 2020b). SAF drains from the east into Saul Creek, which borders the eastern boundary of the Installation and drains from the west into the perennial stream Geronimo Creek approximately a quarter mile from the Installation (see **Figure 3-6**). Saul Creek and Geronimo Creek flow north to south and are tributaries of the Guadalupe River. The Guadalupe River primarily flows west to east adjacent to the southern boundary and connects to Saul Creek and Geronimo Creek south of the Installation.

Water Quality

Pursuant to the *Clean Water Act* (33 USC § 1251 et seq.) (CWA), the TCEQ sets and enforces water quality standards for surface waters in Texas. Discharges to state waters are permitted under the TPDES permit program. TPDES permits are required for different types of pollutant-generating activities such as construction, industrial operations, and public-owned and -operated storm sewers (TCEQ, 2020, 2021a).

Under Section 303(d) of the CWA, the State of Texas is required to identify and develop a list of waterbodies (or waterbody segments) that are impaired based on their intended use (e.g., swimming or fishing). Impaired waterbodies are those that are not in attainment with water quality standards promulgated by the TCEQ. To achieve attainment status, a total maximum daily load (TMDL) is developed for the impairment. TMDLs use science-based criteria to establish a regulatory ceiling for the impaired waterbody to achieve attainment of water quality standards; that is, the maximum pollutant loads a waterbody may receive from all or portions of a basin or sub-basin in attainment of water quality standards. TMDLs target specific pollutants and set enforceable limits to improve or maintain the current conditions of 303(d)-listed waterbodies. The TCEQ also implements a state-wide water quality sampling program for this purpose and requires sampling through the issuance of TPDES permits (USEPA, 2021a).

The water quality of the San Antonio River Basin has improved over historic levels, in large part due to more advanced wastewater treatment within the region. For example, dissolved oxygen concentrations in the surface waters of the basin have increased substantially in the last several decades. However, water quality in portions of the basin continues to be of management concern for low dissolved oxygen levels and contaminants such as fecal coliform and nutrients.

Geronimo Creek, located approximately 0.25 mile to the west of SAF, is listed on the TCEQ 303(d) list as an impaired waterbody for recreational use due to high levels of bacteria (Air Force, 2020b). The Texas State Soil and Water Conservation Board Regional Watershed Coordination Steering Committee selected Geronimo Creek for development of a watershed protection plan based on criteria that included presence on the CWA 303(d) list, nutrient concerns, potential for success, ongoing activities, and level of stakeholder interest. Through scientific analysis, researchers supporting the partnership determined reduction thresholds for bacteria and nitrate-nitrogen levels in Geronimo Creek. The goal of the water quality standard is a reduction in bacteria concentrations by 26 percent and nitrate and nitrogen concentrations by 85 percent (Geronimo and Alligator Creeks Watershed Partnership, 2012).

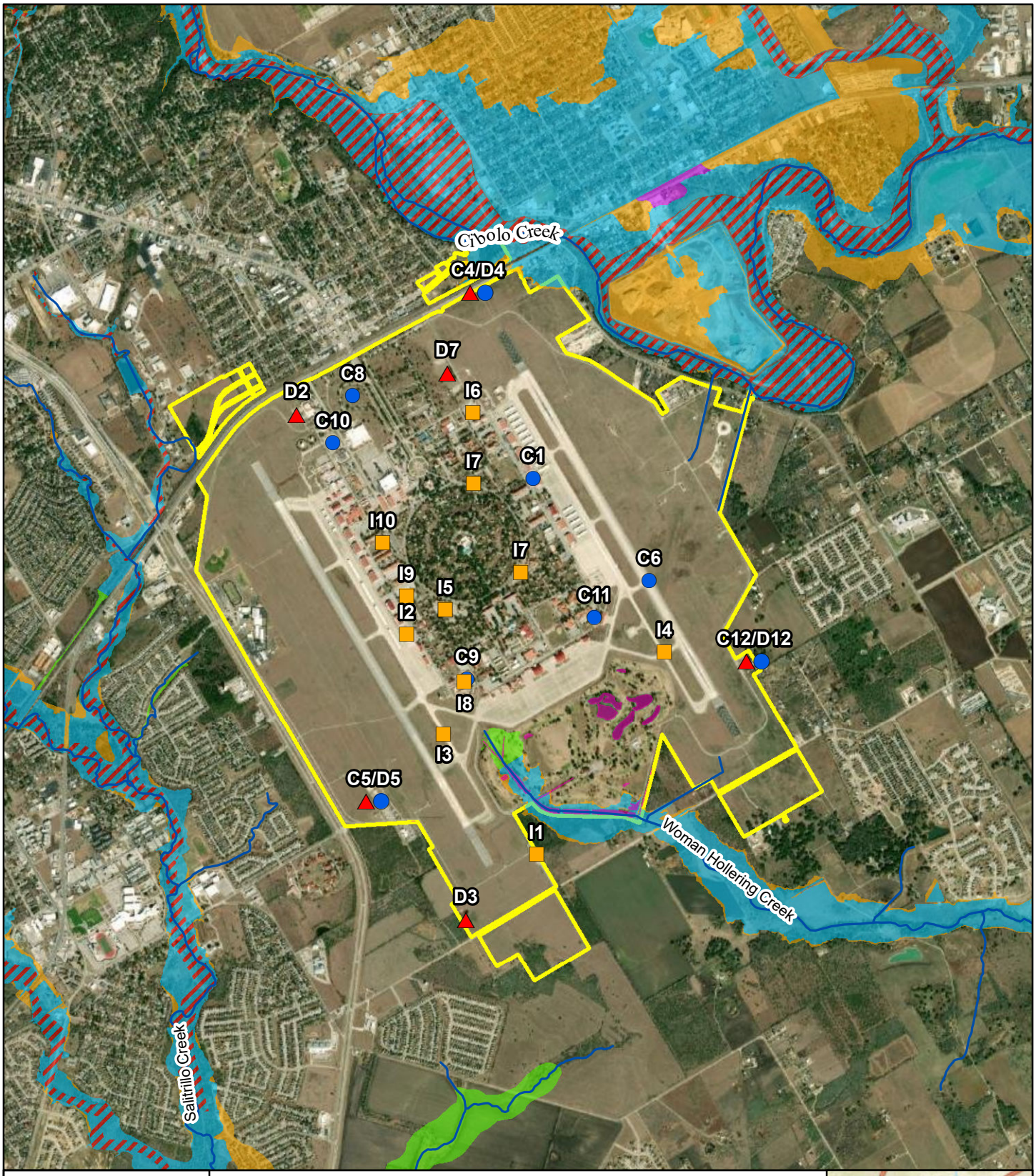


FIGURE 3-5
SURFACE WATERS AND FLOODPLAINS – JBSA-RND

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.25 0.5 Miles

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-RND

- Zone A
- Zone AE
- Zone AE (Floodway)
- Zone X (Shaded)
- Wetland
- Stream

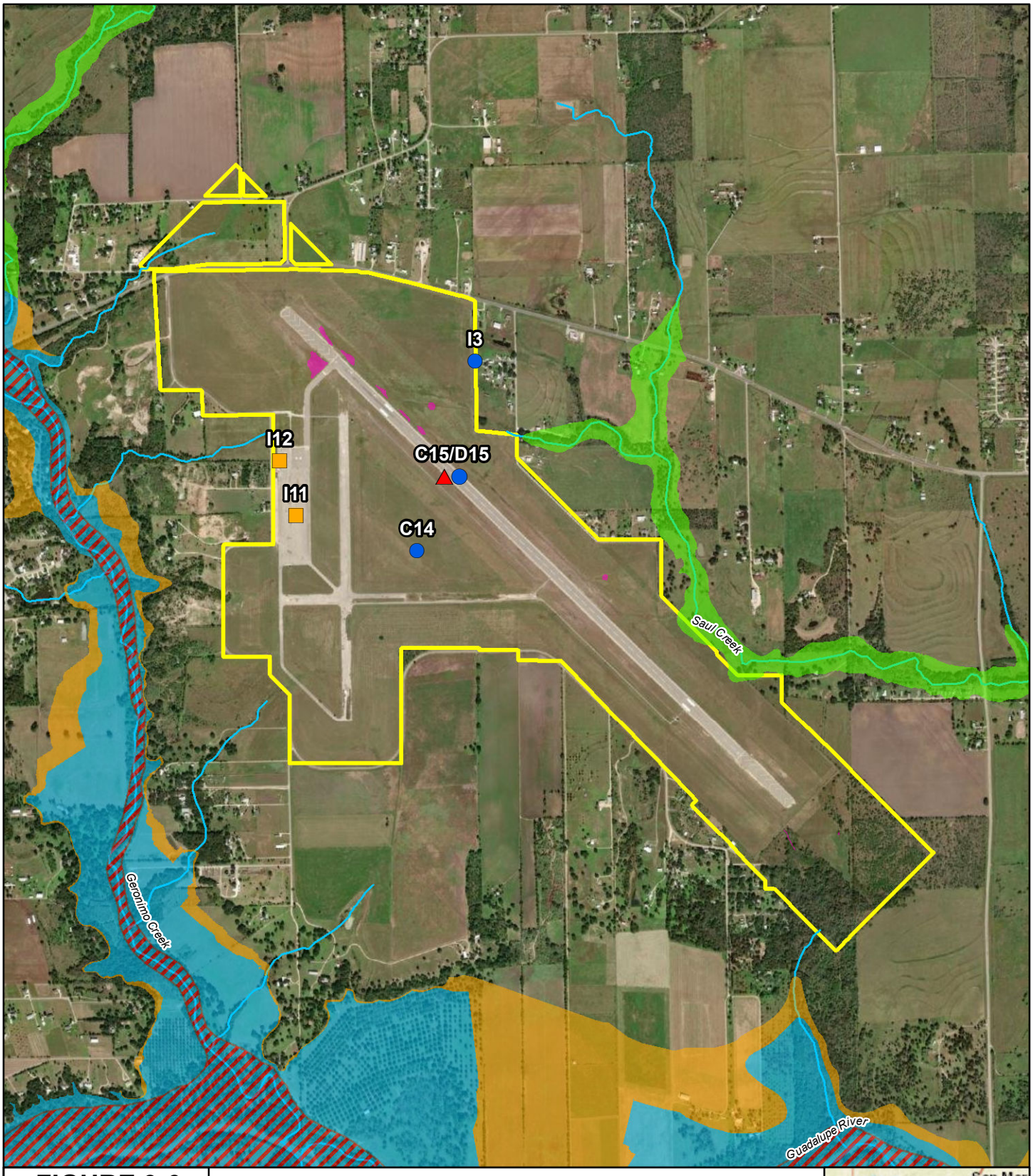


FIGURE 3-6
SURFACE WATERS AND FLOODPLAINS – SAF

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 1,000 2,000 Feet

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-RND

- Zone A
- Zone AE
- Zone AE (Floodway)
- Zone X (Shaded)
- Wetland
- Stream

3.9.1.3 Wetlands

The USACE (33 CFR § 328.3) and USEPA (40 CFR § 230.3) define wetlands as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands are a subset of Waters of the US, and those deemed "jurisdictional" are regulated under Section 404 of the CWA. When a federal agency proposed action requires a Section 404 wetlands permit, states are provided authority to enforce surface-water-quality standards under Section 401 of the CWA by review of the proposed action and permit application. The natural-function benefits of wetlands include flood control, groundwater recharge, maintenance of biodiversity, wildlife habitat, recreational opportunities, and maintenance of water quality.

JBSA-RND contains 18 wetlands covering 25.5 acres. All 18 wetlands on JBSA-RND are located within the Randolph Oaks Golf Course as managed ponds and swales. SAF contains 10 small wetlands covering approximately 3.4 acres, all of which are primarily concentrated alongside the northeastern portion of the runway (Air Force, 2020b). These areas developed wetlands likely as a result of grading and consistent ponding of water with little drainage. Two wetlands are located in the southeastern portion of the airfield as a result of eastern drainage (Tetra Tech, 2016).

3.9.1.4 Stormwater Management

Dependent on location and localized environmental conditions, stormwater originating on JBSA-RND is subject to varying levels of infiltration and conveyance. Due to the heavily developed nature of the Installation and high levels of impermeable surfaces, there is a relatively high level of stormwater discharge at JBSA-RND (Air Force, 2018a).

Pursuant to the CWA, JBSA-RND is regulated as a small municipal separate storm sewer system (MS4) operator and maintains a MS4 permit for its stormwater conveyance system. As a requirement of the MS4 permit, JBSA-RND maintains a Base-wide SWP3. The SWP3 describes procedures for the management of stormwater on the Base, including stormwater conveyed to three regulated outfalls subject to compliance with JBSA-RND's Multi-Sector General Permit for Industrial Facilities (TPDES General Permit No. TX05D855). The three outfalls discharge into two watersheds: Cibolo Creek Section 1913 and Woman Hollering Creek. Outfalls 1 and 2 discharge into Cibolo Creek. Outfall 3 discharges into Woman Hollering Creek. This creek flows into Cibolo Creek before following the same path to the Gulf of Mexico. During weather events, some stormwater facilities can become flooded due to limited underground infrastructure capacity (Air Force, 2018a).

Stormwater discharges from construction activities on JBSA-RND are also permitted under the TPDES. The type and extent of a construction activity on the Base determines stormwater management requirements on a case-by-case basis as follows:

- Disturbance of **1 acre** to less than **5 acres** that are not part of a larger common plan of development requires preparation, implementation, and maintenance of a site-specific SWP3.
- Disturbance of **1 acre** to less than **5 acres** that are part of a larger common plan of development requires authorization under TPDES General Permit No. TXR150000, including a TCEQ-approved SWP3 and NOI publication prior to construction.
- Disturbance of **5 acres or more** requires authorization under TPDES General Permit No. TXR150000, including a TCEQ-approved SWP3 and NOI publication (i.e., whether part of a larger common plan of development or not) prior to construction.

These CGPs establish standard measures to prevent or minimize potential soil erosion and sedimentation from construction sites (TCEQ, 2021b).

Section 438 of the *Energy Independence and Security Act* (EISA) (42 USC § 17094) directs federal agencies to incorporate, to the maximum extent technically feasible, LID measures to maintain the pre-

development hydrology of a site for projects involving 5,000 sf or more of land disturbance. DoD technical criteria and requirements for compliance with Section 438 of EISA are provided in UFC 3-210-10, Change 1, *Low Impact Development*.

3.9.1.5 Floodplains

Floodplains are areas of low-lying, relatively flat ground adjacent to rivers, streams, large wetlands, or coastal waters with a potential for inundation due to rain or melting snow. In a natural vegetated state, floodplains slow the rate at which incoming overland flows reach the adjacent waterbody. Floodplains also function to recharge groundwater, maintain water quality, provide wildlife habitat, and support recreation. The Federal Emergency Management Agency (FEMA) defines the 100-year floodplain as an area that has a 1-percent chance of inundation in any given year; the area with a 0.2-percent chance of inundation in any given year is defined as the 500-year floodplain. FEMA designates 100-year floodplain zones to indicate the severity or type of flooding in an area. Zone A designates portions of 100-year floodplains where depths or base flood elevations (BFEs) are not yet known and require further study. Conversely, Zone AE portions of 100-year floodplains are those with defined BFEs. Beyond the 100-year floodplain, areas designated Zone X are either shaded to indicate the 500-year floodplain or unshaded to indicate a lower risk of flooding outside 100- and 500-year floodplains (FEMA, 2021).

EO 11988, *Floodplain Management*, requires federal agencies to determine whether proposed development would occur within a floodplain and to avoid floodplains, to the maximum extent possible, when there is a practicable alternative. Where construction within the floodplain is unavoidable, development of a Finding of No Practicable Alternative (FONPA) is required detailing no other alternatives. EO 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, further directs federal agencies to use higher standards for actions in floodplains by managing beyond the base flood to a higher vertical flood elevation and corresponding horizontal floodplain. The Federal Flood Risk Management Standard (FFRMS) describes varying ways to determine a higher flood elevation and extent for federally funded projects; however, the goal is to establish the level to which a structure or facility must be to minimize current and future flood risks. As a resilience standard, the FFRMS provides flexibility to use structural or non-structural methods to reduce or prevent damage, elevate a structure, or, if appropriate, consider adaptation or recovery by design.

The San Antonio River Basin is part of an area commonly associated with “flash” flooding from high-intensity, short in duration rainfall (San Antonio River Authority [SARA], 2021). In coordination with FEMA, SARA regulates floodplain use in Bexar and Guadalupe counties. SARA also functions as a technical resource for floodplain management regionally.

On JBSA-RND, floodplains are found in the southern portion of the Base within the golf course. Zones A and AE are part of the regulatory 100-year floodplain and are located in this area. The 500-year floodplain (Zone X) surrounds the 100-year floodplain within the golf course and south of the Base. In the northeast portion of JBSA-RND, portions of the 100-year floodplain associated with Cibolo Creek are within proximity of the Installation. The 500-year floodplain also expands past the 100-year floodplain in this area. There are no floodplains within the central portion of the SS District. Three flood control ponds were designed on Women Hollering Creek to support drainage off Base and control flooding. However, these ponds have not been regularly maintained and are now detention ponds holding water year-round (Air Force, 2020b)

At SAF, small portions of the Zone A floodplain associated with Saul Creek is located within the Installation boundary in two locations. This floodplain has not had detailed hydraulic analysis performed, and no BFEs have been established. No floodplains are observed in other areas of the airfield.

3.9.1.6 Groundwater and Water Quality

Groundwater is water that collects or flows beneath the land surface. As precipitation occurs, water percolates through the ground and occupies porous space in soil, sediment, and rocks. Groundwater resources are often used for potable water consumption, agricultural irrigation, and industrial applications.

An aquifer is a body of porous rock or sediment saturated with groundwater. In Texas, aquifers are a critical source of water, supplying more than 60 percent of annual water use (TWDB, 2022b). As defined by the TWBD, there are two "major" aquifers associated with Bexar County: the Trinity Aquifer and the Edwards (Balcones Fault Zone) Aquifer.

JBSA-RND falls within the jurisdictional boundary of the Edwards Aquifer Authority (EAA). The Edwards Aquifer occupies a subsurface area of 2,314 square miles in south-central Texas (EAA, 2021). The Edwards Aquifer extends across parts of 13 Texas counties, including Bexar County. Because it primarily consists of partially dissolved limestone, the Edwards Aquifer is highly permeable. The Edwards Aquifer discharges to numerous springs throughout its reach. The water quality of the Edwards Aquifer is generally considered to be of high quality. The groundwater of the aquifer is primarily used as a source of potable water and for agricultural irrigation; the City of San Antonio obtains nearly all of its water supply from the Edwards Aquifer. Because of its high rate of permeability, water levels and spring flows in the Edwards Aquifer can fluctuate rapidly in response to rainfall, drought, or pumping. This characteristic also increases the aquifer's susceptibility to pollution from stormwater runoff or spills (TWDB, 2022b, 2022c).

JBSA-RND overlies the confined or artesian zone of the Edwards Aquifer (**Figure 3-7**). Although the artesian zone falls within the jurisdictional boundary of the EAA, this area is not subject to any EAA rules or regulations. The Edwards Aquifer is the primary source of water withdrawal for JBSA-RND and has been designated by the USEPA as a sole-source aquifer. A sole-source aquifer supplies at least 50 percent of the drinking water for its service area with no feasible alternative (Air Force, 2020b).

SAF is located within the Carrizo-Wilcox Aquifer. This aquifer occupies a subsurface area of 25,491 square miles spanning 66 counties from south-central to northeastern Texas. Water quality in the central portion of the aquifer is slightly to moderately saline. Irrigation pumping and municipal supply water are the primary uses of this aquifer's resources (TWDB, 2022c).

JBSA-RND and SAF contain mostly improved and impervious surfaces. The ability for water to permeate groundwater resources is limited. Unimproved areas of JBSA-RND are centered in the four corners; the north, south, east, and west corners of the Base contain small pockets of unimproved surfaces. While the golf course is considered improved, permeability would be expected where impervious surfaces do not exist.

3.9.2 Environmental Consequences

The Air Force defined a significant effect on water resources within the ROI as one or more of the following:

- substantial, permanent alteration, damming, diversion or redirection of jurisdictional stream segments or hydrological connections to Waters of the US;
- Substantial changes to the volume, rate, or quality of stormwater discharges from a project site that degrade water quality, exceed pollutant TMDLs, and/or violate Section 438 of EISA, the conditions of JBSA-RND's MS4 permit, or other applicable stormwater regulation or permit;
- development within a 100-year floodplain or jurisdictional wetlands without full consideration of other practicable alternatives or methods to avoid and minimize adverse effects;
- release of contaminants to groundwater underlying a project site exceeding applicable regulatory thresholds (i.e., maximum concentration levels); and
- noncompliance with applicable stormwater management requirements, including erosion and sedimentation controls.

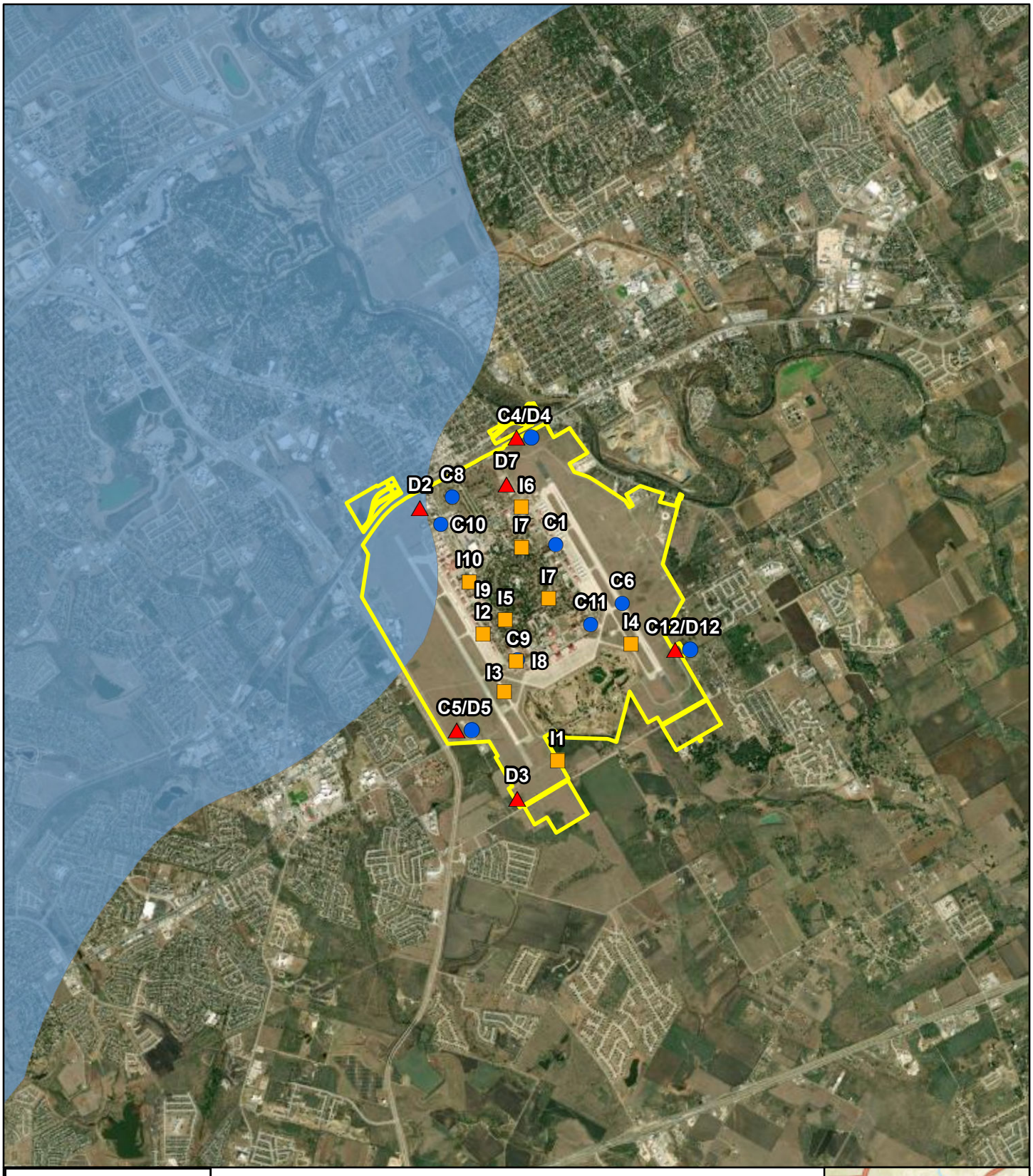


FIGURE 3-7
EDWARDS AQUIFER – JBSA-RND

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.5 1 Miles

JBSA-BUL

Proposed Action

Demolition

Construction

Infrastructure

Edwards Aquifer

Transition/Artesian Zone

3.9.2.1 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.9.2.2 Proposed Action

Watershed Management

The Proposed Action would involve construction-related activities such grading, excavation, and similar earthwork. Some of these activities would occur within or immediately adjacent to water resources on JBSA-RND. During construction, and for a period thereafter, soils would be exposed, increasing the potential for erosion and sedimentation of nearby surface waters. It is not anticipated that the Proposed Actions at JBSA-RND and SAF would have significant effects on the San Antonio River Basin or the Guadalupe River Basin, respectively.

Surface Waters and Water Quality

Project I1 on JBSA-RND would be located within proximity of Woman Hollering Creek on the southern border of JBSA-RND. This project would also cross multiple wetlands that run parallel to the creek and perimeter fence at the southern end of the Installation. The project would realign the existing Randolph Oaks Golf Course to clear trees and brush along the South Gate perimeter fence. Work would not occur directly within Woman Hollering Creek. No native trees would be removed. During construction, the area would be maintained by contractors, and erosion potential would be minimized through BMPs, limiting the runoff potential into surface waters. No additional proposed projects would have the potential to directly impact streams on the Installation or within proximity of streams.

Water Quality

Under the Proposed Action, most projects would not directly affect surface waters, including streams on JBSA-RND and SAF. Depending on distance and localized environmental conditions such as erodibility and permeability of soils, slope, and imperviousness, stormwater generated at project sites could degrade water quality at and downstream of receiving waterbodies. The level of potential effects from sediments or contaminants transported overland in runoff and discharged to surface waters would depend on many factors. However, the Air Force would prevent and reduce potential effects by requiring that construction contractors obtain applicable TPDES permit(s), including a CGP for sites that individually or collectively disturb one or more acres of land. The CGP would identify measures to prevent and minimize stormwater discharges during construction and, when appropriate, require preparation of a TCEQ-approved SWP3. Because SWP3s and other TPDES stormwater requirements would be required for each individual project site under the Proposed Action, the measures would account for localized environmental conditions and other determinants of water quality. With these measures in place, potential adverse effects on surface waters from most of the involved projects would be minor and short term. Revegetation with native grasses, shrubs, and trees post-construction would ensure potential long-term effects do not occur or are negligible.

To comply with Section 438 of EISA, LID measures would be incorporated into the applicable projects of the Proposed Action to the maximum extent technically feasible. These design measures would help to maintain or restore stormwater runoff such as the temperature, rate, volume, and duration of surface flows. Each of the involved project sites would use an analysis of pre-development hydrology to establish a baseline condition and set design objectives for stormwater management. Under the Proposed Action, if design objectives could not be met on one or more project sites, LID measures would be considered for application in areas downstream thereof (i.e., either on or in the vicinity of JBSA-RND).

All other proposed projects would be in previously developed and highly industrial areas away from surface waters. Changes to the overall surface water quality would be minimal and short term, centered around construction and demolition projects. Mitigation measures to control surface runoff from construction sites

would minimize the opportunities for sediment to contaminate stormwater and surface water. Long-term, adverse impacts to surface water and water quality would not be expected at JBSA-RND or SAF.

Wetlands

Project I1 on JBSA-RND would be located within proximity of wetlands located along the southern border of JBSA-RND. This project would cross multiple wetlands that run parallel to the creek and perimeter fence at the southern end of the Installation. The Proposed Action would remove brush and trees and have the potential to increase sedimentation and erosion into the wetlands in this area. Proposed project I4 would involve paving and resurfacing the shoulders of the runway and taxiway to facilitate a better functioning drainage system. Grading would take place in proximity to the wetlands found within the golf course. These actions would have the potential to increase runoff into these wetlands.

Project C15/D15 would be located at SAF would involve construction and demolition of portions of the runway and taxiway to construct new 12-foot-wide shoulders. Wetlands are present toward the northern end of the runway and run along both east and west sides within close proximity of existing pavement, and there is the potential for impacts to occur to these wetlands during construction activities.

In its response dated 27 May 2022 (**Appendix A**), the USACE determined that the Proposed Action would not involve activities subject to the requirements of Section 404 of the CWA. Therefore, it will not require Department of the Army authorization pursuant to Section 404.

Stormwater Management

Multiple projects are intended to address deficiencies in the existing stormwater infrastructure at JBSA-RND and SAF. Project I3 at JBSA-RND would involve drainage improvements alongside a full replacement of the west runway. Project I4, also at JBSA-RND, would pave and resurface the east and south taxiway shoulders for the purpose of improving the drainage within these areas during weather events. Project C15/D15 is located at SAF and would also make improvements to the shoulders of the runway and taxiway and construct new shoulders. These projects would improve the efficiency of stormwater conveyance across both JBSA-RND and SAF.

Floodplains

The Air Force has determined that certain facilities and infrastructure proposed in the ADP necessitate development within or near the 100-year floodplains on JBSA-RND and SAF. In such cases, alternative sites were considered to avoid or minimize potential adverse effects on floodplain resources. The planning process for this EA began with development of the ADP and discussions on where to site new facilities and infrastructure, including issuance of an EPN specifically to solicit input on potential impacts to floodplains and wetlands from the Proposed Action (see **Appendix B**). The resultant location decisions considered multiple factors, including mission, safety, and relevant environmental constraints. Under the Proposed Action, some project sites within or proximate to floodplains were determined necessary to maintain mission support capabilities. The majority of construction, demolition, and infrastructure projects under the Proposed Action would not occur directly within a regulatory floodplain on either JBSA-RND or SAF. Some project actions would occur in proximity to a 100-year floodplain, and one proposed project would cross the 100-year floodplain on JBSA-RND.

Project I1 would be located within the 100-year regulatory floodplain associated with Woman Hollering Creek located at the southern end of JBSA-RND. This project would realign the existing golf course to clear trees and brush along the South Gate perimeter fence. Invasive trees would be removed from the fence line to create a belt of land at least 30 feet on both sides for security purposes.

Project C4/D4 is proposed in the northeast corner of the Installation. The action would demolish the existing east ACP gate and construct a new gate, guard house, sentry booths, and entry lanes outside of the existing CZ, farther west, away from the floodplain. The demolition activity would occur less than 0.25 mile from the 100-year floodplain associated with Cibolo Creek; however, the mapped floodplain does not cross south of Highway 78 (Gordon A. Blake Highway), which serves as the northern boundary of the Installation. Potential

adverse effects would be managed by design and BMPs. Because the infrastructure improvement projects located in or immediately adjacent to 100-year floodplains would involve the repair, maintenance, or improvement of existing infrastructure, potential effects on floodplain resources would be minor and short term. Once these routine activities were completed, no change on the quality, state, or function of 100-year floodplains would be anticipated under the Proposed Action.

At SAF, Project C13 would involve securing the airfield with a UFC-compliant fence. The Zone A floodplain associated with Cibolo Creek runs along the eastern boundary of SAF and briefly crosses into the Installation in two locations toward the southern end. In these two locations, the proposed projects have the potential to impact portions of the Zone A floodplain with the installation of fencing across portions that extend into the Installation boundary from Cibolo Creek. Temporary impacts may be expected during construction activities; however, once completed, no change in the quality or status of the floodplain would be anticipated.

The remaining projects at JBSA-RND and SAF are proposed in either previously developed or highly industrial areas, away from proximity of any existing floodplains. Any impacts to the mapped floodplains would be minimal and short term, centered around construction and demolition projects. Long-term, adverse impacts to floodplains would not be expected at JBSA-RND or SAF.

To document planning conducted to avoid and minimize potential adverse effects of the Proposed Action on 100-year floodplains, the Air Force prepared a FONPA. The FONPA also identifies and documents the measures the Air Force would take to avoid and minimize adverse effects.

Groundwater and Water Quality

The Proposed Action would create the potential for contaminants to leach or discharge to groundwater of the Edwards Aquifer. Due to its hydrologic connectivity with the Trinity Aquifer, this potential extends to groundwater in this aquifer. To ensure protection of these groundwater resources during and after construction activities, the Air Force would comply with the applicable Edwards Aquifer Rules in coordination with the TCEQ. All projects at JBSA-RND would occur within the artesian zone of the Edwards Aquifer, which has a low potential for permeability of surface water. Therefore, contamination from surface- and stormwater runoff has potential, but is not likely, to have an adverse effect on the groundwater supply or quality at JBSA-RND.

Projects proposed at SAF are located within the Carrizo-Wilcox Aquifer. Groundwater contamination concerns would be similar to those for the Edwards Aquifer. The potential for impacts is present; however, long-term adverse impacts would not be expected. The Proposed Action would comply with the erosion and sedimentation requirements under the Edwards Aquifer Rules and would be conducted in accordance with 30 TAC 213, as approved by the TCEQ. With these measures in place, potential adverse effects on groundwater resources under the Proposed Action would be minor and short term in nature.

Under the Proposed Action, reasonably foreseeable development plans and projects within and around the San Antonio metropolitan area also would be subject to regulation under the NPDES permitting program, including the planned waterway channel construction within the Cibolo Creek watershed, approximately 2 miles away from the Proposed Action. These regulatory compliance measures would serve to prevent or minimize potential effects on water resources from development on a regional scale. Therefore, in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects on water resources would not be likely to occur.

3.9.3 Best Management Practices and Mitigation Measures

The Air Force would require contractors to implement the following BMPs to reduce potential effects on water resources under the Proposed Action:

- Comply with Sections 404/401 of the CWA including any site-specific BMPs established through the permitting process.

- Construction sites are inspected for proper use and implementation of stormwater pollution prevention BMPs.
- Prior to construction, obtain an applicable TPDES permit to manage stormwater on a site-specific basis; prepare a State-approved SWP3 and submit a NOI as appropriate; and adhere to permit conditions during construction to minimize soil erosion, sedimentation, and compaction under the Proposed Action.
- Comply with Section 438 of EISA to maintain the pre-development hydrology of each applicable project site to the maximum extent technically feasible and incorporate LID measures and techniques into the design of the Proposed Action to increase onsite infiltration of stormwater.
- When possible, establish construction staging areas on existing hardscape and at least 100 feet away from surface-water resources

No mitigation measures for potential effects on water resources under the Proposed Action are recommended.

3.10 BIOLOGICAL RESOURCES

Biological resources include native or invasive plants, animals, and the habitats upon which they rely for sustenance and survival. These resources include terrestrial and aquatic species; game and non-game species; special status species (i.e., state or federally listed species and species of concern such as migratory birds); and environmentally sensitive habitats or natural areas that have functional or intrinsic value to humans.

Pursuant to the *Sikes Act* (16 USC § 670a), JBSA maintains an Integrated Natural Resources Management Plan (INRMP) to guide the use and management of natural resources within the Joint Region, including JBSA-RND (Air Force, 2020b). The ESA, as amended by the *National Defense Authorization Act for Fiscal Year 2004* (Public Law 108-136), exempts military installations from "critical habitat" designations in cases where a Sikes Act-compliant INRMP provides a demonstrable benefit to one or more ESA-listed species.

The ROI for biological resources includes JBSA-RND, SAF, and the immediately adjacent areas that contain sensitive or beneficial natural resources. Beyond this ROI, the potential for adverse impacts on biological resources is not anticipated.

3.10.1 Existing Conditions

JBSA-RND resides within the Texas Blackland Prairie ecoregion. An ecoregion is geographically defined by an area with similar atmospheric and environmental conditions. SAF also resides mainly within the Texas Blackland Prairies ecoregion with a small corner at the southwest tip of the Installation entering the East Central Texas Plains ecoregion. Texas Blackland Prairies is a subsection of the South Central Semi-Arid Prairies characterized by a mild, humid, and sub-tropical climate. The ecoregion is now urbanized but was historically covered in tallgrass prairies. Much of this land is low to moderate in grade and currently supports low wildlife and vegetative diversity. Management practices are needed around aircraft movement areas because an abundance of biological resources could be detrimental to the safe launch of aircraft from the Installations (Air Force, 2014).

3.10.1.1 Vegetation

Historically, JBSA-RND had vegetative characteristics similar to the Northern Blackland Prairie ecoregion. This region contained tallgrass prairies that frequently experienced fire and animal grazing resulting in a maintained landscape. Today, JBSA-RND and SAF are highly developed, with managed grasses and developed/urban lands as the primary vegetation types. A vegetation management plan is currently being drafted for JBSA-RND to support bird and wildlife air strike hazard (BASH) efforts and maintain the Randolph Field Historic District (Air Force, 2020b). Further detail on BASH efforts is discussed in **Section 3.10.1.4.** The area is a National Historic Landmark District (NHLD); NHLDs are historic properties that

illustrate the history of the US and represent a unique aspect of American history and culture. Randolph Field was the site of Air Corps schools for flight training and was a landmark in airfield planning and design (National Park Service [NPS], 2017). The planning and architectural details of Randolph Field also extend to the landscape features; therefore, the Texas Historical Commission must also be consulted prior to vegetation removal that may have an adverse effect on the NHLD.

JBSA-RND has approximately 1,060 acres of developed urban space, totaling approximately 37 percent of the Base. While there is a wide variety of grasses and plants commonly found at JBSA-RND, most vegetative cover consists of non-native grass species such as St. Augustine grass (*Stenotaphrum secundatum)*, Bermuda grass (*Cynodon dactylon*), and crabgrass (*Digitaria* spp).

At SAF there are approximately 92 acres of developed/urban land cover and 80 acres of shrubland. There is very little native vegetation remaining, but there are approximately 787 acres of managed non-native grasses and plants at the Installation. Current undeveloped areas consist of mid-to-tall grasslands composed primarily of non-native pasture grasses such as Johnson grass (*Sorghum halpense*), King Ranch Bluestem (*Bothriochloa ishchaemum*), and silky bluestem (*Dichanthum sericeum*), which dominate during the summer, and Texas winter grass (*Stipa leucotricha*), which is dominant during the winter. Small sprouts of honey mesquite (*Prosopis glandulosa*) are also scattered throughout the area (Air Force, 2020b).

3.10.1.2 Wildlife Species and Habitat

There is a large amount of developed land at JBSA-RND and SAF, which limits viable species habitat; however, there is still a variety of wildlife and fish species present on each Installation. Species have adapted to impervious surfaces, infrastructure, and lack of vegetation in developed areas. Wetlands to the south of JBSA-RND at the Randolph Oaks Golf Course potentially provide habitat to a variety of species; three ponds within the golf course are open to limited catch and release fishing. Areas of potential habitat at the golf course are maintained by practices established under the JBSA Golf Courses Environmental Management Plan (AFCEC, 2014)

Native species found at JBSA-RND include birds such as swallows, herons, and sparrows; mammals such as bats, squirrels, and skunks; and reptiles and amphibians such as snakes, lizards, and fish. Native species found at SAF include birds such as hawks, and flycatchers; mammals such as rabbits and foxes; and reptiles and amphibians such as frogs, toads, and snakes. Known occurrences of Installation-specific species are recorded in the appendices of the JBSA INRMP (Air Force, 2020b).

3.10.1.3 Threatened and Endangered Species

Threatened and endangered species include plants and animals that receive protection under federal or state laws and regulations. These include the ESA (16 USC § 1536), the Migratory Bird Treaty Act of 1918 (16 USC § 703) (MBTA), EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, and the Texas Parks and Wildlife Code (Title 5, Chapters 67 and 68). There are no federal- or state-protect plant species known to occur on or adjacent to JBSA-RND.

Eleven federal- and/or state-listed species may be impacted by JBSA's withdrawal from the Edwards Aquifer. JBSA currently has one final Biological Opinion in place, *The Effects of JBSA Water Draw on Listed Species of the Edwards Aquifer* (Consultation No. 02ETAU00-2013-F-0060). The Biological Opinion pertains to water draw limits for all of JBSA, including any new landscaping, and addresses effects of JBSA water withdrawal from the Edwards Aquifer on federally protected species.

There are no federally threatened or endangered species that have been observed or are known to occur at JBSA-RND or SAF (Air Force, 2020b). The occurrence of state-listed species to occur in the project area is dependent on availability of suitable habitat. Due to the developed nature of JBSA-RND and SAF, almost all project actions would take place outside of suitable wildlife habitat. Some project actions at the southern end of JBSA-RND would involve work within wetlands and vegetated areas that may provide refuge for state-listed reptiles and amphibians, as well as roosting habitat for birds.

3.10.1.4 Migratory Birds

Migratory birds are protected under the MBTA. In addition, migratory birds are managed under the BASH program at JBSA-RND and SAF. The goals of the program are to mitigate the BASH threats and risks posed by the various species of birds living and roosting in the urban forest within the NHLD between the two runways of JBSA-RND. JBSA-RND has roosting and nesting habitat in the Base housing area, administrative areas between the east and west runways, and the Randolph Oaks Golf Course. The large bird population sharply elevates the risk of midair collisions with birds during takeoffs and landings (JBSA, 2018). Breeding bird surveys completed in the area documented 48 species of birds. Approximately 7,515 woody plants (trees and shrubs) consisting of 67 different species were recorded between the runways, providing habitat for these species (Air Force, 2020b).

3.10.2 Environmental Consequences

Potential adverse effects on biological resources would depend on factors unique to an individual or population of plant(s) or animal(s). These include the resource's value or importance to humans (e.g., commercial, recreational, ecological, and scientific); legal status under federal, state, or local law and/or international treaty; range and abundance across geography or jurisdiction; and vulnerability or sensitivity to a particular activity considering distance from source, exposure duration, and a myriad of other variables.

The Air Force defines a significant effect on biological resources within the ROI as one or more of the following:

- mortality or diminishment of regionally or locally important plant or animal species
- substantial amount of vegetation removal from riparian habitats
- direct loss or substantial degradation of terrestrial (e.g., fragmentation) or aquatic (e.g., wetlands) habitats
- an adverse effect on the recovery of a federally listed or candidate species

3.10.2.1 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur, and biological resources at JBSA RND and SAF would continue to be managed in accordance within the Installation's INRMP, BASH, and Golf Course Environmental Management guidelines. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.10.2.2 Proposed Action

Construction projects involving new buildings and structures have the potential to impact biological resources through new land disturbances. Infrastructure projects typically involve renovation and maintenance on existing buildings and structures and are less likely to create new disturbances and potential impacts.

<u>Vegetation</u>

The Proposed Action would have minimal impacts to native or non-native plant species at JBSA-RND. The proposed construction, demolition, and infrastructure projects would occur primarily on previously disturbed land. Project I1 at JBSA-RND, which would realign the golf course to clear trees and remove brush along the South Gate perimeter fence line for operational safety, would directly impact vegetation. Invasive trees and brush would be removed from the fence line to create a belt of land at least 30 feet on both sides for security purposes. No native trees would be removed. The area would be maintained by contractors. While the vegetation would be removed, the trees and brush are a hazard for operational safety along the fence line. The realignment of the golf course would allow for better maintenance of the landscaped grounds in

this area for future operations and security. Reducing the number of invasive plants and trees along the perimeter fence would reduce habitat that contributes to potential BASH conflicts and contribute to the safety of continued airfield operations.

Project C12/D12, relocation of Eberle Park to Heritage Park, would also impact vegetation but would occur on previously disturbed land. This project would remove trees and buildings; the newly cleared area would be modified to expand the park area and increase managed park grass area on the Installation.

The majority of SAF is managed grassland with non-native vegetation. Most projects under the Proposed Action at SAF would occur on previously disturbed land and would not be expected to significantly impact the character of the vegetation.

Wildlife Species and Habitat

Under the Proposed Action, wildlife species and habitat would not be expected to be adversely affected. JBSA-RND is an urban environment that does not generally support wildlife beyond the Randolph Oaks Golf Course, which provides habitat within the ponds located on the course (Tetra Tech, 2016). SAF consists of mainly managed grasslands that would not be expected to be significantly impacted by the Proposed Action. The majority of project activities included under the Proposed Action would not convert existing habitat. Project I4 would remove trees and vegetation that could serve as existing habitat for native species; however, the project involves removal of primarily invasive trees and shrubs. Native trees would be retained under the Proposed Action.

Threatened or Endangered Species

Federally listed threatened or endangered species are not known to occur within the boundaries of the installations; therefore, the Proposed Action at JBSA-RND would not be expected to impact these resources.

Water storage tanks exist on JBSA-RND with adequate capabilities to service the Installation. The presence of these tanks helps the Installation to manage water draw more directly from Edwards Aquifer accordingly during times when water levels may be low and threatening the existing wildlife. Additionally, the available water capacity for the Base has increased in recent years due to housing privatization, making the Installation unlikely to exceed past water draw needs. The Installation has excess capacity to meet any future expansion including the proposed projects (Air Force, 2018a). If emergencies were to occur, the City of Shertz would provide water to the Base. Water consumption from Edwards Aquifer is not anticipated to change substantially, and the 11 federally and/or state-listed species within Edwards Aquifer would not be impacted by any minor changes.

Project actions taking place near the southern end of JBSA-RND have the potential to impact habitat that may be suitable for state-listed reptile and amphibian species. The absence of these species would be difficult to establish, and the Air Force would implement measures to reduce the potential for impacts to these species, such as conducting visual inspections prior to work each day and using erosion control or stabilization materials that are designed to minimize entanglements with wildlife.

Migratory Birds

The JBSA INRMP details construction restrictions that are in place to protect migratory birds during the bird breeding season, which generally occurs 1 March through 15 August. Restrictions during this period aim to reduce disturbance of bird habitat and include limitations on vegetation and brush removal, vehicle use, equipment locations and duration of use, and the use of chemical substances. Outside of the breeding season (16 August through 28 February), vegetation and brush removal and vehicle use are still restricted. Under the Proposed Action, construction and demolition activities would proceed under the terms of the existing restrictions in order to minimize the potential for impacts to migratory birds.

Under the Proposed Action, conservation laws and initiatives would continue to limit, control, or guide development in a manner that protects natural resources in the public interest. JBSA-RND would continue

to maintain and implement a USFWS-approved INRMP. These measures would ensure biological resources on and around JBSA-RND would be maintained at levels commensurate with the objectives of the natural resources management plans. Therefore, when considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects on biological resources would not be likely to occur.

3.10.3 Best Management Practices and Mitigation Measures

The Air Force would require contractors to implement the following BMPs to reduce potential effects on biological resources under the Proposed Action:

- Revegetate disturbed areas with native species.
- Limit or avoid construction (e.g., tree removal or noise-intensive activities) within the nesting season of migratory birds observed on or near project sites.
- Design, construct, and maintain project-specific stormwater management features to the benefit of wildlife habitat, when applicable and possible.
- Ensure any clearing of vegetation conforms to BASH protocols.

No mitigation measures for potential effects on biological resources under the Proposed Action are recommended.

3.11 CULTURAL RESOURCES

Cultural resources are any prehistoric or historic district, site, building, structure, or object considered important to a culture or community for scientific, traditional, religious, or other purposes. These resources are protected and identified under several federal laws and EOs. Cultural resources include the following subcategories:

- Archaeological (i.e., prehistoric or historic sites where human activity has left physical evidence of that activity, but no structures remain standing);
- Architectural (i.e., buildings, structures, groups of structures, or designed landscapes that are of historic or aesthetic significance); and
- Traditional Cultural Properties (TCPs) (resources of traditional, religious, or cultural significance to Native American Tribes).

Significant cultural resources are those that have been listed on the National Register of Historic Places (NRHP) or determined to be eligible for listing. To be eligible for the NRHP, properties must be 50 years old and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. They must possess sufficient integrity of location, design, setting, materials, workmanship, feeling, and association to convey their historical significance, and meet at least one of four criteria for evaluation:

A. Associated with events that have made a significant contribution to the broad patterns of our history
B. Associated with the lives of persons significant in our past;
C. Embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; and/or
D. Have yielded or be likely to yield information important in prehistory or history.

Properties that are less than 50 years old can be considered eligible for the NRHP under Criterion G if they possess exceptional historical importance. Those properties must also retain historic integrity and meet at

least one of the four NRHP criteria (Criteria A, B, C, or D). The term "historic property" refers to National Historic Landmarks, NRHP-listed, and NRHP-eligible cultural resources.

Federal laws protecting cultural resources include the *Archaeological and Historic Preservation Act of 1960*, as amended (54 USC § 300101 et seq.), the *American Indian Religious Freedom Act of 1978* (42 USC § 1996), the *Archaeological Resources Protection Act of 1979*, as amended (16 USC §§ 470aa–470mm), the *Native American Graves Protection and Repatriation Act of 1990* (25 USC §§ 3001–3013), the NHPA, as amended through 2016, and associated regulations (36 CFR Part 800). The NHPA requires federal agencies to consider effects of federal undertakings on historic properties prior to making a decision or taking an action and integrate historic preservation values into their decision-making process. Federal agencies fulfill this requirement by completing the NHPA Section 106 consultation process, as set forth in 36 CFR Part 800. NHPA Section 106 also requires agencies to consult with federally recognized Native American Tribes with a vested interest in the undertaking. NHPA Section 106 requires all federal agencies to seek to avoid, minimize, or mitigate adverse effects to historic properties (36 CFR § 800.1(a)).

For cultural resources analysis, the ROI is defined by the APE. The APE is defined as 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)) and thereby diminish their historic integrity. The direct and indirect APE for JBSA-RND and SAF for this EA includes 50 meters and 0.5 mile around each project location, respectively.

The ROI for cultural resources is commensurate with the APE for the Proposed Action. No adverse impacts on cultural resources would be anticipated beyond the ROI.

3.11.1 Existing Conditions

Under the NHPA, "significant" cultural resources are those listed or determined eligible for listing on the NRHP. Historic properties 50 years or older that have national, state, or local significance in American history, architecture, archaeology, engineering, or culture are potentially eligible for listing on the NRHP; however, properties less than 50 years old that possess exceptional historical importance may also qualify as eligible for listing.

Under the NHPA, a property or site to be listed or eligible for listing on the NRHP must possess sufficient integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the NRHP significance criteria (54 USC § 302103).

Section 106 requires federal agencies to consider and assess the effects an undertaking may have on historic properties. It also requires federal agencies to consult with the SHPO to avoid, reduce, or minimize adverse effects. Further, federal agency consultations under Section 106 provide an opportunity for public involvement. The SHPO, federally recognized Native American Tribes, representatives of local governments, other federal agencies with jurisdiction related to the undertaking, and individuals and organizations with a demonstrated interest in the undertaking may participate in the Section 106 process as "consulting parties." Through the scoping process for this EA, these stakeholders were identified and invited to participate in the Section 106 and EIAP processes for the Proposed Action (see **Appendix A**).

In accordance with 36 CPR Part 800, the Air Force fulfills its obligations under Section 106 at JBSA by Programmatic Agreement (PA) with the Texas SHPO. The PA applies to operation, maintenance, and development activities on JBSA. Under the Proposed Action, the Air Force would adhere to the project review process as stipulated in the PA. This process outlines the agreed upon procedures for monitoring, recording, qualifying, and mitigating for potential adverse effects on cultural resources under JBSA's management, including those associated with JBSA-RND. The PA also identifies development program activities that are "exempted" from Section 106 requirements.

3.11.1.1 Archaeological Resources

There are no known archaeological resources at JBSA-RND, and further survey is not anticipated due to the highly disturbed nature of the Installation. Two archaeological sites are known to exist at SAF; however, these sites were found to lack context and were recommended not eligible for listing on the NRHP in 1993 (Air Force, 2020c).

3.11.1.2 Architectural Resources

JBSA-RND has an extensive military aviation history and is recognized specifically for the architecture present on Base within numerous contexts and studies. JBSA-RND is primarily characterized by the Randolph Field NHLD, which is located in the center of the Installation (**Figure 3-8**). A survey and assessment of architectural resources at JBSA-RND in 1993 was the basis by which this district was originally nominated for listing on the NRHP. The district was successfully listed on the NRHP in 1996 and originally included 348 contributing resources. In 2001, a National Historic Landmark nomination was prepared by NPS titled *Randolph Field Historic District*, which included 350 total properties, including 342 buildings, one historic landscape, and seven structures as contributing features (Air Force, 2020c).

Individually eligible resources also exist on JBSA-RND. The Taj Mahal building (B-100) was determined individually eligible in 1987 and is also considered contributing to the newer NHLD. Buildings 40 and 41, maintenance hangars built in 1946, are located south of the NHLD and are both considered individually eligible for listing on the NRHP.

SAF has been inventoried for architectural resources; however, no historic built resources have been identified (Air Force, 2020c).

3.11.1.3 Historic Landscape

Historic landscapes are important for maintaining features of historic properties that are not individually eligible but are still critical to defining the look and feel of a historic area. These features can include sidewalks, gazebos, curbs, fences, road alignments, or even the historic function of a property. The landscape at JBSA-RND was discussed in the 2001 NHLD nomination. This discussion made note of the importance of the streets, paths, walls, and manmade features used in the landscape located within the Randolph Field Historic District (Air Force, 2020c). A formal survey of the historic landscape features was completed in 2013. This survey discusses features of the district, such as layout, roads, vegetation, monuments, and viewsheds. The survey also gives recommendations for maintaining the historic integrity of these features of the NHLD by preserving the layout of the roads, boulevards, and vegetation, and developing plans in accordance with the original planting schemes and design of the district (USACE, 2013).

For any proposed undertaking involving a National Historic Landmark property that the Air Force and SHPO determines does not meet the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* and constitutes an adverse effect under 36 CFR § 800.5, the NPS shall be invited to participate in consultation in compliance with 36 CFR § 800.10(c).

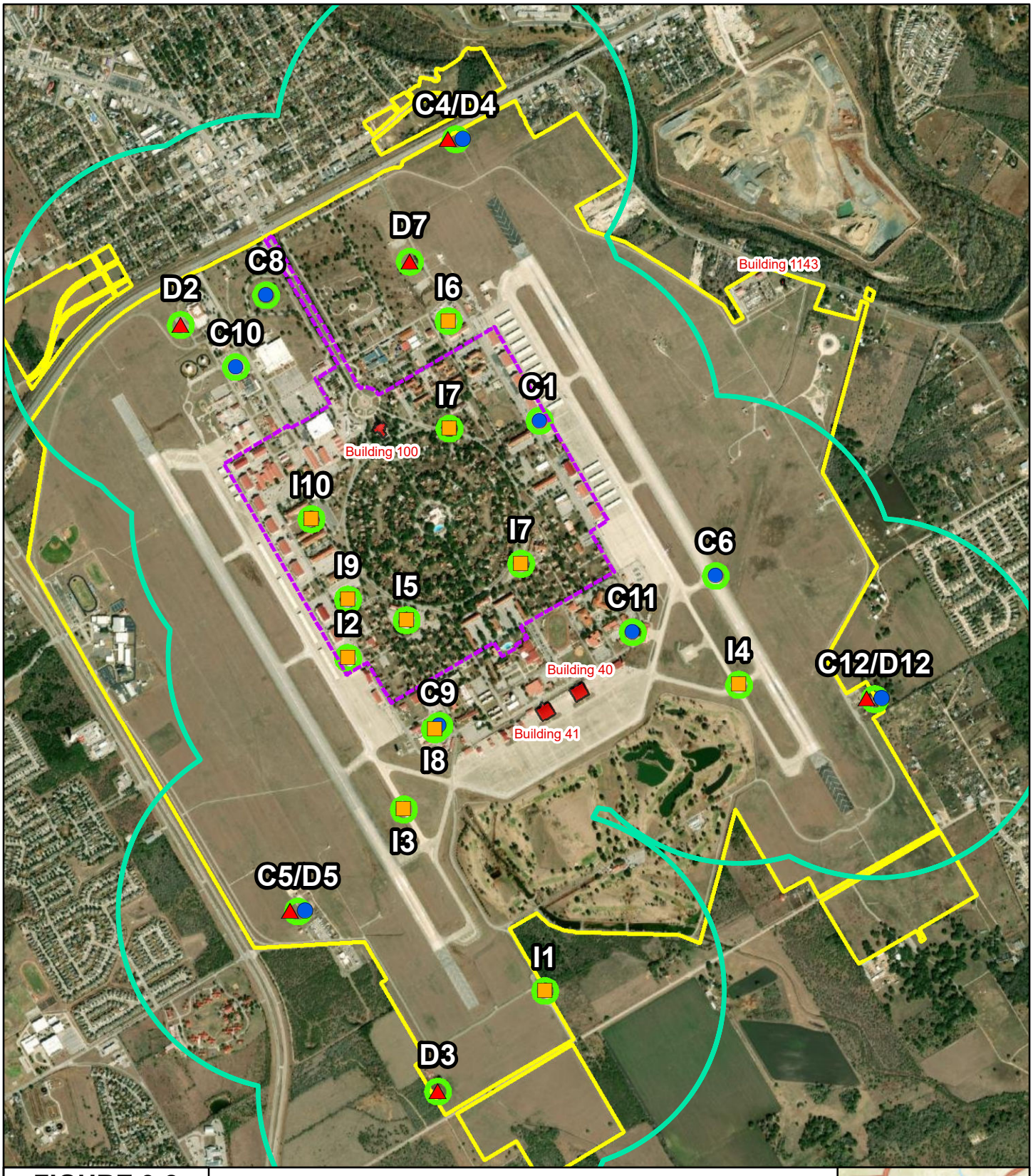


FIGURE 3-8
CULTURAL RESOURCES – JBSA-RND

N

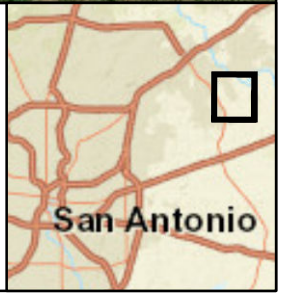
Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 1,000 2,000 Feet

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-Randolph

- National Register Properties – Eligible or Listed, Individual or Contributing
- National Landmark Historic District
- Direct APE (50 m)
- Direct APE (800 m)



3.11.1.4 Native American Sacred Sites and Properties of Traditional and Religious Cultural Importance

Native American Tribes identified as having a historical association with the JBSA area include three federally recognized tribes: Comanche Nation, Oklahoma; Mescalero Apache Tribe of the Mescalero Reservation, New Mexico; and Tonkawa Tribe of Indians of Oklahoma. These tribes have been identified as having an interest in area activities and historic properties. The Air Force consults with the Comanche Nation, Mescalero Apache Tribe of the Mescalero Reservation, and Tonkawa Tribe of Indians on federal actions occurring at JBSA.

No TCPs or sacred sites have been identified at JBSA-RND or SAF. No specific NAGPRA-related studies have been conducted. The Air Force maintains continued government-to-government communication to ensure compliance with applicable regulations (Air Force, 2020c).

3.11.2 Environmental Consequences

Adverse impacts on cultural resources might include physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or audible elements that are out of character with the property or alter 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 the purposes of this EA, an impact is considered significant if it alters the integrity of a NRHP-listed, eligible, or potentially eligible resource or potentially impacts TCPs.

As noted on **Figure 3-8**, the following projects fall outside of the NHLD: C5/D5, C6, C8, C9, C10, C11, C12/D12, C13, C14, C15/D15, D2, D3, D7, I1, I3, I8, I11, and I12. No adverse effects to cultural resources or to the NHLD viewshed are expected as a result of these projects. The projects included within the NHLD are C1, C4/D4, D7, I2, I4, I5, I6, I7, I9, and I10. NEPA is being accomplished at this point for efficiency, though JBSA is pursuing Section 106 consultations for each separate project as they are developed and project details and designs become available. JBSA shall follow the agreed upon guidelines from the PA for accomplishing the NHPA and Section 106 requirements.

3.11.2.1 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur, and cultural resources at JBSA RND and SAF would continue to be managed in accordance with the Installation's ICRMP guidelines. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.11.2.2 Proposed Action

Archaeological Resources

The two sites identified by survey at SAF were determined not eligible for listing in the NHRP; therefore, no adverse effects to archaeological resources would be anticipated under implementation of the Proposed Action. No archaeological resources are located at JBSA-RND.

Architectural Resources

Under the Proposed Action, the direct APE for multiple project actions would occur within the Randolph Field NHLD. The majority of actions would not modify eligible or contributing resources; however, modification of three contributing buildings and one landscape feature within the NHLD would occur (**Table 3-8**).

Table 3-8
Historic Resources Within the Direct APE

Project ID	Building Number	Site Date	Site Type	NRHP Eligibility	Proposed Action[a]
I2	H-62	1931	Base Engineer Administration	NHLC	Renovation
I5	663	1931	Headquarters Air Force	NHLC	Renovation
I9	675	1931	Headquarters Major Command	NHLC	Renovation
I7	-	-	NHLD historic road layout	NHLC	Improvements

Source: ICRMP, 2020
Notes:
a. See **Table 2-2** for a description of Proposed Action.
NHLC = National Historic Landmark Contributing; NHLD = National Historic Landmark District

Projects I2, I5, and I9 would renovate buildings that are listed as contributing to the NHLD. Project actions include heating, ventilation, and air conditioning replacement; fire alarm system upgrades; electrical system replacement; and communication system upgrades, and could involve demolition of interior walls, doors, insulation, floors, and ceilings. JBSA maintains a PA with the Texas SHPO for the management of cultural resources on its properties. The PA outlines procedures and protocols within and between the parties for this purpose, including the Section 106 consultations under the NHPA. The current PA is in effect through January 2023. Project C1 would construct a field-level repair facility within the NHLD; the construction of the new facility would have the potential to alter the viewshed of contributing resources to the district. Consultation with SHPO would be required for any visual impacts.

The NHLD would be located within the indirect APE of Projects C6, C8, C9, C10, C11, D2, D7, I3, I4, I6, and I8. Architectural resources within the indirect APE for these projects, including the Randolph Field NHLD and individually eligible buildings, could experience an altered viewshed from implementation of the proposed projects; however, these resources are located within existing areas of the Installation that undergo regular construction or demolition in support of the JBSA-RND mission.

Multiple project actions would impact buildings that would be 50 years of age or older by the time project implementation would occur. Project C12/D12 would demolish six buildings, including B-1187, which was constructed in 1975. Project I12 would renovate the Flight Line Fire Station (B-415), which was constructed in 1977. These structures would be evaluated for NRHP eligibility prior to project implementation.

Historic Landscape

Project I7 would make road, safety, and parking improvements within the NLHD, as well as create a transit route and construct transient stops. The 2013 Historic Landscape Survey establishes recommendations for the preservation of the road system with the NHLD, and the proposed improvements would be made in accordance with these recommendations.

Native American Sacred Sites and Properties of Traditional and Religious Cultural Importance

No TCPs or sacred sites have been identified at JBSA-RND or SAF; therefore, no effect to these properties would be anticipated. In the event of an unanticipated discovery of an archaeological resource during demolition or construction activities, ground-disturbing activities would be suspended, and a cultural resources meeting would be called to determine if an unanticipated discovery plan would be developed and implemented.

Under the Proposed Action, historic preservation laws and initiatives would continue to limit, control, or guide development in a manner that protects cultural resources in the public interest. JBSA-RND and SAF would continue to maintain and implement its ICRMP and PA in coordination with the SHPO and other interested consulting parties, including its obligations under Section 106 of the NHPA. These measures would ensure that cultural resources would continue to be evaluated and considered in planning for future actions that could affect such resources on or around JBSA-RND and SAF. Therefore, when considered in

conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects on cultural resources would not be likely to occur.

3.11.3 Best Management Practices

The Air Force would implement the following BMPs and mitigation measures to reduce potential effects on cultural resources under the Proposed Action:

- Renovate historic properties listed or eligible for listing on the NRHP to meet the Secretary of the Interior standards, as applicable.
- Do not alter the physical layout of the roads by changing the width of the streets, blocking the through streets, or removing any streets.
- Plant trees along all major streets, in accordance with the original landscape plans. Specifically, along Harmon Drive (the entrance boulevard), the streets in the officers' housing areas, and the streets in the noncommissioned officers' housing areas.
- Maintain the boulevards, which are important open spaces in the Randolph AFB master plan, so that they provide clear lines of sight to the buildings located on the axes they create. Develop planting schemes for these areas that reflect the landscape designs in the original landscape plan for Randolph Field.
- Ensure the medians and remnants of space created by the strong geometry of the road layout have uniform planting plans that include street trees. Base the designs for these areas on the median designs that Lt. Bone proposed for the park boulevards.

3.12 Environmental Justice and Protection of Children

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), as amended by EO 14008, *Tackling the Climate Crisis at Home and Abroad* (2021), directs federal agencies to address disproportionate adverse human health, environmental, and climate-related impacts on disadvantaged communities. As part of these directives, federal agencies are required to consider low-income and minority populations when implementing a federal action with the potential to affect the environment. Because children are more susceptible to environmental contaminants than adults, EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, provides similar direction to federal agencies to address these risks when implementing a federal action.

For the purposes of this analysis, minority populations are defined as Alaska Natives and American Indians, Asians, Blacks or African Americans, Native Hawaiians, and Pacific Islanders or persons of Hispanic origin (of any race); low-income populations include persons living below the poverty threshold as determined by the US Census Bureau (USCB); and youth populations are children under the age of 18 years.

The ROI for environmental justice and the protection of children is the San Antonio East Census County Division (CCD) and the Seguin CCD. The communities in the CCD would be most likely to receive a disproportionate share of impacts associated with the Proposed Action (e.g., traffic congestion, reduced water and air quality).

3.12.1 Existing Conditions

3.12.1.1 Environmental Justice

In 2019, the state of Texas recorded a higher percentage of minorities in the population compared to the entire US, with Bexar County recording an even higher percentage of minorities than the state of Texas (**Table 3-9**). The Seguin CCD, in which SAF is located, has a minority population of approximately 40 percent, which mirrors that of surrounding Guadalupe County and the US but lower than the state of Texas. San Antonio East CCD reports approximately 50.1 percent of the population as minority; however, this

percentage is considerably lower than that of surrounding Bexar County at 72.3 percent. The percent minority for San Antonio East CCD is approximately 8.8 percent lower than that of the state of Texas and about 10.1 percent higher than that of the US. Both the San Antonio East CCD and the Seguin CCD report higher percentages of the population as Hispanic or Latino than the state of Texas and the US, at 56.4 and 46.1 percent, respectively. The San Antonio East CCD has a lower percentage of the population that is Hispanic or Latino compared to surrounding Bexar County, while Seguin CCD has a higher percentage of the population that is Hispanic or Latino compared to surrounding Guadalupe County. The Seguin CCD is considered to have an environmental justice population due to its comparatively higher percentage of the population that identifies as Hispanic or Latino in relation to Guadalupe County, the state of Texas, and the US.

Table 3-9
Total Population and Populations of Concern

Location	Total Population	Percent Minority	Percent Hispanic or Latino[a]	Percent Below Poverty	Percent Youth[b]	Percent Elderly
San Antonio East CCD	42,581	50.1	**56.4[c]**	**12.8[c]**	27.5	12.2
Bexar County	1,952,843	72.3	60.2	15.7	25.7	11.8
Seguin CCD	50,037	40	**46.1[c]**	**14.2[c]**	24.8	16.3
Guadalupe County	172,706	40	38	5.5	25.4	13.6
State of Texas	28,995,881	58.9	39.7	13.6	25.5	12.9
United States	328,239,523	40	18.4	12.3	22.2	16.5

Source: USCB, 2021
Note:
a. Hispanic and Latino denote a place of origin.
b Percent youth are all persons under the age of 18.
c Bolded text indicates an environmental justice population.

The San Antonio East CCD reports approximately 12.8 percent of the population are below the poverty level, which is lower than that of Bexar County and the state of Texas but slightly higher than that of the US at 15.7 percent, 13.6 percent, and 12.3 percent, respectively. The Seguin CCD reports approximately 14.2 percent of the population below the poverty level, which is higher than that of Guadalupe County, the state of Texas, and the US. The Seguin CCD is considered to have an environmental justice population due to its comparatively higher percentage of the population that is below the poverty level in relation to Guadalupe County, the state of Texas, and the US.

3.12.1.2 Protection of Children

The San Antonio East CCD has a slightly higher percentage of children under the age of 18, at 27.5 percent, compared to Bexar County, the state of Texas, and the US. The percentage of children in the Seguin CCD is approximately 24.8 percent, which is slightly below that of Guadalupe County and the state of Texas but higher than the United States. Overall, the percentage of children remained generally consistent between the ROI and the surrounding counties, state, and US.

3.12.2 Environmental Consequences

The Air Force defines a significant effect on environmental justice communities and children within the ROI as any adverse effect under the Proposed Action (e.g., air and water pollution and exposure to contaminants or noise) that could be disproportionately felt by minority, low-income, or youth populations.

3.12.2.1 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing demographic conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.12.2.2 Proposed Action

Under the Proposed Action, the construction, demolition, and infrastructure projects would occur entirely within the boundaries of JBSA-RND and SAF and would not result in disproportionate impacts on minorities, low-income, and youth populations; no significant impacts to the local population would be anticipated regardless of race, income level, or age. These actions would not impact the availability of housing, education, or community resources to environmental justice populations. The Proposed Action would have minimal-to-no adverse impact to anyone on the Installation and would accrue positive benefits to the military population. When considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects on environmental justice and the protection of children would not be likely to occur.

3.12.3 Best Management Practices and Mitigation Measures

No BMPs to reduce potential effects on environmental justice communities and children under the Proposed Action were identified by analysis. No mitigation measures for potential effects on environmental justice communities and children are recommended.

3.13 INFRASTRUCTURE, TRANSPORTATION, AND UTILITIES

Infrastructure consists of the systems and structures that enable a population in a specified area to function. Infrastructure is wholly man-made, with a high correlation between the type and extent of infrastructure and the degree to which an area is characterized as developed. Infrastructure components include transportation and utility systems, solid waste management, and sanitary and storm sewers. The availability of infrastructure and its capacity to support more users, including future development of an area, are generally regarded as essential to continued economic growth.

Transportation is defined as the system of roadways, highways, and transit services that provide ingress/egress from or to a particular location, as well as access to regional goods and services. Utilities include electrical, potable water, sanitary sewage/wastewater, stormwater conveyance, and communications systems. Solid waste management primarily relates to landfill capacity for disposal of non-hazardous solid waste (e.g., construction waste) generated in an area or by a population. Stormwater infrastructure includes the man-made conveyance systems that function in tandem with natural drainages to collect and control the rate of surface runoff during and after a precipitation event. In urbanized areas, stormwater that is not discharged to a waterbody is conveyed to sanitary sewers (also considered utilities), systems that collect, move, and treat liquid waste prior to its discharge back into the environment.

The ROI for infrastructure, transportation, and utilities is JBSA-RND, SAF, and the external infrastructure components and services relied upon to operate the Base.

3.13.1 Existing Conditions

3.13.1.1 Transportation

The nearest major roadways to JBSA-RND include Highway 78 (Gordon A. Blake Highway) and N Loop 1604 E (E Charles William Anderson Loop). SAF is primarily an airfield with limited transportation access. Highway 90 Alternate flanks the northern boundary of SAF, and Aux Airport Road borders the southern boundary. The airfield itself primarily consists of taxiways and emergency access roads with no public transportation access.

JBSA-RND is tightly developed with a series of road networks forming a web around the central Officers Club. This web of roads supports the housing district of JBSA-RND before expanding into more developed and industrial uses. The central roads of JBSA-RND are flanked on the east and west by airfields, keeping the road network centrally confined. These roads form the division of JBSA-RND into two districts, the central SS District, and the outer FO District. The SS District is largely supportive of public transportation

and access including retail, housing, and industrial access. The FO District primarily consists of taxiways and emergency access roads with limited public access. A perimeter road surrounds the entirety of JBSA-RND.

The primary ACP for JBSA-RND is via Harmon Drive off Gordon A. Blake Highway. The predominant mode of transportation for JBSA-RND is private vehicles. Most roads at JBSA-RND are paved asphalt and experience regular high traffic volumes. Roadway capacity concerns are an issue at JBSA-RND and include traffic backups and wait times for commercial deliveries, visitors, and commuters. Additionally, the Interstate infrastructure supporting access to JBSA-RND is at capacity, contributing to increasing congestion (COB, 2015).

Additional transportation concerns include noncompliance of the JBSA-RND East Gate and West Gate ACPs; traffic congestion through East Gate; inadequate parking, pedestrian, and bicycle safety; and continued suburban development surrounding the Base (Air Force, 2019a). Currently, West Gate does not meet anti-terrorism/force protection requirements (COB, 2015).

3.13.1.2 Electricity

Electricity to JBSA-RND is provided by CPS Energy, the municipal natural gas and electric company owned by the City of San Antonio. The electrical distribution network is 100 percent underground. Peak electricity demand is estimated at 21 megawatts, and the capacity of the substation that serves the Base has sufficient capacity to meet at least 40 megawatts.

Electricity for SAF is provided by Guadalupe Valley Electric Cooperative. Due to the low number of facilities at SAF, power is metered at each building (Air Force, 2018a).

3.13.1.3 Potable Water

Potable water at JBSA-RND is supplied by the Edwards Aquifer through eight on-Base wells. As described in **Section 3.9.1.6**, the Edwards Aquifer is a sole-source aquifer for this region and supplies at least 50 percent of the drinking water for this service area (Air Force, 2020b). The groundwater of the aquifer is primarily used as a source of potable water and for agricultural irrigation; the City of San Antonio obtains nearly all of its water supply from the Edwards Aquifer. Because of its high rate of permeability, water levels and spring flows in the Edwards Aquifer can fluctuate rapidly in response to rainfall, drought, or pumping. Two water storage tanks exist on the Installation with capacities of 500,000 gallons and 550,000 gallons. The available water capacity for the rest of the Base increased when the housing area became privatized, which provides excess capacity to meet any future expansion.

Potable water for SAF is supplied by Spring Hill Water Supply Corporation in quantities that are considered adequate to meet mission needs.

3.13.1.4 Solid Waste Management

Non-hazardous solid waste at JBSA-RND is collected by a private contractor and disposed of off Installation at the Covel Gardens landfill.

3.13.1.5 Sanitary and Storm Sewer

Wastewater collection and treatment for JBSA-RND is provided by the San Antonio Water System. JBSA-RND uses structural controls to mitigate the risk of water runoff contamination. These controls include curbing and dikes to divert water and storage tanks, drums, and bins to gather debris. Contamination potential is further mitigated by personnel and external protection such as roofing, diversion systems, and automated locks (Air Force, 2016).

3.13.2 Environmental Consequences

The Air Force defines a significant effect on or from infrastructure, transportation, and utilities within the ROI as one or more of the following:

- measurable change or service reduction within the regional transportation network;
- prolonged or repeated interruption of public transportation services regionally;
- prolonged or repeated service disruptions to utility end users; and
- substantial increase in utility demand relative to existing and planned regional uses.

3.13.2.1 No Action Alternative

Under the No Action Alternative, the projects included in the Proposed Action would not occur and the existing infrastructure, transportation, and utilities conditions would remain unchanged. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.13.2.2 Proposed Action

Transportation

Under the Proposed Action, transportation systems at JBSA-RND would be improved to support traffic flow, connectivity, pedestrian safety, and security to the Installation. Several road construction and improvement projects would occur within JBSA-RND and SAF. Projects C4/D4 and C5/D5 would demolish existing ACP gates and construct new gates outside of the CZ, providing a reduced safety risk to patrons (**Section 3.15.3.3**). Project C6 would improve connectivity and access by constructing new road systems and Project I7 will improve public transportation access and ease of travel across the Base for those who do not use personal vehicles.

During construction, temporary, minor adverse impacts to transportation infrastructure would be anticipated; however, local and regional roadways would be able to readily absorb construction-related traffic. Minor delays on or in the immediate vicinity of JBSA-RND and SAF would be anticipated, but impacts on roadway capacity or condition would not be discernable. No permanent adverse impacts to transportation infrastructure would result from the Proposed Action and any increase in personnel, traffic, or equipment would be temporary and short term during the construction period. Long-term beneficial impacts would be expected to occur for transportation systems at JBSA-RND.

Electricity

Short-term, negligible, adverse impacts on the electrical distribution system could occur under the Proposed Action because the operation of newly constructed buildings may increase the demand on the system; however, energy-efficient construction to decrease energy consumption consistent with EO 13693, *Planning for Federal Sustainability in the Next Decade*, and cessation of operations at outdated and inefficient buildings proposed for demolition would decrease the demand. Therefore, net changes in long-term demand would be anticipated to be minimal.

Potable Water

Short-term, negligible, adverse impacts on the potable water supply system would occur during construction and demolition when existing lines would be connected to new buildings or capped as appropriate. Long-term, negligible, adverse impacts would occur because the operation of the new buildings would increase the demand on the potable water supply system; however, the cessation of operations at demolished buildings would decrease the demand. Changes in demand would be minimal, and the potable water supply system has the capacity required to meet new demands.

Solid Waste Management

Short-term, minor, adverse impacts on solid waste management may occur with construction and demolition projects under the Proposed Action. The USEPA guidance on estimating solid waste from construction and demolition projects indicates that approximately 4.39 pounds (lbs)/sf of debris would be generated for each square foot of construction activity, and approximately 158 lbs/sf would be generated from the demolition of existing facilities; this formula can be applied to the construction of both buildings and impervious surfaces. Using this formula, solid waste generated from all construction and demolition projects under the Proposed Action is anticipated at 3,010 tons and 81,479 tons, respectively. Contractors would be required to comply with federal, state, and local regulations for the collection and disposal of solid waste generated under the Proposed Action, and all solid waste generated would be collected and transported off Base for disposal or recycling in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*. The proposed projects would take place over a period of 5 years; therefore, the annual volume of solid waste would be reduced relative to the above scenario of all demolitions occurring at the same time.

Sanitary and Storm Sewer

Short-term, negligible, adverse impacts on the sanitary sewer and wastewater treatment system would occur during construction and demolition when existing lines would be connected to new buildings or capped as appropriate. Long-term, negligible, adverse impacts would occur because the operation of the new buildings would increase the demand on the sanitary sewer and wastewater treatment system; however, the cessation of operations at demolished buildings would decrease the demand. Changes in demands would be minimal, and the sanitary sewer and wastewater treatment system has the capacity required to meet new demands.

Planned local transportation improvements outside of the Proposed Action would have the potential to temporarily disrupt traffic entering and exiting the Installation; however, these projects have the purpose of improving the transportation environment and would result in overall improvements. When considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects on infrastructure, transportation, or utilities would not be likely to occur.

3.13.3 Best Management Practices and Mitigation Measures

No BMPs to reduce potential effects on or from infrastructure, transportation, or utilities under the Proposed Action were identified by analysis. No mitigation measures for potential effects on infrastructure, transportation, or utilities are recommended.

3.14 Hazardous Materials and Wastes

The definition of "hazardous materials and waste" depends on regulatory context. That is, the criteria used to define the terms are often specific to an activity or location (e.g., commerce [49 CFR § 171.8], energy [49 CFR § 171.8], and federal facilities [40 CFR Part 262]). Generally, hazardous materials and wastes are materials and substances determined to present risks to human health, safety, or the environment when they occur above certain concentrations or undergo a physical or chemical change. Exposure to such materials may also harm ecosystems, including plants, animals, soil, water, and other natural resources. Localized environmental conditions may affect the extent of contamination from, or exposure to, hazardous materials and wastes.

3.14.1 Definition of the Resource

The *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) (42 USC § 9601), as amended by the *Superfund Amendments and Reauthorization Act* and *Toxic Substances Control Act* (15 USC § 2601 et seq., as implemented by 40 CFR Part 761), defines hazardous materials (HAZMAT) as any substance with physical properties of ignitability, corrosivity, reactivity, or toxicity that might cause an increase in mortality, serious irreversible illness, and incapacitating reversible illness, or that might pose

a substantial threat to human health or the environment. The Occupational Safety and Health Administration (OSHA) is responsible for the enforcement and implementation of federal laws and regulations pertaining to worker health and safety under 29 CFR Part 1910. OSHA also regulates HAZMAT in the workplace and ensures appropriate training.

The *Solid Waste Disposal Act*, as amended by the *Resource Conservation and Recovery Act* (RCRA) (42 USC § 6901), which was further amended by the *Hazardous and Solid Waste Amendments of 1984* (House Resolution 2867), defines hazardous wastes as any solid, liquid, contained gaseous, or semi-solid waste, or any combination of wastes, that pose a substantial present or potential hazard to human health or the environment. In general, both HAZMAT and hazardous wastes include substances that, because of their quantity, concentration, physical, chemical, or infectious characteristics, might present substantial danger to public health and welfare or the environment when released or otherwise improperly managed.

Air Force Policy Directive 32-70, *Environmental Considerations in Air Force Programs and Activities*, establishes the policy that the Air Force is committed to performing the following actions:

- Cleaning up environmental damage resulting from its past activities,
- Meeting all environmental standards applicable to its present operations,
- Planning its future activities to minimize environmental impacts,
- Responsibly managing the irreplaceable natural and cultural resources it holds in public trust, and
- Eliminating pollution from its activities wherever possible.

AFMAN 32-1067, *Water and Fuel Systems*, identifies compliance requirements for underground storage tanks (USTs) and above-ground storage tanks (ASTs), and associated piping, that store petroleum products and hazardous substances. Evaluation of HAZMAT and hazardous wastes focuses on USTs and ASTs as well as the storage, transport, and use of pesticides, fuels, oils, and lubricants. Evaluation might also extend to generation, storage, transportation, and disposal of hazardous wastes when such activity occurs at or near the project site of a proposed action. In addition to being a threat to humans, the improper release of HAZMAT and hazardous wastes can threaten the health and wellbeing of wildlife species, botanical habitats, soil systems, and water resources. In the event of HAZMAT or hazardous waste release, the extent of contamination will vary based on the type of soil, topography, weather conditions, and water resources.

AFI 32-7086, *Hazardous Materials Management*, establishes procedures and standards that govern management of HAZMAT throughout the Air Force. It applies to all Air Force personnel who authorize, procure, issue, use, or dispose of HAZMAT, and to those who manage, monitor, or track any of those activities. Toxic substances might pose a risk to human health but are not regulated as contaminants under the hazardous waste statutes. Included in this category are asbestos-containing materials (ACMs), lead-based paint (LBP), radon, and polychlorinated biphenyls (PCBs). The presence of special hazards or controls over them might affect, or be affected by, a proposed action. Information on special hazards describing their locations, quantities, and condition assists in determining the significance of a Proposed Action.

Section 311 of the CWA, as amended by the *Oil Pollution Act* (Public Law 101-380), establishes requirements to prevent, prepare for, and respond to oil discharges at specific types of facilities, including military bases. The intent is to prevent oil from reaching navigable waters and adjoining shorelines, and to contain discharges of oil. To do so, facilities are required to develop and implement Spill Prevention, Control, and Countermeasure (SPCC) plans to establish procedures, methods, and equipment requirements for response and cleanup actions (Subparts A, B, and C).

Through the Environmental Restoration Program (ERP) initiated in 1980, a subcomponent of the Defense Installation Restoration Program that became law under Superfund amendments and Reauthorization Act, each DoD installation is required to identify, investigate, and clean up hazardous waste disposal or release sites. Remedial activities for ERP sites follow the Hazardous and Solid Waste Amendments under the

RCRA Corrective Action Program. The ERP provides a uniform, thorough methodology to evaluate past disposal sites, control the migration of contaminants, minimize potential hazards to human health and the environment, and clean up contamination through a series of stages until it is decided that no further remedial action is warranted.

Also contained within the ERP is the Military Munitions Response Program (MMRP). This program was established by the DoD in 2001 to address munitions-related concerns from releases of unexploded ordnance (UXO), discarded military munitions, and munitions constituents. The program addresses non-operational range lands with suspected or known hazards which occurred before 2002 but are not already included within ERP site cleanup activity.

The ROI for potential HAZMAT and hazardous wastes effects is JBSA-RND and SAF (see **Figures 3-9** and **3-10**).

3.14.2 Existing Conditions

3.14.2.1 Hazardous Materials and Waste

RCRA establishes the mandatory procedures and requirements for federal facilities that use, accumulate, transport, treat, store, or dispose of HAZMAT. Under RCRA, USEPA can grant authority to the state to establish and enforce its own hazardous waste management program, provided the state's requirements are no less stringent than the USEPA's (USEPA, 2021b). In Texas, the TCEQ implements the RCRA program.

JBSA-RND is classified as a large-quantity generator of hazardous waste (RCRA Site ID TX8571524117). Aircraft operations, maintenance, and related industrial activities are the primary source of HAZMAT generated at the Base. Examples of hazardous substances in use at JBSA-RND include flammable and combustible liquids, acids, corrosives, caustics, anti-icing chemicals, compressed gases, solvents, paints, paint thinners, and pesticides. JBSA maintains a hazardous waste management plan (HWMP) for operations that involve handling, storage, transportation, and disposal of hazardous waste. The HWMP also serves to document the processes and procedures for HAZMAT management at JBSA-RND, as required to remain in compliance with RCRA (JBSA, 2016).

Structures that store or contain HAZMAT include ASTs and USTs. Structures themselves may contain HAZMAT, such as ACMs, PCB-containing equipment or materials, and LBP. JBSA-RND maintains management plans for these types of HAZMAT to comply with applicable federal and state laws and regulations.

3.14.2.2 Radon

Bexar and Guadalupe counties are located within Radon Zone 3. This zone has predicted average indoor radon screening levels of less than 2 picocuries per liter (USEPA, 2019). The JBSA IDP lists electromagnetic and radiation sources as a minor constraint to future development; due to the low probability of radon levels exceeding the USEPA's guidance level of 4 picocuries per liter (HDR, 2017), radon is not further evaluated herein.

3.14.2.3 Per- and Polyfluoroalkyl Substances and Aqueous Film Forming Foam

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that are employed in a wide variety of residential, commercial, and industrial uses and can be found in everyday items such as nonstick cookware, stain-resistant fabric and carpet, certain types of food packaging, and firefighting foam (AFCEC, n.d.). In 2016, USEPA announced advisory levels for two types of PFAS in drinking water: perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

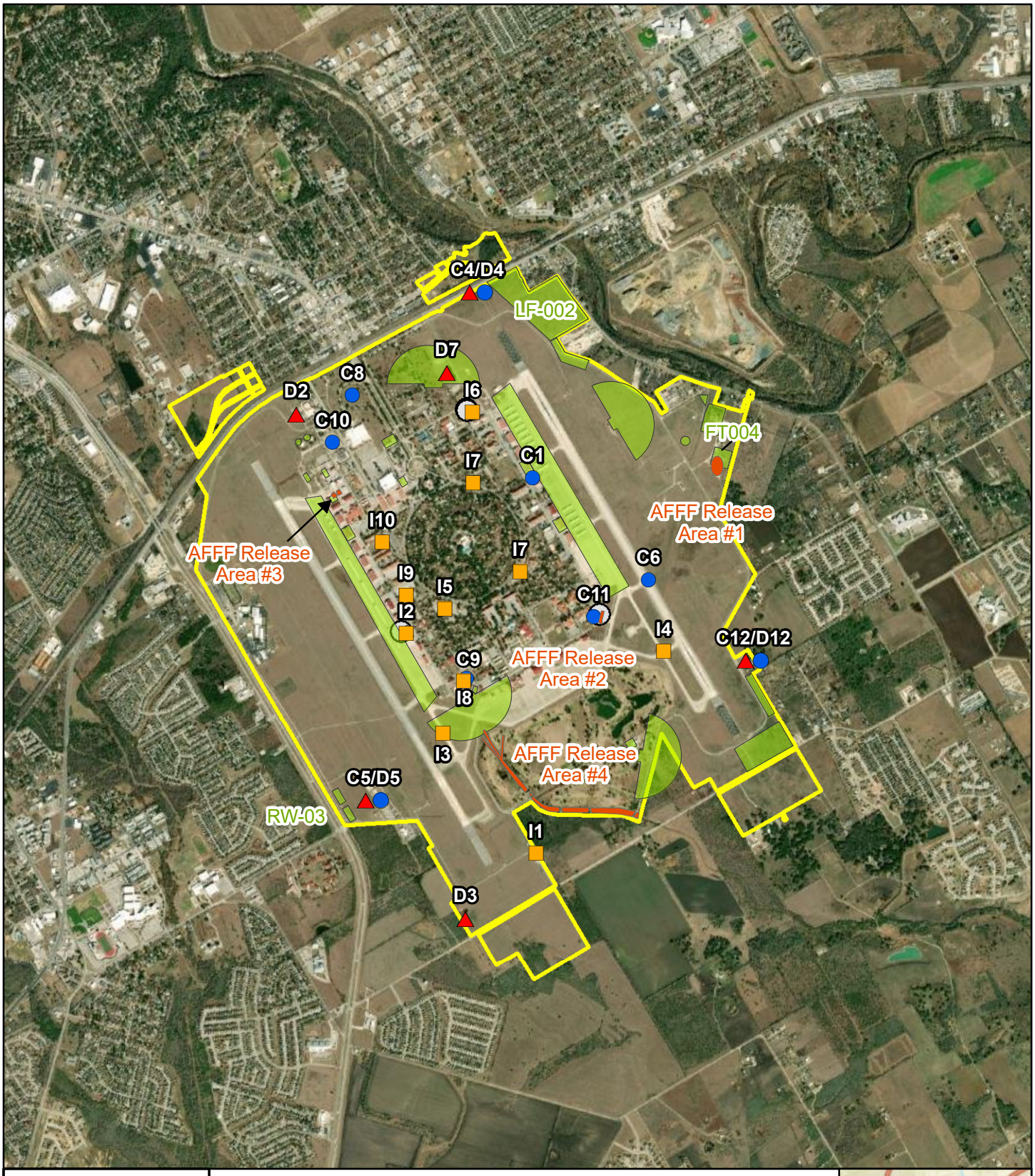


FIGURE 3-9
HAZMAT SITE – JBSA-RND

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 1,500 3,000 Feet

Proposed Project

- Construction
- Demolition
- Infrastructure
- Storage Tank
- JBSA-Randolph

- IRP Site
- AFFF Release Area

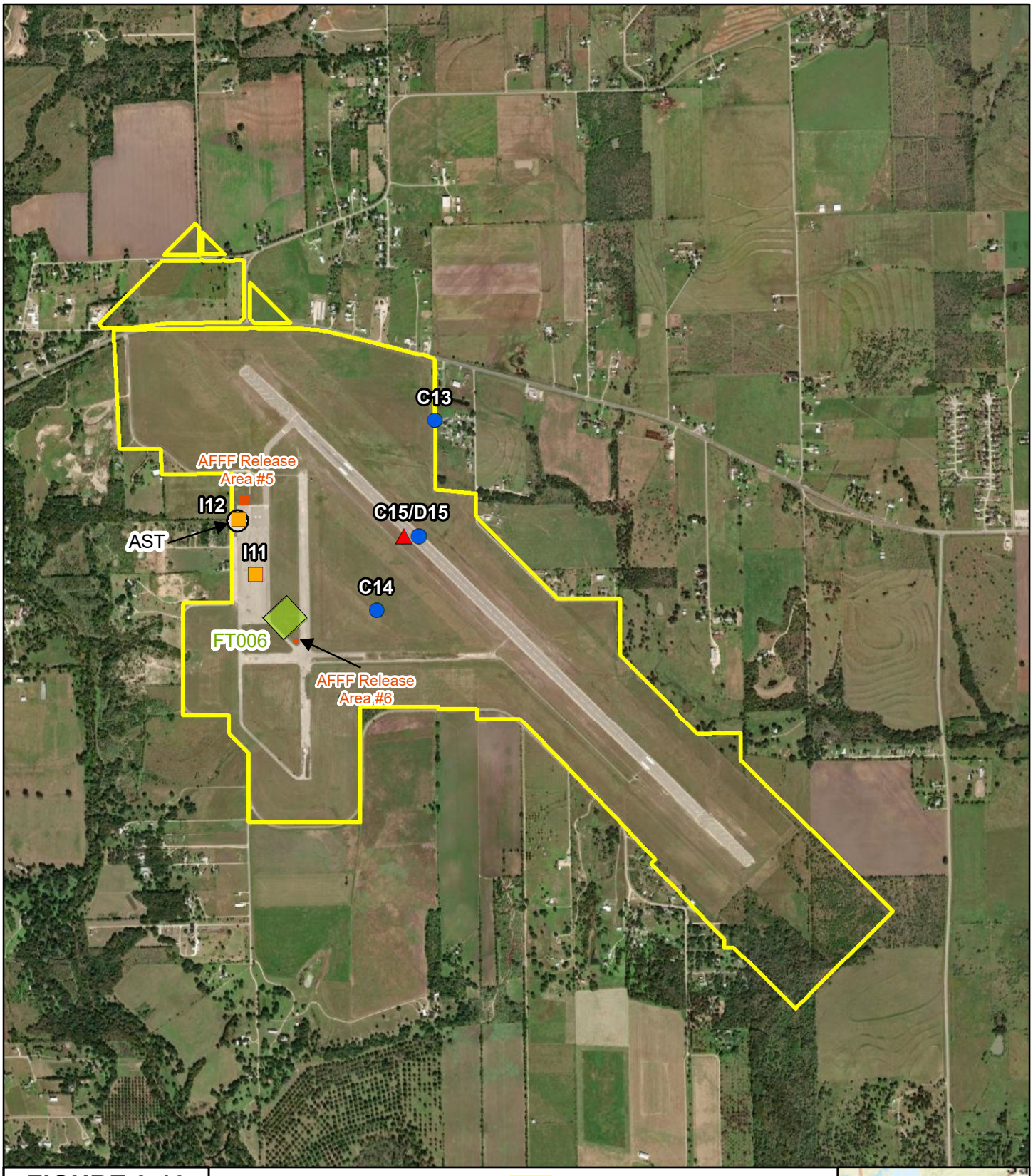


FIGURE 3-10
HAZMAT SITE – SAF

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 1,500 3,000 Feet

Proposed Project

- Construction
- Demolition
- Infrastructure
- Storage Tank

- JBSA-Randolph
- IRP Site
- AFFF Release Area

The USEPA has not yet enacted specific regulatory standards for PFAS. However, continued research shows that there are potential human health risks associated with these substances, and regulatory standards are being considered (AFCEC, n.d.). Aqueous film forming foam (AFFF), which the Air Force began to use in the 1970s to extinguish petroleum-based fires, contains both PFOS and PFOA. In August of 2016, the Air Force began phasing out PFOS-based AFFF and other AFFF products and introduced newer, more environmentally friendly formulas. In August of 2017, the Air Force finished the phase out and completed the new foam delivery (AFCEC, n.d.).

All Air Force investigation and mitigation work relating to PFOS and PFOA is done in accordance with CERCLA, applicable state laws, and the USEPA's lifetime drinking water health advisory of 70 parts per trillion (AFCEC, n.d.).

A site investigation of JBSA-RND and SAF was conducted in 2017 and identified four potential release areas at JBSA-RND and two potential release areas at SAF (**Table 3-10**, **Figures 3-9** and **3-10**). Three of these sites were recommended for further investigation under a remedial investigation, and three additional sites were recommended for a site investigation (Amec Foster Wheeler, 2018).

Table 3-10
AFFF Release Areas

Site	Status	Description
AFFF Release Area 1	Recommended for RI	Former Fire Protection Training Area No.2 (ERP site FT004)
AFFF Release Area 2	Recommended for RI	Building 700 (fire station)
AFFF Release Area 3	Recommended for RI	Hangars 82 and 83
AFFF Release Area 4	Recommended for SI	Stormwater retention ponds
AFFF Release Area 5	Recommended for SI	SAF former fire protection training area (ERP site FT006)
AFFF Release Area 6	Recommended for SI	SAF suspected spray test area

AFFF = aqueous film forming foam; ERP = Environmental Restoration Program; RI = remedial investigation; SAF = Seguin Auxiliary Airfield; SI = site investigation

3.14.2.4 Environmental Restoration Program

The ERP at JBSA-RND was established in 1985, leading to the identification of seven ERP sites containing AFFF throughout the Installation. As of 2021, all seven sites (six at JBSA-RND and one at SAF) are undergoing long-term remedy and monitoring under CERCLA, with most designated as requiring no further action (**Table 3-11**, **Figures 3-9** and **3-10**). A five-year review was last completed in 2018 and concluded that the selected remedies (i.e., land use controls) remain protective of human health and the environment (Weston Solutions, Inc., 2018).

Table 3-11
ERP and MMRP Sites

Site	Status	Description
LF001	NFA	Former landfill approved for NFA in 2005. Includes land use controls for non-residential use. Soils within the site meet non-residential criteria.
LF002	NFA	Former landfill approved for NFA in 2000. Includes land use controls for non-residential use. Soils within the site meet non-residential criteria. Groundwater has met the criteria for closure.
RW003	UU/UE	Low-level radioactive material disposal from medical wastes, which were mostly excavated and disposed of in 1993. There is an Air Force radioactive material permit that will remain active pending final disposition of some additional wastes. It was approved for unlimited use/unrestricted exposure (UU/UE) in 2000.
FT004	Active	Former Fire Protection Training Area No.2. This area is still under long-term monitoring, as two groundwater plumes were previously identified in the northeastern and southeastern portions of the site, and remediation of

Site	Status	Description
		hydrocarbons in groundwater is ongoing. AFFF was in use at this area from about 1970 to 1993. There are also land use controls on two adjacent off-site properties that prohibit the use of the shallow groundwater for human consumption and artificial penetration of the groundwater bearing unit.
FT005	NFA	Contained within LF002. Also known as former Fire Protection Training Area No.3, it was designated as NFA in 2004. Includes land use controls for non-residential use. Soils within the site meet non-residential criteria.
FT006	NFA	Also known as the SAF former fire protection training area, it is located within SAF. It was designated as NFA in 2003 and includes land use controls for non-residential use. Soils within the site meet non-residential criteria.
TS255	Commercial/Industrial Use Only	Site in the southwest corner of the Installation that was operated as a skeet range from the 1940s to 1952. Since operations ceased in 1952, Site TS-255 was redeveloped into taxiways, the south apron tarmac, and Golf Road. TCEQ accepted the deed certification and released the site from post-closure care responsibilities in a letter dated 24 February 2012. Based on the July 2012 Record of Decision (ROD), the selected remedy was closure with institutional controls for commercial/industrial use only.

MMRP = Military Munitions Response Program; NFA = no further action; UU/UE = unlimited use/unrestricted exposure

MMRP sites are suspected or known to contain UXO or munitions constituents, which are considered HAZMAT. The goal of the program is to make munitions response areas safe for reuse in accordance with anticipated future land use and to protect human health and the environment. Only one MMRP site has been identified at JBSA-RND: the South Ramp Skeet Range (Site TS255). It is an approximately 19.6-acre former range that was in use until 1952 and has been cleared for commercial and industrial use since 2012 (Weston Solutions, Inc., 2018).

3.14.3 Environmental Consequences

3.14.3.1 Evaluation Criteria

Impacts on HAZMAT management would be considered adverse if the federal action resulted in noncompliance with applicable federal and state regulations or increased the amounts generated or procured beyond the current JBSA-RND waste management procedures and capacities. Impacts on the ERP would be considered adverse if the federal action disturbed (or created) contaminated sites resulting in negative effects on human health or the environment.

3.14.3.2 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur, and JBSA-RND would continue to operate as a large-quantity generator of hazardous waste under RCRA. HAZMAT management at the Base would continue in accordance with relevant plans and applicable HAZMAT laws and regulations. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.14.3.3 Proposed Action

Hazardous Materials and Wastes

Under the Proposed Action, the limited use of certain hazardous materials would be required during the construction and demolition phases. Associated HAZMAT might include paints, welding gases, solvents, preservatives, sealants, and pesticides. Additionally, hydraulic fluids and petroleum products, such as diesel and gasoline, would be used in construction and demolition equipment and vehicles. As such, the Proposed Action would create the potential for the accidental discharge or spill of HAZMAT that could contaminate the environment or result in exposure of persons to such contaminants.

Construction could unearth contaminants in environmental media not yet known or identified for management action. Even without a major release or discovery event, multiple minor releases of HAZMAT during the proposed activities could potentially affect the environment or persons in the vicinity thereof.

If encountered, HAZMAT used or generated during construction or demolition would be handled, stored, and disposed of in accordance with federal and state laws and regulations. All applicable permits for handling and disposal of HAZMAT would be obtained prior to starting construction or demolition activities. Construction and demolition work under the Proposed Action would be subject to the procedural requirements of the JBSA HWMP, SPCC plan, and other applicable management plans to prevent and minimize risks associated with contaminant release or transport in the environment. During construction or demolition, if HAZMAT is discovered, work in that location would stop until the potential contamination has been properly evaluated and addressed.

Asbestos, Lead Based Paint, and Polychlorinated Biphenyls

Additional risk under the Proposed Action would be associated with improper handling of construction and building materials. Improper handling of these materials has the potential to adversely affect the state of HAZMAT at JBSA-RND. Concerns of LBPs and PCBs are also associated with the age of a building. Several buildings associated with proposed construction or demolition under the Proposed Action have the potential to contain ACM, LBP or PCBs (**Table 3-12**).

Table 3-12
Potential Presence of Hazardous Materials by Year Built

Building Number	Building Name	Associated Project	Year Built	ACM Potential[a]	LBP Potential[b] (prior 1978)	PCBs Potential[c] (prior 1978)
663	AF Headquarters	I9	1931	Yes	Yes	Yes
62	Base Engineering Admin	I2	1931	Yes	Yes	Yes
674	Storage Shed	I5	1953	Yes	Yes	Yes
675	HQ Major Command	I5	1931	Yes	Yes	Yes
499, 494,492	HQ AFMPC	I10	1931	Yes	Yes	Yes
700	Fire Station	C11	1966	Yes	Yes	Yes
704	Generator Building	C11	1967	Yes	Yes	Yes
353, 386, 387	Family Housing	I7	1931	Yes	Yes	Yes
895	Arts and Craft	I8, C9	1960	Yes	Yes	Yes
7	Aircraft General Purpose	C1	1931	Yes	Yes	Yes
1184,1187	Miscellaneous Recreation	C12/D12	1955	Yes	Yes	Yes
1185	Latrine	C12/D12	1955	Yes	Yes	Yes
179	Vehicle FL S	I6	1962	Yes	Yes	Yes

Notes:
a. Buildings or structures included in Table 3-11 and elsewhere in this document are likely to contain ACM. Prior to any demolition, modernization, or renovation, all buildings or structures would have a recent ACM survey report regardless of construction date in accordance with 25 TAC §296.191 Texas Asbestos Health Protection Rules.
b. Buildings or structures constructed before 1978 may contain LBP. Exposure to LBP is harmful to human health, particularly children.
c. Buildings constructed prior to 1979 may contain PCBs in various machinery and wiring. Exposure to PCB concentrations exceeding 50 parts per million is harmful to human health.
ACM = asbestos-containing material; LBP = lead-based paint; PCB = polychlorinated biphenyls

Storage Tanks

Several projects under the Proposed Action would be implemented in the vicinity of existing USTs and ASTs at JBSA-RND and SAF (**Figures 3-9** and **3-10**). **Table 3-12** lists storage tanks located within approximately 50 meters of a proposed project.

Table 3-13
Above- and Below-Ground Storage Tanks Within 50 Meters of Proposed Projects

Associated Project	Type	Tank #	Operational Status
I6	UST	LR-0179-3-UST	Active
I6	UST	LR-0179-4-UST	Active
I6	UST	LR-0179-1-UST	Active
I6	UST	LR-0179-2-UST	Active
C11	AST	C-0704-1-AST	Active
I2	AST	CE-0062-2-AST	Active
I11	AST	CE-SEGUIN-1-AST	Active

AST = above-ground storage tank; UST = underground storage tank

Projects I6, C11, I2, and I11 would be located within proximity to an existing UST or AST. Accordingly, construction contractors would be responsible for avoiding the tanks during construction and demolition activities. Project C10 would install new USTs associated with the service station fuel pumps. Any work involving the installation of new tanks for modification of existing tanks would require communication through the JBSA Tanks/Petroleum, Oil, and Lubricants Manager. As individual project plans are developed and finalized, the 802d Civil Engineer Squadron/Center for Environmental Information and Education (802 CES/CEIE) would be provided with a description of the work being performed and would be notified at least 30 days prior to commencing any removal or repair/modification to existing tank/equipment in order to minimize any impacts to existing storage tank infrastructure.

Per- and Polyfluoroalkyl Substances and Aqueous Film Forming Foam

PFAS may be present in soil and/or groundwater at the six AFFF release sites throughout JBSA-RND and SAF. At JBSA-RND, proposed Project C11 is near AFFF Release Area 2 (Building 700, Fire Station), although it does not involve the building directly. Through IICEP coordination (see **Section 1.7.1**), the TCEQ stated that determination regarding the extent of contamination at this site is still underway. The TCEQ Remediation Division recommends that measures be taken to ensure that no additional releases occur as a result of the planned activities and that any derived waste from investigation of this site be disposed of in an authorized facility. Project C11 involves the construction of a new medical facility and is unlikely to directly impact the release site. Projects C6, I1, and I4 would have the potential to involve removal of AFFF-contaminated soils due to site proximity. At SAF, Project I11 is within approximately 100 meters of AFFF Release Area 5 (the SAF former fire protection training area). There are no other release sites within the vicinity of the proposed projects. If contaminated soils are removed from the project area, they would be disposed of in either a non-hazardous RCRA Subtitle D or a hazardous RCRA Subtitle C lined landfill.

Environmental Restoration Program Sites

There is only one active ERP site at JBSA-RND, FT004, and none of the proposed projects would occur in its vicinity. However, there are three former ERP or MMRP sites that require further monitoring in the vicinity of projects under the Proposed Action. Construction or demolition activities under the Proposed Action would take place near the following sites.

- **LF002 (former Landfill No.2) –** approximately 100 meters east of C4/D4;
- **FT006 (SAF fire protection training area) –** approximately 150 meters southeast of I11;
- **RW003 (low-level radioactive material disposal) –** approximately 175 meters west of C5/D5; and

- **TS255 (former South Ramp skeet range)** – approximately 100 meters south of C9 and I8; overlaps with I3.

No significant effects to ERP sites would be anticipated to occur under the Proposed Action, as the proposed projects would not occur in the vicinity of the active ERP site. Projects C1, C11, D7, D12, I1, I2, I3, I4, and I8 all occur on or near closed ERP sites. These sites have received approval for closure from the TCEQ based on non-residential land use. Based on these land use restrictions, the Air Force Environmental Restoration Program requires annual inspections and five-year reviews for sites LF002, FT006, and RW003 (LATA-KEMRON Remediation, LLC, 2020).

Projects located on a site with land use controls or restrictions due to known soil contamination would require coordination with the 802 CES/CEIE and the Environmental Restoration Program Manager. Per the JBSA environmental specifications, workers would be informed of the potential to encounter contamination and would be adequately protected with personal protective equipment. In accordance with the JBSA *Soil Management Plan*, excess soils that are considered contaminated based on either historical or current operational conditions and/or analytical results would be sent off site for disposal in accordance with applicable regulations and the JBSA environmental specification. Coordination with 802 CES/CEIE would occur before any soil transport takes place (JBSA, 2022a).

With the applicable requirements and management plans in place for construction of the proposed projects and no contaminants at concentrations that would pose a risk to construction workers, potential HAZMAT effects would be minor and short term in duration. No significant effects from implementation of the Proposed Action would be expected to occur.

All activities under the Proposed Action involving the use, transport, treatment, storage, and disposal of HAZMAT and hazardous wastes would continue to be regulated under federal, state, and local laws and regulations. Therefore, when considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects from HAZMAT and hazardous wastes would not be likely to occur.

3.14.4 Best Management Practices and Mitigation Measures

The Air Force would implement the following BMPs for HAZMAT and wastes:

- Adhere to the JBSA HWMP to minimize impacts from the handling and disposal of hazardous substances and ensure compliance with state and federal hazardous materials regulations.
- Properly handle, remove, and dispose of ACMs in accordance with Air Force, local, state, and federal regulations.
- Properly handle, remove, and dispose of LBPs in accordance with Air Force, local, state, and federal regulations.
- Properly handle, remove, and dispose of PCBs in accordance with Air Force, local, state, and federal regulations.
- Continue to monitor Landfill 8 for project site and groundwater contamination.
- Report spills of any regulated substances to the Edwards Aquifer Authority within 72 hours of the event.
- Properly handle and remove all hazardous and toxic substances used during construction, demolition, and renovation activities.

Failure to implement BMPs under the Proposed Action likely would result in adverse short- and long-term impacts to personnel due to exposure of materials that are known to be hazardous to humans. Removal of ACMs, LBPs, and PCBs during implementation of the Proposed Action would result in the beneficial impact of creating safer indoor spaces by avoiding future exposure.

No mitigation measures for potential effects from HAZMAT and materials are recommended.

3.15 SAFETY

3.15.1 Definition of the Resource

This section discusses safety concerns associated with ground and flight activities. Ground safety considers issues associated with ground operations and maintenance activities that support unit operations. Ground safety also considers the safety of personnel and facilities from flight operations in the vicinity of the airfield and in the airspace. CZs and APZs around the airfield restrict the public's exposure to areas with a higher accident potential. Although ground and flight safety are addressed separately, in the immediate vicinity of the runway, risks associated with safety-of-flight issues are interrelated with ground safety concerns.

Flight safety considers aircraft flight risks such as midair collision, BASH, and in-flight emergency. The Air Force has safety procedures and aircraft-specific emergency procedures produced by the original equipment manufacturer of the aircraft. Basic Airmanship procedures also exist for handling any deviations to air traffic control procedures due to an in-flight emergency; these procedures are defined in Volume 3 of AFI 11-202, *General Flight Rules*, and established aircraft flight manuals. The Flight Crew Information File is a safety resource for aircrew day-to-day operations and contains air and ground operation rules and procedures.

The ROI for safety is JBSA-RND, SAF, and areas immediately adjacent to the installations where ground safety concerns exist, as well as the airfield and airspace.

3.15.2 Existing Conditions

Under 40 CFR § 989.27, the EIAP for a proposed action includes assessing direct and indirect impacts of the Proposed Action and Alternatives on the safety and health of Air Force employees and others at a work site. Air Force Policy Directive 91-2, *Safety Programs* (2019), is implemented by AFI 91-202, *The US Air Force Mishap Prevention Program* (2022), which manages risks to protect Air Force personnel from occupational deaths, injuries, or illnesses and minimize loss of Air Force resources. These standards apply to all Air Force activities and adherence to the Air Force's Mishap Prevention Program ensures Air Force workplaces meet federal safety and health requirements.

Day-to-day operation and maintenance activities at JBSA-RND and SAF are performed in accordance with applicable Air Force safety regulations, published Air Force Technical Orders, and standards prescribed by Air Force occupational and environmental safety, fire protection, and health program requirements. These are intended to reduce occupational risks to government personnel and contractors and to protect other individuals that reside on or visit or are near the Installation.

3.15.2.1 Ground Safety

Ground safety concerns include ground and industrial operations, operational activities, and motor vehicle use. Accidents can occur from equipment operation, materials use, and building and equipment maintenance.

Air Force safety programs for industrial activities, motor vehicle and equipment operation, and everyday operations are continuously refined as new activities and new information becomes available. All Airmen receive regular safety training in order to keep the chances of incidents as low as possible.

All construction contractors at JBSA-RND and SAF must follow ground safety regulations and worker's compensation programs to avoid posing any risks to workers or personnel on or off Installation. Construction contractors are responsible for reviewing potentially hazardous workplace operations, monitoring exposure to workplace chemicals (e.g., lead, ACM, HAZMAT); physical hazards (e.g., noise propagation, slips, trips, falls); and biological agents (e.g., infectious waste, wildlife, poisonous plants).

Construction contractors are required to recommend and evaluate controls (e.g., preventative, administrative, engineering) to ensure personnel are properly protected and to implement a medical surveillance program to perform occupational health physicals for those workers subject to any accidental chemical exposures.

3.15.2.2 Flight Safety

The potential for aircraft mishaps during flight is a public concern with regard to flight safety. Incidents may occur as a result of midair collisions, collisions with man-made structures or terrain, mechanical failure, weather-related accidents, pilot error, or BASH.

The safety of the public with respect to aircraft operations at JBSA-RND and SAF is a primary concern for the Air Force. The areas surrounding the Installation have established AICUZ guidelines to define those areas with the highest potential for aircraft accidents and aircraft noise impacts, and to establish flight rules and flight patterns that will have the least impacts on the civilian population with regard to safety and noise effects. For potential aircraft accidents, CZs and APZs have been established to identify areas with the greatest risk for aircraft accidents and to guide or minimize off-Base development in these higher-risk areas. The CZs and APZs also restrict incompatible land use and thereby reduce exposure to hazards within and adjacent to the runway.

The CZs at JBSA-RND were amended in 2015 to comply with AFI 32-7063, *Air Installations Compatible Use Zones Program* (2015), and UFC 3-260-1, *Airfield and Heliport Planning and Design*, Change 1, which expanded the previously established CZ width by 1,000 feet. The CZs at JBSA-RND now extend beyond the Installation boundary and contain property in Universal City and the city of Schertz to the north, as well as property in the cities of Converse and Schertz to the south. Easements within the CZs have not been acquired for these runways, and incompatible land uses have resulted (AICUZ). There are no structures within the CZs located at SAF. APZs extend off the end of the CZs of each runway at JBSA-RND and SAF.

Wildlife represents a significant hazard to flight operations and BASH occurrences can cause structural and mechanical damage to aircraft. JBSA-RND has experienced a 250-percent increase in bird strikes from 2010 through 2015 due to the old-growth urban forest providing habitat for roosting, nesting, and feeding. SAF also has BASH concerns, but less data are available on the strike numbers. BASH management strategies involve reducing incidents by habitat management, avoidance, and harassment to avoid strikes (Air Force, 2017).

3.15.3 Environmental Consequences

3.15.3.1 Evaluation Criteria

The Air Force assesses safety-related impacts from a proposed activity according to the potential to increase or decrease safety risks to personnel, the public, property, or the environment. Adverse impacts related to safety would occur if the Proposed Action resulted in Air Force OSHA criteria being exceeded or the improper implementation of established or proposed safety measures, creating unacceptable safety risk to personnel. Adverse impacts would occur if the activities:

- substantially increase risks associated with the safety of construction personnel, contractors, military personnel, or the local community;
- substantially hinder the ability to respond to an emergency; or
- introduce a new health or safety risk for which the Base is not prepared or does not have adequate management and response plans in place.

3.15.3.2 No Action Alternative

Under the No Action Alternative, the projects under the Proposed Action would not occur and the existing safety conditions would remain unchanged. The ACPs would also remain within the CZ and unable to be improved, leaving the Installation out of compliance with AT/FP requirements. The built environment of JBSA-RND would continue to deteriorate and become outdated for military use. In the long term, future development program projects would not be precluded under the No Action Alternative.

3.15.3.3 Proposed Action

Ground Safety

Construction and demolition activities can potentially expose personnel to health and safety hazards from heavy-equipment operation, HAZMAT and chemical use, and working in confined, poorly ventilated, and noisy environments. Therefore, short-term, negligible-to-minor impacts on contractor health and safety could occur during proposed construction and demolition projects under the Proposed action. To minimize health and safety risks, contractors would be required to use appropriate personal protective equipment, establish and maintain site-specific health and safety programs for their employees, and follow all applicable OSHA regulations. Additionally, construction contractors at JBSA-RND and SAF are required to follow ground-safety regulations and worker's compensation programs to avoid risks to workers or personnel on or off Base.

Flight Safety

Under the Proposed Action, Projects D2, D3, C4/D4, C5/D5, and D7 would remove or relocate existing structures from within the CZ at JBSA-RND (**Figure 3-11**). East Gate and West Gate are located within the CZ of the east and west runways, respectively. Project C4/D4 would relocate the East Gate guardhouse, sentry booths, and entry lanes and accommodate additional queuing. The West Gate does not meet current anti-terrorism/force protection standards; however, airfield criteria limiting land uses in the CZ prevent this gate from being modified to meet those standards. Project C5/D5 would construct a new covered inspection station, queuing lanes, over-watch station, and intrusion prevention system outside of the CZ, but within the necessary setbacks from the existing facilities. Projects D2, D3, and D7 would demolish existing structures within the CZs at JBSA-RND.

The proposed projects would result in no change to flight safety CZs or APZs at JBSA-RND or SAF; therefore, no impacts to flight safety would occur. Beneficial impacts would include the removal or relocation of these incompatible land use structures from the CZ at JBSA-RND. When considered in conjunction with other past, present, and reasonably foreseeable environmental trends and planned actions, potential cumulative effects to safety would not be likely to occur.

FIGURE 3-11
JBSA-RND CLEAR ZONES AND ACCIDENT POTENTIAL ZONES

N

Imagery: ESRI 2021
Projection: WGS 1984
Zone 14N

0 0.5 1 Miles

Proposed Project

- Construction
- Demolition
- Infrastructure
- JBSA-Randolph

AICUZ CZ and APZs

- Clear Zone
- Accident Potential Zone I
- Accident Potential Zone II

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Dear Mr. Richardson

The United States Air Force (Air Force) is preparing an Environmental Assessment (EA) for proposed Area Development Plan (ADP) projects at Joint Base San Antonio, Randolph (JBSA-RND), Texas. The ADP projects identify and evaluate future development program requirements unique to two areas on JBSA-RND: the Support Services (SS) District and Flight Operations (FO) District (**Attachment 1**). To account for possible environmental concerns, the Air Force is engaging early with all potentially affected resource agencies as it formulates the undertaking. Accordingly, the Air Force seeks consultation with your office.

Proposed Action

The proposed ADP projects include a total of 27 short-term development actions and real property improvements that range in scope from new construction and demolition to repairs, renovations, and upgrades. Details of the Proposed Action are included in **Attachment 2**. The Air Force proposes to implement these projects from approximately 2023 to 2027. The intent of these projects is to provide improvements and infrastructure necessary to support the mission and mission support capabilities of JBSA-RND and its tenant units. The proposed projects were identified as priorities for the Installation to maintain and improve the physical infrastructure of JBSA-RND in support of military training and operations.

Purpose and Need

The purpose of the Proposed Action at JBSA-RND is to develop, improve, and maintain JBSA-RND to meet training and operational requirements, including future mission growth. The Installation performs a critical task for the Air Force and other Department of Defense components by training pilots to fly, maneuver, operate, and maintain aircraft in preparation for deployment. JBSA-RND requires a development approach that retains its unique characteristics and results in land use that is compatible, connected, safe, and secure.

The Proposed Action is needed to address the condition and capability of facilities and infrastructure at JBSA-RND. Many buildings and infrastructure systems are outdated and in poor condition; others lack the functionality required to accomplish the mission. These real-property assets require maintenance, renovation, expansion, or replacement to sustain current operational levels and support future mission expansion.

Project Location

The Proposed Action would occur within the SS District and FO District, which flanks the SS District on three sides to form the exterior portion of the Installation. Projects included in the Proposed Action would also occur at Seguin Auxiliary Airfield (SAF), a sub-area of the FO District located farther west of JBSA-RND. SAF supports pilot training programs administered at JBSA-RND. **Attachment 3** depicts the projects under the Proposed Action for JBSA-RND and SAF as categorized for analysis in the EA.

Environmental Assessment

The EA will assess the potential environmental consequences associated with the Proposed Action and No Action Alternative. Potential impacts identified during the initial planning stages include effects on air quality, infrastructure/utilities, biological and cultural resources, geological resources, and water resources. The EA will also examine the reasonably foreseeable future actions that, when combined with the Proposed Action, could result in potential adverse cumulative effects on a regional scale. In support of this process, we request your input in identifying general or specific issues or areas of concern you believe should be addressed in the EA.

We intend to provide your agency with a copy of the Draft EA when the document is completed. Please inform us if additional copies are needed or if someone else within your agency other than you should receive the Draft EA.

Please reach out to my point of contact, provided below, on any issues or concerns you have in the development of this EA. We ask your assistance in identifying any issues or concerns of which we may be unaware, particularly those that may be affected by this proposal.

So that we remain on schedule to complete the environmental impact analysis process in a timely manner, please provide your response to my point of contact for this matter, as provided below, no later than 30 days from receipt of this correspondence. Please send your response via postal mail or email (preferred) to:

ATTN: Ms. Maria Monroy Gonzalez
802d CES/CEIE – NEPA
1555 Gott Street, Building 5595
JBSA-Lackland TX 78236
Email: maria.monroy_gonzalez@us.af.mil

The Air Force appreciates your interest in and support of its military mission at JBSA-RND. We thank you in advance for your assistance and look forward to your response.

Sincerely

ROBERSON.EDWARD.LEWIS.1124911636
Digitally signed by ROBERSON.EDWARD.LEWIS.1124911636
Date: 2022.03.14 13:33:06 -05'00'

EDWARD L. ROBERSON, P.E.

3 Attachments:
1. Planning Districts Map for Joint Base San Antonio, Randolph
2. Details of the Proposed Action
3. Proposed ADP Projects by Planning District/Sub-District

DEPARTMENT OF THE AIR FORCE
502D AIR BASE WING
JOINT BASE SAN ANTONIO

17 March 2022

Mr. Edward L. Roberson, P.E.
Chief, Environmental Management
802d CES/CEIE
1555 Gott Street
JBSA-Lackland Texas 78236-5645

Mark Wolfe
Texas Historical Commission
State Historic Preservation Office
1511 Colorado Street
Austin TX 78701

Dear Mr. Wolfe

The United States Air Force (Air Force) is preparing an Environmental Assessment (EA) for proposed Area Development Plan (ADP) projects at Joint Base San Antonio, Randolph (JBSA-RND), Texas. The ADP projects identify and evaluate future development program requirements unique to two areas on JBSA-RND: the Support Services (SS) District and Flight Operations (FO) District (**Attachment 1**). To account for possible environmental concerns, the Air Force is engaging early with all potentially affected resource agencies as it formulates the undertaking. Accordingly, the Air Force seeks consultation with the State Historic Preservation Office, also known as the Texas Historical Commission.

Proposed Action

The EA will, as required by law and regulations, consider the potential impacts resulting from the implementation of installation development planning activities. The Proposed Action would involve facility construction, demolition, renovation, and maintenance and infrastructure construction and improvement. Pursuant to 36 CFR §§ 800.4(a) and (b), we request your assistance defining the Area of Potential Effect (APE) and providing information on any historic properties located therein that may be affected by this proposed undertaking. Location maps of each alternative are attached for your review (see **Project Location** below).

The proposed ADP projects include a total of 27 short-term development actions and real property improvements that range in scope from new construction and demolition to repairs, renovations, and upgrades. Details of the Proposed Action are included in **Attachment 2**. The Air Force proposes to implement these projects from approximately 2023 to 2027. The intent of these projects is to provide improvements and infrastructure necessary to support the mission and mission support capabilities of JBSA-RND and its tenant units. The proposed projects were identified as priorities for the Installation to maintain and improve the physical infrastructure of JBSA-RND in support of military training and operations.

Purpose and Need

The purpose of the Proposed Action at JBSA-RND is to develop, improve, and maintain JBSA-RND to meet training and operational requirements, including future mission growth. The Installation performs a critical task for the Air Force and other Department of Defense components by training pilots to fly, maneuver, operate, and maintain aircraft in preparation for deployment. JBSA-RND requires a development approach that retains its unique characteristics and results in land use that is compatible, connected, safe, and secure.

The Proposed Action is needed to address the condition and capability of facilities and infrastructure at JBSA-RND. Many buildings and infrastructure systems are outdated and in poor condition; others lack the functionality required to accomplish the mission. These real-property assets require maintenance, renovation, expansion, or replacement to sustain current operational levels and support future mission expansion.

Project Location

The Proposed Action would occur within the SS District and FO District, which flanks the SS District on three sides to form the exterior portion of the Installation. Projects included in the Proposed Action would also occur at Seguin Auxiliary Airfield (SAF), a sub-area of the FO District located farther west of JBSA-RND. SAF supports pilot training programs administered at JBSA-RND. Some actions would occur within the Randolph Field Historic District, a National Historic Landmark District. **Attachment 3** depicts the projects under the Proposed Action for JBSA-RND and SAF as categorized for analysis in the EA.

Environmental Assessment

The EA will assess the potential environmental consequences associated with the Proposed Action and No Action Alternative. Potential impacts identified during the initial planning stages include effects on air quality, infrastructure/utilities, biological and cultural resources, geological resources, and water resources. The EA will also examine the reasonably foreseeable future actions that, when combined with the Proposed Action, could result in potential adverse cumulative effects on a regional scale. In support of this process, we request your input in identifying general or specific issues or areas of concern you believe should be addressed in the EA.

As a consultation, we would appreciate any input regarding concerns of potential effects of the Proposed Action on historic properties as well as assistance in defining the APE for the Proposed Action. We also intend to provide your agency with a copy of the Draft EA once the document is completed and welcome comments and input at that time as well. Please inform us if additional copies are needed or if someone else within your organization other than you should receive the Draft EA.

So that we remain on schedule to complete the environmental impact analysis process in a timely manner, please provide your response to my point of contact for this matter, as provided below, no later than 30 days from receipt of this correspondence. Please send your response via postal mail or email (preferred) to:

ATTN: Ms. Dayna Cramer
802d CES/CEIEA
1555 Gott Street
JBSA Lackland TX 78236-5645
Email: dayna.a.cramer.civ@army.mil

The Air Force appreciates your interest in and support of its military mission at JBSA-RND. We thank you in advance for your assistance and look forward to your response.

Sincerely

ROBERSON.EDWARD.LEWIS.1124911636
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Date: 2022.03.14 14:38:34 -05'00'

EDWARD L. ROBERSON, P.E.

3 Attachments:
1. Planning Districts Map for Joint Base San Antonio, Randolph
2. Details of the Proposed Action
3. Proposed ADP Projects by Planning District/Sub-District

DEPARTMENT OF THE AIR FORCE
502D AIR BASE WING
JOINT BASE SAN ANTONIO

17 March 2022

Mr. Michael D. Waldrop
JBSA Tribal Liaison
AETC 502 ABW
502 MSG/CD (Building 122)
JBSA-Fort Sam Houston Texas 78234

William Nelson Sr.
Chairman
Comanche Nation, Oklahoma
P.O. Box 908
Lawton OK 73502

Dear Chairman Nelson Sr.

The United States Air Force (Air Force) is preparing an Environmental Assessment (EA) for proposed Area Development Plan (ADP) projects at Joint Base San Antonio, Randolph (JBSA-RND), Texas. The ADP projects identify and evaluate future development program requirements unique to two areas on JBSA-RND: the Support Services (SS) District and Flight Operations (FO) District (**Attachment 1**). To account for possible environmental concerns, the Air Force is engaging early with all potentially affected Native American Tribes as it formulates this undertaking. Accordingly, the Air Force seeks consultation with the Comanche Nation, Oklahoma.

Proposed Action

The proposed ADP projects include a total of 27 short-term development actions and real property improvements that range in scope from new construction and demolition to repairs, renovations, and upgrades. Details of the Proposed Action are included in **Attachment 2**. The Air Force proposes to implement these projects from approximately 2023 to 2027. The intent of these projects is to provide improvements and infrastructure necessary to support the mission and mission support capabilities of JBSA-RND and its tenant units. The proposed projects were identified as priorities for the Installation to maintain and improve the physical infrastructure of JBSA-RND in support of military training and operations.

Pursuant to Section 106 of the *National Historic Preservation Act* (NHPA), implementing regulations at 36 CFR Part 800, and Department of Defense (DOD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes,* we would like to initiate government-to-government consultation on the Proposed Action. Pursuant to 36 CFR §§ 800.4(a) and (b), we request your assistance defining the Area of Potential Effect (APE) and information on any historic properties located therein that may be affected by the proposed undertaking. The Air Force desires to discuss the proposal in detail with you so that we may understand and consider any comments, concerns, and suggestions you may have. In particular,

we invite you, pursuant to 36 CFR § 800.4(a)(4), to provide information on any properties of historic, religious, or cultural significance that may be affected by our proposed undertaking. Regardless of whether the Comanche Nation, Oklahoma chooses to consult on this project, the Air Force will comply with the *Native American Graves Repatriation Act* by informing you of any inadvertent discovery of archaeological or human remains and consulting on their disposition. Being defined as a federal undertaking, we will be seeking input and inviting other potential consulting parties, such as the Texas State Historic Preservation Office.

Purpose and Need

The purpose of the Proposed Action at JBSA-RND is to develop, improve, and maintain JBSA-RND to meet training and operational requirements, including future mission growth. The Installation performs a critical task for the Air Force and other DOD components by training pilots to fly, maneuver, operate, and maintain aircraft in preparation for deployment. JBSA-RND requires a development approach that retains its unique characteristics and results in land use that is compatible, connected, safe, and secure.

The Proposed Action is needed to address the condition and capability of facilities and infrastructure at JBSA-RND. Many buildings and infrastructure systems are outdated and in poor condition; others lack the functionality required to accomplish the mission. These real-property assets require maintenance, renovation, expansion, or replacement to sustain current operational levels and support future mission expansion.

Project Location

The Proposed Action would occur within the SS District and FO District, which flanks the SS District on three sides to form the exterior portion of the Installation. Projects included in the Proposed Action would also occur at Seguin Auxiliary Airfield (SAF), a sub-area of the FO District located farther west of JBSA-RND. SAF supports pilot training programs administered at JBSA-RND. **Attachment 3** depicts the projects under the Proposed Action for JBSA-RND and SAF as categorized for analysis in the EA.

Environmental Assessment

The EA will assess the potential environmental consequences associated with the Proposed Action and No Action Alternative. Potential impacts identified during the initial planning stages include effects on air quality, infrastructure/utilities, biological and cultural resources, geological resources, and water resources. The EA will also examine the reasonably foreseeable future actions that, when combined with the Proposed Action, could result in potential adverse cumulative effects on a regional scale. In support of this process, we request your input in identifying general or specific issues or areas of concern you believe should be addressed in the EA. As a government-to-government consultation, we would appreciate any input you have to identify properties of cultural and religious significance that may be located within the APE for this action and regarding concerns of potential effects of the Proposed Action on significant cultural resources. We also intend to provide the Comanche Nation, Oklahoma with a copy of the Draft EA once the document is completed and welcome comments and input at that time as well. Please inform us if additional copies are needed or if someone else within your organization other than you should receive the Draft EA.

So that we remain on schedule to complete the environmental impact analysis process in a timely manner, please provide your response to me no later than 30 days from receipt of this correspondence. Please send your response via postal mail at the address above or via email (preferred) to michael.d.waldrop6.civ@mail.mil.

The Air Force appreciates your interest in and support of its military mission at JBSA-RND. We thank you in advance for your assistance and look forward to your response.

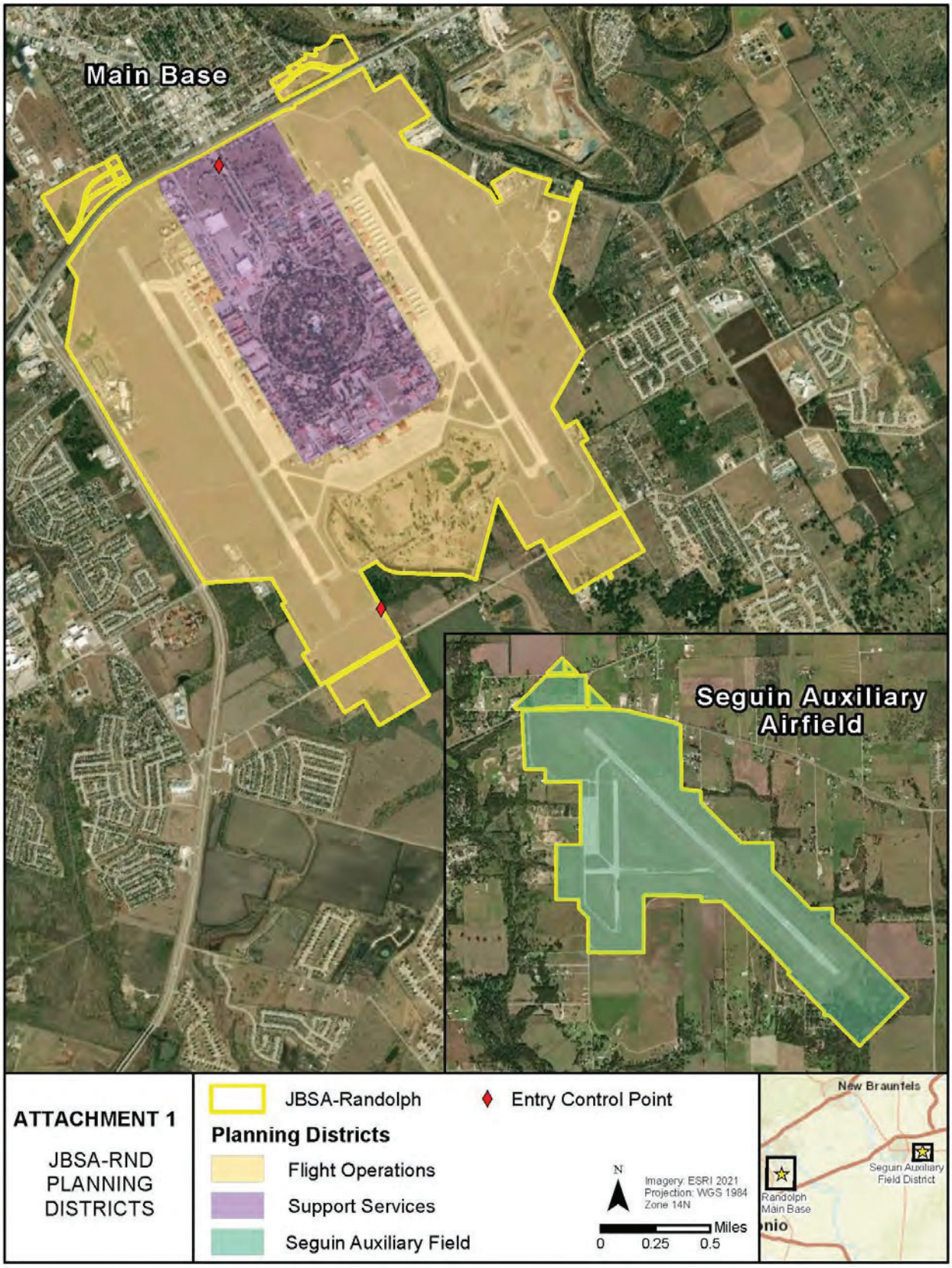
Sincerely

WALDROP.MICHAEL.DUANE.1160753451
Digitally signed by WALDROP.MICHAEL.DUANE.1160753451
Date: 2022.03.07 14:25:11 -06'00'

MICHAEL D. WALDROP

3 Attachments:
1. Planning Districts Map for Joint Base San Antonio, Randolph
2. Details of the Proposed Action
3. Proposed ADP Projects by Planning District/Sub-District

Attachment 1 – Planning Districts Map for Joint Base San Antonio, Randolph



Attachment 2 – Details of the Proposed Action

List of Proposed Construction and Demolition Projects at JBSA-RND

Map ID[a]	Project	Approx. Size or Footprint[b]
Flight Operations District		
C1	Add field-level repair facility in H-7.	29,460
D2	Demolish B-1040 (clinic) parking lot in the NW airfield CZ.	-56,223
D3	Demolish existing CATM in the SW airfield CZ.	-5,124
C4/D4	Construct an east ACP gate outside the airfield CZ, including a guard house, sentry booths, and entry lanes; demolish existing east ACP gate.	4 ac
C5/D5	Construct a new west ACP gate system with LVIP and road behind the school; demolish existing south ACP gate.	6 ac
C6	Construct a reinforced access road between the east runway and East Perimeter Road.	30,000
D7	Remove athletic fields and demolish their associated buildings and infrastructure in the NE CZ.	199,122
Support Services District		
C8	Construct a Child Development Center.	13,600
C9	Construct a consolidated MSC for CE.	194,246 -26,167
C10	Construct a multi-purpose service station with fuel pumps.	8,250
C11	Construct addition to RPA medical administrative facility (i.e., flight surgeon).	33,639
C12/ D12	Relocate Eberle Park to Heritage Park by demolition of six buildings (B-1180, B-1181, B-1183, B-1184, B-1185, B-1187); remove trees and return area to grass.	300,000

Notes:
a Numeric Map IDs correspond with **Attachment 3-1**.
b Approximate size in sf unless note otherwise.
ac = acre(s); ACP = Access Control Point; B = Building (e.g., Building 1040 is B-1040); CATM = Combat Arms Training and Maintenance; CE = Civil Engineering; CZ = Clear Zone; H = Hangar (aircraft); LVIP = large vehicle inspection point; MSC = Mission Support Complex; NW = northwest; RPA = Remotely Piloted Aircraft; sf = square feet; SW = southwest; sy = square yard(s)

List of Proposed Infrastructure Projects at JBSA-RND

Map ID[a]	Project	Approx. Size or Footprint[b]
Flight Operations District		
I1	Realign golf course to clear trees and remove brush along the South Gate perimeter fence line for operational safety.	84,213
I2	Renovate MTC H-62.	18,940
I3	Repair/rebuild west runway by full replacement, including drainage improvements.	800,882 sy
I4	Pave/resurface the east and south taxiway shoulders.	
Support Services District		
I5	Renovate B-675.	65,274
I6	Right-size transportation facilities and hardstand; make vehicle maintenance improvements.	
I7	Make road, safety, and parking improvements; create a transit route and construct transient stops.	54 mi
I8	Repurpose Arts and Crafts for CE Complex.	15,059
I9	Renovate B-663.	65,231
I10	Renovate B-494.	27,596

Notes:
a Alphabetic Map IDs correspond with **Attachment 3-1**.
b Approximate size in sf unless noted otherwise.
B = Building (e.g., Building 675 is B-675); CE = Civil Engineering; H = Hangar (aircraft); mi = mile(s); MTC = Mission Training Complex; sf = square feet; sy = square yard(s)

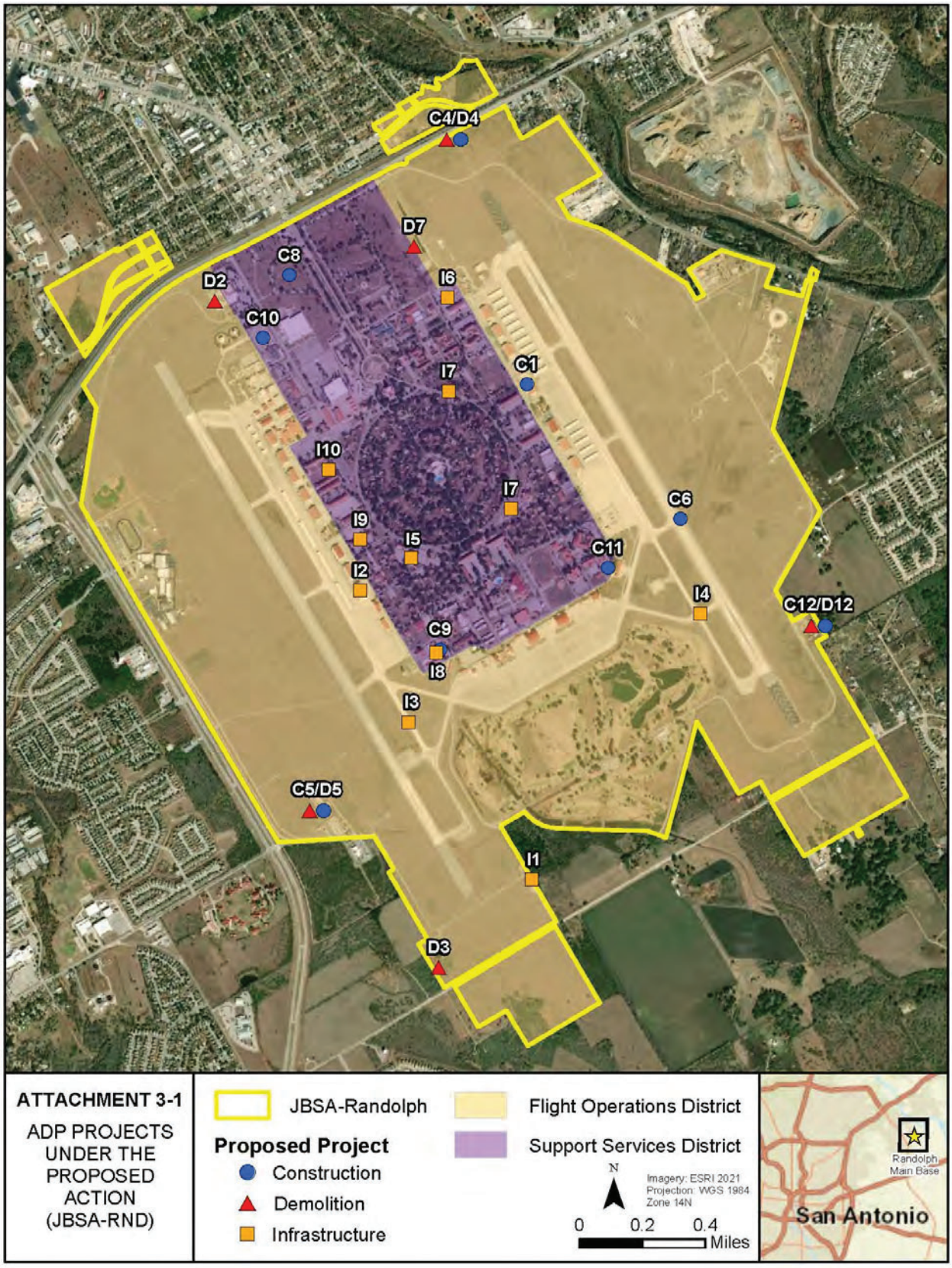
Attachment 2 – Details of the Proposed Action

List of Proposed Construction, Demolition, and Infrastructure Projects at SAF

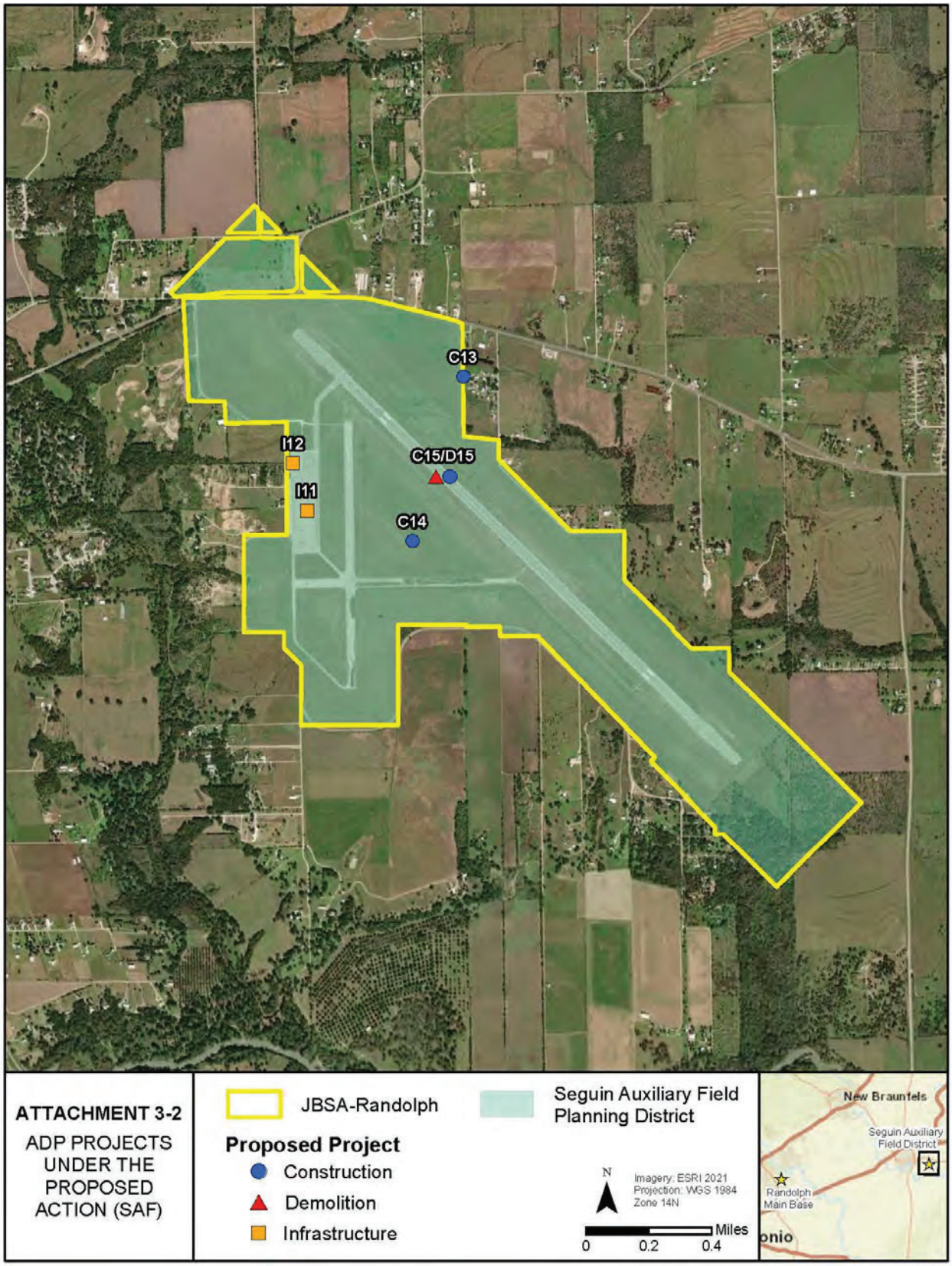
Map ID[a]	Project	Approx. Size or Footprint[b]
Construction/Demolition		
C13	Secure Airfield with UFC-compliant fence	
C14	Construct emergency access road with shoulders at Seguin Airfield.	200,000
C15/ D15	Demolish portions of the runway and taxiway; construct new shoulders.	12 ft (width)
Infrastructure		
I11	Repair/resurface Seguin Airfield apron to comply with UFC.	20 ac
I12	Renovate Flight Line Fire Station (B-415).	

Notes:
a Alpha/Numeric Map IDs correspond with **Attachment 3-2.**
b Approximate size in sf unless noted otherwise.
ac = acre(s); B = Building (e.g., Building 415 is B-415); ft = feet; UFC = Unified Facilities Criteria

Attachment 3 – Proposed ADP Projects by Planning District/Sub-District



Attachment 3 – Proposed ADP Projects by Planning District/Sub-District



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Lee M. Bass
Chairman-Emeritus
Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

Carter P. Smith
Executive Director

April 14, 2022

ATTN: Maria Monroy Gonzalez
802d CES/CEIE-NEPA
1555 Gott Street, Building 5595
JBSA-Lackland, TX 78236

RE: United States Air Force Environmental Assessment evaluating proposed Area Development Plan, Joint Base San Antonio, Randolph, Bexar County, Texas

Dear Ms. Monroy Gonzalez:

Texas Parks and Wildlife Department (TPWD) received the review request regarding the proposed project referenced above. The United States Air Force (Air Force) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts associated with the project.

Project Description

The proposed Area Development Project (ADP) would include 27 short-term development actions and real property improvements ranging in scope from new construction and demolition to repairs, renovations, and upgrades. The components of the project would occur within the Support Services (SS) and Flight Operations (FO) Districts on Joint Base San Antonio, Randolph (JBSA-RND), and at the Seguin Auxiliary Airfield (SAF). The majority of proposed ADP construction, demolition, and infrastructure improvement projects would occur in heavily developed, previously disturbed areas.

TPWD staff reviewed the information provided and offers the following comments and recommendations.

General Construction Recommendation

TPWD provides the following beneficial management practices (BMPs) to assist in project planning.

Recommendation: TPWD recommends the judicious use and placement of sediment control fence to exclude wildlife from discrete construction areas, when applicable. In many cases, sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife access to construction areas. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and disturbed areas have been revegetated with site-specific native species. Construction personnel should be encouraged to examine the inside of exclusion areas daily to determine if any wildlife species have been trapped inside the areas of impact and provide safe egress opportunities prior to initiation of construction activities.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

Recommendation: TPWD recommends that any open trenches or excavation areas (e.g., for buried electrical lines, water or wastewater pipelines) be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated areas that cannot be covered overnight, escape ramps fashioned from soil or boards should be installed at an angle of less than 45 degrees (1:1) in the trenches to allow wildlife to climb out on their own.

Recommendation: For soil stabilization and/or revegetation of disturbed areas, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding due to a reduced risk to wildlife.

Recommendation: Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends avoiding the use of plastic mesh matting. If erosion control blankets or mats containing netting must be used, the netting should be loosely woven, natural fiber material where the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting and hydromulch containing microplastics should be avoided.

Recommendation: For encounters with rare species that will not readily leave a work area, TPWD recommends an authorized individual translocate the animal. Translocations of reptiles should be the minimum distance possible from the work area. Ideally, individuals to be relocated should be transported to the closest suitable habitat outside of the active construction area; preferably within 100 to 200 yards and not greater than one mile from the capture site. State-listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office. For more information regarding Wildlife Permits, please contact the Wildlife Permits Office at (512) 389-4647.

Impacts to Vegetation/Wildlife Habitat

Some proposed projects would require the removal of vegetation including trees (e.g., tree removal at Eberle Park, the golf course and the South Gate perimeter fence line). There were minimal details provided on vegetation removal or proposed revegetation/landscaping; therefore, TPWD has provided the following recommendations to assist in project planning.

Recommendation: TPWD recommends reducing the amount of vegetation proposed for clearing if possible and minimizing clearing native vegetation, particularly mature, mast producing native trees and shrubs, and riparian vegetation, to the greatest extent practicable, particularly in areas that may not contribute to concerns of bird-aircraft strike hazards (BASH). After the proposed

project components have been completed, TPWD recommends restoring vegetation on the sites, particularly around administrative or residential buildings. Revegetation or post-construction landscaping plans should focus on native plant species. Colonization by invasive species, particularly invasive grasses and weeds, should be actively prevented. Vegetation management should include removing invasive species early on while allowing existing native plants to revegetate disturbed areas. TPWD recommends referring to the Lady Bird Johnson Wildflower Center Native Plant Database for regionally adapted native species that would be appropriate for landscaping and revegetation.

Landscaping for Monarch Butterflies and Pollinators

Significant declines in the population of migrating monarch butterflies (*Danaus plexippus*) have led to widespread concern about this species and the long-term persistence of the North American monarch migration. As part of an international conservation effort, TPWD has developed the *Texas Monarch and Native Pollinator Conservation Plan*. One of the broad categories of action in the plan is to augment larval feeding and adult nectaring opportunities.

Recommendation: TPWD recommends incorporating pollinator conservation and management into revegetation and landscaping plans. TPWD recommends revegetation efforts include planting or seeding native milkweed (*Asclepias* spp.) and nectar plants as funding and seed availability allow. Information about monarch biology, migration, and butterfly gardening can be found on the Monarch Watch website. Information related to pollinator conservation in Texas, including planting recommendations, are available in the TPWD publication *Management Recommendations for Native Insect Pollinators in Texas* (available online). Additional information and guidance regarding pollinator conservation can be found in the U.S. Air Force Pollinator Conservation Reference Guide (2017).

Federal Regulations

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits taking, attempting to take, capturing, killing, selling, purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts, or nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Recommendation: TPWD recommends the EA evaluate potential impacts to nesting birds in proposed project areas. Potential adverse impacts to nesting birds

can be avoided or minimized by scheduling vegetation clearing to occur outside of the general bird nesting season (March 15 through September 15). If disturbance within the project areas must be scheduled to occur during the nesting season, TPWD recommends any vegetation to be impacted (trees, shrubs, and grasses) or bare ground where occupied nests may be located should be surveyed for active nests by a qualified biologist prior to clearing. Nest surveys should be conducted no more than five days prior to scheduled clearing in order to maximize the detection of active nests, including recently constructed nests. If active nests are observed during surveys, TPWD recommends a 100-foot radius buffer of vegetation remain around nests until eggs have hatched and the young have fledged; however, the size of the buffer zone is dependent on various factors and can be coordinated with the local or regional USFWS office.

State Regulations

Parks and Wildlife Code – Chapter 64, Birds

Texas Parks and Wildlife Code (PWC), section 64.002, regarding the protection of nongame birds, provides that no person may catch, kill, injure, pursue, or possess a bird that is not a game bird. PWC section 64.003, regarding destroying nests or eggs, provides that, no person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl. PWC chapter 64 does not allow for incidental take.

Although not documented in the Texas Natural Diversity Database (TXNDD), many bird species which are not listed as *threatened* or *endangered* are protected by chapter 64 of the PWC and are known to be year-round or seasonal residents or seasonal migrants through the proposed project area.

Recommendation: Please review the *Federal Regulations: Migratory Bird Treaty Act* section above for recommendations as they are applicable for compliance with Chapter 64 of the Parks and Wildlife Code.

Parks and Wildlife Code, Section 68.015

PWC regulates state-listed threatened and endangered animal species. The capture, trap, take, or killing of state-listed threatened and endangered animal species is unlawful unless expressly authorized under a permit issued by the USFWS or TPWD. A copy of *TPWD Guidelines for Protection of State-Listed Species*, which includes a list of penalties for take of species, can be found on the TPWD Wildlife Habitat Assessment Program website. As indicated above, state-listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office.

The potential occurrence of state-listed species in the project area is primarily dependent upon the availability of suitable habitat. Direct impacts to high quality or suitable habitat therefore are directly proportional to the magnitude and potential to directly impact state-listed species. State-listed reptiles that are typically slow moving or unable to move due to cool temperatures are especially susceptible to being directly impacted (i.e., crushing by heavy equipment) during site preparation activities. Small wildlife such as lizards, turtles, and snakes are susceptible to falling into open pits, excavations, trenches, etc. left open and/or uncovered in a project area.

Please be aware that determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence.

> **Recommendation:** TPWD recommends reviewing the most current TPWD annotated county lists of rare species for Bexar County. The annotated county lists are available online at the TPWD Wildlife Diversity website. Environmental documents prepared for the project should include an inventory of existing natural resources within the project area. Specific evaluations should be designed to predict project impacts upon these natural resources including potential impacts to state-listed species.

I appreciate the opportunity to review and comment on this project. Please contact me at (361) 825-3240 or **russell.hooten@tpwd.texas.gov** if we may be of further assistance.

Sincerely,

Russell Hooten
Wildlife Habitat Assessment Program
Wildlife Division

/rh 48326

References

USFWS. 2017. *U.S. Air Force Pollinator Conservation Reference Guide*, Air Force Civil Engineer Center, San Antonio, TX, 182 pp. + Appendix A (Species maps and profiles) and B (Restoration and landscaping information).

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

May 27, 2022

Regulatory Division

SUBJECT: Project Number SWF-2022-00155, Joint Base San Antonio, Randolph Area Development Plan 27

Ms. Maria Monroy Gonzalez
802d CES/CEIEE
1555 Gott Street, Building 5595
JBSA-Lackland, Texas 78236
maria.monroy_gonzalez@us.af.mil

Dear Ms. Gonzalez:

This letter is regarding information received March 24, 2022, concerning an Area Development Plan at Joint Base San Antonio, Randolph and Seguin Auxiliary Airfield. This project has been assigned Project Number SWF-2022-00155. Please include this number in all future correspondence concerning this project.

Under Section 404 of the Clean Water Act the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into waters of the United States, including wetlands. USACE responsibility under Section 10 of the Rivers and Harbors Act of 1899 is to regulate any work in, or affecting, navigable waters of the United States. Based on your description of the proposed work, and other information available to us, we have determined this project will not involve activities subject to the requirements of Section 404 or Section 10. Therefore, it will not require Department of the Army authorization pursuant to Section 404 or Section 10.

Thank you for your interest in our nation's water resources. If you have any questions concerning our regulatory program, please refer to our website or contact Mr. Brian Bartels at the address above, telephone (817-886-1742), or email (Brian.C.Bartels@usace.army.mil), and refer to your assigned project number.

Please help the regulatory program improve its service by completing the survey.

Sincerely,

For: Brandon W. Mobley
Chief, Regulatory Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 11, 2022

Maria Monroy Gonzalez
NEPA Program Manager
U.S. Air Force
1555 Gott Street, Building 5595
JBSA-Lackland, TX 78236

Via: **E-mail**

Re: **TCEQ NEPA Request #2022-033. Area Development Plan Projects (JBSA-RND). Bexar County.**

Dear Ms. Gonzalez,

The Texas Commission on Environmental Quality (TCEQ) has reviewed the above-referenced project and offers the following comments:

In accordance with the General Conformity regulations in 40 CFR Part 93, this proposed action will be reviewed for air quality impact. The action will occur in Guadalupe and Bexar County. Guadalupe County is designated Unclassifiable/Attainment for the ozone National Ambient Air Quality Standards (NAAQS), and general conformity requirements do not apply. Bexar County is designated nonattainment for the 2015 eight-hour ozone NAAQS with a classification of marginal and pending expected reclassification by the United States Environmental Protection Agency to moderate. General conformity requirements apply in Bexar County.

Volatile organic compounds (VOC) and nitrogen oxides (NOX) are precursor pollutants that lead to the formation of ozone. A general conformity demonstration may be required when the total projected direct and indirect VOC or NOX emissions from an applicable action are equal to or exceed the de minimis emissions level, which is 100 tons per year (tpy) for ozone NAAQS marginal and moderate nonattainment areas. The TCEQ looks forward to receiving the environmental assessment for this project.

We recommend the environmental assessment address actions that will be taken to prevent surface and groundwater contamination.

The management of industrial and hazardous waste at the site including waste treatment, processing, storage and/or disposal is subject to state and federal regulations. Construction and Demolition waste must be sent for recycling or disposal at a facility authorized by the TCEQ. Special waste authorization may be required for the disposal of asbestos containing material.

TCEQ records show Building 700 was subject to an accidental release of approximately 5 gallons of Aqueous Film Forming Foam (AFFF) in August 2008. Determination regarding the extent of contamination is underway. The Remediation Division recommends that the environmental assessment take this into consideration and ensure no releases occur from the planned activities and that any investigation derived waste be disposed at an appropriately authorized disposal facility.

Thank you for the opportunity to review this project. If you have any questions, please contact the agency NEPA coordinator at (512) 239-2619 or NEPA@tceq.texas.gov

Sincerely,

Ryan Vise,
Division Director
External Relations

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
Phone: (512) 490-0057 Fax: (512) 490-0974

In Reply Refer To: July 19, 2022
Project Code: 2022-0064950
Project Name: Proposed Area Development Plan (ADP) Projects at Joint Base San Antonio, Randolph (JBSA-RND)

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
(512) 490-0057

Project Summary

Project Code: 2022-0064950
Event Code: None
Project Name: Proposed Area Development Plan (ADP) Projects at Joint Base San Antonio, Randolph (JBSA-RND)
Project Type: Military Development
Project Description: The proposed ADP projects vary from new construction, expansion, and demolition actions to repairs, renovations, and upgrades. These projects can be classified into three general categories:

1) Construction - Projects include new development and redevelopment for expansion of the existing built environment, including new buildings, building additions, and new or expanded facilities for operational support.

2) Demolition - Projects include the temporary or permanent removal of existing buildings and structures in support of new development or redevelopment.

3) Infrastructure. Repair, renovation, maintenance, or improvement actions ranging from routine management actions (e.g., road, sidewalk, or utility system repairs or maintenance activities) to building renovation or modernization.

In total, 27 development actions and real property improvements are proposed at JBSA-RND from approximately 2023 to 2027.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.5287343,-98.27925022562133,14z

Counties: Bexar and Guadalupe counties, Texas

Endangered Species Act Species

There is a total of 23 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Golden-cheeked Warbler *Setophaga chrysoparia*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/33	
Piping Plover *Charadrius melodus*	Threatened
Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	
Red Knot *Calidris canutus rufa*	Threatened
There is **proposed** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	
Whooping Crane *Grus americana*	Endangered
Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/758	

Amphibians

NAME	STATUS
San Marcos Salamander *Eurycea nana* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6374	Threatened
Texas Blind Salamander *Eurycea rathbuni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5130	Endangered

Fishes

NAME	STATUS
Fountain Darter *Etheostoma fonticola* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5858	Endangered

Clams

NAME	STATUS
False Spike *Fusconaia mitchelli* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3963	Proposed Endangered
Guadalupe Orb *Cyclonaias necki* Population: There is **proposed** critical habitat for this species. The location of the critical habitat is not available.	Proposed Endangered

Insects

NAME	STATUS
[no Common Name] Beetle *Rhadine exilis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6942	Endangered
[no Common Name] Beetle *Rhadine infernalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3804	Endangered
Comal Springs Dryopid Beetle *Stygoparnus comalensis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7175	Endangered
Comal Springs Riffle Beetle *Heterelmis comalensis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3403	Endangered
Helotes Mold Beetle *Batrisodes venyivi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1149	Endangered
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Arachnids

NAME	STATUS
Braken Bat Cave Meshweaver *Cicurina venii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7900	Endangered
Cokendolpher Cave Harvestman *Texella cokendolpheri* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/676	Endangered
Government Canyon Bat Cave Meshweaver *Cicurina vespera* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7037	Endangered
Government Canyon Bat Cave Spider *Tayshaneta microps* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/553	Endangered
Madla Cave Meshweaver *Cicurina madla* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2467	Endangered
Robber Baron Cave Meshweaver *Cicurina baronia* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2361	Endangered

Crustaceans

NAME	STATUS
Peck's Cave Amphipod *Stygobromus (=Stygonectes) pecki*	Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/8575

Flowering Plants

NAME	STATUS
Texas Wild-rice *Zizania texana*	Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/805

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Army Corps of Engineers
Name: Nicholas Sutton
Address: 350 Hills St
Address Line 2: Suite 112
City: Richland
State: WA
Zip: 99354
Email nsutton@easbio.com
Phone: 6789382429

Lead Agency Contact Information

Lead Agency: Air Force

APPENDIX B
PUBLIC NOTICES

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NOTICE FOR EARLY PUBLIC REVIEW OF A PROPOSED ACTIVITIES WITHIN FLOODPLAINS – UNITED STATES AIR FORCE

The U.S. Air Force (USAF) is inviting early public input on proposed activities at Joint Base San Antonio (JBSA) with potential to affect floodplains and wetlands resources. The USAF is proposing to implement various development and modernization projects on the four primary military basesthat comprise JBSA: Bullis, Lackland, Randolph, and Sam Houston. The proposed projects were identified as part of JBSA's integrated installation (master) planning process as being of a high priority for JBSA to continue its military mission and mission support functions within and around the San Antonio, Texas metropolitan area. More specifically, the projects were recommended as short-term phase components in area development plans (ADPs) prepared for different geographic areas on each JBSA base. The ADPs are sub-component plans of JBSA's installation development plan (IDP), a region-level plan that guides future development across all JBSA real property assets.

The proposed development actions and improvements under consideration by the USAF at JBSA range in scope from new construction and demolition to repairs, renovations, and upgrades. The USAF proposes to implement these projects in phases from approximately 2023 to 2027. To comply with the National Environmental Policy Act (NEPA), the USAF is preparing environmental assessments (EAs) for the proposed actions at each JBSA military base to analyze the potential environmental impacts of its development plans. The Draft EAs will be made available for public review and comment in the summer and fall of 2022.

Because select projects under consideration at each military base would affect or potentially affect floodplains and wetlands under USAF management, this early notice seeks public input on any practical alternatives to avoid or minimize adverse effects on these natural resources. As the projects are currently in the pre-planning stage, additional details will be made available in the forthcoming Draft EAs for public

review. The USAF plans to use these NEPA processes to comply with Executive Orders (EOs) 11988, Floodplain Management; 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input; and 11990, Protection of Wetlands, respectively.

Accordingly, the USAF seeks your input with respect to potential effects on floodplains and wetlands that could result from the proposed actions at JBSA. Public comments received in response to this notice, as well as those received through public participation in the NEPA processes currently underway, will assist the USAF to comply with its obligations under the EOs noted above.

Please address written comments to the USAF 802 CES/CEI, 1555 Gott Street, JBSA-Lackland, TX 78236, via email (preferred) to 802CES.CEIE.NEPATeam@us.af.mil.

HEARST

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SAN ANTONIO EXPRESS - NEWS
AFFIDAVIT OF PUBLICATION

STATE OF TEXAS:
COUNTY OF BEXAR

Before me, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared: Geena Garza, who after being duly sworn, says that she is the Bookkeeper of HEARST NEWSPAPERS, LLC - dba: SAN ANTONIO EXPRESS - NEWS, a newspaper published in Bexar County, Texas and that the publication, of which the annexed is a true copy, was published to wit:

Customer ID	Customer	Order ID	Publication	Pub Date
20031375	EAS	34187271	SAE Express-News	03/11/22
			SAE Express-News	03/12/22

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Geena Garza
Geena Garza
Bookkeeper

Sworn and subscribed to before me, this 15th **day of** Mar. **A.D.** 2022

Notary public in and for the State of Texas

MARK RAYMOND PORTER
Notary Public, State of Texas
Comm. Expires 10-27-2025
Notary ID 133416864

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Attn: Advertising AR Department
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San Antonio, TX 78297

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34187271

AFFIDAVIT OF PUBLICATION

I am a regular employee of American City Business Journals and have personal knowledge of the publication information described in this Affidavit of Publication. The Notice for Early Public Review attached below was published under United States Air Force in the following issues of the San Antonio Business Journal: 3/11/22.

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Michael Wall

(Signature)

PRINTED NAME: Michael Wall
who provided a Washington DL

State of Florida
County of Miami-Dade

March 28th, 2022

I certify that I know or have satisfactory evidence (1) that Michael Wall signed this Affidavit of Publication, (2) that he or she acknowledged that he or she signed this Affidavit of Publication and (3) that he or she acknowledged it to be his or her free and voluntary act for the uses and purposes mentioned therein.

(Notary's Signature)

Printed Name: Samer Gorrin Vazquez

NOTARY PUBLIC • STATE OF FLORIDA •

SAMER GORRIN VAZQUEZ
Notary Public - State of Florida
Commission # HH17982
Expires on July 6, 2024

Notarized online using audio-video communication

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APPENDIX C
PROPOSED AREA DEVELOPMENT PLAN PROJECTS ADDENDUM

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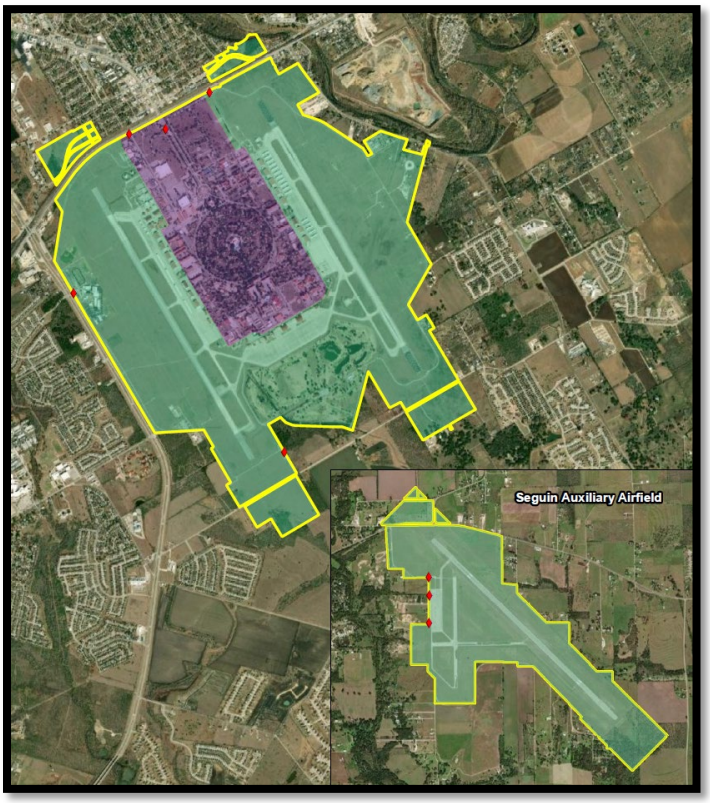
PROPOSED AREA DEVELOPMENT PLAN PROJECTS ADDENDUM

JOINT BASE SAN ANTONIO, RANDOLPH AIR FORCE BASE, TEXAS

Introduction

This Addendum supplements the Environmental Assessment (EA) for proposed Area Development Plan (ADP) projects at Joint Base San Antonio, Randolph (JBSA-RND). As identified and evaluated in the ADPs for JBSA-RND, the United States Air Force (Air Force) proposes to implement 27 development actions and real property improvements on the Base from approximately 2023 to 2027. These projects are a component of the ADP's short-term program phase to maintain and modernize the mission support capabilities of JBSA-RND. The EA analyzes the potential environmental effects of the proposed ADP projects.



The ADP project information summarized below is representative of the Air Force's continual process of planning and evaluation to inform the future development of JBSA-RND. The information is drawn from project-level plans, designs, and program documents prepared in response to the JBSA-RND ADPs. As available and relevant to the impact analyses, this information is incorporated by Addendum into the Draft EA. The projects discussed below were selected from **Tables 2-1** and **2-3** of the EA as being representative of the Proposed Action. This Addendum is organized by JBSA-RND Planning District[1] to correlate with **Chapter 2** of the EA.

Flight Operations District

Project 2 – Demolish a Parking Lot in the Northwest Clear Zone

Project 2 would demolish an existing parking lot located within the northwest clear zone (CZ) of the southernmost JBSA-RND airfield. Upon demolition and removal of the parking lot, **Project 2** would return the area to grass. As defined by Air Force Instruction (AFI) 32-7063, the CZ is the area of highest accidental potential after the runway itself. Within the CZ, land use is restricted to protect people on the ground should an accident occur. Because vehicle parking is not considered a compatible land use in relation to the CZ, the Air Force is currently managing safety risks via a temporary waiver for non-compliance with airfield operational safety criteria. **Project 2** would allow JBSA-RND to comply with such criteria. The Air Force considered alternatives that would replace the lost parking capacity on the western side of the affected

[1] Seguin Auxiliary Airfield (SAF) is part of the Flight Operations (FO) District due to its mission support functions. However, the proposed ADP projects at SAF are described under separate heading to account for its distinct geography.

facility (Building 1040) but determined the remaining parking capacity (outside the CZ) was sufficient to meet the current user demand.

Project 5 – Construct a West Access Control Point Gate System with a Large Vehicle Inspection Point

Project 5 would demolish an existing access control point (ACP) on JBSA-RND (i.e., the South Gate) and construct a new ACP along the western side of the Base, near State Highway Loop 1604. The replacement ACP would be sited outside the airfield's CZ in this portion of JBSA-RND (see **Project 2** description above) and include inbound/outbound lanes, a commercial truck inspection station, perimeter fence, guard house, and other features to comply with current Department of Defense (DOD) anti-terrorism/force protection (AT/FP) standards. Because of its location within the CZ, the existing ACP cannot be renovated to meet current AT/FP standards or be expanded to accommodate required commercial vehicle inspection protocols. The Air Force evaluated other locations on JBSA-RND for **Project 5**; however, none of the sites considered would comply with the applicable safety and security standards or support the traffic management objectives of the project.

Project 6 – Construct a Reinforced Access Road Between the East Runway and East Perimeter Road

Project 6 would construct a reinforced access road on JBSA-RND between the east runway and East Perimeter Road. The access road is needed to reduce the amount of time required for firefighting vehicles, equipment, and personnel to respond to airfield-related accidents and fire emergencies elsewhere on the base. Further, firefighters stationed on JBSA-RND lack direct access to their primary training grounds. Under current conditions, emergency response times exceed the minimal standards set by DOD and Air Force policy doctrine. **Project 6** would improve fire emergency response times on JBSA-RND by up to 6 minutes. The Air Force evaluated other roadway connections on JBSA-RND to address these concerns, but none would provide a comparable safety or training benefit to that of **Project 6**.

Project 7 – Remove Athletic Fields Adjacent to the East Runway

Project 7 would remove athletic fields on JBSA-RND currently situated west of 5th Street East within the northeast CZ of the northernmost airfield runway. **Project 7** would also demolish the associated buildings and infrastructure that support recreation in this portion of the Base. Athletic fields are not a compatible land use in relation to the CZ and constitute a safety risk to people using the fields/facilities for recreation. **Project 7** would address this concern by returning this area to a natural vegetative state in compliance with airfield operational safety criteria. The Air Force is evaluating other areas on JBSA-RND, outside airfield CZs, to provide additional recreational opportunities to service members and civilians living or working on the Base.

Support Services District

Project 8 – Construct a Child Development Center

The Air Force has a responsibility to ensure its service members and civilian employees have access to affordable, accredited childcare. There currently is a backlog and waiting period for residents of JBSA-RND seeking onsite childcare services. **Project 8** would address this lack of capacity by constructing a child development center (CDC) on JBSA-RND. The new CDC would include child development areas for a variety of age groups, administrative space, restrooms and storage areas, and related features and infrastructure that meet current standards for childcare. The Air Force evaluated numerous siting options for the CDC and ultimately selected a site based on convenience, accessibility, and land use compatibility.

Project 9 – Construct a Consolidated Mission Support Complex for Civil Engineering

Project 9 would consolidate the functions of the Security Forces Squadron, Civil Engineer Squadron, and Logistics Readiness Squadron by constructing a multi-functional mission support complex on JBSA-RND. Currently, Civil Engineer Group (CEG) support services take place in multiple, dis-contiguous facilities across the base, including some facilities on the flight line. The construction of **Project 9** would consolidate the CEG mission into one facility for more efficient operations and move CEG support services off the flight line, where additional hangar space is needed for mission expansion. The facilities elsewhere on the Base that would be vacated by CEG personnel would be repurposed to house smaller units or functions consistent with their respective mission and space requirements. After evaluating available, developable space in the Support Services District, the Air Force selected a site along the perimeter of the District for redevelopment that would best accommodate the involved CEG missions.

Project 10 – Construct a Multi-Purpose Service Station

Project 10 would consolidate the services of two separate facilities on JBSA-RND by constructing a new service station in a more convenient location on the Base. The existing gas station is outdated and lacks capacity to meet current user demand in this area of the Base. The new facility would also provide food and home and garden services to customers in one convenient location. The Air Force evaluated other options to provide these services, such as renovation and expansion of the existing facilities. However, none of those considered would meet the demand for these services with the efficiency and convenience of consolidation at the selected site.

Seguin Auxiliary Field

Project 14 – Construct Emergency Access Road with Shoulders

Project 14 would involve access road construction and expansion, and pavement removal, repair, and maintenance in support of the SAF airfield runway. The airfield runway is in a state of disrepair and requires management action to ensure emergency vehicle access, reduce the risk of bird-aircraft strike hazards, and maintain CZs in compliance with AFI 32-7063. Crash and rescue response times are sub-standard due to the condition and configuration of the airfield's hardscape. Further, many roads lack the reinforcement and width required to support emergency response vehicles and equipment. Because use of another airfield or construction of a new airfield were not viable options, **Project 14** was determined to be the only alternative that would meet the mission objective of conducting safe aircraft training operations.

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APPENDIX D
AIR CONFORMITY APPLICABILITY MODEL ANALYSIS

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AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: RANDOLPH AFB
State: Texas
County(s): Bexar; Guadalupe
Regulatory Area(s): San Antonio, TX; NOT IN A REGULATORY AREA

b. Action Title: Area Development Plan Projects at Joint Base San Antonio, Randolph

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

d. Projected Action Start Date: 1 / 2023

e. Action Description:

The Proposed Action would implement a total of 27 short-term development actions and real-property improvements on JBSA-RND and SAF from approximately 2023 to 2027. Of this total, 15 projects would involve construction or demotion and 12 would involve infrastructure actions.

In 2019, as part of the ADP planning process, the Air Force evaluated alternatives to guide the future development of JBSA-RND, including SAF. Because of the unique design and layout of JBSA-RND, the Air Force conducted a single ADP workshop encompassing the entire Base. This multi-day workshop brought together key mission partners to identify the development program requirements for both the SS District and FO District of the Base. The workshop participants conducted an analysis to define the existing conditions of JBSA-RND and prepared a conceptual development plan to support the military mission.

The next phase of the ADP workshop identified possible development scenarios (i.e., alternatives) that would allow JBSA-RND to accomplish its mission-related and mission-support-related objectives. Participants used various constraints to the future development of JBSA-RND identified during prior analyses to screen the alternatives and identify those that would be subject to further evaluation. Through this process, multiple development scenarios or alternatives (hereafter, the alternatives) were considered and dismissed as being unable to meet current or future mission requirements. The workshop participants identified five alternatives for additional review and analysis.

The five alternatives, described below, encompass a range of development options that vary by scope, location, and potential impact. The latter was based upon the existing conditions and constraints to development previously identified.

• Alternative 1 – Focus on improvements to the airfield (i.e., FO District) and noncompliance with operational safety criteria. Remove all facilities from the airfield's clear zones in breach of these criteria and acquire land to prevent future encroachment therein. This alternative also includes construction of a new main gate complex with perimeter road access.
• Alternative 2 – Focus on the interior portions of JBSA-RND (i.e., SS District), including an area between the main gate and Building 100. Use infill development when practicable and address traffic patterns and congestion across the Base. This alternative also includes construction of new gate complexes (east and west) that comply with setback requirements.
• Alternative 3 – Redevelop the golf course as a new residential neighborhood using infill development when practicable. This alternative also includes construction of a new parking garage and administrative facilities.
• Alternative 4 – Redevelop the golf course as a mission-specific campus area using infill development when practicable. This alternative also includes roadway improvements and renovation of an elementary school.

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• Alternative 5 – Prioritize and phase the future development of JBSA-RND based on specific mission and mission support requirements. This alternative incorporates and considers the development plans under Alternatives 1–4.

It was concluded that only Alternative 5 would allow JBSA-RND to sustain its mission over the long term.

f. Point of Contact:

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Title: Environmental Planner
Organization: Environmental Assessment Services, LLC
Email: Rebecca.Steely@easbio.com
Phone Number: 585-410-1110

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
San Antonio, TX			
VOC	1.600	100	No
NOx	3.114	100	No
CO	3.384		
SOx	0.008		
PM 10	34.721		
PM 2.5	0.131		
Pb	0.000		
NH3	0.003		
CO2e	831.1		
NOT IN A REGULATORY AREA			
VOC	1.311		
NOx	7.748		
CO	7.838		
SOx	0.020		
PM 10	183.291		
PM 2.5	0.339		
Pb	0.000		
NH3	0.003		
CO2e	2012.9		

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
San Antonio, TX			
VOC	2.044	100	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
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NOx	5.628	100	No
CO	5.984		
SOx	0.016		
PM 10	154.192		
PM 2.5	0.226		
Pb	0.000		
NH3	0.003		
CO2e	1619.9		
NOT IN A REGULATORY AREA			
VOC	1.439		
NOx	8.512		
CO	8.967		
SOx	0.022		
PM 10	183.334		
PM 2.5	0.371		
Pb	0.000		
NH3	0.003		
CO2e	2215.2		

2025

Pollutant	**Action Emissions (ton/yr)**	**GENERAL CONFORMITY**	
		Threshold (ton/yr)	**Exceedance (Yes or No)**
San Antonio, TX			
VOC	2.175	100	No
NOx	6.753	100	No
CO	7.162		
SOx	0.022		
PM 10	184.100		
PM 2.5	0.290		
Pb	0.000		
NH3	0.004		
CO2e	2595.0		
NOT IN A REGULATORY AREA			
VOC	1.425		
NOx	8.341		
CO	8.794		
SOx	0.022		
PM 10	183.317		
PM 2.5	0.362		
Pb	0.000		
NH3	0.003		
CO2e	2212.4		

2026

Pollutant	**Action Emissions (ton/yr)**	**GENERAL CONFORMITY**	
		Threshold (ton/yr)	**Exceedance (Yes or No)**
San Antonio, TX			
VOC	1.601	100	No
NOx	3.537	100	No
CO	4.064		
SOx	0.014		
PM 10	34.760		
PM 2.5	0.170		

AIR CONFORMITY APPLICABILITY MODEL REPORT
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Pb	0.000		
NH3	0.003		
CO2e	1868.2		
NOT IN A REGULATORY AREA			
VOC	1.479		
NOx	8.450		
CO	9.026		
SOx	0.023		
PM 10	183.318		
PM 2.5	0.365		
Pb	0.000		
NH3	0.003		
CO2e	2274.9		

2027

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
San Antonio, TX			
VOC	1.601	100	No
NOx	3.537	100	No
CO	4.064		
SOx	0.014		
PM 10	34.760		
PM 2.5	0.170		
Pb	0.000		
NH3	0.003		
CO2e	1868.2		
NOT IN A REGULATORY AREA			
VOC	0.794		
NOx	4.468		
CO	4.774		
SOx	0.012		
PM 10	91.674		
PM 2.5	0.198		
Pb	0.000		
NH3	0.002		
CO2e	1175.9		

2028 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
San Antonio, TX			
VOC	0.047	100	No
NOx	0.862	100	No
CO	0.724		
SOx	0.005		
PM 10	0.065		
PM 2.5	0.065		
Pb	0.000		
NH3	0.000		
CO2e	1037.2		
NOT IN A REGULATORY AREA			
VOC	0.000		

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NOx	0.000		
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

_____ _____

Rebecca Steely, Environmental Planner DATE