

**Growdon Gate/Road Relocation  
and Property Acquisition  
Draft Environmental Assessment  
Volume I**

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**United States Air Force  
Air Education and Training Command  
802nd Civil Engineering Squadron  
Joint Base San Antonio - Lackland, Texas**

**October 2012**



**Cover Sheet**



1 **Cover Sheet**

2 **Responsible Agency:** 802nd Civil Engineering Squadron, Joint Base San Antonio-Lackland  
3 (JBSA-Lackland), Texas

4 **Proposed Action:** Acquire approximately 232 acres of land northwest of the Growdon Road  
5 Commercial Vehicle Inspection Area and Entry Control Point (CVIA/ECP). Demolish the  
6 existing CVIA/ECP and construct and operate a new CVIA/ECP on 80 acres of the newly  
7 acquired property. Relocate Growdon Road further west from its existing location.

8 **Points of Contact:** JBSA-Lackland Asset Optimization Planning: Mr. Andrew Riley, 802 Civil  
9 Engineering Squadron/Civil Engineering Asset Optimization Planning (CES/CEAOP), 1555  
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11 United States

12 **Report Designation:** Draft Environmental Assessment

13 **Abstract:** The 802 CES at JBSA-Lackland is proposing to acquire approximately 232 acres of  
14 City- and privately-owned property in order to provide a future location for expansion planning  
15 needs (e.g. relocation of leaseback facilities or other components of the JBSA-Lackland “Go  
16 West” Plan, if cleared under NEPA and implemented). These future components could include  
17 relocating airfield operations from the Port San Antonio (PSA) property to the west side of the  
18 runway, and relocating administrative and warehouse space from PSA to JBSA-Lackland  
19 property. Currently there is a shortage of suitable Anti-Terrorism/Force Protection compliant  
20 buildings/facilities and a shortage of land for new construction on JBSA-Lackland.

21 The 802 CES is also proposing to relocate Growdon Road further west and relocate the existing  
22 CVIA/ECP gate to the newly acquired property. This relocation would allow for more efficient  
23 and effective screening of commercial vehicles to avoid the congestion and extended wait times  
24 currently experienced at the existing CVIA/ECP gate. The relocation would also help to reduce  
25 conflicts between commercial traffic at the existing CVIA/ECP gate and traffic related to the  
26 433rd Airlift Wing’s mission-critical training operations. The upgrade and relocation of the  
27 CVIA/ECP gate would also serve to meet Unified Facilities Criteria, provide efficient  
28 application of force protection measures, and provide an increased level of security.

29 Under the No-action Alternative, the existing Growdon Road and CVIA/ECP gate would  
30 continue to be used. The 433rd Airlift Wing’s mission-critical operations would continue to be  
31 impacted by commercial traffic through Growdon Road. Additionally, JBSA-Lackland would  
32 not acquire any additional acreage, resulting in delaying implementation of expansion planning  
33 efforts including the “Go West” Plan. Use of the existing CVIA/ECP gate would also result in  
34 continued congestion and wait times for commercial vehicles, thus limiting the efficiency and  
35 security of that CVIA/ECP.

1 **PRIVACY ADVISORY NOTICE**

2 Letters or other written comments provided may be published in the Final EA. As required by  
3 law, comments will be addressed in the Final EA and made available to the public. Any personal  
4 information provided will be kept confidential. Private addresses will be compiled to develop a  
5 mailing list for those requesting copies of the Final EA. However, only the names of the  
6 individuals making comments and their specific comments will be disclosed. Personal home  
7 addresses and phone numbers will not be published in the Final EA.

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## **Acronyms and Abbreviations**





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1	<b>ACRONYMS AND ABBREVIATIONS</b>	
2	ACC	Ambulatory Care Center
3	ACM	asbestos containing material
4	ADP	Area Development Plan
5	AICUZ	Air Installation Compatible Use Zone
6	AIRFA	American Indian Religious Freedom Act
7	AFI	Air Force Instruction
8	a.m.	<i>ante meridiem</i> (morning)
9	AOC	Area of Concern
10	APE	Area of Potential Effect
11	AQCR	Air Quality Control Region
12	ARPA	Archaeological Resources Protection Act
13	ASTs	aboveground storage tanks
14	AT/FP	Anti-Terrorism/Force Protection
15	bgs	below ground surface
16	BMPs	Best Management Practices
17	BRAC	Base Realignment and Closure
18	CAA	Clean Air Act
19	CAAA	Clean Air Act Amendments
20	CAR	Center for Archaeological Research
21	CEQ	Council on Environmental Quality
22	CERCLA	Comprehensive Environmental Response, Compensation, and Liability
23		Act
24	CES/CEAOP	Civil Engineering Squadron/Civil Engineering Asset Optimization
25		Planning
26	CFR	Code of Federal Regulations
27	CGP	construction general permit
28	CH <sub>4</sub>	methane
29	CIP	Capital Improvements Program
30	cmbs	centimeters below surface
31	CO	carbon monoxide
32	CO <sub>2</sub>	carbon dioxide
33	CO <sub>2eq</sub>	CO <sub>2</sub> equivalents
34	COC	Community of Comparison
35	COSA	City of San Antonio
36	CVIA/ECP	Commercial Vehicle Inspection Area and Entry Control Point
37	CWA	Clean Water Act
38	dB	decibel
39	dBA	“A-weighted” decibel
40	DLIELC	Defense Language Institute English Language Center
41	DNL	Day-Night Average Sound Level
42	DoD	Department of Defense
43	EA	Environmental Assessment

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## ACRONYMS AND ABBREVIATIONS (CONTINUED)

1	EAC	Early Action Compact
2	EB	eastbound
3	EBS	Environmental Baseline Study
4	ECF	Entry Control Facility
5	EIAP	Environmental Impact Analysis Process
6	EO	Executive Order
7	ERP	Environmental Restoration Program
8	ESA	Endangered Species Act
9	F	Fahrenheit
10	FEMA	Federal Emergency Management Association
11	FONSI	Finding of No Significant Impact
12	ft	feet
13	FY	fiscal year
14	GWP	global warming potential
15	HFC	hydrofluorocarbon
16	IAAFA	Inter-American Air Forces Academy
17	IICEP	Intergovernmental and Interagency Coordination for Environmental Planning
18		
19	JBSA-Lackland	Joint Base San Antonio-Lackland
20	KAFB	Former Kelly Air Force Base
21	KCF	thousand cubic feet
22	kgal	kilo-gallon
23	LA	Louisiana
24	LBP	lead-based paint
25	LTA	Lackland Training Annex
26	LOS	level of service
27	MBTA	Migratory Bird Treaty Act
28	MCF/d	million cubic feet per day
29	$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
30	MGD	million gallons per day
31	MMRP	military munitions response program
32	MOU	Memorandum of Understanding
33	MS4	Municipal Separate Storm Sewer System
34	MSA	Metropolitan Statistical Area
35	MSDSs	material safety data sheets
36	MW	mega watts
37	MWD	Military Working Dog
38	MWH	mega watt hours
39	N <sub>2</sub> O	nitrous oxide
40	NAAQS	National Ambient Air Quality Standards
41	NEI	National Emissions Inventory
42	NEPA	National Environmental Policy Act

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## ACRONYMS AND ABBREVIATIONS (CONTINUED)

1	NHPA	National Historic Preservation Act
2	NMFS	National Marine Fisheries Service
3	NO <sub>2</sub>	nitrogen dioxide
4	NO <sub>x</sub>	nitrogen oxides
5	NOI	Notice of Intent
6	NRCS	Natural Resources Conservation Service
7	NRHP	National Register of Historic Places
8	NWI	National Wetlands Inventory
9	O <sub>3</sub>	ozone
10	OSHA	Occupational Safety and Health Administration
11	OWS	oil water separator
12	PAH	polycyclic aromatic hydrocarbons
13	PCLs	Protective Concentration Levels
14	PFC	perfluorocarbon
15	p.m.	<i>post meridiem</i> (evening)
16	PM <sub>2.5</sub>	particulate matter ≤ 2.5 micrometers in aerodynamic diameter
17	PM <sub>10</sub>	particulate matter ≤ 10 micrometers in aerodynamic diameter
18	PPE	personal protective equipment
19	ppm	parts per million
20	PSA	Port San Antonio
21	psi	pounds per square inch
22	RCRA	Resource Conservation and Recovery Act
23	ROI	region of influence
24	SAACC	San Antonio Aviation Cadet Center
25	SAWS	San Antonio Water System
26	sf	square feet
27	SF <sub>6</sub>	sulfur hexafluoride
28	SIP	State Implementation Plan
29	SO <sub>2</sub>	sulfur dioxide
30	SO <sub>x</sub>	sulfur oxides
31	SPCCP	Spill Prevention, Control and Countermeasures Plan
32	SPL	sound pressure level
33	SVOC	semi-volatile organic compounds
34	SWMU	Solid Waste Management Unit
35	SWPPP	storm water pollution prevention plan
36	TCEQ	Texas Commission for Environmental Quality
37	TPDES	Texas Pollutant Discharge Elimination System
38	TPH	total petroleum hydrocarbons
39	tpy	tons per year
40	TRRP	Texas Risk Reduction Program
41	TSCA	Toxic Substance Control Act
42	TWDB	Texas Water Development Board

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*Environmental Assessment  
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## **ACRONYMS AND ABBREVIATIONS (CONTINUED)**

1	UFC	United Facilities Criteria
2	USACE	United States Army Corps of Engineers
3	USFWS	United States Fish and Wildlife Service
4	USC	United States Code
5	USEPA	United States Environmental Protection Agency
6	UXO	unexploded ordnance
7	v/c	volume-to-capacity
8	VOC	volatile organic compound
9	WB	westbound
10	WHMC	Wilford Hall Medical Center

## **Chapter 1**

### **Purpose of and Need for Action**



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## **CHAPTER 1 PURPOSE OF AND NEED FOR ACTION**

This chapter has six parts: a statement of the purpose of and need for action, a description of the location of the proposed and alternative actions, identification of the decision to be made, a description of the scope of the environmental review, identification of applicable regulatory requirements, and an introduction to the organization of the document.

### **1.1 PURPOSE OF AND NEED FOR ACTION**

Joint Base San Antonio-Lackland (JBSA-Lackland) is home to 14 major mission partners and over 70 hosted military organizational units with a population of 42,000 military, trainees, civilians, and on-base military dependents that work, receive training or utilize JBSA-Lackland’s services. The 1995 Base Realignment and Closure (BRAC) requirements realigned approximately half of Kelly Air Force Base (AFB) to JBSA-Lackland and transferred the remainder to a local reuse authority for the City of San Antonio. The local reuse authority is Port Authority of San Antonio (originally the Greater Kelly Development Authority) and the development area is Port San Antonio (originally known as KellyUSA). Many units originally hosted by Kelly AFB were not moved by BRAC 1995 and remained on Port San Antonio (PSA) as government-maintained facilities referred to as “leaseback” facilities. The situation has been compounded as a result of BRAC 2005, as more Air Force missions have been moved into PSA leaseback facilities because JBSA-Lackland has outgrown its existing buildings and infrastructure.

The Air Force maintains a substantial presence at PSA. The Air Force occupies 39 buildings with over two million square feet (sf) of space. The Air Force is unable to move missions onto JBSA-Lackland proper because of the lack of suitable Anti-Terrorism/Force Protection (AT/FP) compliant buildings/facilities and because of a shortage of land for new construction. Maintenance and operation of the PSA leaseback facilities is costly and inefficient.

JBSA-Lackland is preparing a long range master plan, known as the “Go West” Plan, under which missions currently at PSA would relocate to JBSA-Lackland proper over a 40 year period. At the present time, the “Go West” Plan has three independent components: (1) constructing a new entry control point and connecting road, (2) relocating airfield operations from the PSA property to the west side of the runway, and (3) relocating administrative and warehouse space from PSA to JBSA-Lackland property. Because all three components are located in the same geographical area, this proposal to implement the first component includes acquisition of the land for all three components. Thus, this Environmental Assessment (EA) analyzes the first component and the entire land acquisition. If JBSA-Lackland decides in the future to implement the second component, third component, or both components, additional NEPA analysis will be required and will reflect environmental conditions at the time the component is implemented.

The purpose of this project is to implement the first component of the “Go West” Plan by upgrading and relocating the current Growdon Road Commercial Vehicle Inspection Area and

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1 Entry Control Point (CVIA/ECP), also known as Growdon Gate, and relocating Growdon Road  
2 further west from its existing location. The CVIA and ECP are components of an Entry Control  
3 Facility (ECF). The objective of an ECF is to ensure the proper level of access control for all  
4 Department of Defense (DoD) personnel, visitors, and truck traffic to an installation. An ECF  
5 needs to secure the installation from unauthorized access and intercept contraband while  
6 maximizing vehicular traffic flow (SDDCTEA 2009).

7 The upgrade and relocation of Growdon Gate and Growdon Road are needed for multiple  
8 reasons. First, it will allow for more efficient and effective screening of commercial vehicles to  
9 avoid congestion and extended wait times resulting from the current configuration. The  
10 relocation will help to reduce conflicts between commercial traffic at the existing Growdon Gate  
11 and traffic related to the 433rd Airlift Wing's training operations. The mission of the 433rd  
12 Airlift Wing is to manage, maintain and train Air Force Reserve personnel to achieve combat  
13 readiness, to perform peacetime missions compatible with Air Force Reserve Command training  
14 requirements, and perform maintenance of mobilization readiness (USAF 2011a). Relocation of  
15 Growdon Gate would reduce commercial traffic in the area, thereby reducing the impact on the  
16 433rd Airlift Wing's mission critical operations.

17 Additionally, the upgrade and relocation of Growdon Gate is needed to meet Unified Facilities  
18 Criteria (UFC) and to provide efficient application of force protection measures and provide an  
19 increased level of security. In May 2005, UFC 4-022-01, *Security Engineering: Entry Control*  
20 *Facilities/Access Control Point*, was released. The UFC identifies design features necessary to  
21 ensure that infrastructure constructed today will have the flexibility to support future  
22 technologies, a changing threat environment, and changes in operation (SDDCTEA 2009). UFC  
23 is a program initiated by the DoD and the military services to unify all technical criteria and  
24 standards pertaining to planning, design, construction, operation and maintenance of real  
25 property facilities (WBDG 2011).

26 A secondary purpose of this project is for JBSA-Lackland to acquire approximately 232 acres of  
27 City- and privately-owned land just north of JBSA-Lackland Main Base. Approximately 80  
28 acres of this property is needed immediately to accommodate the relocation of Growdon Gate  
29 and Growdon Road. The remaining property would be used to accommodate expansion planning  
30 needs (e.g. relocation of leaseback facilities or other components of the "Go West" Plan, if  
31 cleared under NEPA and implemented).

## 32 1.2 LOCATION OF THE PROPOSED ACTION

33 JBSA-Lackland encompasses approximately 8,800 acres and is located in Bexar County, Texas,  
34 12.8 miles southwest of downtown San Antonio (see Figure 1-1). JBSA-Lackland is divided into  
35 three (3) distinct areas: 1) the Kelly Field Annex (consisting of approximately 3,600 acres), 2)  
36 the Main Base (consisting of approximately 1,200 acres), and 3) the Lackland Training Annex  
37 (LTA) (consisting of approximately 4,000 acres). JBSA-Lackland acquired portions of Kelly  
38 AFB in 2001 as part of Kelly AFB's Base Realignment and Closure requirements.



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1 JBSA-Lackland has identified approximately 232 acres located adjacent to the installation and  
2 the northwest corner of Kelly Field Annex which could be used to mitigate the above stated  
3 needs and could be used for both existing and new missions. The 232 acres are owned by the  
4 City of San Antonio and private individuals (see Figure 1-2).

## 5 **1.3 DECISION TO BE MADE**

6 This analysis evaluates the potential environmental consequences from the acquisition of land,  
7 the relocation of the CVIA/ECP including construction, demolition, and operation, and the  
8 relocation and demolition of a portion of Growdon Road. Based on this analysis, JBSA-  
9 Lackland will determine whether to allow implementation of the Proposed Action or take no  
10 action (“No-action Alternative”). As required by the National Environmental Policy Act (NEPA)  
11 and its implementing regulations, preparation of an environmental document must precede final  
12 decisions regarding the proposed project, and must be available to inform decision-makers of the  
13 potential environmental impacts of selecting the Proposed Action or the No-action Alternative.

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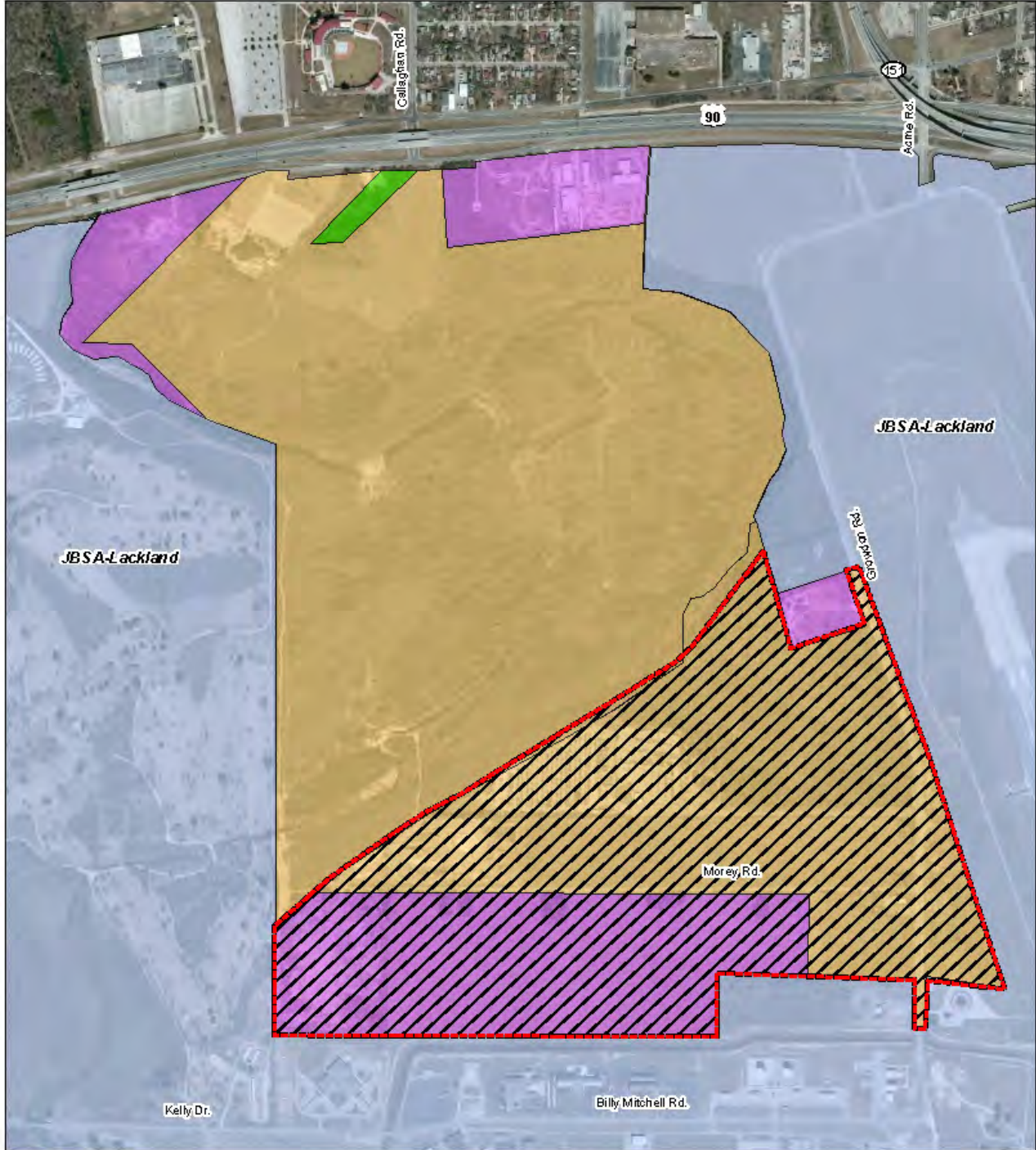


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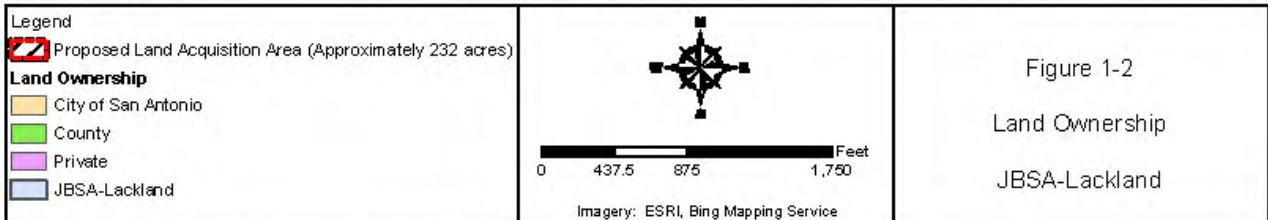
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## 1 **1.4 SCOPE OF THE ENVIRONMENTAL REVIEW**

2 The NEPA requires Federal agencies to consider environmental consequences in their decision-  
3 making process. The President's Council on Environmental Quality (CEQ) has issued  
4 regulations to implement NEPA that include provisions for both the content and procedural  
5 aspects of the required environmental impact analysis. The Air Force *Environmental Impact*  
6 *Analysis Process* (EIAP) is accomplished through adherence to the procedures set forth in CEQ  
7 regulations (40 Code of Federal Regulations [CFR] Sections 1500-1508), DoD Instruction  
8 4715.9 *Environmental Planning and Analysis*, and 32 CFR Part 989 (Environmental Impact  
9 Analysis Process), 15 July 1999, as amended. These Federal regulations establish both the  
10 administrative process and substantive scope of the environmental impact evaluation designed to  
11 ensure that deciding authorities have a proper understanding of the potential environmental  
12 consequences of a contemplated course of action.

13 This EA identifies, describes and evaluates the potential environmental impacts that are  
14 associated with the upgrade and relocation of JBASA-Lackland's primary commercial ECP and  
15 the acquisition of additional contiguous property for potential future development. The potential  
16 environmental effects of taking no action are also described. As appropriate, the affected  
17 environment and environmental consequences of the action may be described in terms of a  
18 regional overview or a site-specific description. Fiscal year (FY) 2010 or the most current  
19 information is used as the baseline condition.

20 Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority*  
21 *Populations and Low-Income Populations*, was issued by the President on 11 February 1994. In  
22 the EO, the President instructed each Federal agency to make "achieving environmental justice  
23 part of its mission by identifying and addressing, as appropriate, disproportionately high and  
24 adverse human health or environmental effects of its programs, policies, and activities on minority  
25 populations and low-income populations." 'Adverse' is defined by the Federal Interagency  
26 Working Group on Environmental Justice as "having a deleterious effect on human health or the  
27 environment that is significant, unacceptable, or above generally accepted norms." This EA will  
28 determine if the proposed or alternative actions would result in adverse effects to low-income or  
29 minority populations.

30 Through Intergovernmental and Interagency Coordination for Environmental Planning (IICEP),  
31 requests have been made for information on planned actions in the surrounding community. If  
32 any concurrent actions are identified during the EA process, they will be examined only in the  
33 context of potential cumulative impacts. A cumulative impact, as defined by the CEQ (40 CFR  
34 1508.7), is the "impact on the environment which results from the incremental impact of the  
35 action when added to other past, present, and reasonably foreseeable future actions regardless of  
36 which agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts  
37 can result from individually minor but collectively significant actions taking place over a period  
38 of time."

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## 1.4.1 Resource Areas Addressed in Detail

Resource areas that could be affected by the Proposed Action or No-action Alternative have been selected to allow for a comprehensive analysis of potential impacts. The intent of this EA is to meet the NEPA requirements established in 32 CFR Part 989. The following resource areas are discussed in detail in the EA:

- |    |                                      |    |                                  |
|----|--------------------------------------|----|----------------------------------|
| 6  | • Noise                              | 12 | • Water Resources                |
| 7  | • Land Use                           | 13 | • Hazardous Materials and Wastes |
| 8  | • Air Quality                        | 14 | • Utilities and Infrastructure   |
| 9  | • Earth Resources                    | 15 | • Transportation                 |
| 10 | • Biological Resources               | 16 | • Socioeconomic Resources        |
| 11 | • Cultural and Traditional Resources | 17 | • Environmental Justice          |

## 1.4.2 Resource Topics Eliminated from Detailed Analysis

All resources would be affected by the proposed or alternative actions; therefore, no resources have been eliminated from further study in this document.

## 1.5 APPLICABLE REGULATORY REQUIREMENTS

This EA is part of the EIAP for the proposed project and was prepared in compliance with NEPA regulations. The following paragraphs describe the laws and regulations that apply or may apply to the proposed and alternative actions.

### 1.5.1 Interagency and Intergovernmental Coordination

Federal, state, and local agencies with jurisdiction that could be affected by the proposed or alternative actions have been notified and consulted. A complete listing of the agencies consulted may be found in Chapter 6 and IICEP correspondence and responses are included in Appendix A. This coordination fulfills the Interagency Coordination Act and EO 12372 *Intergovernmental Review of Federal Programs* (14 July 1982), which requires Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. EO 12372 is implemented by the Air Force in accordance with Air Force Instruction (AFI) 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning*.

### 1.5.2 Permits

All underground utility locations would need to be identified prior to any construction activities. The contractor would also ensure that a storm water pollution prevention plan (SWPPP) was completed and approved before initiating construction activities. During the impacts analysis process, other permits determined to be necessary will be added upon identification .

### 1.5.3 Other Regulatory Requirements

The EA considers all applicable laws and regulations, including but not limited to the following:

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- 1 • *Clean Air Act*, as amended (CAA) (42 United States Code [USC] § 7401 *et seq.*)
- 2 • EO 11990, *Protection of Wetlands* (24 May 1977)
- 3 • *Clean Water Act* (CWA) (33 USC § 1251 *et seq.*), including Section 404 (33 USC §
- 4 1344)
- 5 • Section 10 of the *Rivers and Harbors Act of 1899* (33 USC § 403)
- 6 • EO 11988, *Floodplain Management* (24 May 1977)
- 7 • *Endangered Species Act* (ESA) (16 USC § 1531-1544)
- 8 • *Pollution Prevention Act* (42 USC §§ 13101-13102 *et seq.*)
- 9 • *Archaeological Resources Protection Act* (ARPA) (16 USC § 470aa-mm)
- 10 • *National Historic Preservation Act* (NHPA) (16 USC § 470 *et seq.*)
- 11 • *American Indian Religious Freedom Act* (AIRFA) (42 USC § 1996)
- 12 • *Protection of Historic Properties* (36 CFR Part 800)
- 13 • *Native American Graves Protection and Repatriation Act of 1991* (25 USC § 3001 *et*
- 14 *seq.*)
- 15 • *Resource Conservation and Recovery Act* (RCRA) (42 USC § 6901 *et seq.*)
- 16 • *Toxic Substance Control Act* (TSCA) (15 USC § 2601 *et seq.*)
- 17 • *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA)
- 18 (42 USC § 9610)
- 19 • *Superfund Amendments and Reauthorization Act* (42 USC § 9601 *et seq.*)
- 20 • *Emergency Planning and Community Right-to-Know Act* (42 USC § 11000 *et seq.*)
- 21 • EO 12580, *Superfund Implementation* (23 January 1987)
- 22 • *Occupation Safety and Health Act* (29 USC 651 *et seq.*)
- 23 • *Energy Independence and Security Act* (Public Law 110-140)
- 24 • EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and*
- 25 *Low-Income Populations* (11 February 1994)

## 26 **1.6 INTRODUCTION TO THE ORGANIZATION OF THE DOCUMENT**

27 This EA is organized into seven chapters.

28 *Chapter 1* Contains a statement of the purpose of and need for action, the location of the  
29 proposed and alternative actions, identification of the decision to be made, a  
30 summary of the scope of the environmental review, identification of applicable  
31 regulatory requirements, and a description of the organization of the document.

32 *Chapter 2* Describes the history of the formulation of alternatives, identifies alternatives  
33 eliminated from further consideration, provides a detailed description of the  
34 Proposed Action, describes the No-action Alternative, summarizes other actions  
35 announced for the project sites and the surrounding community, provides a  
36 comparison matrix of environmental effects for all alternatives, identifies the  
37 preferred alternative, and describes measures to minimize or reduce impacts.

# DRAFT

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- 1 *Chapter 3* Contains a general description of the current conditions of the resources that could  
2 potentially be affected by the proposed or alternative actions.
- 3 *Chapter 4* Provides an analysis of the environmental consequences of the proposed and  
4 alternative actions.
- 5 *Chapter 5* Lists preparers of this document.
- 6 *Chapter 6* Lists persons and agencies consulted in the preparation of this EA.
- 7 *Chapter 7* Lists source documents relevant to the preparation of this EA.

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## **Chapter 2**

### **Description of the Alternatives**



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## CHAPTER 2

### DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This chapter has eight parts: a brief history of the formulation of alternatives, identification of alternatives eliminated from further consideration, a description of the Proposed Action, a description of the No-action Alternative, identification of other proposed actions planned for the communities surrounding the proposed training areas, a summary of environmental impacts of all alternatives, identification of the preferred alternative, and a table of measures to minimize impacts.

#### 2.1 HISTORY OF THE FORMULATION OF ALTERNATIVES

BRAC 1995 realigned approximately half of Kelly AFB to JBSA-Lackland and transferred the remainder to a local reuse authority for the City of San Antonio. The local reuse authority is Port Authority of San Antonio (originally the Greater Kelly Development Authority) and the development area is Port San Antonio (originally known as KellyUSA). Many units originally hosted by Kelly AFB were not moved by BRAC 1995 and remained on PSA as government-maintained facilities referred to as “leaseback” facilities.

The situation has been compounded as a result of BRAC 2005, as more Air Force missions have been moved into PSA leaseback facilities because JBSA-Lackland has outgrown its existing buildings and infrastructure. The Air Force occupies 39 buildings with over 2.0 million sf of space at PSA. The Air Force is unable to move missions onto JBSA-Lackland proper because of the lack of suitable AT/FP compliant buildings/facilities and because of a shortage of land for new construction.

Initial activities, such as the relocation of the CVIA/ECP, must be taken in order to secure the opportunity to implement the “Go West” Plan. In addition to meeting UFC and reducing the impact on the 433rd’s training operations, relocating the CVIA/ECP will allow for more efficient and effective screening of commercial vehicles to avoid congestion and extended wait times resulting from the current configuration. However, JBSA-Lackland will have to acquire additional property in order to relocate the CVIA/ECP.

The Air Force seeks to acquire approximately 232 acres of land which includes a city impound lot, a portion of City of San Antonio (COSA) property south of Leon Creek, and four private properties. Several scenarios for gate relocation were considered with all but one eliminated due to a failure of meeting the necessary criteria. The alternatives eliminated from further consideration are discussed in more detail in Section 2.3.

#### 2.2 SELECTION CRITERIA FOR ALTERNATIVES

To meet requirements, the new gate and road would require at least 80 acres of land and the chosen alternative must:

- Be located on JBSA-Lackland Main Base to serve as commercial traffic entry point. (LTA has its own commercial gate.)

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- 1 • Comply with AT/FP requirements (AT/FP requirements dictates that all commercial
- 2 traffic enters through one gate.)
- 3 • Meet UFC
- 4 • Provide efficient application of force protection measures
- 5 • Provide an increased level of security
- 6 • Allow for more efficient and effective screening of commercial vehicles to avoid
- 7 congestion
- 8 • Not be located in a floodplain
- 9 • Be designed to allow tractor-trailer rigs to easily access and maneuver within the gate
- 10 area
- 11 • Allow sufficient traffic queuing area to keep commercial traffic off the main
- 12 thoroughfare
- 13 • Provide areas for vehicle inspection
- 14 • Have at least 500 feet of clearance between the vehicles and the gate area boundary to
- 15 serve as an explosive quantity distance arc that would protect personnel against
- 16 possible serious injury or equipment destruction from possible fires or explosions
- 17 • Not impact mission critical facilities or operations

## 18 2.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

19 JBSA-Lackland considered two possible alternatives in addition to the Proposed Action.

- 20 • **B-52 Gate Alternative**
- 21 Relocate the CVIA/ECP to the location of the old Kelly AFB B-52 Gate. This alternative
- 22 was eliminated because the area is located within the inhabited building line of the
- 23 aircraft munitions arm/de-arm pad. The munitions arming pad would have to be moved
- 24 north and 250 acres of land would be needed for the new arming pad site. Sufficient
- 25 open space is not currently available to support the munitions arming pad. Construction
- 26 of the munitions arming pad on the 232 acres proposed for acquisition under the
- 27 Proposed Action would result in a portion of the pad extending off of the acquired land
- 28 into a floodplain. Therefore, this alternative was eliminated due to AT/FP requirements
- 29 and limitations for construction in a floodplain.
- 30 • **Selfridge West Gate Alternative**
- 31 The other action alternative would be to relocate the CVIA/ECP to the site of the current
- 32 Selfridge West gate. The current Selfridge West gate area is heavily developed, and
- 33 constructing an 80-acre commercial gate on this site is not possible unless existing
- 34 mission-critical facilities located on the site are relocated. Current facilities at this site do
- 35 not meet AT/FP setback distances; therefore, approximately 120 acres would be needed
- 36 to house the new facilities. Due to the limited open space on JBSA-Lackland, there is no

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1 site available for the relocation of these mission-critical facilities. Therefore, this  
2 alternative was eliminated because of its impact on mission critical operations.

## 3 2.4 DETAILED DESCRIPTION OF THE PROPOSED ACTION

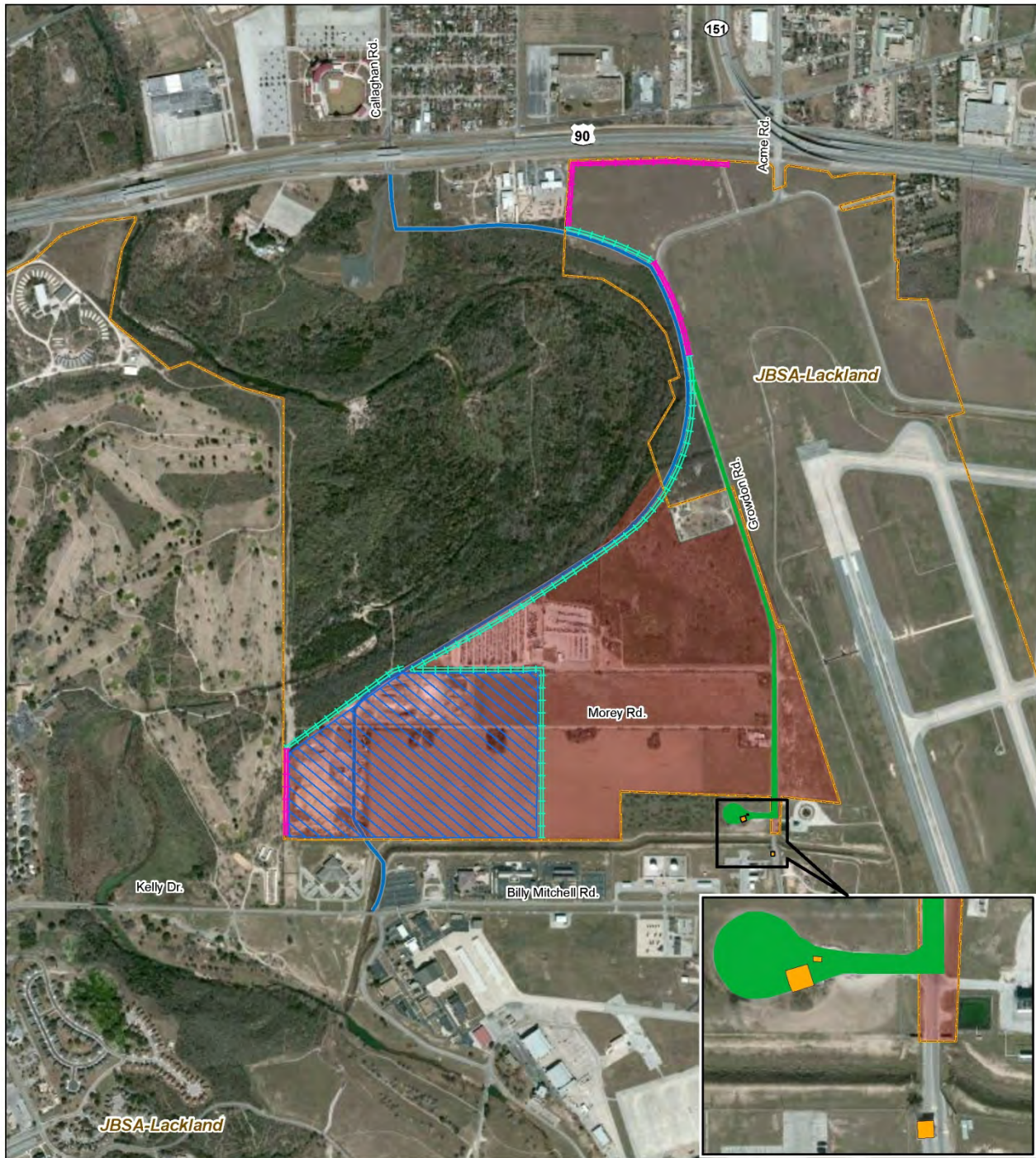
### 4 • Relocate Growdon Road and CVIA/ECP on a new site west of the current location

5 The Proposed Action would involve the acquisition of approximately 232 acres of land  
6 located northwest of the existing Growdon Road CVIA/ECP. A new CVIA/ECP would  
7 be constructed by the Air Force and operated on 80 acres on the western edge of the  
8 property, and the existing Growdon Road CVIA/ECP would be demolished as part of the  
9 project. Demolition would include Building 1213 and associated canopy, Building 1217,  
10 and the Vehicle Inspection Canopy for a total of approximately 4,230 sf. The Air Force  
11 would construct a new 9,000 foot long, road from US Highway 90 at the Callaghan  
12 overpass, and the new road would be routed along the eastern edge of the Leon Creek  
13 floodplain buffer zone around to the new gate location (See Figure 2-1). The new road  
14 would consist of two lanes in each direction, and a portion of this road would be  
15 concurrent with the existing Growdon Road. The northern and southern portions of the  
16 proposed road would be constructed first, and then any planned upgrades to the portion of  
17 Growdon Road that intersects with the new road would be initiated. The proposed road  
18 would traverse property that is not available for acquisition; therefore, the Air Force  
19 would acquire an easement from the COSA to accommodate that section of the new road.  
20 Approximately 249,033 sf of Growdon Road from the existing CVIA/ECP to the location  
21 of the new Growdon Road concurrence would be demolished; however, the Air Force  
22 would maintain access to any residences remaining along the existing Growdon Road.

23 The remaining 152 acres of acquired land would be used to accommodate expansion  
24 planning needs (e.g. relocation of leaseback facilities or other components of the “Go  
25 West” Plan, if cleared under NEPA and implemented). These relocation activities would  
26 be assessed under a future NEPA document. The new CVIA/ECP would support  
27 approximately 3,500 inbound vehicles daily and approximately 3,600 outbound vehicles  
28 daily. From the beginning of construction to the end of demolition, the projected  
29 timetable is two years. At the earliest, construction would begin in FY 2016 and  
30 demolition would begin in the second half of FY 2017. Construction of the proposed  
31 CVIA/ECP would occur before demolition of the existing gate, in order to reduce impacts  
32 to traffic flow at the existing gate.

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Legend	
JBSA-Lackland	Existing Fence
Proposed Demolition of Existing Growthdon Road	Proposed New Fence
Proposed Demolition of Existing Commercial Vehicle Inspection Area/Entry Control Point	
Proposed Commercial Vehicle Inspection Area/Entry Control Point Area	
Proposed Acquisition of Approximately 232 Acres	
Proposed Growthdon Road Relocation Site	

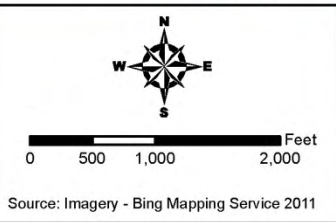


Figure 2-1  
Proposed Action  
JBSA-Lackland

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1    **2.5    DESCRIPTION OF THE NO-ACTION ALTERNATIVE**

2    The No-action Alternative would involve the continued use of the existing Growdon Road  
3    CVIA/ECP. If the CVIA/ECP is not relocated, the 433rd Airlift Wing’s mission-critical  
4    operations would continue to be impacted by commercial traffic through Growdon Road.  
5    Additionally, JBSA-Lackland would not acquire any additional acreage, resulting in assets and  
6    personnel remaining located in leaseback facilities at PSA delaying implementation of the “Go  
7    West” Plan. Use of the existing Growdon Road CVIA/ECP would also result in continued  
8    congestion and wait times for commercial vehicles limiting the efficiency and security of that  
9    ECP.

10   **2.6    OTHER ACTIONS ANNOUNCED FOR THE PROJECT AREAS AND**  
11    **SURROUNDING COMMUNITY**

12    This EA also considers the direct and indirect effects of cumulative impacts (40 CFR 1508.7)  
13    and concurrent actions (40 CFR 1508.25[1]). A cumulative impact, as defined by the CEQ (40  
14    CFR 1508.7), is the “impact on the environment which results from the incremental impact of  
15    the action when added to other past, present, and reasonably foreseeable future actions regardless  
16    of which agency (Federal or non-Federal) or person undertakes such actions. Cumulative  
17    impacts can result from individually minor but collectively significant actions taking place over a  
18    period of time.”

19    Other actions announced for JBSA-Lackland and the surrounding area that could occur during  
20    the same time period as the proposed or alternative actions are identified below.

- 21       •    **San Antonio Water System (SAWS) Western Watershed Sewer Relief Line C**  
22        **Environmental Assessment**  
23        SAWS proposes to construct approximately 22,100 linear feet of a new 54-, 84-, and 90-  
24        inch diameter gravity sewer line extending through JBSA-Lackland between US  
25        Highway 90 and SW Military Drive, to include the abandonment of the existing 54-inch  
26        wastewater pipeline and its 50-foot wide easement. A portion of the line would  
27        transverse the CVIA/ECP gate site identified in the Proposed Action; however, the new  
28        SAWS sewer relief line would not receive wastewater from the existing CVIA/ECP, nor  
29        the new CVIA/ECP. The new sewer relief line would be installed in a new easement  
30        with enough clearance for the existing line to minimize the possibility of collapse or  
31        further damage to the existing sewer during the construction phase. A new 75-foot wide  
32        permanent utility easement and a 25-foot wide temporary construction easement are  
33        recommended for the proposed Western Watershed Sewer Relief Line C. The temporary  
34        easement would remain in-place only during the construction phase of the installation to  
35        allow additional space for construction-related activities. The utility easement would  
36        continue to provide ingress and egress for conducting maintenance on the sanitary sewer  
37        relief line after the conclusion of construction. An EA is currently being prepared for this  
38        project.

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1       • **Re-vitalize Military Working Dog Campus**

2       JBSA-Lackland proposes to revitalize the Military Working Dog (MWD) Campus  
3       which consists of twelve projects intended to increase the effectiveness of the MWD  
4       mission. This revitalization would serve to correct deficiencies in the existing campus  
5       and allow for future expansion of the MWD mission as determined by increases in  
6       world-wide security threats against the US Armed Forces and its allies. The Proposed  
7       Action includes the construction of a new central latrine partitioned for male and female  
8       MWD staff and students; construction of a MWD headquarters building that would  
9       include classroom training space, storage space, office space, other administrative areas,  
10      and a parking area suitable for 180 vehicles. The project also proposes the construction  
11      of four MWD training labs on JBSA-Lackland Main Base used for specialized dog  
12      training and evaluation; a Hospital Recovery Kennel; a vehicle washrack on JBSA-  
13      Lackland Main Base; a Drug Vehicle Training Lot; a MWD lab on the LTA; a parking  
14      lot along Craw Avenue; and a grooming station on JBSA-Lackland Main Base and on  
15      LTA. Additionally, the project involves moving the entire MWD campus outside of the  
16      floodplain on the LTA. An EA is currently being prepared for this project.

17      • **Ambulatory Care Center**

18      JBSA-Lackland is constructing an Ambulatory Care Center (ACC) complex and  
19      associated infrastructure at the San Antonio Military Medical Center – South Campus  
20      location and will demolish the existing Wilford Hall Medical Center (WHMC) complex  
21      and associated infrastructure. The ACC will have the capacity to provide care for more  
22      than 57,000 patients annually, and there will be no change in the number of civilian or  
23      military personnel assigned to JBSA-Lackland. The construction of the ACC is being  
24      implemented in four phases over a period of approximately 4 years (2010 to 2014), and  
25      will ultimately replace the WHMC complex. An EA has been prepared for this project  
26      and a Finding of No Significant Impact (FONSI) has been signed.

27      • **Installation Development at JBSA-Lackland**

28      JBSA-Lackland is implementing the requirements of the BRAC program and  
29      performing other installation development activities based on the current JBSA-  
30      Lackland Capital Improvements Program (CIP) to upgrade, replace, or supplement  
31      facilities. According to the EA prepared for this action, the implementation of the  
32      BRAC program consisted of the construction of 486,800 sf of new space and the  
33      construction of 100,000 sf of pavement. 30,700 sf of facilities were planned for  
34      demolition, and 323,350 sf of existing space was to be vacated. The components of the  
35      CIP assessed in the EA include the construction of 3,275,922 sf of new space and the  
36      construction or upgrade of 1,141,970 sf of pavement. Approximately 824,332 sf of  
37      facilities were planned for demolition and 174,100 sf of existing space would be  
38      vacated. Approximately 365,120 sf of pavement was also planned for demolition. An  
39      EA was prepared for this action in 2006 and a FONSI was signed. Since the EA was  
40      prepared, several of the BRAC/CIP projects in the vicinity of the Growdon Gate/Road  
41      Relocation Proposed Action have been completed or cancelled. Additionally,



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1 construction of the Headquarters Administrative Center is located over a mile away from  
2 the project site and is in the long-range base plan (beyond five years). Currently,  
3 administrative functions are housed in Building 171 at Port San Antonio and operate  
4 under a lease with the Port. It is unknown how long the Port will keep renewing the  
5 lease and whether future BRAC recommendations could accelerate or decelerate  
6 movement of these organizations off the Port. Therefore, this project is not considered  
7 reasonably foreseeable. One project, construction/replacement of two elevated bridges  
8 at Leon Creek, is not yet programmed due to lack of funding. None of the Installation  
9 Development projects nearest the Growdon Gate/Road Relocation would be expected to  
10 occur during the gate construction or road relocation project. As a result, none of the  
11 projects analyzed in the Installation Development EA are being carried forward for  
12 analysis for cumulative effects in this EA.

13 • **Defense Language Institute English Language Center (DLIELC) and Inter-**  
14 **American Air Forces Academy (IAAFA) Area Development Plan (ADP)**

15 JBSA-Lackland plans to implement the ADP for the DLIELC and IAAFA academic  
16 campus. Implementing the ADP will include the construction of new facilities and  
17 infrastructure, facility demolition, the installation of temporary modular trailers, and an  
18 increase in student and administrative population. The new facilities and academic  
19 campus footprint will accommodate approximately 4,600 students and 1,675  
20 administrative staff, which is an increase of 3,705 students and 1,096 staff upon full  
21 implementation. The proposed construction and demolition began in 2012 and will  
22 occur in phases over the next 20 years until 2032. Temporary facilities will be installed  
23 immediately and removed upon completion of the facilities that will permanently  
24 accommodate the additional students and staff. An EA has been prepared for this  
25 project and the FONSI was signed on 28 May 2012.  
26

27 • **36th Street Project – US Highway 90 to Growdon Road**

28 Between Fall of 2010 and mid 2012 the City of San Antonio extended 36th Street as a  
29 four-lane divided road from the intersection of Growdon Road and Frank Luke Road  
30 south to Billy Mitchell Boulevard. In mid-late 2012, the City of San Antonio will  
31 continue construction on the northern section of 36th Street from Growdon Road north to  
32 US Highway 90. The entire project is approximately 2,300 linear feet and will include  
33 curbs, sidewalks, necessary drainage and utility relocation (Port San Antonio 2012).  
34 Phase IIIb is currently under design and construction is expected to start in the summer of  
35 2013 with expected completion by the end of 2013 (Raymond 2012). Once completed,  
36 the extension will increase connectivity to Port San Antonio and will open 150 acres to  
37 the development of new facilities for Port San Antonio's aerospace and air cargo  
38 customers (Port San Antonio 2012). An EA has been prepared for this project and a  
39 FONSI has been signed.

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1 For this analysis, the actions identified above are addressed from a cumulative perspective and  
2 are analyzed in Chapter 4. Given that the actions above would be funded separately from the  
3 Proposed Action and implementation would not be dependent upon one another, the actions  
4 would not be incorporated into the baseline. All of the actions identified above have been, or are  
5 in the process of being evaluated under separate NEPA cover and were incorporated in this  
6 analysis for their potential cumulative effect.

## 7 **2.7 COMPARISON OF ENVIRONMENTAL EFFECTS OF ALL ALTERNATIVES**

8 Table 2-1 summarizes the impacts of the Proposed Action and the No-action Alternative. This  
9 table provides a comparison of the effects of the alternatives to assist in the decision-making  
10 process.

## 11 **2.8 IDENTIFICATION OF THE PREFERRED ALTERNATIVE**

12 The Air Force has evaluated each alternative to identify which one best complies with the  
13 mission, meets the operational goals of JBSA-Lackland, and accomplishes the purpose and  
14 need of the action. By relocating the existing CVIA/ECP and Growdon Road, the Proposed  
15 Action would provide the force protection measures specified in UFC 4-022-01, as well as  
16 more efficient and effective screening of commercial vehicles. The Proposed Action would  
17 also allow for accommodation of future JBSA-Lackland expansion through the acquisition of  
18 232-acres of City- and privately-owned land. The No-action Alternative does not meet the  
19 purpose and need of the action. Therefore, the preferred alternative is the Proposed Action.  
20 Section 2.3 describes other alternatives eliminated from further consideration. The B-52 Gate  
21 Alternative would have resulted in impacts to Lower Leon Creek and the floodplain. The  
22 Selfridge West Gate Alternative would have resulted in impacts to mission critical operations.  
23 The Preferred Alternative avoids those direct impacts while meeting the mission, operational  
24 goals of JBSA-Lackland, and the purpose and need of the action.

## 25 **2.9 MEASURES TO MINIMIZE IMPACTS**

26 Analysis of environmental impacts has determined that some mitigation measures would be  
27 necessary to prevent significant adverse effects. Additionally, best management practices  
28 (BMPs) are proposed to help minimize impacts. Table 2-2 presents a summary of these  
29 mitigation measures and BMPs proposed under the Proposed Action and the No-action  
30 Alternative.

1

**Table 2-1 Summary of Environmental Impacts**

Resource	Proposed Action Relocate Growdon Road and Gate	No-action Alternative
Noise	<ul style="list-style-type: none"> <li>• Short-term increase in noise levels from construction and demolition noise.</li> <li>• Construction/Demolition and traffic noise levels within or below baseline conditions at potential noise-sensitive receptors.</li> <li>• Long-term decrease in traffic engine noise due to reduced engine idling time.</li> <li>• No long-term increase in noise levels.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>• Land use designation change that is compatible with the existing land use.</li> <li>• Long-term, minor reduction in land available for farming.</li> <li>• Long-term, minor reduction in prime farmland available for agricultural use.</li> <li>• No conflict with existing land uses or master planning efforts undertaken by the installation or the COSA.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>• No increase in long-term emissions.</li> <li>• Temporary increase in emissions of criteria pollutants. These minor emissions would be eliminated after the activity is completed.</li> <li>• Long-term decrease in engine emissions due to reduced engine idling time.</li> <li>• All emissions would fall well below the 10 percent level that would be considered regionally significant by the United States Environmental Protection Agency.</li> <li>• Temporary increase in emissions would not contribute significantly to climate change, but any emission of greenhouse gases represents an incremental increase in global greenhouse gas concentrations.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline air emissions.</li> </ul>
Earth Resources	<ul style="list-style-type: none"> <li>• Short-term increase in soil disturbance and dust generated, limited to those areas on or near construction operations and occurring only during the duration of construction.</li> <li>• Long-term, minor reduction in prime farmland available for agricultural use.</li> <li>• Areas where the existing Growdon Road is removed would be susceptible to increased erosion, but erosion would be minimized through use of best management practices.</li> <li>• No change to lithology, stratigraphy, geological structures, soil composition, structure, or function.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Biological Resources	<ul style="list-style-type: none"> <li>• No adverse impacts to vegetation.</li> <li>• No anticipated introduction of invasive species to areas where they do not presently exist.</li> <li>• Short-term noise impacts on wildlife but no adverse effects to animals living in or adjacent to the project area.</li> <li>• Indirect, minor impacts to wetlands associated with riparian habitat along Leon Creek</li> <li>• No impacts to federally-listed endangered bird species.</li> <li>• Potential impacts from noise and disturbance from construction could cause nesting migratory birds to abandon their nests; however, implementation of mitigation techniques and best management practices would minimize potential loss of migratory bird nests during construction.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Cultural and Traditional Resources	<ul style="list-style-type: none"> <li>• The Proposed Action would have no effect on archaeological resources or historic properties.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>• No anticipated impacts to groundwater.</li> <li>• No long-term impacts on surface water quality and quantity at the project location or downstream surface water bodies.</li> <li>• Temporary potential for erosion and increased sediment runoff into Leon Creek would be managed with best management practices.</li> <li>• No adverse health hazard conditions, or violation of established laws or regulations that have been adopted to protect or manage water resources in the area</li> <li>• No major alterations to drainage patterns or flood carrying capacities of water courses.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions for groundwater, surface water, or floodplains.</li> </ul>
Hazardous Materials and Wastes	<ul style="list-style-type: none"> <li>• Asbestos and lead-based paint surveys required prior to demolition of buildings.</li> <li>• No collection, storage, or improper disposal of hazardous substances, including asbestos.</li> <li>• The potential to encounter previously unidentified lead-based paint (other than the buildings on JBSA-Lackland that are scheduled for demolition) is minimal.</li> <li>• Long-term beneficial impacts from removal of pesticide contaminated soils, if found.</li> <li>• No hazardous wastes generated.</li> <li>• No impacts to or from Environmental Restoration Program sites.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>

**Table 2-1 Summary of Environmental Impacts (Continued)**

Resource	Proposed Action Relocate Growdon Road and Gate	No-action Alternative
Utilities and Infrastructure	<ul style="list-style-type: none"> <li>• No change in electrical or natural gas demand.</li> <li>• Upgrades to electrical infrastructure.</li> <li>• Increase in solid, non-hazardous waste generated during from demolition and construction; however, sufficient capacity exists at landfill to accommodate the increase.</li> <li>• No change to the volume of annual potable water consumed or wastewater generated.</li> <li>• Expansion of some potable water and wastewater distribution systems during the relocation of the Growdon Road CVIA/ECP.</li> <li>• Short-term increases in soil erosion and sediment loadings in storm water runoff would be managed by best management practices.</li> <li>• Long-term increase in storm water runoff due to total increased impervious cover.</li> <li>• Construction of storm sewers in the vicinity of the new CVIA/ECP gate to handle runoff from paved areas.</li> <li>• No security impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>• Slightly longer delay times and increased utilization at some intersections.</li> <li>• No creation of major traffic hazards or increase in traffic to level of service E or worse.</li> </ul>	<ul style="list-style-type: none"> <li>• Long-term increase in area daily traffic volumes due to future installation development activities, off-installation development, or traffic growth trends</li> <li>• No level of service E or worse on intersections considered for analysis due to traffic increases from installation development.</li> </ul>
Socioeconomic Resources	<ul style="list-style-type: none"> <li>• Benefit from expenditures incurred from the relocation of Growdon Gate and Growdon Road.</li> <li>• No change to long-term employment rates or local business function.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>
Environmental Justice	<ul style="list-style-type: none"> <li>• No disproportionate and adverse impacts to minority or low-income populations.</li> </ul>	<ul style="list-style-type: none"> <li>• No change from baseline conditions.</li> </ul>

**Table 2-2 Summary of Measures to Minimize Impacts**

Resource	Measures to Minimize or Reduce Impacts and BMPs
Noise	<ul style="list-style-type: none"> <li>No mitigation is proposed. BMPs to reduce construction-associated noise and disturbances include equipping noise-generating heavy equipment with the manufacturer’s standard noise control devices (mufflers, baffling, and/or engine enclosures), properly operating and maintained equipment, and reducing occupational exposure by requiring workers to wear appropriate hearing protection. Additionally, construction activities would be limited to between 0700 and 1900 hours.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>No mitigation or BMPs are proposed.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>No mitigation is proposed. BMPs would include watering the disturbed area of the construction, covering dirt and aggregate trucks and/or piles, prevention of dirt carryover to paved roads, the use of erosion barriers and wind breaks, and the use of low sulfur and bio-diesel fuel in construction/transport vehicles.</li> </ul>
Earth Resources	<ul style="list-style-type: none"> <li>No mitigation is proposed. Construction/demolition activities would include site-specific sediment and erosion control plans with BMPs to prevent soil disturbance, capture and contain loose soil, and slow the movement of storm water during heavy rains. Fugitive dust from construction and demolition activities would be minimized by watering of the soil, and areas where the existing Growdon Road is removed would be re-vegetated to prevent erosion.</li> </ul>
Biological Resources	<ul style="list-style-type: none"> <li>Road construction clearing activities would be conducted during the non-breeding season for most migratory birds (August through January) to ensure compliance with the Migratory Bird Treaty Act. This mitigation measure would be included in the Proposed Action to reduce the potential adverse impacts on biological resources, especially protected species. Standard construction BMPs (e.g., rock filter dams/silt fences along the west edge of the right-of-way, drip pans under construction vehicles, hazardous waste/spill response plan, daily collection of human trash, portable toilets) for runoff control and hazardous material spill control and clean up would also be implemented to prevent adverse impacts to wildlife habitat and waterways.</li> </ul>
Cultural and Traditional Resources	<ul style="list-style-type: none"> <li>No mitigation or BMPs are proposed.</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>No mitigation measures are proposed. The Storm Water Pollution Prevention Plan (SWPPP) would include the implementation of appropriate BMPs, such as silt fencing and rock filter dams, during construction activities. Additionally, any Federal Emergency Management Agency stipulated permit conditions would be followed during Proposed Action activities.</li> </ul>
Hazardous Materials and Wastes	<ul style="list-style-type: none"> <li>No mitigation or BMPs are proposed.</li> </ul>
Utilities and Infrastructure	<ul style="list-style-type: none"> <li>No mitigation is proposed. To minimize potential for increased sediment loading of drainage areas and downstream surface waterbodies, a SWPPP would be implemented that would include appropriate BMPs, such as use of silt fencing and rock filter dams during construction activities. All solid wastes generated during construction and operation phases would be disposed of properly.</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>No mitigation is proposed. Some potential may exist for improvement of level of service at other gates if existing or future classes of traffic (e.g. commercial truck traffic) are redirected to the proposed Growdon Road Commercial Vehicle Inspection Area and Entry Control Point.</li> </ul>
Socioeconomic Resources	<ul style="list-style-type: none"> <li>No mitigation or BMPs are proposed.</li> </ul>
Environmental Justice	<ul style="list-style-type: none"> <li>No mitigation is proposed. BMPs to reduce noise impacts would include utilization of standard noise control devices on equipment and limitation of hours of construction. Additionally, noise level reduction properties of building’s construction materials would serve to lessen noise impacts.</li> </ul>
<p>Notes: BMP – Best Management Practices                      SWPPP – Storm Water Pollution Prevention Plan</p>	

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**Chapter 3**

**Affected Environment**







1 **3.3 DESCRIPTION OF THE AFFECTED ENVIRONMENT**

2 **3.3.1 Noise**

3 **3.3.1.1 Definition of the Resource**

4 Noise is sound that, if loud enough, can induce hearing loss and can be undesirable if it annoys  
5 people due to interference with ordinary daily activities, such as communication or sleep. A  
6 person’s reaction to noise varies according to the duration, type, and characteristics of the source,  
7 distance between the source and receiver, receiver’s sensitivity, background noise level and time  
8 of day.

9 Sound is a series of vibrations (energy) transmitted through a medium that are perceived by a  
10 receiver. Sound varies in intensity and frequency. It is measured by accounting for the energy  
11 level represented by the amplitude (volume) and frequency (pitch) of those vibrations and  
12 comparing that to a baseline standard. Sound pressure level (SPL) described in decibels (dB) is  
13 used to quantify sound intensity. It is a measure of the maximum sound pressure at a given  
14 instant and known distance. The dB is a logarithmic unit that expresses the ratio of the SPL to a  
15 standard reference level. When using decibels to depict airborne SPLs, zero dB is the threshold  
16 of human hearing and exponential increases occur every ten dB. An event that generates 60 dB  
17 of sound is ten times louder than one that generates 50 dB.

18 The Day-Night Average Sound Level (DNL) is one of the most common ways to describe  
19 ambient noise exposure over an extended period of time. DNL is the metric recognized by the  
20 U.S. government for measuring noise and its impacts on humans (USAF 2010a). It describes a  
21 receiver’s cumulative noise exposure from all events occurring during a 24-hour period; events  
22 occurring between 10:00 p.m. and 7:00 a.m. (“environmental night”) are increased by 10 dB to  
23 account for greater nighttime sensitivity to noise events. The SPL represented by a given decibel  
24 value is usually adjusted to make it more relevant to sound that the human ear hears especially  
25 well; for example, an “A-weighted” decibel (dBA) is derived from emphasizing mid-range  
26 frequencies to which the human ear responds especially well and de-emphasizing the lower and  
27 higher range frequencies.

28 Federal and local governments have established noise guidelines and regulations for the purpose  
29 of protecting citizens from potential hearing damage and from various other adverse  
30 physiological, psychological, and social effects associated with noise.

31 Hearing Loss. The potential for permanent hearing loss arises from direct exposure to noise on a  
32 regular, continuing long-term basis to levels about 75 dBA DNL. Hearing loss is not expected in  
33 people exposed to 75 dBA DNL or less for eight hours per day, as long as noise exposure over  
34 the remaining 16 hours per day is low enough to not substantially contribute to the 24-hour  
35 average (USEPA 1974).

36 Construction Noise. Building construction and demolition work can cause an increase in sound  
37 that is well above the ambient level. Table 3-1 lists noise levels associated with the types of

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1 construction equipment expected to be utilized during demolition, site preparation, construction,  
2 and finishing work associated with the Proposed Action. As shown in Table 3-1 the construction  
3 equipment produces peak SPLs ranging from 75 to 85 dBA at 50 feet (ft) from the source; which  
4 decreases by six dBA with every doubling of the distance from the source. It should also be  
5 noted that this table includes the level generated, but does not account for the ability of sound to  
6 be reflected/absorbed by nearby objects, which could further reduce noise levels.

7 **Table 3-1 Construction Equipment Peak Sound Pressure Levels**

Equipment	Generated Noise <sup>1</sup> dBA				
	50 ft	100 ft	200 ft	400 ft	800 ft
Backhoe	78	72	66	60	54
Compactor	83	77	71	65	59
Crane	81	75	69	63	57
Dump Truck	76	70	64	58	52
Excavator	81	75	69	63	57
Front-end Loader	79	73	67	61	55
Grader	85	79	73	67	61
Paver	77	71	65	59	53
Pickup Truck	75	69	63	57	51
Roller	80	74	68	62	56
Scraper	84	78	72	66	60

Source: USDOT 2006

Notes:

<sup>1</sup> Noise from a single source.

dBA - "A-weighted" decibel

ft - feet

## 8 Noise Zones

9 To assist the surrounding communities in land use decisions, the DoD uses decibel noise  
10 contours to illustrate the exposure to noise associated with aviation activities. Below is a general  
11 definition of these zones (Bexar County 2010):

- 12 • Noise Zone I: This area, considered to have minimal noise exposure, includes areas in  
13 which DNL is less than 65 dBA and is acceptable for all types of land uses.
- 14 • Noise Zone II: This area is considered to have significant noise exposure and is normally  
15 unacceptable for noise-sensitive land uses. It consists of an area where the DNL is  
16 between 65 and 75 dBA.
- 17 • Noise Zone III: This is an area around the source of noise in which the DNL is greater  
18 than 75 dBA. This zone is considered an area of severe noise exposure and is deemed  
19 unacceptable for noise sensitive activities.

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## 1    **3.3.1.2 Affected Environment**

2    The military noise environment generally consists of three types of noise: transportation noise  
3    from aircraft and vehicles, noise from firing at small-arms ranges, and impulsive noise from  
4    large-caliber weapons firing and demolition operations. Noise associated with activities at  
5    JBSA-Lackland is characteristic of that associated with most Air Force installations with a flying  
6    mission. Since JBSA-Lackland is primarily a training base, most operations are conducted  
7    during daylight hours and on weekdays.

8    The subject property is located along the northern boundary of Kelly Annex, where the primary  
9    source of noise is military aircraft operations (USAF 2010a). The Proposed Action is located in  
10   close proximity to an active runway. The existing Growdon Gate is approximately 1,438 ft from  
11   the runway. The proposed CVIA/ECP is approximately 5,128 ft, and the proposed Growdon  
12   Road at US Highway 90 is approximately 4,524 from the runway.

13   JBSA-Lackland controls and schedules missions to keep noise levels low, especially at night,  
14   and aircraft maintenance engine run-up locations have been established in areas to minimize  
15   noise for the surrounding areas. The Air Force engages in a program of extensive local  
16   community outreach to facilitate land use planning to foster the establishment of compatible uses  
17   in the vicinity of its installations. The Air Installation Compatible Use Zone (AICUZ) program  
18   at JBSA-Lackland is an ongoing process. AICUZ provides guidance to air bases and local  
19   communities in planning land uses compatible with airfield operations by describing existing  
20   aircraft noise and flight safety zones on and near USAF installations.

21   Transportation noise in the area is from vehicle use on Growdon Road and consists of passenger  
22   vehicles, delivery and fuel trucks, and military vehicles. Passenger vehicles compose most of the  
23   vehicles present on base and the surrounding roadways. Construction vehicles associated with a  
24   materials staging area on the western edge of the COSA-owned segment of the 232-acre parcel  
25   likely generates additional noise in the area; however, this noise is short term and sporadic.

26   The existing CVIA/ECP located on base is within the 75-79 dB noise contour, and the location  
27   for the proposed CVIA/ECP lies within the 65-69 dB noise contour. The 232-acre subject  
28   property that would be acquired under the Proposed Action ranges from 65-69 dB to 80+ dB  
29   noise contours. Of the 232-acres, 193.2-acres of land are considered to be in Noise Zone II, and  
30   56.5-acres are considered to be Noise Zone III. Figure 3-1 shows the existing noise contours and  
31   their relationship to the project site.

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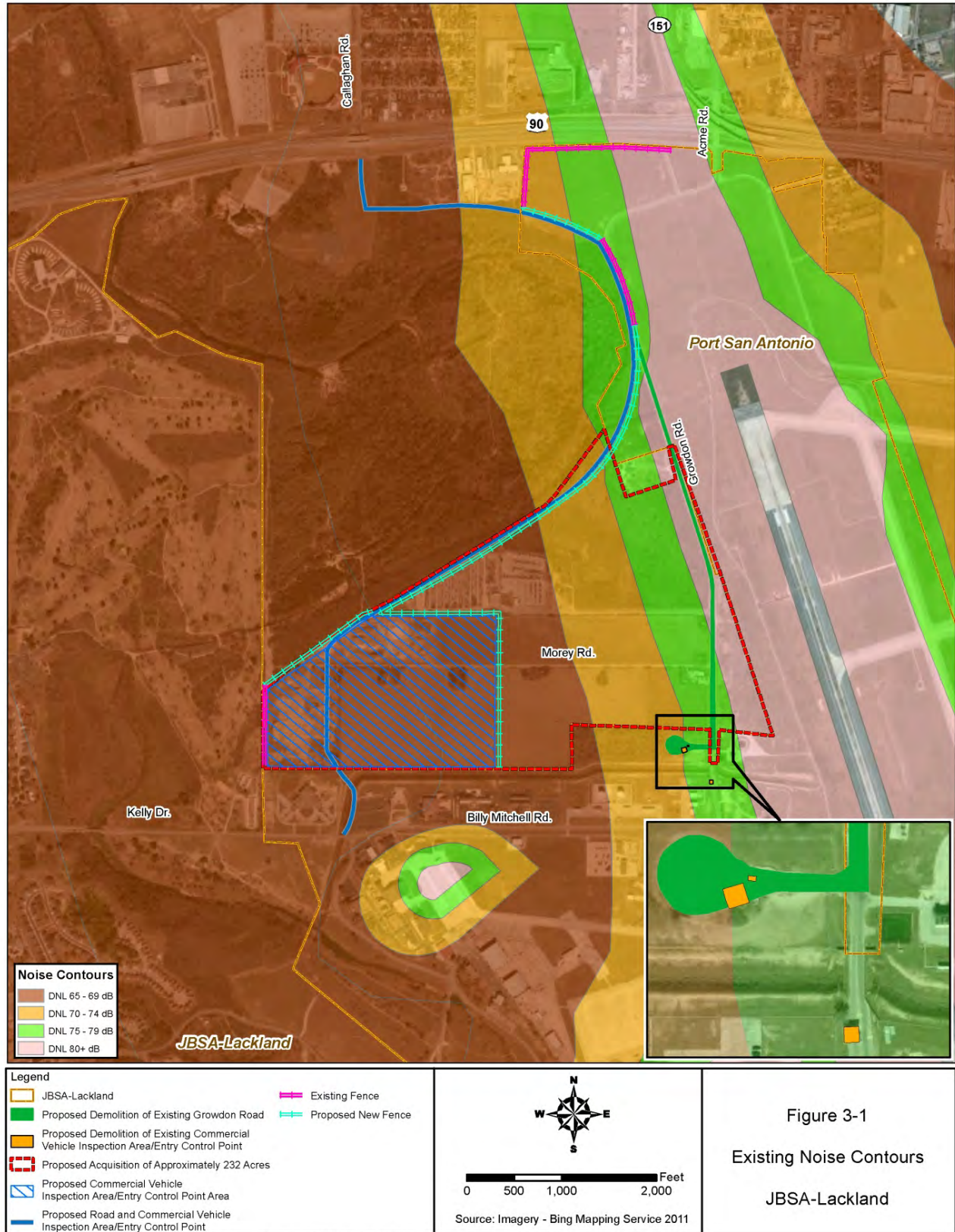


Figure 3-1  
Existing Noise Contours  
JBSA-Lackland

1  
2

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## 1     **3.3.1.3 Noise-sensitive Receptors**

2     A noise-sensitive receptor is commonly defined as the occupants of any facility where a state of  
3     quietness is a basis for use such as a residence, hospital, or church. Potential noise-sensitive  
4     receptors in the proposed project area include the Gateway Hills Golf Course, Camargo Park,  
5     Stillman Park, Stacey High School, Lackland Elementary School, Wilford Hall Medical Center,  
6     and various residences. The closest potential noise-sensitive receptor to the proposed  
7     construction activities are the various residences located 0.08 mile north of the project area.  
8     These residences are currently located within the 65-69 dB aircraft noise contour and are also  
9     situated approximately 60 feet from the US Highway 90 access road, and approximately 200 feet  
10    from Highway 90, where traffic noise is elevated. According to TXDOT, approximately 79,000  
11    vehicles travel daily along US Highway 90 at the north end of the proposed location near  
12    Callaghan Road (TXDOT 2008), which results in additional noise generated in the area. The  
13    second closest potential noise-sensitive receptor, Gateway Hills Golf Course, is located 0.18  
14    miles from the proposed project site and is within the 65-69 dB noise contour.

15    There is a single residence located adjacent to the existing Growdon Road that is located  
16    approximately 553 feet from the existing Growdon Road, and approximately 340 feet from the  
17    proposed Growdon Road. Assuming an average noise level of 80 dBA (at a distance of 49 feet)  
18    for medium to heavy trucks travelling less than 35 miles per hour, the residence currently  
19    experiences exterior, intermittent noise levels between 68 dBA and 71 dBA from the existing  
20    Growdon Road (USDOT 1995). Additionally, the residence is located within the aircraft noise  
21    contour of 75-79 dB DNL, so the average daily noise is currently greater than that of the  
22    intermittent traffic noise that is experienced at the existing Growdon Road. Noise levels inside  
23    the residence are further lessened due to the noise-reducing properties of construction building  
24    materials.

## 25           **3.3.2 Land Use**

### 26           **3.3.2.1 Definition of the Resource**

27    Land use describes the activities that take place in a particular area and generally refers to human  
28    modification of land, often for residential or economic purposes. It is important as a means to  
29    determine if there is sufficient area for proposed activities and to identify any potential conflicts  
30    with local land use plans. The two main objectives of land use planning are to ensure orderly  
31    growth and compatible uses among adjacent property parcels or areas. Management plans and  
32    zoning regulations determine the type and extent of land use allowable in areas and are often  
33    intended to protect environmentally sensitive areas. However, there is no nationally recognized  
34    convention or uniform terminology for describing land use categories.

35    The USDA Natural Resources Conservation Service (NRCS) maintains an inventory of Prime  
36    and Unique Farmlands and defines these terms in 7 CFR 657 – *Prime and Unique Farmlands*.  
37    Prime farmlands are lands that have the best characteristics for crop production and are available  
38    for this use. Food, feed, forage, fiber, and oilseed crops are acceptable uses of prime farmlands.  
39    Characteristics for crop production that are considered include soil properties, growing season,  
40    and moisture supply needed to produce sustained high yields of crops in cost effective manner.

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1 Unique farmlands are those lands other than prime farmlands that are used to produce specific  
2 high value food and fiber crops.

3 JBSA-Lackland has 14 land use designations: administrative, airfield, airfield  
4 runway/taxiway/apron, aircraft operations and maintenance, community-commercial,  
5 community-service, housing-accompanied, housing-unaccompanied, industrial, medical, open  
6 space, outdoor recreation, training-indoor, and training-outdoor (USAF 2010a). The Air Force’s  
7 comprehensive planning process utilizes functional analysis, which determines the degree of  
8 connectivity among land uses as well as between on- and off-installation land uses, to determine  
9 future installation development and facilities planning (USAF 2010a).

### 10 **3.3.2.2 Affected Environment**

11 This section describes the existing land uses and aesthetics for the on-base property surrounding  
12 the existing Growdon Gate and Growdon Road, and the approximately 232-acre off-base subject  
13 property that includes the proposed location for the new CVIA/ECP.

14 The portion of on-installation land that would be affected by the Proposed Action is designated  
15 as “Industrial” and “Open Space” land use (USAF 2010a). The existing CVIA/ECP is located in  
16 an area designated as “Open Space.” The 232 acres of off-base land that would be acquired  
17 under the Proposed Action are comprised of multiple parcels that have various uses and owners,  
18 and is located adjacent to COSA property, JBSA-Lackland, and the northwest corner of Kelly  
19 Field Annex. The 232 acres consists of private property and COSA property. The private  
20 property is comprised of mixed-residential, commercial, and agricultural land use classifications.  
21 A portion of the private property is currently being used for coastal hay production and operates  
22 under a Texas Agricultural and Timber Tax Exemption. Additionally, the majority of the  
23 property proposed for acquisition is considered Prime Farmland. These areas are discussed in  
24 more detail in Section 3.3.4.

25 The COSA land is used as a staging area for materials used on municipal projects, a San Antonio  
26 Police Department vehicle impound yard, and a drop-off area for bulky items. A portion of the  
27 property also remains unused/undeveloped (USAF 2011b). The proposed location for the  
28 CVIA/ECP is on COSA property classified as “Open Space”.

29 In addition to the 232 acres proposed for acquisition under the Proposed Action, JBSA-Lackland  
30 would obtain an easement from the COSA to construct and use the new section of Growdon  
31 Road. The portions of the COSA property where the easement would be located are currently  
32 undeveloped land, with the exception of a small portion of the easement that would be located  
33 near an access road for oversized household waste disposal area (USAF 2010b). This segment of  
34 the COSA property is zoned “Agribusiness Tier,” which, according to the West/Southwest  
35 Sector Plan, allows for farm homesteads, agricultural uses, and light industrial use (COSA 2011).

36 Portions of the 232 acres that would be acquired are located within the floodplain.  
37 Approximately 1.1 acres of the property is located within the 100-year floodplain and 4.8 acres is

1 located within the 500-year floodplain. Additional information on the floodplain within the  
2 footprint of the Proposed Action can be found in Section 3.3.7, Water Resources.

3 **3.3.3 Air Quality**

4 **Air Quality Standards and Regulations**

5 The United States Environmental Protection Agency (USEPA) has established primary and  
6 secondary National Ambient Air Quality Standards (NAAQS) under the Clean Air Act  
7 Amendments of 1990 (CAAA). The CAAA also set emission limits for certain air pollutants  
8 from specific sources, set new source performance standards based on best demonstrated  
9 technologies, and established national emission standards for hazardous air pollutants.

10 The CAAA specifies two sets of standards – primary and secondary – for each regulated air  
11 pollutant. Primary standards define levels of air quality necessary to protect public health,  
12 including the health of sensitive populations such as people with asthma, children, and the  
13 elderly. Secondary standards define levels of air quality necessary to protect against decreased  
14 visibility and damage to animals, crops, vegetation, and buildings. Federal air quality standards  
15 are currently established for six pollutants (known as criteria pollutants), including carbon  
16 monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sulfur oxides (SO<sub>x</sub>, commonly measured as  
17 sulfur dioxide – SO<sub>2</sub>), lead, particulate matter equal to or less than 10 micrometers in  
18 aerodynamic diameter (PM<sub>10</sub>) and particulate matter equal to or less than 2.5 micrometers in  
19 aerodynamic diameter (PM<sub>2.5</sub>). Although O<sub>3</sub> is considered a criteria pollutant and is measurable  
20 in the atmosphere, it is often not considered as a pollutant when reporting emissions from  
21 specific sources, because O<sub>3</sub> is not typically emitted directly from most emissions sources.  
22 Ozone is formed in the atmosphere from its precursors – nitrogen oxides (NO<sub>x</sub>) and volatile  
23 organic compounds (VOCs) – that are directly emitted from various sources. Thus, emissions of  
24 NO<sub>x</sub> and VOCs are commonly reported instead of O<sub>3</sub>.

25 The NAAQS for the six criteria pollutants are shown in Table 3-2. Units of measure for the  
26 standards shown in this table are micrograms per cubic meter of air (µg/m<sup>3</sup>), except for ozone,  
27 which is in parts per million (ppm).

28 The USEPA classifies the air quality within an Air Quality Control Region (AQCR) according to  
29 whether the region meets federal primary and secondary air quality standards. An AQCR or  
30 portion of an AQCR may be classified as attainment, non-attainment, or unclassified with regard  
31 to the air quality standards for each of the criteria pollutants. “Attainment” describes a condition  
32 in which standards for one or more of the six pollutants are being met in an area. The area is  
33 considered an attainment area for only those criteria pollutants for which the NAAQS are being  
34 met. “Nonattainment” describes a condition in which standards for one or more of the six  
35 pollutants are not being met in an area. “Unclassified” indicates that air quality in the area cannot  
36 be classified and the area is treated as attainment. An area may have all three classifications for  
37 different criteria pollutants.



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**Table 3-2 National Ambient Air Quality Standards**

Pollutant	Standard Value ( $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>	Standard Type
CO		
1-hr average	40,000	Primary
8-hr average	10,000	Primary
NO <sub>2</sub>		
1-hr average <sup>b</sup>	188	Primary and secondary
Annual average	100	
O <sub>3</sub>		
8-hr average (2008 std) <sup>c</sup>	0.075	Primary
8-hr average (1997 std) <sup>d</sup>	0.08	Primary
Lead		
Quarterly average	1.5	Primary
PM <sub>10</sub>		
24-hr average <sup>e</sup>	150	Primary and secondary
PM <sub>2.5</sub>		
24-hr average <sup>f</sup>	35	Primary
Annual average <sup>g</sup>	15	Primary
SO <sub>2</sub>		
1-hour average <sup>h</sup>	196	Primary
3-hr average	1,300	Secondary
24-hr average	365	Primary
Annual average	80	Primary

2

Notes:

3

Source: USEPA 2012

4

<sup>a</sup> Units for ozone are parts per million (ppm).

5

<sup>b</sup> To attain this standard, the 3-year average of the 98<sup>th</sup> percentile of the daily maximum 1-hour average at each monitor within an area must not exceed this 188  $\mu\text{g}/\text{m}^3$ .

6

7

<sup>c</sup> To attain the 8-hour ozone standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm.

8

9

<sup>d</sup> (1) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

10

11

(2) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

12

13

(3) USEPA is in the process of reconsidering these standards (set in March 2008).

14

15

<sup>e</sup> The 24-hour standard for PM<sub>10</sub> is not to be exceeded more than once per year.

16

17

<sup>f</sup> The PM<sub>2.5</sub> 24-hour standard is based on the 3-year average 98<sup>th</sup> percentile of 24-hour concentrations at each population-oriented monitor.

18

19

<sup>g</sup> The PM<sub>2.5</sub> annual standard is based on 3-year average of annual arithmetic means.

20

21

<sup>h</sup> Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99<sup>th</sup> percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 197  $\mu\text{g}/\text{m}^3$ .

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The CAAA requires federal actions to conform to any applicable state implementation plan (SIP). USEPA has promulgated regulations implementing this requirement (USEPA 2003a and USEPA 2003b). A SIP must be developed to achieve the NAAQS in non-attainment areas (i.e., areas not currently attaining the NAAQS for any pollutant) or to maintain attainment of the NAAQS in maintenance areas (i.e., areas that were non-attainment areas but are currently attaining that NAAQS). General conformity refers to federal actions other than those conducted according to specified transportation plans. Therefore, the General Conformity rule applies only to non-transportation actions in non-attainment or maintenance areas. Such actions must perform

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1 a determination of conformity with the SIP if the emissions resulting from the action exceed  
2 applicability thresholds specified for each pollutant and classification of nonattainment. Both  
3 direct emissions from the action itself and indirect emissions that may occur at a different time  
4 or place but are an anticipated consequence of the action must be considered. The Transportation  
5 Conformity Rule applies to transportation plans, programs, and projects which are developed,  
6 funded, or approved by the Federal Highway Administration or Federal Transit Administration.  
7 This project will not be developed, funded, or approved by either of these organizations;  
8 therefore, the Transportation Conformity Rule does not apply to this project. The applicability  
9 thresholds are 100 tons per year (tpy) for criteria pollutants, except for those given in Table 3-3.

10 **Table 3-3 General Conformity Applicability Thresholds**

NAAQS Pollutant	Type of Nonattainment or Maintenance Area	Applicability Threshold (tpy)
Ozone	Extreme NAAs	10 tpy VOC or NO <sub>x</sub>
	Severe NAAs	25 tpy VOC or NO <sub>x</sub>
	Serious NAAs	50 tpy VOC or NO <sub>x</sub>
	Marginal or moderate NAAs inside an ozone transport region	50 tpy VOC (100 tpy NO <sub>x</sub> )
	Maintenance areas inside an ozone transport region	50 tpy VOC (100 tpy NO <sub>x</sub> )
CO	All NAAs	100 tpy
SO <sub>2</sub>	All	100 tpy
PM <sub>10</sub>	Serious NAAs	70 tpy PM <sub>10</sub>
	Moderate NAAs	100 tpy PM <sub>10</sub>
	All Maintenance areas	100 tpy
PM <sub>2.5</sub>	All	100 tpy
Lead	All NAAs	25 tpy Pb
	All Maintenance areas	25 tpy Pb

Notes:

CO = carbon monoxide

NAA = nonattainment area

NO<sub>x</sub> = nitrogen oxides

O<sub>3</sub> = ozone

Pb = lead

PM<sub>2.5</sub> = particulate matter equal or less than 2.5 micrometers in diameter

PM<sub>10</sub> = particulate matter equal or less than 10 micrometers in diameter

SO<sub>2</sub> = sulfur dioxide

tpy = tons per year

11 A number of actions are exempted from the requirements of general conformity including:

- 12 • Actions that do not have emissions increases.
- 13 • Actions with an emissions increase that is clearly *de minimis* (21 actions are listed;  
14 primarily actions that are administrative, legal, or routine in nature including routine  
15 movement of mobile assets, material and personnel as well as routine maintenance and  
16 repair).
- 17 • Actions that are not reasonably foreseeable or that respond to natural disasters or  
18 emergencies.
- 19 • Actions that have been approved under specified Federal programs.

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1 If an action triggers the applicability thresholds and is not exempt from the requirements, the  
2 Federal agency must demonstrate and document that the direct and indirect emissions would  
3 conform to the SIP. In particular, it must be demonstrated that the proposed action will not:

- 4 • Cause or contribute to a new violation of an NAAQS.
- 5 • Interfere with the SIP.
- 6 • Increase the frequency or severity of existing violations.
- 7 • Delay attainment or any required progress toward that attainment.

8 The determination generally involves emission estimation and air quality modeling for the entire  
9 nonattainment or maintenance area (usually a multi-county area). If the initial conformity  
10 determination demonstrates that the proposed action does not conform to the SIP, measures must  
11 be established and committed to mitigate the projected air quality impacts. A timeline for  
12 implementation of these measures may be specified; however, enforcement measures must also  
13 be established to ensure that they are implemented as required.

## 14 **Regional Air Quality**

15 JBSA-Lackland is located within the Metropolitan San Antonio Interstate AQCR 217, which  
16 consists of the counties of Atascosa, Bandera, Bexar, Comal, Dimmitt, Edwards, Frio, Gillespie,  
17 Gonzales, Guadalupe, Karnes, Kendall, Kerr, Kimble, Kinney, La Salle, Mason, Maverick,  
18 Medina, Real, Uvalde, Val Verde, Wilson, and Zavala. The San Antonio Metropolitan Statistical  
19 Area (MSA) (Bexar, Comal, Guadalupe, and Wilson Counties) is designated as a basic  
20 nonattainment area for ozone with a deferred attainment date under their Early Action Compact  
21 (EAC). Therefore, the base is subject to the General Conformity regulations (40 CFR Parts 6, 51  
22 and 93). This requires a conformity demonstration for each pollutant where the total direct and  
23 indirect emissions from a Federal action exceeds the corresponding *de minimis* level.

24 Potential new emissions from the Proposed Action would occur primarily from construction  
25 activities at JBSA-Lackland and would include activities such as grading, excavation, filling, and  
26 equipment operation. Thus, emissions would be localized within the area surrounding the project  
27 location. For this reason, the analysis in this EA will address potential impacts within the San  
28 Antonia MSA, instead of the entire AQCR that covers a large geographical area.

## 29 **Greenhouse Gases**

30 The six GHGs covered by the Kyoto Protocol include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>),  
31 nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur  
32 hexafluoride (SF<sub>6</sub>). The emissions of each GHG are calculated separately and then converted to  
33 CO<sub>2</sub> equivalents (CO<sub>2eq</sub>) on the basis of their global warming potential (GWP) the universal unit  
34 of measurement expressed in terms of one unit of carbon dioxide. GWP is used to evaluate the  
35 release of different GHGs against a common basic measure of how much a given mass of  
36 greenhouse gas is estimated to contribute to climate change. It is a relative scale which compares  
37 the gas in question to that of the same mass of carbon dioxide (whose GWP is by definition 1).  
38 Table 3-4 lists the GWP (USEPA 2005) of the six GHGs regulated under the Kyoto Protocol.

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1

**Table 3-4 Global Warming of Kyoto Protocol GHGs**

Gas	Chemical Formula	GWP <sup>a</sup>
Carbon dioxide	CO <sub>2</sub>	1
Methane	CH <sub>4</sub>	21
Nitrous oxide	N <sub>2</sub> O	310
Hydrofluorocarbons	HFCs	various
Perfluorocarbons	PFCs	various
Sulfur hexafluoride	SF <sub>6</sub>	23,900

<sup>a</sup> Source: USEPA 2005

Notes:

CH<sub>4</sub> = methane

CO<sub>2</sub> = carbon dioxide

GWP = global warming potential

HFCs = hydrofluorocarbons

N<sub>2</sub>O = nitrous oxide

PFCs = perfluorocarbons

SF<sub>6</sub> = sulfur hexafluoride

2 For purposes of this EA, only three of the Kyoto GHGs, will be considered for analysis in  
3 Chapter 4 because GHG emissions associated with the Proposed Action are expected to be  
4 limited to CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. These three GHGs represent the majority of CO<sub>2eq</sub> associated  
5 with operations in the Proposed Action. The other Kyoto GHGs were not considered in the  
6 potential emissions from the Proposed Action as they are presumed to be not emitted. HFCs are  
7 most commonly used in refrigeration and air conditioning systems and PFCs and SF<sub>6</sub> are  
8 predominantly emitted from various industrial processes including aluminum smelting,  
9 semiconductor manufacturing, electric power transmission and distribution, and magnesium  
10 casting, none of which are part of the Proposed Action.

11 Direct emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O occur naturally to the atmosphere but human activities  
12 have increased global GHG atmospheric concentrations. The 2009, total U.S. GHG emissions  
13 were 6,639,700,000 metric tons of CO<sub>2eq</sub> (USEPA 2011a). U.S. total GHG emissions have risen  
14 7.4 percent from 1990 to 2009 (USEPA 2011a).

### 15 3.3.4 Earth Resources

16 The subject property is located in the ancestral flood plain of the San Antonio River/Leon Creek  
17 drainage system. There are two geologic formations that affect migration of groundwater in the  
18 shallow subsurface. These include the surficial Quaternary alluvium (stream-deposited  
19 sediments) and the underlying Navarro Clay (marine-deposited sediments). Groundwater is most  
20 commonly found in the lower clayey gravel and basal gravel units immediately overlying the  
21 Navarro Clay. The Navarro Clay is approximately 600 to 800 feet thick in the study area and  
22 forms the lower confining unit for the alluvial aquifer. The aquifer is discontinuous, of poor  
23 quality, and is not used as a water resource in the vicinity of JBSA-Lackland (USAF 2010b).

24 The lithology at the site generally consists of discontinuous layers of clayey units (clay and silty  
25 clay) at the surface with clayey to sandy gravel at the base of the alluvium. The alluvium is  
26 comprised predominantly of an upper silty clay that grades downward into sand and gravel.  
27 Beneath this upper silty clay unit is clay to sandy gravel that typically extends to the base of the

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1 alluvium and above the Navarro Clay. The Navarro Clay is a stiff, blocky, mottled gray to tan  
2 clay (USGS 1992).

3 The soil types vary across the proposed project site. The 232-acre tract is comprised primarily of  
4 Lewisville silty clay. The Lewisville silty clay is a well drained soil with a slope of zero to one  
5 percent with a parent material of alluvium of the quaternary age derived of mixed sources  
6 composed of silty clay; it has a moderately high to high capacity to transmit water. These areas  
7 are considered prime farmlands. Other soil units in the area include Patrick soils, Sunev clay  
8 loam, Loire clay loam, and pits and quarries. The Patrick soil is a well drained soil with a slope  
9 of three to five percent, composed of a parent material of clayey alluvium of quaternary age  
10 derived from mixed sources and/or sandy alluvium of the quaternary age, and has a moderately  
11 high to high capacity to transmit water. These soils are not considered prime farmlands. Sunev  
12 clay loam is a well drained soil that has a three to five percent slope, with a parent material of  
13 loamy alluvium composed of clay loam and clay, and has a moderately high to high capacity to  
14 transmit water. These soils are considered prime farmlands if the land is irrigated. Loire clay  
15 loam is a well drained soil that has a zero to two percent slope, is occasionally flooded and has a  
16 parent material of loamy alluvium composed of clay loam, loam, and fine sandy loam. Loire  
17 clay loam soils have a moderately high to high capacity to transmit water. These soils are  
18 considered prime farmland. Pits and quarries can have a 1 to 90 percent slope (NRCS 2011) and  
19 are not considered prime farmland. Some soils in the vicinity of the project areas have been  
20 significantly altered over time from anthropogenic activities. Approximately 212 acres of the  
21 subject property are considered prime farmland (NRCS 2011).

22 Portions of the project site adjacent to the Leon Creek drainageway are composed of pits and  
23 quarries. Three soil types occurring along the proposed Growdon Road corridor consist of Loire  
24 clay loam, Sunev clay loam, and Patrick soil (NRCS 2011).

25 The elevation of the subject property is approximately 690 feet above sea level. Overall, surface  
26 topography at the subject property and the surrounding area is flat with occasional pits (USGS  
27 1993).

### 28 **3.3.5 Biological Resources**

29 Bexar County is located in a physiographic transition zone of the Balcones Canyon Lands, which  
30 includes portions of three physiographic regions: the Edwards Plateau, the Blackland Prairie, and  
31 the Rio Grande Plain (also known as the South Texas Coastal Plain). The Edwards Plateau is  
32 north and west; the Blackland Prairie is east and southeast; and the Rio Grande Plain is south and  
33 southwest of Bexar County. This subregion is comprised of a landscape dissected by numerous  
34 high gradient streams in steep-sided canyons that flow south and southeast to the Gulf of Mexico  
35 (Riskind and Diamond 1988).

#### 36 **3.3.5.1 Definition of the Resource**

37 Biological resources include plant and animal species and the habitats in which they occur. For  
38 this analysis, biological resources are divided into the following categories: vegetation, wildlife,  
39 wetlands, and protected species. Vegetation and wildlife refer to the plant and animal species,  
40 both native and introduced, which characterize the region. Wetlands are special habitats that

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1 support specific plants and wildlife. Protected species are plant and animal species in need of  
2 protection to ensure that the species do not decline to extinction.

### 3 **3.3.5.1.1 Vegetation**

4 The Federal Noxious Weed Act (7 U.S.C. 2801 et seq.), enacted in January 1975, established a  
5 Federal program to control the spread of noxious weeds. It gave the Secretary of Agriculture  
6 authority to designate plants as noxious weeds by regulation; to inspect, seize and destroy  
7 product; and to quarantine areas, if necessary, to prevent the spread of such weeds.

8 EO 13112 was issued in 1999 to enhance federal coordination and response to the complex and  
9 accelerating problem of invasive species. The EO defines an invasive species as a species not  
10 native to the region or area whose introduction (by humans) causes or is likely to cause harm to  
11 the economy or the environment, or harms animal or human health (NISC 2005).

### 12 **3.3.5.1.2 Wildlife**

13 The Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) requires consultation with the  
14 United States Fish and Wildlife Service (USFWS) and the fish and wildlife agencies of States  
15 where the "waters of any stream or other body of water are proposed or authorized, permitted or  
16 licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under  
17 a Federal permit or license. The purpose of the act is to recognize the vital contribution of  
18 wildlife resources to the nation and to require equal consideration and coordination of wildlife  
19 conservation with water resources development programs.

### 20 **3.3.5.1.3 Wetlands**

21 The USEPA defines wetlands (in 40 CFR 230.3[t]) as "those areas that are inundated or saturated  
22 by surface or groundwater at a frequency and duration sufficient to support, and that under  
23 normal circumstances do support, a prevalence of vegetation typically adapted for life in  
24 saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."  
25 Wetlands provide rich habitat for numerous species, protection from flooding and erosion, and  
26 are also important to the nutrient cycle.

27 EO 11990, Protection of Wetlands, signed by President Carter in 1977, requires federal agencies  
28 to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the  
29 natural and beneficial values of wetlands. It also requires that agencies avoid construction or  
30 providing assistance for new construction located in wetlands, to the extent practicable.

### 31 **3.3.5.1.4 Protected Species**

32 The ESA provides a program for the conservation of threatened and endangered plants and  
33 animals and the habitats in which they are found. The lead federal agencies for implementing  
34 ESA are the USFWS and the U.S. National Oceanic and Atmospheric Administration National  
35 Marine Fisheries Service (NMFS). The law requires federal agencies, in consultation with the  
36 USFWS and/or the NMFS, to ensure that actions they authorize, fund, or carry out are not likely

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1 to jeopardize the continued existence of any listed species or result in the destruction or adverse  
2 modification of designated critical habitat of such species.

3 Under the ESA (16 U.S.C. 1536), an “endangered species” is defined as any species in danger of  
4 extinction throughout all or a large portion of its range. A “threatened species” is defined as any  
5 species likely to become an endangered species in the foreseeable future. USFWS/NMFS also  
6 maintains a list of species considered to be candidates for possible listing under the ESA.  
7 Although candidate species receive no statutory protection under the ESA, USFWS/NMFS has  
8 attempted to advise government agencies, industry, and the public that these species are at risk  
9 and might warrant future protection under the ESA. The USFWS also maintains a species of  
10 conservation concern list. This list includes unprotected species that are likely to become  
11 candidate species in the future under the ESA.

12 The Bald and Golden Eagle Protection Act (16 USC 668a; 50 CFR 22) was enacted to protect  
13 America’s national symbol, the bald eagle (*Haliaeetus leucocephalus*). The golden eagle is a  
14 similar-appearing eagle, especially in immature life stages, and therefore was added to ensure  
15 protection of the bald eagle. This law, originally passed in 1940 and as amended, provides for the  
16 protection of the bald eagle and the golden eagle (*Aquila chrysaetos*) by prohibiting the take,  
17 possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of  
18 any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by  
19 permit. The USFWS defines disturbance to eagles as “to agitate or bother a bald or golden eagle  
20 to a degree that causes, or is likely to cause, based on the best scientific information (1) injury to  
21 the eagle, (2) a decrease in its productivity by substantially interfering with normal breeding,  
22 feeding, or sheltering behavior, or (3) nest abandonment” (50 CFR Part 22.3).

23 The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) authorizes the U.S. commitment to  
24 comply with international conventions (i.e., with Japan, Russia, Canada, and Mexico) for the  
25 protection of migratory bird resources. The conventions protect native species of migratory birds  
26 that occur in the U.S. and each country at some time during the annual life cycle of the species.  
27 EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, was signed by  
28 President Clinton in January 2001. The EO directs executive departments and agencies to take  
29 further actions to implement the MBTA by developing a Memorandum of Understanding (MOU)  
30 with the USFWS to promote the conservation of migratory bird populations.

## 31 **3.3.5.2 Affected Environment**

### 32 **3.3.5.2.1 Vegetation**

33 A field survey of the project area was conducted in May 2011 by walking a 100-ft belt transect  
34 (50 ft on each side of the route centerline) and documenting the habitat types encountered, any  
35 species observed, and evidence of animal species use (e.g., scat). During the survey, five habitat  
36 types were characterized by their associated vegetation communities. These habitat types are  
37 detailed in Table 3-5. Due to disturbance in the area, no high quality habitat was observed and  
38 invasive species were found in all habitat types. Although the route of the Proposed Action has  
39 changed slightly since the survey was conducted, aerial photography of the area was reviewed at  
40 close range to determine the extension of the habitat types into the revised project area. The

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1 habitat types found during the survey appear to extend to the route of the Proposed Action;  
2 therefore, additional habitat surveys were not necessary.

3 **Table 3-5 Habitat Types and Common Flora of the Project Area**

Habitat Type Observed	Associated Common Vegetation
Grassland/pasture	Bermuda grass ( <i>Cynodon dactylon</i> ), silver bluestem ( <i>Bothriochloa laguroides</i> ), silverleaf nightshade ( <i>Solanum elaeagnifolium</i> ), clover species ( <i>Trifolium</i> sp.), oldfield threeawn ( <i>Aristida oligantha</i> ), thistle sp. ( <i>Cirsium</i> sp.)
Highly disturbed and naturalized	Cottonwood ( <i>Populus</i> sp.), cedar elm ( <i>Ulmus crassifolia</i> ), Chinese tallow ( <i>Triadica sebifera</i> ), black willows ( <i>Salix nigra</i> ), boxelder ( <i>Acer negundo</i> ), hackberry ( <i>Celtis laevigata</i> ), black walnut ( <i>Juglans nigra</i> ), pecan ( <i>Carya illinoensis</i> ), blackberry ( <i>Rubus</i> sp.), greenbriar ( <i>Smilax</i> sp.), poison ivy ( <i>Rhus radicans</i> ), giant ragweed ( <i>Ambrosia trifida</i> ), grape ( <i>Vitis</i> spp.), and honeysuckle ( <i>Lonicera</i> spp.)
Mesquite woodlands	Honey mesquite ( <i>Prosopis glandulosa</i> ), hackberry ( <i>Celtis laevigata</i> ), silver bluestem ( <i>Bothriochloa laguroides</i> ) Texas prickly pear ( <i>Opuntia engelmannii</i> ), and silverleaf nightshade ( <i>Solanum elaeagnifolium</i> )
Riparian	Cedar elm ( <i>Ulmus crassifolia</i> ), black willow ( <i>Salix nigra</i> ), hackberry ( <i>Celtis laevigata</i> ), chinaberry ( <i>Melia azedarach</i> ), pecan ( <i>Carya illinoensis</i> ), Canada wildrye ( <i>Elymus canadensis</i> ), poison ivy ( <i>Rhus radicans</i> ), greenbrier ( <i>Smilax</i> spp.), and giant ragweed ( <i>Ambrosia trifida</i> )
Urban	Bermuda grass ( <i>Cynodon dactylon</i> ), Johnson grass ( <i>Sorghum halepense</i> ), crabgrass species ( <i>Digitaria</i> sp.), dandelion species ( <i>Taraxacum</i> sp.), henbit ( <i>Lamium amplexicaule</i> ), ornamental trees and shrubs (i.e., landscaping)

4 **3.3.5.2.2 Wildlife**

5 The wildlife associated with each of the vegetation communities is described below.  
6 Photographs depicting these habitats, as well as a map of the proposed Growdon Road and  
7 associated communities are contained in the *Biological Assessment/Evaluation for Road and*  
8 *Gate Construction at Lackland Air Force Base, Texas* prepared in June 2011 and included as  
9 Appendix B (GMI 2011a).

10 The grassland/pasture habitat contains a variety of grasses and forbs and provides good foraging  
11 areas for western kingbird (*Tyrannus verticalis*), scissor-tailed flycatcher (*Tyrannus forficatus*),  
12 and barn swallow (*Hirundo rustica*).

13 The highly disturbed and naturalized habitat contains a mixture of mature native and introduced  
14 trees, grasses, and other vegetation. This habitat includes old quarries, landfills, and road  
15 improvement areas that have been allowed to naturalize. This habitat hosts many wildlife species  
16 including northern cardinal (*Cardinalis cardinalis*), black-crested titmouse (*Baeolophus bicolor*),  
17 golden-fronted woodpecker (*Melanerpes aurifrons*), white-tailed deer (*Odocoileus virginianus*),  
18 eastern fox squirrel (*Sciurus niger*), and common raccoon (*Procyon lotor*). The tall cottonwoods



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1 provide excellent perches and potential nesting habitat for barred owl (*Strix varia*), red-tailed  
2 hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*).

3 The mesquite woodlands habitat is not a diverse plant community and consists mostly of  
4 mesquite trees/shrubs. Common wildlife occurring in this habitat type including mourning dove  
5 (*Zenaida macroura*), white-winged dove (*Zenaida asiatica*), northern mockingbird, northern  
6 cardinal, common raccoon, coyote (*Canis latrans*), eastern cottontail (*Sylvilagus audubonii*),  
7 white-tailed deer, and Texas spiny lizard (*Sceloporus olivaceus*).

8 A riparian habitat area associated with Leon Creek lies on the western edge of the proposed site  
9 of Growdon Road relocation. A wide variety of wildlife use this habitat type including toad and  
10 frog species, mourning dove, white-winged dove, northern cardinal, northern mockingbird,  
11 Carolina chickadee (*Poecile carolinensis*), tufted titmouse (*Baeolophus bicolor*), common  
12 raccoon, Virginia opossum (*Didelphis virginiana*), nine-banded armadillo (*Dasypus*  
13 *novemcinctus*), coyote, white-tailed deer, and feral hog (*Sus scrofa*). This habitat could  
14 potentially be used as a migration stopover or foraging area for American and Arctic peregrine  
15 falcon (*Falco peregrinus anatum/tundrius*), a state-listed threatened species. Neotropical  
16 migratory birds use riparian corridors/floodplains for foraging and resting during spring and fall  
17 migration and would be expected to be present in the Leon Creek riparian corridor. At nearby  
18 Kelly Field Annex (formerly Kelly AFB), a neotropical migratory bird survey was conducted  
19 along a narrow riparian forested area along Leon Creek. Of the 106 bird species detected, 59  
20 were neotropical migratory birds. Swifts (Family Apodidae), swallows (Family Hirundinidae),  
21 and flycatchers (Family Tyrannidae) were the most common neotropical birds. Warbler diversity  
22 was fairly high (14 species) but abundance was low (U.S. Army Corps of Engineers 1995).

23 The urban habitat includes homesteads, roads, impound lots, and gravel and dirt piles. The  
24 mixture of native and ornamental plants on this habitat hosts bird species such as white-winged  
25 dove (*Zenaida asiatica*), mourning dove (*Zenaida macroura*), great-tailed grackle (*Quiscalus*  
26 *mexicanus*), house sparrow (*Passer domesticus*) and northern mockingbird (*Mimus polyglottos*).  
27 This community is not likely to support many wildlife species (GMI 2011a; Appendix B).

### 28 3.3.5.2.3 Wetlands

29 The project area was assessed for waters of the U.S. and wetlands in May 2011 in accordance  
30 with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental  
31 Laboratory 1987). According to this manual, an area is identified as a wetland only if it meets all  
32 three wetlands parameters: hydric soils, hydrophytic vegetation, and wetlands hydrology. Field  
33 surveys consisted of identifying the vegetation, soils, and hydrology of potential wetland areas.  
34 Atypical weather for the region has resulted in an ongoing drought making the wetland  
35 delineation difficult to conduct. The drought caused soils, which may normally be saturated, to  
36 be dry and vegetation that would normally be growing and/or in bloom to be dormant.

37 During the field survey, 12 potential wetlands were located and delineated on a straight line  
38 south from Callaghan Road within the loop created by Leon Creek; none of the wetlands fell  
39 within the corridor for the proposed Growdon Road relocation to the east of the Leon Creek  
40 loop. Five small channels that appeared to drain runoff south or west into Leon Creek were noted

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1 along the proposed road route; however, these channels were not delineated as being wetlands  
2 (GMI 2011b). A copy of the wetland delineation report is provided as Appendix C.

### 3 **3.3.5.2.4 Protected Species**

4 The habitat requirements of protected species potentially occurring in the project area were  
5 compared to habitats observed in the area to determine the potential presence/absence of the  
6 protected species. Habitat suitability for federal species listed as threatened, endangered, or  
7 candidate species under the ESA; bird species of conservation concern; and state-listed  
8 threatened or endangered species is provided in this section.

9 The proposed project is located in Bexar County, Texas. A large number of karst species are  
10 federally-listed as threatened or endangered for the County. Karst habitat primarily occurs north  
11 and northwest of San Antonio is not known to occur in the project area (USAF 2007a); therefore,  
12 the 15 karst species that are federally- or state-listed threatened or endangered species in Bexar  
13 County are not presented here. In addition to the karst species, the USFWS lists in Bexar County  
14 three bird species as endangered; one mammal, the black bear, as threatened, and one bird and  
15 one plant as a candidate species (Table 3-6). Critical habitat is not designated in the project area  
16 for any of the potentially occurring federally-listed species (USFWS 2011c, 2012a, 2012b).

17 The State of Texas lists four bird species and two (extirpated) mammal species as endangered  
18 and four reptile, four bird, and one mammal species as threatened. Texas Parks and Wildlife  
19 Department identifies several species as rare, but with no regulatory status. These species are  
20 not included in Table 3-6 unless they are also listed by the USFWS as threatened or endangered  
21 (TPWD 2011).

22 Bald eagles often utilize lake and riparian areas for foraging. In the South Texas brushlands  
23 province, the bald eagle is a scarce to occasional visitor during winter and is not known to breed  
24 in the area. Golden eagles are vagrants in the project area (Arvin 2007).

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1 **Table 3-6 Federal- and State-listed Threatened, Endangered, and Candidate Species, and**  
2 **Species of Concern of Bexar County**

Common Name <sup>1</sup>	Scientific Name	Federal	State
<b>Amphibians</b>			
Texas salamander	<i>Eurycea neotene</i>	Under review <sup>2</sup>	Rare
<b>Reptiles</b>			
Texas horned lizard	<i>Phrynosoma cornutum</i>	NL	T
Texas indigo snake	<i>Drymarchon melanurus erebennus</i>	NL	T
Texas tortoise	<i>Gopherus berlandieri</i>	NL	T
Canebrake rattlesnake	<i>Crotalus horridus</i>	NL	T
<b>Birds</b>			
American peregrine falcon	<i>Falco peregrinus anatum</i>	DL	T <sup>3</sup>
Black-capped vireo	<i>Vireo atricapilla</i>	E	E
Golden-cheeked warbler	<i>Dendroica chrysoparia</i>	E	E
Interior least tern	<i>Sterna antillarum athalassos</i>	NL <sup>4</sup>	E
Mountain plover	<i>Charadrius montanus</i>	NL <sup>5</sup>	Rare
Sprague's pipit	<i>Anthus spragueii</i>	C	Rare
White-faced ibis	<i>Plegadis chihi</i>	NL	T
Whooping crane	<i>Grus americana</i>	E	E
Wood stork	<i>Mycteria americana</i>	NL	T
Zone-tailed hawk	<i>Buteo albonotatus</i>	NL	T
<b>Mammals</b>			
Black bear	<i>Ursus americanus</i>	T/SA <sup>6</sup>	T
Gray wolf	<i>Canis lupus</i>	NL	E
Red wolf	<i>Canis rufus</i>	NL	E
<b>Plants</b>			
Bracted twistflower	<i>Streptanthus bracteatus</i>	C <sup>7</sup>	Rare

Source: TPWD 2011, USFWS 2012a, and USFWS 2012b

Notes:

- |                 |  |
|-----------------|--|
| C – Candidate   | PT – Proposed Threatened   |
| DL – Delisted   | Rare – Identified by TPWD as rare, but with no regulatory status |
| E – Endangered  | SA – Similarity of Appearance                                    |
| NL – Not Listed | T - Threatened   |

<sup>1</sup> Karst/cave species from Bexar County are not listed because karst formations are not present in the project area.

<sup>2</sup> On December 16, 2009, the USFWS published notice in the *Federal Register* that they were beginning a status review of 67 species, including the Texas salamander (USFWS 2009).

<sup>3</sup> Both subspecies of *Falco peregrinus* (*anatum* and *tundrius*) migrate across TX; however, *F. p. anatum* is also a resident breeder in west TX and listed as threatened by TPWD.

<sup>4</sup> The interior population of *Sterna antillarum* is federally listed as endangered; however, the USFWS does not consider the interior population to be present in Bexar County, TX (USFWS 2012b).

<sup>5</sup> USFWS published its withdrawal of the 2002 proposal to list the mountain plover as threatened on May 12, 2011. (USFWS 2011a)

<sup>6</sup> The Louisiana (LA) black bear (*U. a. luteolus*) is federally listed as threatened; due to similarity in appearance, any black bear found within the range of the LA black bear, which includes much of TX and all of LA and Mississippi, should be considered threatened.

<sup>7</sup> USFWS listed this plant as a candidate species on October 26, 2011.

1           **3.3.6 Cultural and Traditional Resources**

2           **Regulations and Criteria**

3           Cultural resources are prehistoric and historic sites, districts, structures, artifacts, or any other  
4           physical evidence of human activity considered important to a culture, subculture, or community  
5           for scientific, traditional, religious, or other reasons. A historic district is an area that “possesses  
6           a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united  
7           historically or aesthetically by plan or physical development” (NPS 1997).

8           Numerous laws and regulations require that possible effects on cultural resources be considered  
9           during the planning and execution of federal undertakings. These laws and regulations stipulate  
10          a process of compliance, define the responsibilities of the federal agency proposing the actions,  
11          and prescribe the relationships among involved agencies. In addition to NEPA, the primary laws  
12          that pertain to the treatment of cultural resources during environmental analysis are the NHPA  
13          (especially Sections 106 and 110), the ARPA, the AIRFA, and the Native American Graves  
14          Protection and Repatriation Act. Under AIRFA, the project site does not have any known  
15          traditional cultural properties or sacred sites to which access must be provided.

16          Section 106 of NHPA requires that federal agencies give the Advisory Council on Historic  
17          Preservation a “reasonable opportunity to comment” on proposed actions. Federal agencies must  
18          consider whether their activities could affect historic properties that are already listed,  
19          determined eligible, or not yet evaluated under the NRHP criteria. Properties that are either  
20          listed on or eligible for listing in the NRHP are provided the same measure of protection under  
21          Section 106.

22          The following criteria have been established as guidance for evaluating potential entries to the  
23          NRHP. “Significance” in American history, architecture, archeology, and culture is granted to  
24          districts, sites, buildings, structures, and objects that possess integrity of location, design, setting,  
25          materials, workmanship, feeling, and association, and that meet at least one of the following  
26          criteria:

- 27           • an association with events that have made a significant contribution to the broad patterns  
28           of history (Criterion A);
- 29           • an association with the lives of persons significant in history (Criterion B);
- 30           • embody the distinctive characteristics of a type, period, or method of construction;  
31           represent the work of a master; possess high artistic value; or represent a significant and  
32           distinguished entity whose components may lack individual distinction (Criterion C); or
- 33           • have yielded, or may likely yield, information important in prehistory or history  
34           (Criterion D).

35          Resources less than 50 years of age must be evaluated under Criterion Consideration G:  
36          Properties That Have Achieved Significance in the Last Fifty Years. This criterion requires that  
37          such resources be “exceptionally important” to qualify for listing. Resources less than 50 years

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1 of age must also meet the criteria for resources 50 years or older (i.e., A, B, C, or D) and retain  
2 their integrity.

### 3 **Previous Investigations**

4 Six archaeological sites have been previously recorded within one mile of the project area:  
5 41BX958, 41BX1061, 41BX1065, 41BX1066, 41BX1107, and 41BX1108 (Table 3-7). Site  
6 41BX958 was recorded by Geo-Marine, Inc. in 1991 during a survey for the former Kelly AFB  
7 (KAFB). The site represents a twentieth century historic site found on an upland surface along  
8 the boundary fence of former KAFB. According to historic topographic maps, the structure  
9 encountered during the survey was constructed sometime between 1922 and 1938. The site was  
10 recommended ineligible for inclusion in the National Register of Historic Places (NRHP).

11 **Table 3-7 Previously Identified Sites in the Vicinity of Project Area**

Site No.	Site Data	NRHP Eligibility Status	Comments
41BX958	Historic period site constructed between 1922 and 1938	Ineligible	Outside Area of Potential Effect (APE); originally recorded in 1991 by Geo-Marine, Inc.
41BX1061	Historic sewer line dating to the early 1900s	Ineligible	Outside APE; originally recorded in 1997 by Center for Archaeological Research; UTSA; reevaluated by Geo-Marine, Inc. in 2006
41BX1065	Middle to Transitional Archaic period campsite on terrace overlooking Leon Creek	Site considered to have moderate to high research potential, but no further work recommended	Outside APE; recorded in 1997 by Center for Archaeological Research, UTSA
41BX1066	Small, surficial lithic scatter; no diagnostics or features present	Ineligible	Outside APE; originally recorded in 1997 by Center for Archaeological Research, UTSA
41BX1107	Early to Transitional Archaic period quarry site; testing of site revealed low density scatter of artifacts in a secondary context	Ineligible	Outside APE; originally recorded in 1997 by Center for Archaeological Research, UTSA; reevaluated by Geo-Marine, Inc. in 2006
41BX1108	Prehistoric campsite of unknown age (possibly Early Archaic) with burned rock midden	Eligible	Outside APE; originally recorded in 1997 by Center for Archaeological Research, UTSA

12 In 1997, a large-scale survey of Lackland AFB Main Base and the LTA was undertaken by the  
13 Center for Archaeological Research (CAR) at the University of Texas at San Antonio (Nickels et  
14 al. 1997). The survey included the investigation of 41BX1061 at the Wherry Housing area  
15 (Raymond 1997) and the intensive shovel testing of four “Special Areas” designed for

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1 development that included sites 41BX1065 and 41BX1066 (Durst 1997). Site 41BX1061  
2 represents a historic sewer line installed in the early 1900s when the base was first acquired. Site  
3 41BX1065 represents a Middle Archaic through Transitional Archaic campsite found within the  
4 upper 55 centimeters below surface (cmbs) at the edge of a large, flat terrace overlooking Leon  
5 Creek. Fifty shovel tests, seven 1-x-1-m test units, seven Gradall trenches, and two backhoe  
6 trenches were excavated at the site. The test units encountered sterile deposits at depths ranging  
7 from 35 to 62 cmbs. The site was considered to have moderate to high research potential, but no  
8 further work was recommended. It is unclear if a proposed housing expansion eventually  
9 impacted the site. Site 41BX1066 consisted of a small lithic surface scatter found on top of a flat  
10 knoll overlooking Leon Creek. Debitage and expedient tools comprise the assemblage recovered  
11 from the site; however, no diagnostic materials or features were found.

12 Site 41BX1107 represents an Early to Transitional Archaic lithic quarry site found by CAR  
13 (Nickels et al. 1997). The site was found in an eroding surficial context on a slight slope above  
14 Medio Creek near the 4th green on the Lackland AFB golf course. Artifacts consisted of interior  
15 flakes, thinning flakes, retouched flakes, and an Edgewood point. Fire-cracked rock was also  
16 found on the surface adjacent to the lithic scatter; however, no intact features were found. Site  
17 41BX1108 represents an unknown prehistoric campsite found on the interior of a large meander  
18 of Leon Creek (Nickels et al. 1997). The artifacts were exposed on the surface and included  
19 thinning flakes, fire-cracked rock, mollusk shell, bone, and debitage. In addition, a presumed  
20 burned rock midden of unknown age was identified. Although impacts from construction and  
21 maintenance of the golf course were observed, future subsurface testing was recommended for  
22 both sites.

23 In 2006, Geo-Marine, Inc. conducted subsequent archaeological eligibility testing on several  
24 sites previously investigated by CAR, and located along Leon Creek: 41BX1107, 41BX1108,  
25 and 41BX1061 (Huhnke 2006).

26 Nine shovel tests placed at 10-meter intervals were excavated at 41BX1107. A total of 32  
27 artifacts were recovered including debitage, a core, and a utilized flake; however, no fire-cracked  
28 rock was recovered. The vast majority of the artifacts were recovered from the upper 20 cmbs,  
29 although some were recovered between 20 and 50 cmbs. The investigation determined that the  
30 sediments containing the artifacts had been mixed with sand fill and were in secondary context.  
31 The site was recommended ineligible for inclusion on the NRHP.

32 Seven shovel tests were excavated along two transects at 41BX1108. Numerous flakes were  
33 noted in the upper 60 cmbs and an Early Archaic Guadalupe biface was found between 10 and  
34 20 cmbs. Nearly 200 lithic artifacts were recovered during testing. A shovel test also  
35 encountered a large burned rock feature between 45 and 60 cmbs. The large size of the cobbles  
36 suggests that the cobbles were related to food cooking and not refuse from boiling activities.  
37 The investigations concluded that artifacts at the site may have accumulated on a stable surface.  
38 In sum, the site was determined to have good integrity, intact features, multiple stratified artifact  
39 zones, and preservation of bone and shell. The site was recommended as eligible for inclusion in  
40 the NRHP.

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1 Finally, eligibility testing was also attempted on 41BX1061, a historic sewer line built in the  
2 early 1900s. Unfortunately, the open features at the site were determined to be a safety hazard  
3 and were filled before additional testing could be conducted. However, it was determined that  
4 the features at the site were not part of an early historic homestead and considering the lack of  
5 integrity of the sewer system, the site was recommended as ineligible for inclusion in the NRHP  
6 (Huhnke 2006).

## 7 **Archeological Survey of APE**

8 In 2011, Geo-Marine, Inc. conducted an archeological survey of the proposed APE that involved  
9 a pedestrian walkover of the proposed APE at systematic intervals. A report detailing the  
10 archaeological survey can be found in Appendix D – *Cultural Resources Survey for the*  
11 *Relocation of Growdon Gate at Lackland Air Force Base, Bexar County, Texas*. Shovel tests  
12 were excavated where there was potential for buried deposits; all cutbank exposures within the  
13 APE were examined also (GMI 2011c). Archival research and the archeological survey resulted  
14 in the identification of the remnants of a historic structure, designated site 41BX1886, located  
15 just south of the Peerless Equipment Company (See Figure 20 of Appendix D). The razed  
16 structure is divided into two sections by a concrete pathway and a dual-step porch (See Figure 19  
17 of Appendix D). East of the walkway, the area appears to have been used as an outbuilding,  
18 while an enclosed wooden fence west of the walkway indicates that the western portion was  
19 likely used as a small stable area.

20 The earliest topographic map to show structures in this vicinity is the 1953 West San Antonio  
21 topographic quad which depicts a road system connecting this structure along with several other  
22 structures within and south of the Proposed Action right of way (ROW) (Appendix D, Figure  
23 22). According to the 1963 aerial image this road system appears to have extended south into the  
24 interior of the Leon Creek meander and may have been used to access a construction staging area  
25 which is also visible on the 1963 image. The area immediately south of the collapsed structure  
26 was inspected for the presence of the additional mapped structures; however, none was  
27 encountered in primary context. Instead, structure remnants were found piled along a steep ridge  
28 to the south above the Leon Creek floodplain. The materials mixed within the rubble consist  
29 primarily of large concrete slabs and corrugated metal, although numerous domestic items such  
30 as glass bottles, aluminum cans, tin wash pales, tin cans, and other household items were also  
31 observed. The majority of the aluminum cans found across the site exhibited a pull-tab opening,  
32 and according to approximate initial production dates of pull tabs, one can of Schlitz beer can be  
33 dated to as early as 1963.

34 According to the time series presented in Figure 22 of Appendix D, the area where the structures  
35 are mapped appears to have been impacted by construction activities sometime between 1963  
36 and 1966, although the type of construction and degree to which it impacted the structures is  
37 unclear from the aerial photographs. Together, the artifacts observed, in addition to the historic  
38 topographic and aerial maps reviewed, suggest that the area represents a demolished, mid-  
39 twentieth century structure that may have been used into the 1970s. No other time-diagnostic  
40 items or historic imagery was found that would suggest that the site was occupied prior to the  
41 mid-twentieth century. Due to the minimum informational potential of this site and its general

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1 lack of integrity, the site was recommended ineligible for inclusion in the NRHP. The State  
2 Historic Preservation Office concurred with this determination (Appendix E)

### 3 **Historic Buildings and Structures within the APE**

4 The only buildings and/or structures within the proposed APE are Buildings 1213 (Traffic check  
5 house; 72 sq ft) (Figure 3-2) and 1217 (SP Entry Con Bldg; 2222 sq ft) (Figure 3-3). Since these  
6 buildings were constructed in 2002 and 2005, respectively, they are not of historic age and do not  
7 display exceptional architectural design or features that would make them eligible under  
8 Criterion Consideration G for properties less than 50 years of age. Therefore, Buildings 1213  
9 and 1217 are not eligible for inclusion on the National Register of Historic Places.



10  
11

**Figure 3-2 Building 1213**





1

2

**Figure 3-3 Building 1217**

3

**3.3.7 Water Resources**

4

**3.3.7.1 Groundwater**

5

A shallow alluvial aquifer in San Antonio, located between 5 and 15 feet below ground surface (bgs), contains groundwater not suitable for use as a potable water source due to poor water quality. Low-permeable Del Rio clay separates this aquifer from the underlying Edwards Aquifer (USAF 2010a). The primary source of water for JBSA-Lackland and the San Antonio, Texas area is groundwater from the Edwards Aquifer. Water from the aquifer is primarily used for municipal, irrigation, and recreational purposes and approximately 54 percent is used for municipal supply (TWDB 2011). This aquifer, composed primarily of limestone, collects groundwater runoff in an underground reservoir that consists of contributing, recharge, transition and artesian zones stretching across 13 counties in south central Texas. JBSA-Lackland is not located within a recharge zone, but is located in the artesian zone of the Edwards Aquifer (USAF 2011d). Within the artesian zone, groundwater flows generally southeast and up to the surface at natural discharge points (e.g. Comal, Barton, or San Marcos Springs) or is manually pumped out through municipal or private wells (TWDB 2011). The median recharge rate for the past ten years is 716,500 acre-feet/year with a median well withdrawal of 379,900 acre-feet/year (EAA 2009). Depth to groundwater in Bexar County has ranged over the past thirty years from 624 feet to 703 feet above mean sea level (EAA 2012), indicating a shallow groundwater at JBSA-

20

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1 Lackland. Currently, there are two active groundwater wells in the project area used by SAWS  
2 and a private landowner, and drilled to 1,587 feet and 1,400 feet bgs, respectively (USAF  
3 2010b). Well records obtained from Texas Water Development Board (TWDB) indicate that the  
4 SAWS well was drilled in 1950, and at the time of installation, ground water levels were  
5 approximately 44 feet bgs (TWDB 2012).

6 Due to its highly permeable nature, the Edwards Aquifer is considered susceptible to  
7 contamination through its recharge zone. As discussed in greater detail in Section 3.3.8.5,  
8 review of historical aerial photography of the proposed acquisition area indicates that a quarry  
9 existed within the site boundaries (Raba-Kistner 2011). Due to the possible historic use of the  
10 area as a quarry with unknown reclamation activities, it is possible that buried wastes may exist  
11 within the subject property lines, and therefore, there may be resultant impacts to groundwater  
12 quality. If wastes are present, further evaluation may be required to determine possible impacts  
13 to shallow groundwater. Other potential shallow groundwater impacts may exist where stored  
14 vehicles have leaked fluid into the soil, at a privately operated facility in the subject area.  
15 Finally, a portion of the subject property appears to have been used as a stockpiled material  
16 storage area, which includes river sediments dredged from the San Antonio River. In July 2011,  
17 Weston Solutions, Inc. conducted a Phase II Environmental Baseline Survey for the project area  
18 and encountered lead and arsenic above Texas Risk Reduction Program (TRRP) critical  
19 residential Protective Concentration Levels (PCLs) in groundwater located within fill material.  
20 It was further recommended that further evaluation may be required to determine the extent of  
21 impacts to shallow groundwater (USAF 2011b).

## 22 **3.3.7.2 Surface Water**

23 JBSA-Lackland is located within the San Antonio River Basin. Surface water on the installation  
24 includes Leon Creek, Medio Creek, Long Hollow Creek, various ponds and water hazards  
25 developed for training. As shown on Figure 3-4, Surface Waters, Leon Creek is located  
26 immediately adjacent to the proposed acquisition and project area. Leon Creek is designated by  
27 the USFWS National Wetlands Inventory (NWI) as a lower perennial riverine waterbody with an  
28 unconsolidated bottom and permanent flooding or water flow (R2UBH) (USFWS 2011b). The  
29 lower segment of Leon Creek also has a high aquatic life use designation (SARA 2010). Based  
30 on review of topographic mapping, Leon Creek flows south and continues approximately 19  
31 miles into Medina River, which flows an additional nine miles southeast before its confluence  
32 with the San Antonio River. Along the southern boundary of the 232 acres proposed for  
33 acquisition, there is also a drainage ditch designated by the USFWS NWI as an intermediate  
34 streambed waterbody that has a temporary water flow and has been excavated (R4SBAX)  
35 (USFWS 2011b). This drainage ditch flows directly into Leon Creek.

36 The 2010 Texas Integrated Report listed Lower Leon Creek as an impaired waterway due to low  
37 dissolved oxygen and polychlorinated biphenyls in edible tissue (TCEQ 2010). A 2010 Study of  
38 dissolved oxygen on the Lower Leon Creek found that the segment of the creek near the  
39 proposed project site can fully support a healthy aquatic ecosystem (SARA 2010). Therefore,  
40 while Lower Leon Creek is currently still listed as impaired, water quality is improving such that

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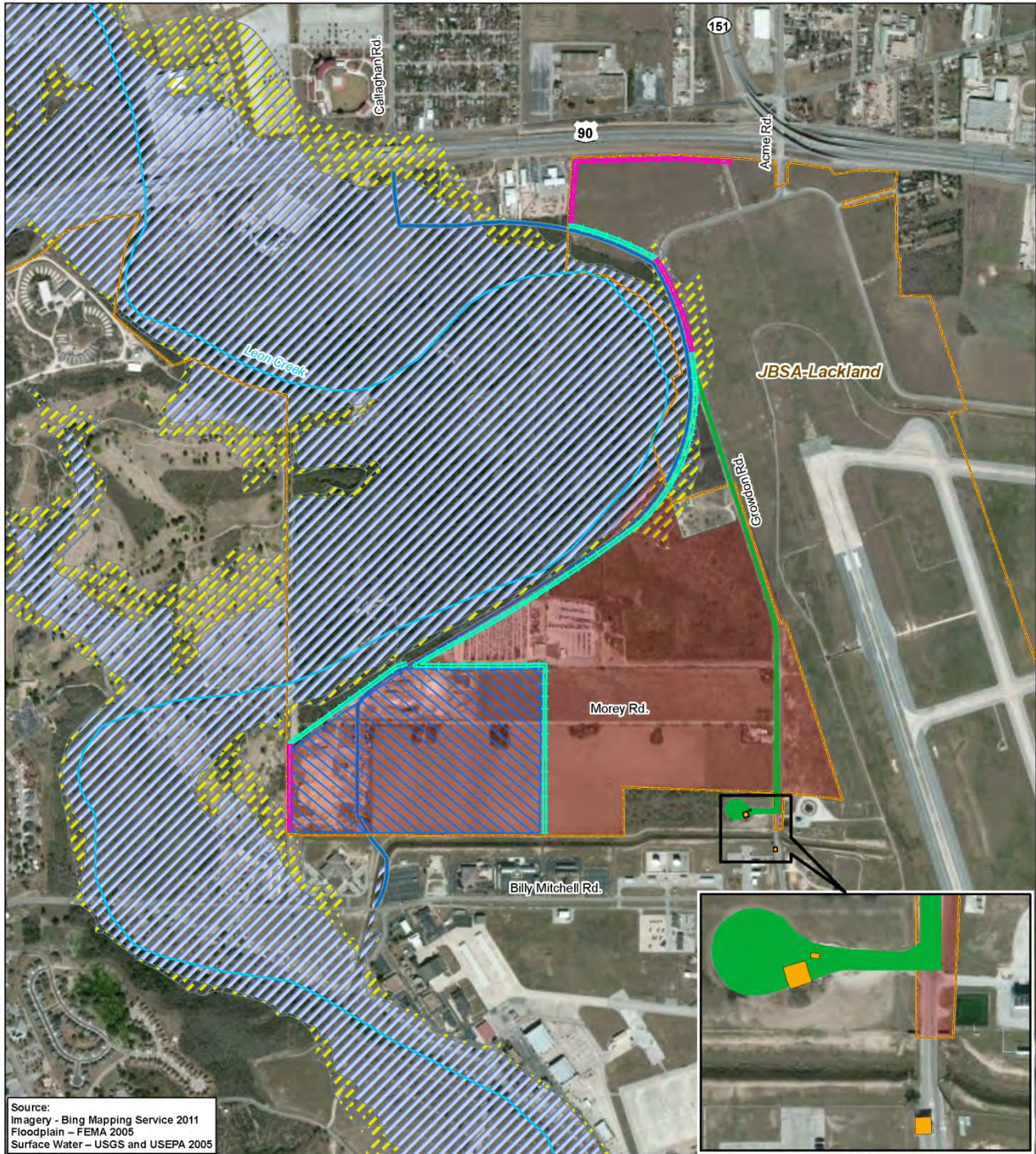
*Environmental Assessment  
Affected Environment*

*Growdon Gate/Road Relocation and Property Acquisition  
Joint Base San Antonio-Lackland, Texas*

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- 1 it is expected to be removed from the impaired water list in 2012. If this occurs, the TCEQ will  
2 not develop Total Maximum Daily Loads for this waterway (TCEQ 2011).
- 3 Several locations within the project area have been designated as potential wetlands, as discussed  
4 previously in Section 3.3.5.2.3; however, the location of the proposed land acquisition, proposed  
5 facilities and the existing Growdon Gate facilities do not coincide with any areas designated as  
6 potential wetlands.

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Source:  
Imagery - Bing Mapping Service 2011  
Floodplain - FEMA 2005  
Surface Water - USGS and USEPA 2005

Legend	
JBSA-Lackland	100-year Floodplain
Proposed Demolition of Existing Growdon Road	500-year Floodplain
Proposed Demolition of Existing Commercial Vehicle Inspection Area/Entry Control Point	Existing Fence
Proposed Commercial Vehicle Inspection Area/Entry Control Point Area	Proposed New Fence
Proposed Acquisition of Approximately 232 Acres	
Proposed Growdon Road Relocation Site	



0 412.5 825 1,650 Feet

Figure 3-4  
Surface Waters  
JBSA-Lackland

1     **3.3.7.3 Floodplains**

2 Federal agencies are required, under EO 11988, *Floodplain Management*, to provide leadership  
3 and take action to reduce the risk of flood loss; minimize the impacts of floods on human safety,  
4 health, and welfare; and restore and preserve the natural and beneficial values of floodplains  
5 when acquiring, managing, or disposing of federal lands. As depicted in Figure 3-3, the Federal  
6 Emergency Management Association (FEMA) has designated a portion of the project area as  
7 being located within the 100-year and 500-year floodplains of Leon Creek. Approximately 1.1  
8 acres and 4.8 acres of the 232 acres are located in the 100-year and 500-year floodplains,  
9 respectively (0.47% and 2.1%). The proposed road is located within the 100-year and 500-year  
10 floodplains for approximately 4.7 acres and 8.3 acres, respectively. Approximately 0.07 acres  
11 and 0.15 acres of existing Growdon Road proposed for demolition are located within the 100-  
12 year and 500-year floodplains, respectively. The current Growdon Gate and facilities are located  
13 outside the parameters of both the 100-year and 500-year floodplains (FEMA 2005).

14           **3.3.8 Hazardous Materials and Wastes**

15 A Phase II Environmental Baseline Study (EBS) was conducted for the property addressed in  
16 this EA as land to be acquired by JBSA-Lackland. The Phase II EBS investigations included  
17 surface and subsurface soil sampling, groundwater sampling, and an asbestos and lead-based  
18 paint assessment. The subject properties to be acquired that are addressed in the EBS will be  
19 referred to in this EA as follows:

- 20           • Parcels B<sub>3</sub> through B<sub>9</sub> – COSA
- 21           • Parcels F<sub>1</sub> and F<sub>2</sub> – Mr. Cristoval Alcoser
- 22           • Parcel G – Ms. Agnes Lorraine Wauters

23           **3.3.8.1 Hazardous Materials**

24 Hazardous material use and management at JBSA-Lackland are regulated under the TSCA,  
25 Occupational Safety and Health Administration (OSHA), Emergency Planning and Community  
26 Right-to-Know Act, and Air Force Occupational Safety and Health Standards. The regulations  
27 require personnel using hazardous material to be trained in the application, management,  
28 handling, and storage of material; to know the location of material safety data sheets (MSDSs)  
29 for all hazardous materials that they are using; and to wear the correct personal protective  
30 equipment (PPE) required for materials that are being used. JBSA-Lackland has a Spill  
31 Prevention, Control and Countermeasures Plan (SPCCP) in place that establishes procedures,  
32 methods, equipment, and other criteria to prevent and respond to discharges of oil products and  
33 hazardous substances on JBSA-Lackland and associated property. The SPCCP is written in  
34 accordance with 40 CFR, Chapter 112 (USAF 2006).

35 The COSA maintains an Emergency Management - Basic Plan to provide general guidance for  
36 emergency operations on COSA-owned properties, including those that use, handle, or store  
37 hazardous materials. This plan assists in directing the San Antonio Fire Department and other  
38 COSA agencies how to respond in the event of an emergency (COSA 2006). According to

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1 COSA, no hazardous materials are managed on the properties that would be affected by the  
2 Proposed Action (Paramo 2011).

3 Properties owned by private individuals are not likely to maintain any plans for handling, storing  
4 or disposing of hazardous materials or wastes. During the visual site inspection for a previously  
5 conducted EBS in May 2010, it was observed that there were hazardous materials and petroleum  
6 products located within the B<sub>4</sub>, F<sub>2</sub>, and G parcels. Observations included aboveground storage  
7 tanks (ASTs) used for fuel; several petroleum, oil, and lubricant storage cans; storage lockers and  
8 sheds; and leaky vehicles that have been parked/impounded (USAF 2010b).

### 9 **3.3.8.2 Asbestos**

10 The buildings on JBSA-Lackland proposed for demolition within the current Growdon Gate area  
11 have not previously been assessed for asbestos containing material (ACM). Since these  
12 buildings were built in 2002 and 2005, it is unlikely that asbestos is present; however, prior to  
13 demolition of any buildings, an ACM survey must be prepared in coordination with the Base  
14 Asbestos Program Officer.

15 Buildings located on properties proposed for acquisition were included in an assessment for  
16 ACM conducted in July 2011 for a Phase II EBS. Note that no ACM samples were collected for  
17 Parcels B<sub>3</sub>, B<sub>8</sub>, or B<sub>9</sub>. Seven structures, located on both COSA and private property, were found  
18 to contain ACM totaling approximately 4,134 sf. Table 3-8 summarizes the findings (USAF  
19 2011b).

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1

**Table 3-8 Asbestos Containing Material Assessment Findings**

Parcel	Structure ID	Finding	Approximate Amount (sf)
B4	S1	No	NA
	S2	No	NA
	S3	NS	NA
	S4	NS	NA
B5	S1	Yes	250
	S2	No	NA
	S3	NS	NA
B6	S1	Yes	200
	S2	NS	NA
B7	S1	Yes	144
	S2	No	NA
	S3	NS	NA
F1	S1	NS	NA
F2	S1	Yes	40
	S2	NS	NA
	S3	NS	NA
	S4	NS	NA
	S5	Yes	1,000
	S6	Yes	2,250
G	S1	NS	NA
	S2	Yes	250
	S3	NS	NA

Notes:  
sf – square feet  
NA – Not Applicable  
NS – No suspect ACM present

2 **3.3.8.3 Lead-Based Paint**

3 The buildings on JBSA-Lackland that are proposed for demolition within the current Growdon  
4 Gate area have not been assessed for lead-based paint (LBP). Since these buildings were built in  
5 2002 and 2005, it is unlikely that LBP is present; however, the JBSA-Lackland LBP  
6 Management and Operations Plan requires an LBP survey be conducted prior to demolition of  
7 any buildings.

8 Buildings located on properties proposed for acquisition were included in an assessment for lead-  
9 based paint conducted in July 2011 for a Phase II EBS. Note that no LBP samples were collected  
10 for Parcels B<sub>3</sub>, B<sub>8</sub>, or B<sub>9</sub>. Nine structures, located on both COSA and private property, were  
11 found to contain LBP. Table 3-9 summarizes the findings of the assessment (USAF 2011b).

# DRAFT

1

**Table 3-9 Lead-Based Paint Assessment Findings**

Parcel	Structure ID	Finding	Description of Material
B <sub>4</sub>	S1	No	NA
	S2	No	NA
	S3	No	NA
	S4	Yes	Yellow painted utility pole
B <sub>5</sub>	S1	No	NA
	S2	Yes	Painted door frames ,wall
	S3	NS	NA
B <sub>6</sub>	S1	Yes	Painted doors, soffits, window frames, cabinets
	S2	NS	NA
B <sub>7</sub>	S1	No	NA
	S2	NS	NA
	S3	No	NA
F <sub>1</sub>	S1	No	NA
F <sub>2</sub>	S1	Yes	Painted windows, door frames, door/shelf
	S2	Yes	Painted garage interior door, frame, screen
	S3	Yes	Painted garage interior
	S4	No	NA
	S5	Yes	Painted wall (former exterior of garage)
	S6	Yes	Painted exterior windows casing, sash, screen, doors, walls; interior trim
G	S1	No	NA
	S2	Yes	Painted exterior windows, frames, doors, walls, soffits
	S3	NS	NA

Notes:  
NA – Not Applicable  
NS – No suspect LBP present

2     **3.3.8.4 Pesticides/Herbicides**

3 Pesticide application and management at JBSA-Lackland is accomplished in accordance with the  
4 Pest Management Plan which has been prepared in accordance with DoD Instruction 4150.07  
5 and as outlined in the Armed Forces Pest Management Board’s Technical Information  
6 Memorandum No. 18. The JBSA-Lackland pest management activities are conducted by the  
7 Civil Engineer Pest Management shop. Pesticide use on sensitive areas such as wetlands, golf  
8 course ponds, or creeks require appropriate controls for application (USAF 2010c). The  
9 probability that pesticides have been used and may still be used within the existing Growdon  
10 Gate area is likely because of the presence of current entry gate and associated buildings.



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1 It is known that the properties owned by private landowners and COSA have a history of  
2 agricultural use. Therefore, it is likely that pesticides have been used on these properties. Also,  
3 depending on the type of crops historically grown on the properties, it is possible that arsenic-  
4 based cotton defoliant were historically used. Section 3.3.8.7 details the findings of arsenic on  
5 the subject property as a result of the Phase II EBS. Currently, there is no known storage or use  
6 of pesticides or herbicides on the subject properties (EDR 2009). The Phase II EBS investigated  
7 the presence of pesticides on parcels B4, F2, and G, and the analyses indicated that pesticides  
8 (dieldrin and toxaphene) were reported in soil samples collected on parcel G (Wauters) at  
9 concentrations above the TRRP critical residential PCLs. In addition to exceeding the residential  
10 PCLs, the reported concentrations at one sample location (SS-10 [0-0.25 feet bgs]) on parcel G  
11 also exceed the TRRP critical commercial/industrial PCLs.

### 12 **3.3.8.5 Hazardous Waste**

13 Hazardous wastes are defined by the Solid Waste Disposal Act as amended by RCRA, which  
14 was further amended by the Hazardous and Solid Waste Amendments, RCRA subtitle C (40  
15 CFR, Parts 260 through 270). Hazardous wastes are defined as wastes with properties that are  
16 dangerous or potentially harmful to human health or the environment. Hazardous wastes are  
17 regulated by the USEPA. However, in Texas, the USEPA has delegated its hazardous waste  
18 regulatory authority to the State of Texas, Texas Commission for Environmental Quality  
19 (TCEQ). Additionally, JBSA-Lackland hazardous waste management is regulated under AFI  
20 32-7013, *Hazardous Waste Management and Minimization*.

21 Hazardous waste regulations are implemented at JBSA-Lackland through hazardous waste  
22 permitting procedures and the JBSA-Lackland *Hazardous Waste Management Plan*. The plan  
23 details hazardous waste packaging, turn-in, transportation, storage, recordkeeping, and  
24 emergency procedures. Hazardous waste is generated at JBSA-Lackland from aircraft, vehicle,  
25 building, and equipment maintenance; spent hazardous materials; and spills. Air Force waste  
26 management operations at JBSA-Lackland Main Base are registered with the USEPA under  
27 identification number TX4571524129 (USAF 2007b). Currently, there are no industrial  
28 activities or other activities that occur at the existing Growdon Gate that would generate  
29 hazardous waste.

30 Parcels owned by COSA and private individuals are not known to have generated, stored or  
31 received any hazardous waste; however historical photographs indicate that quarry activities took  
32 place within the parcels. It is also possible that the quarry areas may have accepted wastes that  
33 are now buried in the former quarries. The Phase II EBS completed soil sampling in suspect  
34 areas, but not all areas were tested.

### 35 **3.3.8.6 Environmental Restoration Program**

36 The Environmental Restoration Program (ERP) at JBSA-Lackland was implemented by the DoD  
37 to identify and evaluate areas and constituents of concern from toxic and hazardous material  
38 disposal and spill sites. Once the areas and constituents had been identified, the ERP was tasked  
39 to remove the hazards in an environmentally responsible manner. All response actions are based

# DRAFT

1 upon provisions of CERCLA, and the *Superfund Amendments and Reauthorization Act of 1986*  
2 as clarified in 1991 by EO 12580, *Superfund Implementation*.

3 There are four JBSA-Lackland ERP sites within a quarter mile of the proposed project site.  
4 Table 3-10 shows a summary of those ERP sites.

5 **Table 3-10 ERP Sites Within 1/4-mile of Proposed Project Site**

Site Name	Status/Summary
AL-722 – Kelly Bombing Range South (UXO31)	Approximately 450 acres located around Leon Creek consisting of undeveloped land, administrative offices, basic military training parade ground, portions of Stillman Park, horse stables, and part of a golf course. Site is currently undergoing site investigations.
SS-51 (AOC048)	A former tank area located at Billy Mitchell and Westover Roads where a park and/or corral currently reside. It was determined that there was no release at this site and approved by TCEQ on 11 December 2008.
Building 933 (ehhwarea204)	Currently a Flight Specialist shop, an Avionics shop, and an Armament Systems shop that supports the 149 <sup>th</sup> Fighter Wing, Texas Air National Guard. The building stores hazardous materials (primarily solvents and aerosol spray paints) to maintain components of F-16 aircraft.
Building 966 (SWMU No. 45)	A former vehicle maintenance building that serviced gasoline tanker trucks. The building was demolished in September 2008. The SWMU consisted of an OWS and 200-gallon concrete UST, a 500-gallon fiberglass. The OWS and UST have been out of service since 1988 and were permanently removed from the ground in 1995. Record of Decision dated November 2011 was submitted to TCEQ for approval of site closure.

Notes:

AOC – area of concern

MMRP – military munitions response program

OWS – oil water separator

SWMU – solid waste management unit

TCEQ – Texas Commission on Environmental Quality

UST – underground storage tank

UXO – unexploded ordnance

6 **3.3.8.7 Other Identified Contamination**

7 As part of the Phase II EBS investigations conducted in July 2011, groundwater and soil  
8 sampling was performed at the properties identified for acquisition by JBSA-Lackland. Parcels  
9 B<sub>3</sub>, B<sub>5</sub>, B<sub>6</sub>, B<sub>7</sub>, B<sub>8</sub>, B<sub>9</sub> and F<sub>1</sub> were not included in the additional investigations because there was  
10 no reason to suspect any unidentified contamination in those areas after researching the historical  
11 use of the properties. The following summarizes the findings of the Phase II investigations  
12 (USAF 2011b).

13 Parcel B<sub>4</sub>:

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- 1 • Evidence of surface spills from impounded vehicles was noted throughout the parcel and  
2 the “sand lot” is specifically designed to absorb fluids drained from vehicles.
- 3 • Results of the soil sampling and analyses indicated that VOCs and PAH were reported in  
4 soil samples collected from beneath the asphalt surface near areas where visible surface  
5 staining was noted in the impound areas and the asphalt-lined “sand lot”. The  
6 concentrations were below TRRP critical residential PCLs. Therefore, the potential for  
7 VOCs and PAH to adversely impact human health or the environment at this parcel is  
8 low.
- 9 • Results of the soil sampling and analyses indicated that metals (arsenic and lead) were  
10 reported in soil samples collected from beneath the “sand lot” at concentrations above the  
11 TRRP critical residential PCLs. Even though the concentrations exceed the PCLs, they  
12 are within the range of JBSA-Lackland soil background concentrations. Therefore, the  
13 potential for arsenic and lead to adversely impact human health or the environment at this  
14 parcel is low.
- 15 • Groundwater was not encountered on this parcel at the maximum depth investigated  
16 (35.3 feet bgs). The alluvium to the underlying Navarro Clay was fully penetrated.

## 17 Parcel F<sub>2</sub>:

- 18 • Evidence of surface spills from ASTs, vehicles, containers, and vehicle maintenance  
19 activities were noted on the ground surface throughout the parcel.
- 20 • Results of the soil sampling and analyses indicated that VOCs and semi-volatile organic  
21 compounds/polycyclic aromatic hydrocarbons (SVOCs/PAH) were reported in soil  
22 samples collected from beneath the asphalt surface near areas where visible surface  
23 staining was noted. The concentrations were below TRRP critical residential PCLs.  
24 Therefore, the potential for VOCs and SVOCs/PAH to adversely impact human health or  
25 the environment at this parcel is low.
- 26 • Results of the soil sampling and analyses indicated that total petroleum hydrocarbons  
27 (TPH) was detected above the TRRP critical residential PCLs in two soil samples where  
28 analyses for VOC and SVOC analyses were also conducted. Results of the VOC and  
29 SVOC analyses, as described above, indicated that concentrations were below the TRRP  
30 critical residential PCLs. TPH was used as a screening parameter to determine which soil  
31 samples would be subsequently analyzed for VOCs and SVOCs/PAH. The reported  
32 concentrations do not exceed the TRRP critical commercial/industrial PCLs. Therefore,  
33 the potential for TPH to adversely impact human health or the environment at this parcel  
34 is low.
- 35 • Results of the soil sampling and analyses indicated that metals (arsenic, mercury, and  
36 silver) were reported in soil samples at concentrations above the TRRP critical residential  
37 PCLs. Even though the arsenic, mercury, and silver concentrations exceed the PCLs,  
38 they are within the range of JBSA-Lackland soil background concentrations. Therefore,  
39 the potential for arsenic, mercury, and silver to adversely impact human health or the  
40 environment at this parcel is low.

# DRAFT

- 1       • Results of the soil sampling and analyses indicated that metals (lead and selenium) were  
2 reported in soil samples at concentrations above the TRRP critical residential PCLs. The  
3 majority of the lead concentrations were also within the range of JBSA-Lackland soil  
4 background concentrations, except for the lead concentration reported in one sample (SB-  
5 14 [21-22 feet bgs]). In addition, selenium was reported above the range of JBSA-  
6 Lackland soil background concentrations in one sample (SB-22 [18-19 feet bgs]). The  
7 results of the SPLP analyses for lead and selenium to determine leachability indicated  
8 that only the leachate analyzed for lead exceeded the residential and  
9 commercial/industrial PCL for the groundwater ingestion pathway through rainfall  
10 infiltration.
- 11       • Groundwater was encountered at four of the soil boring locations at depths ranging from  
12 27 to 32 feet bgs, all within fill material. This water appears to be laterally discontinuous  
13 across the site and is likely trapped within the fill materials when portions of the area  
14 were open and then subsequently filled with off-site fill material. Groundwater was not  
15 detected at the other fill area soil boring locations even though the Navarro Clay was  
16 encountered. Groundwater was also not detected at soil boring locations within non fill  
17 areas to the maximum depth investigated (30 feet bgs) and fully penetrated the alluvium to  
18 the underlying Navarro Clay.
- 19       • Results of the groundwater sampling and analyses indicated that VOCs and SVOCs were  
20 reported in groundwater samples collected from this parcel. The concentrations were  
21 below TRRP critical residential PCLs. Therefore, the potential for VOCs and SVOCs to  
22 adversely impact human health or the environment at this parcel is low.
- 23       • Results of the groundwater sampling and analyses indicated that metals (arsenic and lead)  
24 were reported in groundwater samples from this parcel at concentrations above the TRRP  
25 critical residential and commercial/industrial PCLs.

## 26 Parcel G:

- 27       • Results of the soil sampling and analyses indicated that VOCs and PAH were reported in  
28 soil samples collected in the area of the former AST and solvent bucket and other  
29 containers. The concentrations were below TRRP critical residential PCLs. Therefore,  
30 the potential for VOCs and PAH to adversely impact human health or the environment at  
31 this parcel is low.
- 32       • Results of the soil sampling and analyses indicated that pesticides (dieldrin and  
33 toxaphene) were reported in soil samples collected in the area of the barn at  
34 concentrations above the TRRP critical residential PCLs. In addition to exceeding the  
35 residential PCLs, the reported concentrations at one sample location (SS-10 [0-0.25 feet  
36 bgs]) also exceed the TRRP critical commercial/industrial PCLs.

## 37 **3.3.9 Utilities and Infrastructure**

38  
39 The following sections provide a summary of infrastructure found at the proposed land  
40 acquisition area and Growdon Gate and road relocation sites.

# DRAFT

## 1    **3.3.9.1 Electricity**

2    The service provider for electrical utilities for the greater San Antonio region and JBSA-  
3    Lackland is CPS Energy. Currently JBSA-Lackland has a contract with CPS Energy for at least  
4    32 mega watts (MW) of service for main base distribution. This contract with CPS energy  
5    identifies electrical energy rates and provides a minimum level of service, but does not limit the  
6    amount of electricity available for consumption. JBSA-Lackland operates the Valley Hi  
7    substation located just off Valley Hi Drive on the main base approximately 2 miles southwest of  
8    the project area. Three feeders (No. 113, 569 and 796) from the on-installation substation  
9    provide power to the Main Base Switching Station and have load ratings of 20.4 MW, 17.8 MW  
10   and 18.2 MW (at normal rating and 90° Fahrenheit [F]). While JBSA-Lackland maintains  
11   electrical utilities throughout the majority of the installation, the electrical facilities at the Kelly  
12   Field Annex, including the Growdon Gate project area, are privatized and maintained by CPS  
13   Energy. The Kelly Field Annex includes two main distribution feeders from Kelly Substation #3  
14   located on North Frank Luke Drive, approximately 0.85 mile south east of the project area.  
15   However, the Growdon Gate inspection area is provided power by a separate designated feeder  
16   from CPS energy (USAF 2011d). Based on review of aerial photos for the proposed acquisition  
17   area, a limited distribution infrastructure appears to be in place.

18   JBSA-Lackland electricity consumption reported for FY 2011 was 160,941 mega watt hours  
19   (MWH) for JBSA-Lackland Main Base and 58,421 MWH for the Kelly Field Annex (USAF  
20   2011d).

## 21   **3.3.9.2 Natural Gas**

22   CPS Energy also is the service provider for natural gas to the San Antonio greater area and  
23   JBSA-Lackland. An 8-inch pipeline enters JBSA-Lackland at Five Palms Street on the southern  
24   end of the main installation and connects to a natural gas network comprised of 41 miles of  
25   pipeline. JBSA-Lackland's natural gas network includes 48 pounds per square inch (psi)  
26   distribution loop encircling the western half of JBSA-Lackland and an 18 psi loop that encircles  
27   the eastern side of the Base (USAF 2011c). The combined CPS Energy natural gas line capacity  
28   for JBSA-Lackland is 9.254 million cubic feet per day (MCF/d). In addition to the CPS Energy  
29   pipelines, United Gas maintains an 8-inch 250 psi pipeline that runs along the northern border of  
30   the installation. JBSA-Lackland has contracted with United Gas to supply of up to 4.93 MCF/d  
31   for this pipeline. Kelly Field Annex gas utilities are provided by a separate United Gas 6"  
32   pipeline that enters the Base to feed this area (USAF 2011d). The current Growdon Gate  
33   facilities do not currently use natural gas. Additionally, based on review of aerial photos for the  
34   proposed acquisition area, a limited distribution infrastructure appears to be in place.

35   JBSA-Lackland natural gas usage reported for FY 2011 was 928,730 thousand cubic feet (KCF)  
36   for JBSA-Lackland Main Base and LTA. Kelly Field Annex reported using 46,066 KCF of  
37   natural gas in FY 2011 (USAF 2011d).

# DRAFT

## 1     **3.3.9.3 Solid Waste Disposal**

2     Municipal solid waste management and compliance at Air Force installations are established in  
3     AFI 32-7042, *Solid and Hazardous Waste Compliance*. AFI 32-7042 incorporates by reference  
4     the requirements of RCRA Subtitle D, 40 CFR 240 through 244, 257, and 258, and all other  
5     applicable federal regulations, AFIs, and DoD directives. In general, AFI 32-7042 establishes  
6     the requirement for installations to have a solid waste management program that incorporates the  
7     following: a solid waste management plan; procedures for handling, storage, collection, and  
8     disposal of solid waste; record keeping and reporting; and recycling of solid waste, as addressed  
9     in AFI 32-7080, *Pollution Prevention Program*.

10    The 2010 Integrated Solid Waste Management Plan for JBSA-Lackland, states that  
11    nonhazardous solid waste at JBSA-Lackland is collected and disposed of by, C-6 Disposal  
12    Systems, a private contractor. Nonhazardous solid waste is disposed of at a private landfill  
13    serving the San Antonio greater area - Covel Gardens landfill, located approximately 4.0 miles  
14    southwest of the project area (USAF 2010d). Currently, the Covel Gardens landfill had a life  
15    expectancy of at least 75 years at the current disposal rate, receiving approximately 1.6 million  
16    tons of solid waste per year and a permitted capacity of 124.1 million cubic yards (Covel  
17    Gardens 2012 and USAF 2011c). Landfills are governed under TCEQ and USEPA rules and  
18    regulations.

19    In 2009, JBSA-Lackland generated approximately 50,000 tons of solid waste, of which 11,500  
20    tons were disposed of in the Covel Gardens landfill and 36,000 tons were reused. This solid  
21    waste disposal accounts for less than one percent of the daily waste disposed at Covel Gardens  
22    landfill. Additionally, 2,500 tons were recycled at JBSA-Lackland's own recycling center which  
23    processes an average of 600,000 pounds per month of materials that would otherwise be  
24    disposed of in landfills (USAF 2011d).

## 25    **3.3.9.4 Water Supply and Wastewater**

### 26    **Water Supply**

27    Edwards Aquifer, as described in Section 3.3.7.1, is the primary water supply for the greater San  
28    Antonio area and JBSA-Lackland. JBSA-Lackland currently maintains six supply wells that  
29    pump water from the Edwards Aquifer with a withdrawal capacity of 13.22 million gallons per  
30    day (MGD) (USAF 2011c). At peak withdrawal conditions, the JBSA-Lackland wells operated  
31    at 16 percent (2.08 MGD) of the total design capacity. These peak withdrawal conditions in July  
32    2005 were driven by mission and seasonable demands, and not sustained over the course of the  
33    year (USAF 2011d). The FY 2012 Joint Base San Antonio (Lackland AFB, Randolph AFB, and  
34    Fort Sam Houston) pumping allowance from Edwards Aquifer is 12,012 acre-feet, as regulated  
35    by the January 2008 USFWS Biological Opinion (USFWS 2008). JBSA-Lackland is allocated  
36    48.8 percent of this withdrawal, which equates to 5,861.86 acre-feet/year (1,910,094 kilo-gallons  
37    (kgal)/year or 5.23 MGD). The overall withdrawal from Edwards Aquifer has been mandated by  
38    the USFWS to remain less than 572,000 acre-feet/year (186,387,017 kgal/year or 510.65 MGD)  
39    (USFWS 2008).

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1 The water system network at JBSA-Lackland is comprised of more than 60 miles of water main  
2 lines and four elevated storage tanks, providing a total storage capacity of 1.28 MGD. The  
3 majority of this water supply infrastructure, including wells and water pipelines, is maintained by  
4 JBSA-Lackland. However, a portion of the JBSA-Lackland supply infrastructure has been  
5 privatized and is now supported by SAWS, which includes the current Growdon Gate and Road  
6 location (USAF 2011d). The project area is provided water through wells maintained by the City  
7 of San Antonio, in addition to the two active groundwater wells discussed in Section 3.3.7.1 used  
8 by the SAWS and the private landowner (USAF 2010b). Based on the limited existing facilities  
9 within the area proposed for acquisition, it is assumed that minimal supply infrastructure  
10 currently exists.

11 JBSA-Lackland water usage reported for FY 2011 was 739,607 kgal for JBSA-Lackland Main  
12 Base and LTA and 121,631 kgal for the Kelly Field Annex (USAF 2011d). This equates to  
13 approximately 45 percent of the water allocated to JBSA-Lackland by the USFWS Biological  
14 Opinion. JBSA-Lackland has instituted a number of water saving initiatives, such as installation  
15 of wash water recycling system and retrofitting existing fixtures (AETC 2009). In addition,  
16 JBSA-Lackland purchased 165,404 kgal of recycled water from SAWS in FY 2011 for use at the  
17 golf course, the parade grounds, and the Wilford Hall Medical Center cooling tower (USAF  
18 2011d).

## 19 **Wastewater**

20 SAWS provides wastewater collection and treatment services to JBSA-Lackland. The  
21 approximately 44-mile sewer main network is primarily gravity fed and has a rated capacity of  
22 9.79 MGD. Lift stations and force mains are used to connect individual facilities to the main  
23 system. The estimated daily wastewater discharge volume is 1.6 MGD, or approximately 16  
24 percent of the rated capacity (USAF 2011c). In FY 2011, JBSA-Lackland Main Base reportedly  
25 discharged 364,225 kgal of wastewater and Kelly Field Annex discharged 121,668 kgal of  
26 wastewater (USAF 2011d). Wastewater is discharged off site approximately nine miles  
27 southwest to the Leon Creek Water Recycling Center managed by SAWS.

## 28 **3.3.9.5 Drainage of Storm Water**

29 JBSA-Lackland operates under the Multi-Sector General Permit TXR050000 for storm water  
30 discharges related to industrial activities and maintains a Texas Pollutant Discharge Elimination  
31 System (TPDES) Municipal Separate Storm Sewer System (MS4) General Permit (Permit No.  
32 TXR040068). In accordance with these permits, JBSA-Lackland has implemented and  
33 maintains a SWPPP to minimize storm water pollution and to implement sampling and  
34 monitoring systems for industrial activity only (USAF 2011e).

35 The majority of storm water runoff on JBSA-Lackland is drained through a series of channels  
36 consisting of natural drainages, open man-made ditches and underground storm drainages to  
37 various permitted outfall locations, such as Leon Creek, Indian Creek and Medio Creek. In the  
38 project area, Leon Creek serves as the main discharge location for the man-made ditch located on  
39 the southern boundary of the 232 acre acquisition area, as discussed in Section 3.3.7.2. Based on  
40 review of aerial photography, the remainder of the project area is drained by overland sheet flow

1 and a few minor road side ditches. Permitted outfalls into Leon Creek are monitored in  
2 accordance with TCEQ reporting requirements.

3 **3.3.9.6 Security**

4 Currently the proposed 232-acre acquisition area and Growdon Road relocation area is unsecured  
5 and access is unrestricted from US Highway 90 to the north. Along the southern boundary of the  
6 proposed 232-acre acquisition area is a security chain-link fence in place as part of the security  
7 measures to JBSA-Lackland. Access to and from the south is only obtained through the current  
8 Growdon Road CVIA/ECP. To the east of the project area is the northern edge of the JBSA-  
9 Lackland airstrip on Kelley Field Annex, all of which is surrounded by a security chain-link  
10 fence. All fenced and secured boundaries of JBSA-Lackland are currently patrolled and  
11 monitored by the AFB security forces.

12 **3.3.10 Transportation**

13 **3.3.10.1 Definition of the Resource**

14 Traffic refers to the movement of vehicles throughout a road or highway network. The project  
15 area includes road segments in the public roadway network, access points (gates) to the Base,  
16 and the internal roadway system of the Base. Primary roads are principal arterials, such as major  
17 interstate routes, designed to move traffic, but not necessarily provide access to all adjacent  
18 areas. Secondary roads are arterials, such as rural routes and major surface streets that provide  
19 access to most, if not all, areas.

20 In traffic analyses, performance measures include level of service (LOS), delay, and volume-to-  
21 capacity (v/c) ratio. The LOS is a qualitative measure describing operational conditions within a  
22 traffic stream and motorists' perceptions of those conditions. In general, the following terms  
23 define the LOS (Rodrigue *et al.* 2009):

- 24 A = Free flow
- 25 B = Steady
- 26 C = Steady but limited
- 27 D = Steady at high density
- 28 E = Saturated
- 29 F = Congested

30 The v/c ratio is the ratio of the current flow rate to the capacity of the intersection. This ratio is  
31 often used to determine how sufficient capacity is on a given roadway. A ratio of 1.0 generally  
32 indicates that the roadway is operating at capacity. A ratio of greater than 1.0 indicates that the  
33 facility is failing as the number of vehicles exceeds the roadway capacity.

34 **3.3.10.2 Affected Environment**

35 To evaluate the potential impacts on traffic associated with relocating Growdon Gate, the  
36 CVIA/ECP, and part of Growdon Road, the Air Force conducted a traffic study to identify the



# DRAFT

1 existing roadway network, existing traffic volumes, and existing intersection capacity and LOS  
2 (ARA-VEP 2011). The complete study is attached as Appendix F.

3 Nine intersections were considered in the region of influence (ROI); intersections on US  
4 Highway 90, Military Drive, Callaghan Road, S. Acme Road, Castroville Road, and Old US 90  
5 were included in the study network. Figure 3-5 is a map of the ROI showing the study network in  
6 relation to the project site. Table 3-11 lists the intersections in the ROI and the LOS calculated  
7 in the traffic study. The eastbound (EB) and westbound (WB) frontage roads of US Highway 90  
8 are listed separately in Table 3-11 because they have separate traffic counts and calculated LOSs.

9 **Table 3-11 Summary of Existing Traffic Conditions**

Intersection	Control	A.M. LOS	P.M. LOS
S. Acme Road at WB US Highway 90 Frontage Road	Signalized	A	B
S. Acme Road at EB US Highway 90 Frontage Road	Signalized	A	A
S. Acme Road at Castroville Road	Unsignalized	A	A
Castroville Road at Stotzer ramp	Unsignalized	B	A
Old US 90 at Callaghan Road	Signalized	A	A
WB US Highway 90 Frontage Road at Callaghan Road	Unsignalized	A	A
EB US Highway 90 Frontage Road at Callaghan Road	Unsignalized	A	A
Old US 90 at US Highway 90 ramp	Unsignalized	B	C
Military Drive at WB US Highway 90 Frontage Road	Signalized	E	F
Military Drive at EB US Highway 90 Frontage Road	Signalized	F	F
Military Drive at Bergquist Drive	Signalized	A	A
Military Drive at Luke Boulevard	Signalized	B	D

Notes:

A.M.=morning

P.M.= afternoon/evening

LOS=level of service

WB=westbound

EB=eastbound

US= U. S. Highway

10 The results of the existing conditions capacity analysis indicate that most of the study  
11 intersections currently operate at an acceptable LOS C or better during the morning (a.m.) and  
12 evening (p.m.) peak hours, which occur from 0715 to 0815 hours and 1600 to 1700 hours,  
13 respectively. The intersection of the WB US Highway 90 Ramp at Military Drive is currently  
14 operating at a LOS E during the a.m. peak and a LOS F during the p.m. peak hour. The  
15 intersection of Military Drive and Luke Boulevard is at a LOS D, which is a saturated traffic  
16 condition that could be considered poor, but not as congested as LOS E or F. The intersection of  
17 the Eastbound US Highway 90 ramp at Military Drive is operating at a LOS F during both the  
18 a.m. and p.m. peak hours. The daily traffic volumes through Growdon Gate, based on the data  
19 collected, show the inbound daily count was 3,441 and the outbound daily count was 3,611  
20 (ARA-VEP 2011).

# DRAFT

*Environmental Assessment  
Affected Environment*

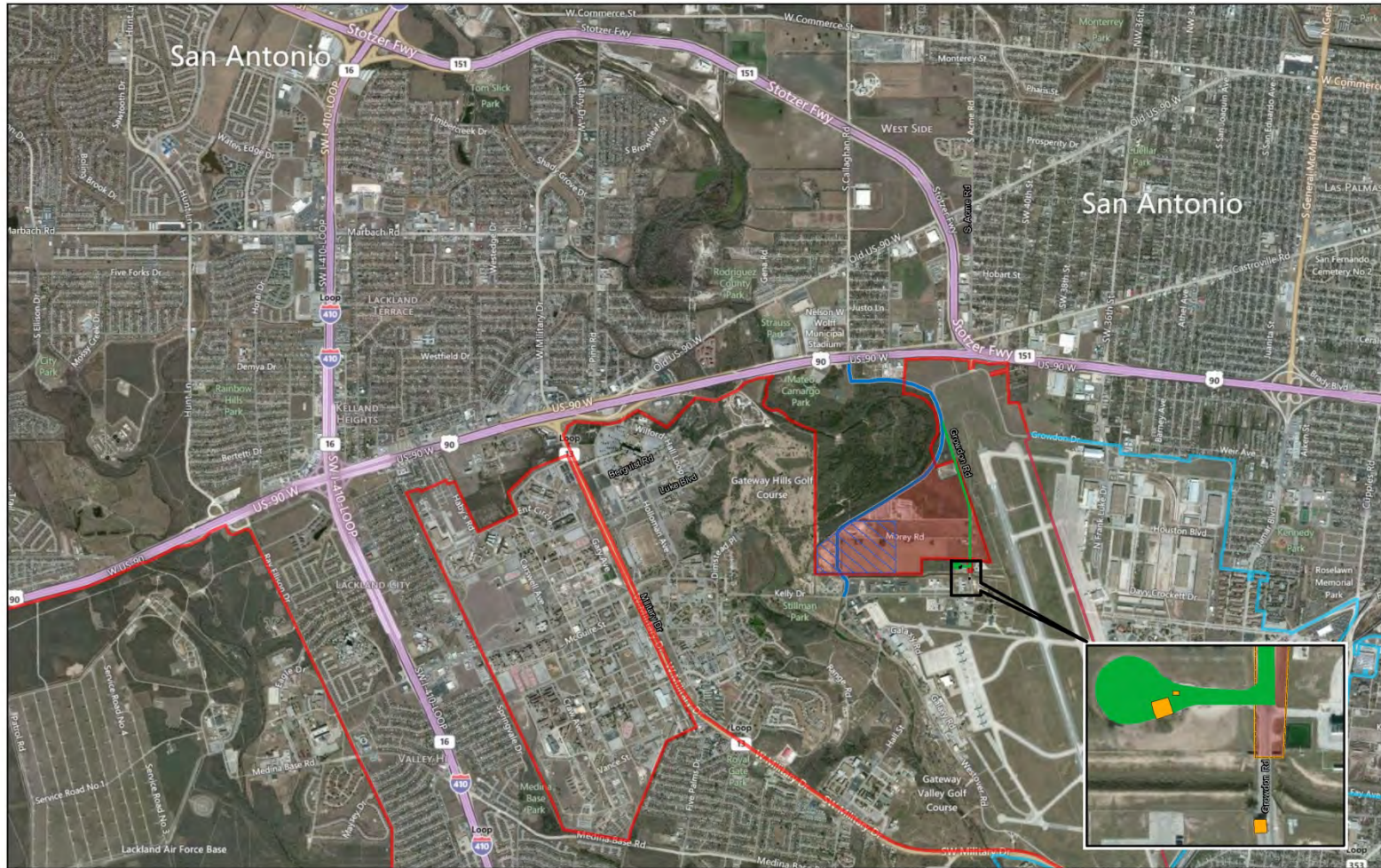
*Growdon Gate/Road Relocation and Property Acquisition  
Joint Base San Antonio-Lackland, Texas*

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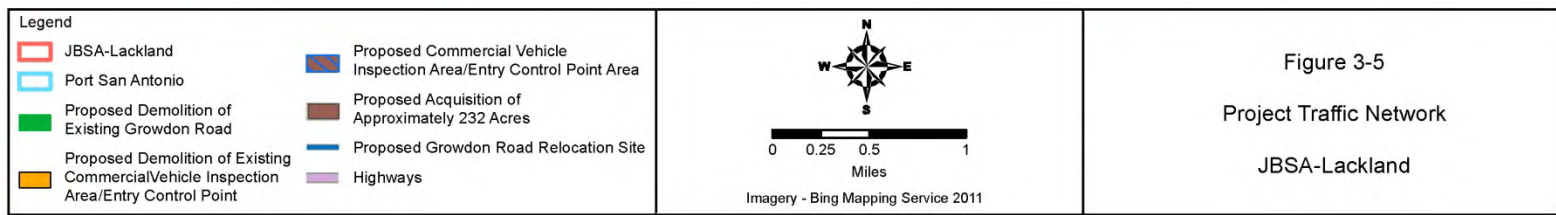
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1           **3.3.11 Socioeconomic Resources**

2 JBSA-Lackland is located in Bexar County, Texas, 12.8 miles southwest of downtown San  
3 Antonio. Due to the nature of the Proposed Action and the fact that it would not include changes  
4 to population, housing, or education, the scope of this section is limited to an analysis of the  
5 existing economic conditions within the ROI of the Proposed Action.

6           **3.3.11.1 Economic Activity**

7 JBSA-Lackland’s economic influences are geographically far-reaching, affecting Atascosa,  
8 Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, and Wilson Counties (Bexar County  
9 2010). The installation generates economic activity in the region through employee payrolls,  
10 service contracts, construction programs, local procurements, and other expenditures. The  
11 surrounding communities and JBSA-Lackland depend on one another for employment, goods,  
12 and services.

13 JBSA-Lackland is home to more than 120 DoD and associate organizations, including the 37th  
14 Training Wing, the largest training wing in the US Air Force (USAF 2010e). JBSA-Lackland is  
15 the Air Force’s only site for enlisted basic military training and also offers professional and  
16 technical skills, and English language training for members of the Air Force, other military  
17 services, government agencies, and allies (USAF 2010e).

18 In FY 2010, the installation supported approximately 6,675 active duty military personnel,  
19 approximately 3,250 trainees, approximately 3,745 Appropriated Funds Civilians, and  
20 approximately 2,515 other Civilians with a total payroll of over \$1.8 billion (USAF 2010e). The  
21 Base is the second largest employer in the City of San Antonio (Bexar County 2010). Including  
22 construction; services; and other materials, equipment, and supplies procured the total annual  
23 expenditures at JBSA-Lackland is over \$750 million. JBSA-Lackland’s total annual economic  
24 impact estimate for FY 2010 was over \$3.2 billion (USAF 2010e).

25           **3.3.12 Environmental Justice**

26 EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-*  
27 *Income Populations*, provides that “...each Federal Agency shall make achieving environmental  
28 justice part of its mission by identifying and addressing, as appropriate, disproportionately high  
29 and adverse human health or environmental effects of its programs, policies, and activities on  
30 minority populations and low-income populations.” In an accompanying Presidential  
31 memorandum, the President specified that federal agencies shall analyze the environmental  
32 effects of their proposed actions on minority and low-income communities, including human  
33 health, economic, and social effects when such analysis is required by NEPA.

34 This analysis follows the *Guide for Environmental Justice Analysis with the Environmental*  
35 *Impact Analysis Process*, November 1997, and the CEQ Environmental Justice Guidance under  
36 NEPA, December 1997.

# DRAFT

1 In order to determine if minority and low-income populations are disproportionately impacted by  
2 the Proposed Action or No-action Alternative, two areas of comparison must first be determined:

- 3 • the area potentially affected by impacts from resources (i.e., air quality, noise, land use),  
4 or ROI, and
- 5 • the larger regional community that includes the affected area and serves as a Community  
6 of Comparison (COC).

7 Depending on the alternatives, each resource (i.e., air quality, noise, land use) can impact a  
8 different ROI. The ROI is the geographic region that would be influenced by a resource as a  
9 result of the proposed project. The ROI for this environmental justice analysis includes the  
10 census tracts affected by the Proposed Action, including census tract 1614 which is comprised of  
11 JBSA-Lackland. The COC is the regional area surrounding the ROI that is the demographic area  
12 used to compare and analyze the potential environmental justice impacts that results in the  
13 identification of an environmental justice community. For this analysis the COC is the COSA.

14 Disadvantaged groups within the ROI and COC, including low-income and minority  
15 communities, are specifically considered in order to assess the potential for disproportionate  
16 occurrence of impacts. For the purposes of this analysis, disadvantaged groups are defined as  
17 follows:

- 18 • *Minority Population:* Black or African Americans; American Indians and Alaska  
19 Native; Asian; Native Hawaiian and Other Pacific Islander; and some other race.  
20 For the 2010 Census, race and Hispanic origin (ethnicity) were considered two  
21 separate concepts and were recorded separately. For the purposes of this analysis,  
22 the total minority race population will be separate from the total Hispanic  
23 population to determine total minority race population from the Hispanic total  
24 within the affected areas.
- 25 • *Low-Income Population:* Persons living below the poverty level, according to  
26 income data collected in US Census 2010.

27 Table 3-12 summarizes census data on minority and low-income populations for the affected  
28 Census Tracts (the ROI) and for the COSA (the COC). Additional information is provided for  
29 Bexar County, the State of Texas, and the US.

# DRAFT

**1      Table 3-12 Percent Minority Population and Low-Income Population for Proposed Site**

<b>Demographic Area</b>	<b>Total Population</b>	<b>Total Hispanic/Latino Population</b>	<b>Percent Hispanic/Latino Population</b>	<b>Total Minority Race Population</b>	<b>Percent Minority Race</b>	<b>All Income Levels</b>	<b>Percent Low-Income</b>
<b>Region of Influence (ROI)</b>							
Census Tract 1614	9,945	777	8	2,739	28	915	15.2
Census Tract 1616	3,958	3,144	79	1,096	28	4,800	39.5
Census Tract 1716.01	4,462	4,077	91	1,393	31	3,676	38.3
Census Tract 1716.02	3,135	2,836	90	1,011	32	3,667	33.5
Census Tract 9801	301	60	20	72	24	348	0.0
<b>Community of Comparison (COC)</b>							
COSA	1,327,407	838,952	63	318,463	24	489,289	18.9
<b>Others</b>							
Bexar County	1,714,773	1,006,958	59	404,845	24	1,682,820	16.9
State of Texas	25,145,561	9,460,921	38	6,765,008	27	24,652,927	17.9
United States	308,745,538	50,325,523	16.3	57,117,925	18.5	296,141,149	13.8

Source: USCB 2011a-f

2      At least one criteria listed below must be met to determine if an environmental justice  
3      community is present:

- 4            • If the percentage of minority or low-income population within the ROI is greater than  
5            that of the community of comparison, the affected area is considered to be a minority or  
6            low-income population.
- 7            • If the minority population (including Hispanics or Latinos) or low-income population of  
8            the ROI is greater than 50 percent, the affected area is considered a majority-minority or  
9            majority low-income population.

10      According to the percentages listed in Table 3-12, an environmental justice community is present  
11      in the area of the Proposed Action. Census Tracts 1614, 1616, 1716.01, and 1716.02 have  
12      environmental justice communities because the total percent minority race populations are  
13      greater than the COC, making them a majority-minority population. Additionally, Census Tracts  
14      1616, 1716.01, and 1716.02 are considered environmental justice communities because the  
15      percent low income populations are greater than the COC, making the Census Tracts majority  
16      low-income populations.

**Chapter 4**

**Environmental Consequences**







# DRAFT

1 The noise associated with the operation of machinery on construction sites is typically short-  
2 term, intermittent, and highly localized; therefore, noise would not accumulate over time and  
3 would last only as long as the duration of the construction and demolition activities.

4 It is anticipated that typical construction vehicles and equipment to be used during demolition,  
5 site preparation, construction, and finishing work would be similar to those presented in Table 3-  
6 1. Construction equipment expected to be used at the site would produce peak SPLs ranging  
7 from 75 to 85 dBA at 50 ft from the source. The SPL decreases 6 dBA with every doubling of  
8 distance from the source (USEPA 1977). It should also be noted that Table 3-1 includes the SPL  
9 generated at various distances from the source, but does not account for the ability of sound to be  
10 reflected/absorbed by nearby objects, which could further reduce noise levels. Noise levels  
11 within buildings are generally reduced by 20 dB, depending on the type of walls and windows  
12 (US Navy 2005).

13  
14 Air Force and civilian workers employed at buildings approximately 300 feet from proposed  
15 road construction sites would experience temporary increases in peak noise levels as a result of  
16 construction activities; however, these noise levels would be short-term, lasting only as long as  
17 the duration of construction activities in that area, and would be further minimized by the noise-  
18 reducing properties of building construction. It is anticipated that peak noise levels inside these  
19 buildings would be between 44 and 51 dBA. Note that these buildings lie within the 65-69 dB  
20 DNL aircraft noise contour; therefore, average baseline noise levels within the buildings is  
21 between 45-49 dB.

22 Areas adjacent to proposed construction activities would temporarily experience peak outside  
23 noise levels similar to those noted in Table 3-1. The closest potential residential noise-sensitive  
24 receptors are located 0.08 miles north of the project site. These residences are separated from the  
25 proposed project site by US Highway 90.

26 Due to the distance from the site, peak outside noise levels from construction activities would be  
27 approximately 67 dBA at the nearest residences. These residences are already located within the  
28 65-69 dB noise contours from the active runway, and are therefore exposed to higher average  
29 noise levels on a daily basis. Sound levels within the residences would be even lower due to the  
30 sound transmission loss through building walls and windows. Noise levels within buildings are  
31 generally reduced by 20 dB, depending on the type of walls and windows (US Navy 2005).  
32 Therefore, interior noise levels from construction would be reduced to 47 dB, which is well  
33 below the levels which cause hearing loss and annoyance.

34 The Gateway Hills Golf Course (0.18 miles), located within the 65 – 69 dB noise contour, is also  
35 a potential noise-sensitive receptor adjacent to the construction site. Visitors to the golf course  
36 would experience peak construction noise levels around 61 dBA. The noise level is below the  
37 baseline range of 65-69 dB; therefore, construction noise levels would not cause additional  
38 impacts. The noise would last only as long as construction was occurring in the area, and the  
39 noise would return to normal levels as construction activities moved away from the site. This  
40 site is considered a recreational area and therefore is not a site of permanent residents. Visitors  
41 to these sites are intermittent and would only be exposed to elevated noise levels during their

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1 visit to the sites. In order to reduce noise exposure to visitors, signage could be posted at each  
2 site during construction in the area, warning of elevated noise levels. Peak noise levels at  
3 potential noise-sensitive receptors would not be expected to exceed baseline conditions as a  
4 result of the Proposed Action.

5 The single residence located adjacent to the existing Growdon Road is located approximately  
6 553 feet from the existing Growdon Road, and approximately 340 feet from the proposed  
7 Growdon Road. Assuming an average noise level of 80 dBA (at a distance of 49 feet) for  
8 medium to heavy trucks travelling less than 35 miles per hour, the residence currently  
9 experiences peak intermittent noise levels between 68 dBA and 71 dBA outside the house from  
10 the existing Growdon Road. Interior noise levels would be further reduced due to noise-reducing  
11 properties of building materials. Since there is no expected increase in traffic on the proposed  
12 Growdon Road, using the same noise levels, the residence would experience noise levels of  
13 approximately 71 dBA from the proposed Growdon Road, which is not notably louder than  
14 baseline conditions (USDOT 1995). Additionally, the residence is currently located within the  
15 aircraft noise contour of 75-79 dB DNL, so the average daily noise is currently greater than that  
16 of the intermittent traffic noise that would be experienced from the proposed Growdon Road.

#### 17 **4.3.1.2 No-action Alternative**

18 Under the No-action Alternative, no construction activities would occur and there would be no  
19 change in the baseline conditions described in Section 3.3.1; however, it is unknown if there  
20 would be changes to future noise levels due to off-property development or traffic growth trends.

#### 21 **4.3.1.3 Measures to Reduce Impacts**

22 No mitigation measures would be required. Noise-generating heavy equipment at the project site  
23 should be equipped with the manufacturer's standard noise control devices (i.e., mufflers,  
24 baffling, and/or engine enclosures). All equipment should be properly maintained to ensure that  
25 no additional noise from worn or improperly maintained equipment parts is generated.  
26 Construction activities would occur between 0700 and 1900 hours and would be conducted  
27 according to OSHA regulations 29 CFR 1910.95 and 29 CFR 1926.52. Occupational exposure  
28 to the noise from heavy equipment could be reduced by requiring workers to wear appropriate  
29 hearing protection. Hearing protective devices such as ear plugs or ear muffs should be worn at  
30 all locations where workers may be exposed to high noise levels.

#### 31 **4.3.2 Land Use**

32 The following factors were considered in evaluating potential land use: (1) the degree to which  
33 the action would adversely affect existing sensitive land uses; (2) the degree to which  
34 construction and/or resultant road routes would interfere with the activities or functions of  
35 adjacent existing or proposed land uses; and (3) the degree to which any physical changes in land  
36 use would affect surrounding uses and compatibility with land use plans. The alternatives could  
37 have a significant effect if they: 1) conflict in substantial fashion with existing land uses and  
38 master planning efforts undertaken by the installation, or 2) conflict in substantial fashion with  
39 off-base land uses and master planning efforts of surrounding jurisdictions.

1     **4.3.2.1 Proposed Action**

2     Under the Proposed Action, the acquisition of the 232 acres under the Proposed Action would  
3     result in a land use designation change; however, this designation change is compatible with the  
4     existing land use.

5     The COSA property and private property that would be acquired by JBSA-Lackland would  
6     change to “Industrial” and “Open Space” land use designations. The portion of the private  
7     property that is currently used for production of hay (approximately 70 acres) would no longer  
8     be available as farmland. These 70 acres are included in a total of 212 acres of prime farmland  
9     that would be lost as a result of the Proposed Action. Since the majority of land surrounding the  
10    subject property is considered urban and approximately 70 percent of the subject property is not  
11    and has not recently been used for agricultural purposes, the loss of 212 acres of prime farmland  
12    would be considered a long-term, minor impact.

13    The 80 acres slated for the new 2,500 ft long by 1,500 ft wide CVIA/ECP would be designated  
14    as “Industrial” land use and the remaining acquired property would be designated as “Open  
15    Space” land use. Further, impacts from development of the remaining acres would be analyzed  
16    in a separate EA.

17    The land that would be used for the new 9,000-foot section of Growdon Road would be located  
18    primarily off-base. In order to relocate the road to COSA property, the COSA would grant  
19    JBSA-Lackland an easement to construct and use the new section of Growdon Road. It is not  
20    known if the COSA would change the current land use designation of “Agribusiness Tier” with  
21    construction and operation of the new Growdon Road.

22    The Proposed Action is not expected to result in conflict with existing land uses and master  
23    planning efforts undertaken by the installation or the COSA.

24    **4.3.2.2 No-action Alternative**

25    Under the No-action Alternative, there would be no change in the baseline land use designations  
26    described in Section 3.3.2.

27    **4.3.2.3 Measures to Reduce Impacts**

28    The Proposed Action would result in compatibility with existing land use in the vicinity;  
29    therefore, no mitigation measures or BMPs are proposed.

30    **4.3.3 Air Quality**

31    The following factors were considered in evaluating air quality: (1) the short- and long-term air  
32    emissions generated from road construction and demolition; building construction and  
33    demolition; and on-road vehicle activities; (2) the type of emissions generated; and (3) the  
34    potential for emissions to result in ambient air concentrations that exceed one of the NAAQS or  
35    SIP requirements. A conformity analysis is not required if the emissions of NO<sub>x</sub> and VOC are  
36    emitted in quantities less than the corresponding *de minimis* level. For purposes of analysis,  
37    impacts to air quality would be considered significant if emissions from the alternatives would be

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1 considered regionally significant by the USEPA. The air pollutant emission calculations for the  
2 Proposed and No-action Alternative included in the sections below are detailed in Appendix G.

### 3 **4.3.3.1 Proposed Action**

4 Emissions expected from the Proposed Action are summarized in Table 4-1 and would occur  
5 during the new Growdon Road construction, the demolition of existing Growdon Road, the  
6 construction of buildings and canopies associated with the new CVIA/ECP and the demolition of  
7 the existing Growdon Gate buildings and canopies. The only long-term activity associated with  
8 the Proposed Action is the vehicular traffic along the new Growdon Road; however, the traffic  
9 volumes are not expected to differ from the traffic volumes along the existing Growdon Road.  
10 Since the new CVIA/ECP would be more efficient at screening commercial vehicles, engine  
11 idling times would be lessened. This would result in a decrease in engine emissions associated  
12 with operation of the CVIA/ECP. Long-term emissions would not increase.

13 Under the Proposed Action it was estimated that the project would take 24 months to complete.  
14 For the purpose of this conformity determination, it has been assumed that all emissions  
15 associated with the Proposed Action would take place during a one year period.

16 Review of anticipated emissions from the Proposed Action in Table 4-1 indicates that the  
17 greatest impact to the annual local emissions during the project would be PM<sub>10</sub> with a 63.6 tpy  
18 increase. The minor emissions would be temporary and would be eliminated after the activity is  
19 completed.

20 The emission of minor amounts of air pollution would be unavoidable; however, the individual  
21 and cumulative impacts during the Growdon Gate/Road relocation would have little impact when  
22 compared to the 2008 San Antonio MSA emissions, as shown in Table 4-1. All emissions would  
23 fall well below the 10 percent level that would be considered regionally significant by the  
24 USEPA.

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1

**Table 4-1 Expected Emissions per Construction Year**

	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub> <sup>b</sup>	PM <sub>10</sub>	PM <sub>2.5</sub>
Proposed Action (tpy)	8.2	1.3	3.0	0.93	63.6	6.6
Percent of Regional Emissions	2.71E-03	2.19E-03	5.00E-03	3.37E-03	0.066	0.052
2008 San Antonio MSA Emissions (tpy) <sup>a</sup>	303,123	59,419	60,045	27,571	95,688	12,659

Notes:

CO = carbon monoxide

MSA = Metropolitan Statistical Area

NO<sub>x</sub> = nitrogen oxides

PM<sub>2.5</sub> = particulate matter equal or less than 2.5 micrometers in diameter

PM<sub>10</sub> = particulate matter equal or less than 10 micrometers in diameter

SO<sub>x</sub> = sulfur oxides

tpy = tons per year

VOC = volatile organic compound

<sup>a</sup> Includes emissions from point, area, on-road, non-road mobile sources, and biogenic sources. San Antonio

MSA consists of Bexar, Comal, Guadalupe, and Wilson Counties. Source: Emissions come from an extract of USEPA's

National Emission Inventory (NEI). Data for year 2008 were extracted from the NEI, Version 1.5, May 2011. NEI is an

emissions database developed by USEPA, 2008 is the latest year of emissions available.

<http://www.epa.gov/ttn/chief/net/2008inventory.html>

2 **4.3.3.1 Greenhouse Gases**

3 Under the Proposed Action approximately 3,513 metric tons of CO<sub>2eq</sub> would be released. The  
4 amount of CO<sub>2eq</sub> released under the Proposed Action represents less than 0.00006 percent of the  
5 2009 U.S. anthropogenic emissions of CO<sub>2eq</sub>. This is a limited amount of emissions that would  
6 not contribute significantly to climate change, but any emission of GHGs represents an  
7 incremental increase in global GHG concentrations. The US Air Force is poised to support  
8 climate-changing initiatives globally, while preserving military operations, sustainability, and  
9 readiness by working, where possible, to reduce GHG emissions (AFCEE 2012).

10 Activities under the Proposed Action are not subject to the requirements of the USEPA National  
11 Greenhouse Gas Reporting Rule. The Proposed Action does include the construction of new  
12 facilities, renovation, or repair and alteration of facilities that might be subject to requirements  
13 under EO 13514; however, the construction activities and on-road vehicles associated with the  
14 Proposed Action would not be considered in GHG target reductions under E.O. 13514.

15 **4.3.3.2 No-action Alternative**

16 Under the No-action Alternative, there would be no change in the baseline air emissions  
17 described in Section 3.3.3. It is unknown if changes in future off-property development or traffic  
18 growth trends would affect air quality.

19 **4.3.3.3 General Conformity**

20 The General Conformity rule is set forth in the CFR, 40 CFR 51 Subpart W – Determining  
21 Conformity of General Federal Action to State and Federal Implementation Plans. According to  
22 40 CFR 51.853(b), Federal actions require a conformity determination for each pollutant where  
23 the total of direct and indirect emissions in a nonattainment or maintenance area caused by a

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1 Federal action would equal or exceed any of the rates in paragraphs 40 CFR 51.853(b)1 or 2. The  
2 emission calculations used in this general conformity applicability determination are in  
3 Appendix G.

4 The Proposed Action and No-action Alternative would be located in Bexar County, which is  
5 currently designated basic nonattainment area for O<sub>3</sub>. All other criteria pollutants are in  
6 attainment. Effective July 20, 2012; Bexar County will be designated as  
7 unclassifiable/attainment. The three year average ozone concentrations in Bexar County are very  
8 close to exceeding the 8-hour ozone standard. Therefore, emissions associated with the Proposed  
9 Action and No-action Alternative have been compared to the General Conformity *de minimis*  
10 thresholds. The O<sub>3</sub> precursor (NO<sub>x</sub> and VOC) emissions are subject to General Conformity  
11 requirements. In accordance with the requirements of 40 CFR 51.853(b)1, the *de minimis*  
12 threshold set for basic O<sub>3</sub> nonattainment areas is 100 tons per year for O<sub>3</sub> precursors VOC and  
13 NO<sub>x</sub>.

14 The annual emission increases associated with the Proposed Action, No-action Alternative, and  
15 comparison with the *de minimis* thresholds are presented in Table 4-2. Table 4-2 shows that the  
16 annual emissions of NO<sub>x</sub> and VOCs during the construction periods of the Proposed Action and  
17 No-action Alternative are less than the *de minimis* thresholds. Therefore, no further analysis is  
18 recommended.

19 **Table 4-2 Comparison of Emissions to de minimis Thresholds**

Pollutants	Proposed Action Emissions (tpy)	No Action Alternative Emissions (tpy)	De minimis Threshold (tpy)
NO <sub>x</sub>	3.0	0.0	100
VOC	1.3	0.0	100

Notes:  
NO<sub>x</sub> = nitrogen oxides  
tpy = tons per year  
VOC = volatile organic compound

## 20 **4.3.3.4 Measures to Reduce Impacts**

21 Little impact to local air quality would be expected from the Proposed Action associated with the  
22 Growdon Gate/Road relocation at JBSA-Lackland. Therefore, no mitigative actions are  
23 proposed. BMPs would include watering the disturbed area of the construction, covering dirt and  
24 aggregate trucks and/or piles, prevention of dirt carryover to paved roads, the use of erosion  
25 barriers and wind breaks, and the use of low sulfur and bio-diesel fuel in construction/transport  
26 vehicles.

## 27 **4.3.4 Earth Resources**

28 Protection of unique geological features, minimization of soil erosion, and the siting of facilities  
29 in relation to potential geologic hazards are considered when evaluating potential impacts of the

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1 alternatives on earth resources. Generally, impacts can be avoided or minimized if proper land  
2 conservation and erosion control measures are incorporated into project development.

3 Effects on geology and soils could be significant if they alter the lithology, stratigraphy, and  
4 geological structures or change the soil composition, structure, or function within the  
5 environment.

#### 6 **4.3.4.1 Proposed Action**

7 Under the Proposed Action, construction of the new Growdon Road is anticipated to involve  
8 placement of new road base and asphalt along the northern and eastern edge of the Leon Creek  
9 floodplain buffer zone around to the new gate location. Construction vehicle traffic is expected  
10 to be limited to the footprint of the new Growdon Road and no separate haul routes would be  
11 constructed. The road construction areas anticipated to be disturbed would be undeveloped  
12 portions of COSA property adjacent to Leon Creek, from existing Growdon Road northwest to  
13 US Highway 90 at the Callaghan overpass (approximately 3,078 sf), and from the existing  
14 Growdon Road southwest to the new CVIA/ECP (approximately 4,427 sf). The proposed  
15 relocation of Growdon Road would also cross the man-made storm water ditch located on the  
16 boundary of the 232-acre area for acquisition. This crossing is anticipated to be similar to the  
17 crossing of that same man-made feature near the Growdon Road CVIA/ECP. The excavation  
18 and construction could temporarily increase the potential for erosion and sedimentation runoff  
19 into Leon Creek. The contractor would need to acquire a TPDES construction general permit  
20 (CGP) for excavation and construction within the ordinary high water mark. Coverage under  
21 this permit requires the submittal of a notice of intent (NOI), development and implementation of  
22 a SWPPP, and incorporation of BMPs within the SWPPP for sediment control during excavation  
23 and construction activities. From construction of the new Growdon Road and removal of the  
24 existing Growdon Road, there would be a short-term increase in soil disturbance and dust  
25 generated, which would be limited to those areas on or near construction operations and would  
26 occur only during the duration of construction.

27 Construction of the new CVIA/ECP gate would be located on 80 acres of the 232-acre property  
28 proposed for acquisition. Construction of the new gate would also generate dust and result in  
29 soil disturbance; however, this disturbance would be short-term, would fall off rapidly with  
30 distance from the construction site, and would last only as long as the duration of construction.

31 Additionally, approximately 249,033 sf of Growdon Road from the existing CVIA/ECP to the  
32 convergence of the old and new Growdon Road would be demolished. Areas where the roadway  
33 is removed would be susceptible to increased erosion. To minimize erosion, the contractor  
34 would be responsible for watering the area during demolition activities, as well as revegetation  
35 of the area once demolition is complete.

36 Construction and demolition activities would be expected to last approximately 24 months. All  
37 efforts would be made to minimize and suppress dust creation through the use of water trucks  
38 during site preparation and construction of the new Growdon Road and CVIA/ECP. Because the  
39 disturbed areas would be more than one acre in size, a TPDES general construction permit would



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1 be required. Additionally, a City of San Antonio storm water management plan would be  
2 required.

3 A total of 212 acres of prime farmland would be lost as a result of the Proposed Action. Since  
4 the majority of land surrounding the subject property is considered urban and approximately 70  
5 percent of the subject property is not and has not recently been used for agricultural purposes, the  
6 loss of 212 acres of prime farmland would be considered a long-term, minor impact.

7 Due to the short duration of construction activities, no long-term or permanent effects to earth  
8 resources would be anticipated from vehicular traffic or ground disturbance associated with the  
9 Proposed Action. Therefore, it is anticipated that underlying soils would remain relatively intact.  
10 As a result of minimal disturbance in the project areas, the Proposed Action would not be  
11 expected to alter the lithology, stratigraphy, or geological structures; or change the soil  
12 composition, structure, or function.

#### 13 **4.3.4.2 No-action Alternative**

14 Under the No-action Alternative, there would be no construction or demolition activities and  
15 therefore, no change in the baseline conditions described in Section 3.3.4.

#### 16 **4.3.4.3 Measures to Reduce Impacts**

17 Construction impacts to earth resources from the Proposed Action are anticipated to be  
18 temporary in nature and would not require mitigation measures. However, proposed  
19 construction projects should include site-specific sediment and erosion control plans that detail  
20 BMPs to prevent soil disturbance, capture and contain loose soil, and slow the movement of  
21 storm water during heavy rains. Fugitive dust from construction and demolition activities would  
22 be minimized by watering of the soil, and areas where the existing Growdon Road is removed  
23 would be re-vegetated to prevent erosion.

#### 24 **4.3.5 Biological Resources**

25 Impacts to biological resources would be considered significant if the Proposed Action or No-  
26 action Alternative resulted in

- 27 • An adverse effect to any Federal, state, or locally regulated or regionally sensitive species  
28 or valuable natural resource (sensitive plant/animal community)
- 29 • An adverse effect to endangered, threatened or candidate species or if it adversely  
30 modified or destroyed their critical habitat under ESA
- 31 • An impact to Federally protected wetlands as promulgated under Section 404 of the  
32 CWA through direct removal, filling, changes in hydrology, or other means
- 33 • Adverse effects on birds protected by the MBTA

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## 1    **4.3.5.1 Proposed Action**

### 2    Vegetation

3    Under the Proposed Action, approximately 80 acres would be used for the construction of the  
4    new CVIA/ECP on the west side of the land acquisition. This area is already disturbed and does  
5    not support natural vegetation. The new portions of Growdon Road would be approximately  
6    10,131 feet long and 50 feet wide (11.63 acres) and would be routed along the eastern edge of  
7    the Leon Creek floodplain buffer zone. The road would stay outside of the riparian habitat and  
8    replace land covered with grassland/pasture, mesquite woodland, or highly disturbed areas. The  
9    disturbance of roughly 12 acres of moderate to poor quality vegetation would not pose an  
10   adverse impact on vegetation in the project area. Standard construction BMPs (e.g., rock filter  
11   dams/silt fences along the west edge of the ROW, drip pans under construction vehicles,  
12   hazardous waste/spill response plan, daily collection of human trash, portable toilets) would be  
13   used to protect adjacent habitat from degradation and contamination. The Proposed Action  
14   would not be expected to adversely affect vegetation communities within or adjacent to the  
15   project area.

16   During the 2011 field survey of the project area, invasive plant species were observed in every  
17   habitat type; therefore, the Proposed Action is unlikely to introduce any invasive species to areas  
18   where they do not presently exist.

### 19   Wildlife

20   The wildlife inhabiting the project area would be disturbed by the noise and activity (e.g., initial  
21   startle and avoidance of area adjacent to the activity) that would occur during the Proposed  
22   Action. Following construction completion, the noise and activity levels would be higher than  
23   pre-construction conditions because of vehicular traffic noise. Variable positive and negative  
24   impacts have been documented in the Federal Highway Administration report Highway Traffic  
25   Noise: Effects on Wildlife (Federal Highway Administration 2012). Some sensitive wildlife  
26   would move farther away from the new road while other less sensitive animals would not be  
27   affected or move closer to the road. Vehicular traffic noise may impact local wildlife, but the  
28   impacts would not result in the loss of a regional wildlife population. The area impacted by the  
29   action is small and similar wildlife habitat occurs in the immediate area; therefore, any impact on  
30   wildlife in the area would be short-term and would not adversely affect animals living in or  
31   adjacent to the project area. Note also that wildlife habitat in the project area is exposed to  
32   average aircraft noise levels of 65 to 79 dB DNL (See Figure 3-1); therefore, it is likely that  
33   wildlife in the area are acclimated to increased noise levels.

### 34   Wetlands

35   No wetlands exist along the proposed new route for Growdon Road, nor in the 80 acres where  
36   the new CVIA/ECP would be constructed; therefore, the Proposed Action would have no direct  
37   effect on wetlands. The increase in impervious area from the Proposed Action would increase  
38   water runoff into Leon Creek. The increased flow in Leon Creek would indirectly affect the  
39   wetlands associated with the riparian habitat along Leon Creek; however, the increase in  
40   impervious area is minor relative to the overall drainage area; therefore, the effect on the  
41   wetlands would be minor. Although the impervious area will increase, the amount of traffic

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1 along the road would not change as a result of the Proposed Action, therefore, impacts to surface  
2 water quality as a result of vehicle fluid leaks would be similar to baseline conditions.

### 3 Protected Species

4 The Proposed Action would not be expected to impact the three federally-listed endangered bird  
5 species (black-capped vireo, golden-cheeked warbler, and whooping crane) or the candidate  
6 species for listing (Sprague's pipit) because suitable breeding habitat is not present for these  
7 species within the project area. The habitat survey conducted in May 2011 identified suitable,  
8 but limited habitat along the proposed project corridor for the state-listed threatened canebrake  
9 rattlesnake and migratory habitat for the state-listed threatened bird species (American peregrine  
10 falcon, white-faced ibis, whooping crane, wood stork, and zone-tailed hawk). Although limited  
11 suitable foraging habitat is present (primarily west of the project area), no individuals were  
12 observed during the surveys.

13 Most canebrake rattlesnakes occur in the eastern third of Texas where they prefer extensive areas  
14 of suitable habitat (Tennant 2006). The project area is on the edge of the known canebrake  
15 rattlesnake distribution and its occurrence is unlikely in the limited fragmented habitat present  
16 with and adjacent to the project area. The limited area of suitable habitat present for the listed  
17 migratory birds would not provide sufficient forage for these species for a long period of time  
18 and therefore these species, if they occur, would remain in the area for only a short time.

19 The riparian area west of the proposed Growdon Road route provides breeding, foraging and  
20 resting habitat for migratory birds. The Proposed Action is located primarily outside of the  
21 riparian habitat along Leon Creek and would not be expected to result in destruction of breeding  
22 nests; however, the noise and disturbance from construction could cause nesting birds to abandon  
23 their nests. To mitigate the potential loss of migratory bird nests during construction, clearing of  
24 all areas associated with the Proposed Action would be scheduled for a one to two month period  
25 during the non-breeding months (August through January). In addition, all standard construction  
26 best management practices (e.g., rock filter dams / silt fences along the west edge of the ROW,  
27 drip pans under construction vehicles, hazardous waste/spill response plan, daily collection of  
28 human trash, portable toilets) would be used to protect adjacent habitat from degradation and  
29 contamination. Overall, with the recommended mitigation, the project alternatives would not be  
30 expected to adversely affect the population of any occurring species.

### 31 **4.3.5.2 No-action Alternative**

32 Under the No-action Alternative, there would be no construction or demolition activities due to  
33 the Proposed Action and therefore, no change in the baseline conditions described in Section  
34 3.3.5.

### 35 **4.3.5.3 Measures to Reduce Impacts**

36 Road construction clearing activities would be conducted during the non-breeding season for  
37 most migratory birds (August through January) to ensure compliance with the MBTA. This  
38 mitigation measure would be included in the Proposed Action to reduce the potential adverse

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1 impacts on biological resources, especially protected species. Standard construction BMPs (e.g.,  
2 rock filter dams/silt fences along the west edge of the ROW, drip pans under construction  
3 vehicles, hazardous waste/spill response plan, daily collection of human trash, portable toilets)  
4 for runoff control and hazardous material spill control and clean up would also be implemented  
5 to prevent adverse impacts to wildlife habitat and waterways.

## 6 **4.3.6 Cultural and Traditional Resources**

7 Significant impacts to cultural properties would occur only if the Proposed Action or No-action  
8 Alternative would adversely affect historic properties. An adverse effect is an undertaking that  
9 diminishes the integrity of a property's location, design, setting, materials, workmanship, feeling,  
10 or association, or in other words, damages the qualities of the historic property that make it  
11 eligible for listing in the NRHP. An adverse effect can occur through the destruction or  
12 alteration of the property, isolation from or alteration of the environment, introduction of  
13 intrusive elements (visual, audible, or atmospheric), neglect, and the transfer, lease or sale of the  
14 property (ACHP and GSA Interagency Training Center 1995).

15 The nature and potential significance of cultural resources in the potentially affected areas were  
16 identified by considering the following definition: Historic properties, under 36 CFR Part 800,  
17 are defined as "any prehistoric or historic district, site, building, structure, or object included in,  
18 or eligible for inclusion in, the NRHP." For the purpose of these regulations, this term includes  
19 artifacts, records, and remains that are related to and located within such properties. The term  
20 "eligible for inclusion in the National Register" includes both properties formally determined as  
21 such by the Secretary of the Interior and all other properties that meet NRHP-listing criteria.

### 22 **4.3.6.1 Proposed Action**

#### 23 Archaeological Resources

24 Review of previous studies and archeological survey of the proposed APE resulted in the  
25 recording of one archeological site, 41BX1886. Since the site was recommended as ineligible  
26 for inclusion on the National Register of Historic Places and the State Historic Preservation  
27 Officer has concurred, no archeological historic properties are present within the APE.  
28 Therefore, the Proposed Action would have no effect on archaeological resources (Appendix E).

#### 29 Historic Buildings and Structures

30 Under the Proposed Action, Buildings 1213 and 1217 would be demolished. However, neither is  
31 eligible for inclusion on the National Register of Historic Places. Since no eligible historic  
32 properties are present within the APE, the Proposed Action would have no effect on historic  
33 resources.

### 34 **4.3.6.2 No-action Alternative**

35 Under the No-action Alternative no archaeological resources or historic properties would be  
36 affected; therefore, there would be no change to baseline conditions as described in Section  
37 3.3.6.

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## 1    **4.3.6.3 Measures to Reduce Impacts**

2    Under the alternatives no archaeological resources or historic properties would be affected,  
3    therefore, no measures to reduce impacts are proposed.

## 4           **4.3.7 Water Resources**

5    Significant impacts to water resources resulting from the alternatives would potentially occur if  
6    project activities 1) reduce water availability or supply of water to existing users; 2) adversely  
7    affect water quality or endanger public health by creating or worsening adverse health hazard  
8    conditions; or 3) violate established laws or regulations that have been adopted to protect or  
9    manage water resources of an area.

## 10   **4.3.7.1 Proposed Action**

### 11    Groundwater

12    While the shallow alluvial aquifer is located between 5 and 15 feet bgs, and potable groundwater  
13    at the project location is estimated to be shallow (approximately 44 feet below ground surface),  
14    excavation activities related to the construction of the proposed road and demolition of the  
15    existing road, installation of the CVIA/ECP, and demolition of existing facility are not  
16    anticipated to reach greater than a depth of 5 feet below ground surface. Demolition waste  
17    materials would be properly inspected and disposed, as discussed in further detail in Section  
18    4.3.9.1.3, so that groundwater would not be impacted. The Proposed Action would not reduce  
19    water availability or supply of water to existing users, nor would it adversely affect groundwater  
20    quality. Construction and demolition activities associated with the Proposed Action would not  
21    be expected to create adverse health hazard conditions that would endanger public health.  
22    Additionally, the Proposed Action would comply with all applicable laws and regulations that  
23    have been adopted to protect or manage water resources in the area. Groundwater is not likely to  
24    be encountered or impacted by the Proposed Action.

### 25    Surface Water

26    As part of the Proposed Action, the relocation of Growdon Road would include construction of  
27    the proposed road parallel to Leon Creek for approximately 7,500 feet (83%). All activities  
28    related to the construction of the road and demolition of the existing facilities and road would be  
29    located outside of the banks of Leon Creek. Therefore, the relocation of Growdon Road and  
30    demolition activities would have no direct impact on Leon Creek. However, during construction  
31    and excavation activities, exposed soils could create the temporary potential for erosion and  
32    increased sediment runoff into Leon Creek. Additionally, since the new Growdon Road would  
33    be longer than the existing Growdon Road to be demolished, there would be an overall increase  
34    in impervious cover. Storm water runoff from the new Growdon Road would drain to Leon  
35    Creek via overland sheet flow. Runoff from the additional impervious cover at the new  
36    CVIA/ECP would be discharged to Leon Creek via newly constructed storm sewers. The total  
37    amount of impervious cover on the project site would increase 70 percent under the Proposed  
38    Action. The increase in impervious cover would result in a total increase in storm water runoff  
39    by approximately 3.1 cubic feet per second; however, this increase is minor and could be  
40    accommodated by existing storm sewer infrastructure and drainage ditches. The quality of storm

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1 water runoff could also be impacted due to vehicle fluids that leak onto the newly constructed  
2 Growdon Road; however, since there is not expected to be an increase in traffic at the new gate,  
3 the impacts to surface water quality would be no different than baseline conditions from traffic  
4 on the existing Growdon Road and CVIA/ECP.

5 The proposed relocation of Growdon Road would also cross the man-made ditch located on the  
6 boundary of the 232-acre area for acquisition. This crossing is anticipated to be similar to the  
7 crossing of that same man-made feature near the Growdon Road CVIA/ECP. Since this road  
8 would cross a jurisdictional waterbody and would not be expected to result in a loss of waters  
9 of the U.S. greater than 0.10 acre, the construction activities would be covered under USACE  
10 Nationwide Permit 14 for Linear Transportation Projects with no pre-construction notification  
11 required. If construction activities were to result in a loss of 0.10 to 0.5 acres of waters of the  
12 U.S., pre-construction notification would be required.

13 Additionally, excavation and construction could temporarily increase the potential for erosion  
14 and sedimentation runoff into Leon Creek directly or via storm water ditches. Increased erosion  
15 and sedimentation could result in impacts to the water quality of Lower Leon Creek. The  
16 contractor would need to acquire a TPDES CGP for excavation and construction activities.  
17 Coverage under this permit requires the submittal of a NOI for projects over 5 acres in size,  
18 development and implementation of a SWPPP, and incorporation of BMPs within the SWPPP  
19 for sediment control during excavation and construction activities. The implemented BMPs  
20 would serve to minimize impacts to water quality. Completion of the Proposed Action would  
21 have no long-term impacts on surface water quality and quantity at the project location or  
22 downstream surface water bodies.

## 23 Floodplains

24 As discussed in Section 3.3.7.3 and depicted in Figure 3-3, approximately 4.7 acres and 8.3 acres  
25 of the proposed relocation of the Growdon Road would be located within the 100-year and 500-  
26 year floodplains, respectively. While the current Growdon Gate and facilities are located outside  
27 the 100-year and 500-year floodplains, approximately 0.07 acres and 0.15 acres of existing  
28 Growdon road to be demolished are located within the 100-year and 500-year floodplains,  
29 respectively (FEMA 2005).

30 Section 60.3 (d) (3) of the National Flood Insurance Program requires that communities prohibit  
31 encroachments, fill, new development, substantial improvements, and other development within  
32 the adopted regulatory floodway unless it has been demonstrated through an engineering analysis  
33 using hydraulic modeling techniques that the proposed project would not result in any increase in  
34 flood levels within the community of the base flood (100-year) discharge. No major alterations  
35 to drainage patterns or flood carrying capacities of water courses would occur as part of the  
36 Proposed Action. The project would comply with any stipulated permit condition, including  
37 engineering analysis or No-Net Rise Certification (as required).

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## 1     **4.3.7.2 No-action Alternative**

2     Under the No Action Alternative, there would be no change in the baseline conditions for ground  
3     water, surface water, and floodplains as described in Section 3.3.7.

## 4     **4.3.7.3 Measures to Reduce Impacts**

5     In accordance with permitting requirements and in order to minimize the potential for increased  
6     sediment loading of drainage areas and downstream surface waterbodies, a SWPPP would be  
7     developed for the construction of the Proposed Action. The SWPPP would include the  
8     implementation of appropriate BMPs, such as silt fencing and rock filter dams, during  
9     construction activities. Additionally, any FEMA stipulated permit conditions would be followed  
10    during Proposed Action activities. No mitigation measures are proposed.

## 11           **4.3.8 Hazardous Materials and Wastes**

12    The degree to which the proposed land acquisition, and construction and demolition activities  
13    associated with the Proposed Action could affect the existing environmental management  
14    practices was considered in evaluating potential impacts to hazardous materials and wastes,  
15    including ERP sites. Significant impacts could result if non-hazardous/regulated and hazardous  
16    substances were collected, stored and /or disposed of improperly.

## 17           **4.3.8.1 Proposed Action**

### 18           **4.3.8.1.1 Hazardous Materials**

19    The use of hazardous materials during the implementation of the Proposed Action is expected to  
20    be limited to construction vehicle maintenance (fuel, oils, and lubricants) and construction  
21    activities (asphalt, paints, etc.). These materials would be required to be properly contained,  
22    manifested, and managed according to all federal, state, and local regulations, AFIs and DoD  
23    Directives. Authorization from the JBSA-Lackland 802 Civil Engineering Squadron would be  
24    required prior to use of hazardous materials. Additionally, prior to the construction of the new  
25    segment of Growdon Road and entrance gate, and the demolition of the current Growdon Road,  
26    gate and associated buildings, the contractor would be required to prepare a site/project specific  
27    SPCCP to guide construction activities. The plan would require TCEQ approval before work  
28    commences.

### 29           Asbestos

30    The buildings on JBSA-Lackland that are scheduled for demolition have not been assessed for  
31    ACM. Prior to demolition, an ACM assessment must be conducted in coordination with the  
32    Base Asbestos Program Officer. Since the buildings proposed for demolition were built in 2002  
33    and 2005, asbestos is not expected to be found. However, if asbestos is found within the  
34    structures, the waste generated from demolition must be handled, accumulated and disposed of in  
35    accordance with all federal, state, and local regulations. Due to the size of the buildings  
36    proposed for demolition, it is expected that any ACM found within the buildings would be of  
37    minimal quantity.

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1 The potential to encounter any previously unidentified ACM (other than the buildings on JBSA-  
2 Lackland that are scheduled for demolition) during the Proposed Action is minimal. The known  
3 ACM is identified by the investigations conducted for the October 2011 Phase II EBS (see  
4 Section 3.3.8.2). On the 232-acre property, the seven structures that have been identified to  
5 contain ACM would be included in the land acquisition and there are no plans under the  
6 Proposed Action to modify or demolish these structures. If the Air Force decides to demolish or  
7 renovate these structures at a later date, to include asbestos removal or abatement, these actions  
8 would be assessed under a separate NEPA document.

9 Under the Proposed Action, any hazardous substances, including asbestos, would be collected,  
10 stored and /or disposed of properly to avoid impacts to the environment.

## 11 Lead-based Paint

12 The buildings on JBSA-Lackland that are scheduled for demolition have not been assessed for  
13 LBP. Since the buildings proposed for demolition were built in 2002 and 2005, LBP is not  
14 expected to be found. However, prior to demolition, a LBP survey must be conducted in  
15 coordination with the LBP Management Officer. If LBP is found within the structures, the waste  
16 generated from demolition must be handled, accumulated and disposed of in accordance with all  
17 federal, state, and local regulations. Due to the size of the buildings proposed for demolition, it  
18 is expected that any LBP found within the buildings would be of minimal quantity. The  
19 potential to encounter any previously unidentified LBP (other than the buildings on JBSA-  
20 Lackland that are scheduled for demolition) during the Proposed Action is minimal.

21 The nine LBP-containing buildings on the 232-acre property proposed for acquisition are not  
22 proposed for renovation or demolition as part of this Proposed Action. If the Air Force decides  
23 to demolish or renovate these structures at a later date, to include LBP removal or abatement,  
24 these actions would be assessed under a separate NEPA document, as appropriate.

## 25 Pesticides

26 Currently, the JBSA-Lackland Pest Management Plan applies only to commercially available  
27 pesticides. Base records indicate the historical applications of several pesticides that are no  
28 longer approved for use. Although these pesticides were used in accordance with manufacturers'  
29 guidance and directions, the potential exists for residual concentrations in the soil underlying on-  
30 base facilities. If it is necessary to remove soils for off-site disposal, a limited number of random  
31 samples would be collected to assess the presence or absence of pesticides in soil, and to  
32 properly categorize the soil for hazardous constituents per applicable state and federal  
33 regulations. Long-term impacts resulting from the Proposed Action would be positive in the  
34 removing of pesticide contaminated soils, if it is found.

35 Based upon the October 2011 Phase II EBS, there are pesticide-contaminated soils on a portion  
36 of the 232 acres proposed for acquisition (Parcel G). The soils identified as contaminated are  
37 present within the area that would be disturbed for construction of the new CVIA/ECP. Prior to  
38 construction of the CVIA/ECP, additional soil assessment activities must be conducted to  
39 determine the extent of contamination, as well as if the contamination concentrations are



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1 protective of human health. Additionally, any soils that would be removed and disposed off-site  
2 would require waste characterization prior to removal.

3 Note that other soils within the 232-acres proposed for acquisition could potentially be  
4 contaminated; however, additional soil assessment activities for areas not disturbed as part of the  
5 Proposed Action would not be required under this action, but would be required before  
6 development of those areas. Those actions would be assessed under a separate NEPA document.

#### 7 **4.3.8.1.2 Hazardous Waste**

8 Hazardous wastes are not expected to be generated as a result of the Proposed Action. As  
9 discussed in Section 4.3.8.1.1, additional soil analysis should be conducted on the 232 acres  
10 proposed for acquisition to determine the extent and level of contamination, if any, so that  
11 contaminated soils may be disposed of per applicable federal, state, and JBSA-Lackland  
12 regulations. If other hazardous waste is encountered during the activities of the Proposed Action,  
13 JBSA-Lackland environmental personnel would be contacted and proper disposal procedures  
14 would be followed according to federal, state and JBSA-Lackland guidelines. No hazardous  
15 wastes are expected to be generated by the Proposed Action.

#### 16 **4.3.8.1.3 Environmental Restoration Program**

17 As described in Section 3.3.8.6, there are four ERP sites that are located within ¼ mile of the  
18 proposed location of the new Growdon CVIA/ECP - Sites AL-722, SS-51, Building 933 and  
19 Building 966. These sites are not likely to impact the new construction or the land acquisition of  
20 the Proposed Action in any way.

#### 21 **4.3.8.2 No-action Alternative**

22 Under the No-action Alternative, there would be no change from the baseline conditions  
23 described in Section 3.3.8.

#### 24 **4.3.8.3 Measures to Reduce Impacts**

25 Impacts with regard to hazardous materials and wastes would not be expected from the Proposed  
26 Action. All hazardous materials and wastes would be managed according to established plans  
27 and state and federal regulations. Therefore, no mitigative actions or BMPs are proposed.

#### 28 **4.3.9 Utilities and Infrastructure**

29 The following factors were considered in evaluating potential impacts to infrastructure and  
30 utilities: (1) the degree to which a utility service would have to alter operating practices and  
31 personnel requirements; and (2) the degree to which the change in demands from implementation  
32 of the Proposed Action would impact the utility system's capacity. Impacts to utilities could be  
33 considered significant if implementation of the Proposed Action resulted in a change in demand  
34 which exceeded the capacity of the utility providers.

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1     **4.3.9.1 Proposed Action**

2     **4.3.9.1.1 Electricity**

3     Implementation of the Proposed Action would not change overall electrical consumption on  
4     JBSA-Lackland or the project area; however, the Proposed Action would require the expansion  
5     of some existing electricity lines during the relocation of the Growdon Road CVIA/ECP. Due to  
6     the presence of the existing electricity lines at the current Growdon Gate location and limited  
7     distribution infrastructure within the acquisition area, it is assumed that electrical distribution  
8     components are currently in place within the vicinity of the new CVIA/ECP location. Due to the  
9     limited nature of the electrical distribution infrastructure, minor additional distribution electrical  
10    infrastructure may be required to tie to the proposed Growdon Road CVIA/ECP. JBSA-  
11    Lackland would consult with CPS Energy to ensure that the Growdon Road CVIA/ECP is  
12    provided suitable electrical infrastructure and capacity to meet the needs of the new facility.

13    While service to the existing Growdon Gate would be disconnected, the existing electrical  
14    distribution infrastructure maintained by CPS Energy would remain intact and in place. All  
15    activities would be coordinated with CPS Energy and all utilities would be located and clearly  
16    identified prior to construction. The Proposed Action would not be expected to produce a break  
17    in service to unrelated and nearby facilities. Additionally, construction of Growdon Road would  
18    not be expected to utilize electricity. There would be no change in electrical demand as a result  
19    of the Proposed Action.

20    **4.3.9.1.2 Natural Gas**

21    Implementation of the Proposed Action would have no impact on natural gas utilities as it would  
22    not change overall natural gas consumption on JBSA-Lackland or the project area. Additionally,  
23    the relocation of the Growdon Road CVIA/ECP would not alter the natural gas distribution  
24    infrastructure, as the Growdon Road CVIA/ECP would not be using natural gas. Heating and  
25    other utilities would be electrical. All activities would be coordinated with CPS Energy and all  
26    utilities would be located and clearly identified prior to construction. The Proposed Action  
27    would not be expected to produce a break-in service to unrelated and nearby facilities.

28    **4.3.9.1.3 Solid Waste Disposal**

29    The Proposed Action involves demolishing the existing Growdon Road CVIA/ECP (including  
30    Building 1213 and associated canopy, and Building 1217 and the Vehicle Inspection Canopy)  
31    and approximately 249,033 sf of the existing Growdon Road. Demolition of approximately  
32    4,230 sf of building area would be expected to generate approximately 328 tons of demolition  
33    solid waste. This is based upon a USEPA non-residential demolition rate of 155 pounds per  
34    square foot (USEPA 1998). It is important to note that the estimate of 328 tons of solid waste  
35    generated is a conservative estimate, since a large portion of the buildings to be demolished are  
36    canopies which do not typically generate the same amount of waste as a typical building.

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1 It is anticipated that the demolition of the existing Growdon Road CVIA/ECP would generate  
2 approximately 18,235 tons (14,070 cubic yards) of concrete and road-related materials over the  
3 life of the project. Additionally, generation of minor construction related material wastes are  
4 anticipated during the construction of the Growdon Road relocation and the new CVIA/ECP.  
5 The solid wastes generated during construction activities would consist of materials such as solid  
6 pieces of concrete and asphalt, metals, and lumber. Solid wastes generated during demolition  
7 and construction would be disposed of in accordance with all federal, state, and local laws.  
8 Depending on the construction debris materials, solid waste may be diverted from a landfill  
9 through recycling or reuse. For materials not diverted, the construction contractor would be  
10 responsible for dispose of materials at the Covell Gardens landfill.

11 The Covell Gardens landfill receives approximately 1.6 million tons of solid waste per year  
12 (USAF 2011c). If all the solid, non-hazardous waste generated from the Proposed Action were  
13 disposed of at the Covell Gardens landfill, and the waste was generated uniformly over the two  
14 year duration of the project, there would be a 0.5 percent increase by weight in the amount of  
15 waste disposed at Covell Gardens for that two year period. The Covell Gardens landfill currently  
16 has a life expectancy of 75 years (Covell Gardens 2012); therefore, there is sufficient capacity to  
17 handle the short-term increase in solid waste.

#### 18 **4.3.9.1.4 Water Supply and Wastewater**

19 The Proposed Action would not adversely affect the volume of annual potable water consumed  
20 or wastewater generated at JBSA-Lackland; however, the Proposed Action would require the  
21 expansion of some potable water and wastewater distribution systems during the relocation of  
22 the Growdon Road CVIA/ECP.

23 Due to the presence of the existing water and wastewater lines at the current Growdon Gate  
24 location and limited infrastructure within the acquisition area, it is assumed that water and  
25 wastewater distribution components are currently in place within the vicinity of the new  
26 CVIA/ECP location. However, based on the minimal development in the 232-acre property, the  
27 current distribution and collection infrastructure would be limited. Therefore, minor additional  
28 distribution and collection lines may be required to tie to the proposed Growdon Road  
29 CVIA/ECP into the potable water and wastewater systems.

30 While services to the existing Growdon Road CVIA/ECP would be disconnected, the existing  
31 distribution and collection infrastructure, maintained by SAWS, would remain intact and in  
32 place. All activities would be coordinated with SAWS and all utilities would be located and  
33 clearly identified prior to construction. The Proposed Action would not be expected to produce a  
34 break in service to unrelated and nearby facilities.

#### 35 **4.3.9.1.5 Drainage of Storm Water**

36 Short-term increases in soil erosion and sediment loadings in storm water runoff would be  
37 expected during the excavation and construction related to the relocation of the Growdon Road  
38 CVIA/ECP and removal of the existing Growdon Road. These short-term impacts would be

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1 covered under the TPDES CGP permit for large projects (greater than 5 acres) obtained from the  
2 TCEQ. The CGP authorizes storm water discharges from large and small construction-related  
3 activities where those discharges have a potential to enter surface waters or storm drain systems.  
4 Coverage under this permit requires the submittal of a NOI, development and implementation of  
5 a SWPPP, and incorporation of BMPs within the SWPPP for sediment control during excavation  
6 and construction activities. A SWPPP would be developed following the requirements of the  
7 TPDES General Permit (TXR150000) relating to storm water discharges associated with  
8 construction activities. For long-term management of storm water at the project site, storm  
9 sewers would be constructed in the vicinity of the new CVIA/ECP gate and would be anticipated  
10 to discharge to Leon Creek. Since the new Growdon Road would be longer than the existing  
11 Growdon Road to be demolished, there would be an overall increase in impervious cover. Storm  
12 water runoff from the new Growdon Road would drain to Leon Creek via overland sheet flow.  
13 Runoff from the additional impervious cover at the new CVIA/ECP would be discharged to Leon  
14 Creek via newly constructed storm sewers that would be designed to handle standard runoff from  
15 paved areas. The total amount of impervious cover on the project site would increase 70 percent  
16 under the Proposed Action. The increase in impervious cover would result in an increase in  
17 storm water runoff by approximately 3.1 cubic feet per second; however, this increase is minor  
18 and could be accommodated by existing storm sewer infrastructure and drainage ditches. The  
19 quality of storm water runoff could also be impacted due to vehicle fluids that leak onto the  
20 newly constructed Growdon Road; however, since there is not expected to be an increase in  
21 traffic at the new gate, the impacts to surface water quality would be no different than baseline  
22 conditions from traffic on the existing Growdon Road and CVIA/ECP.

#### 23 **4.3.9.1.6 Security**

24 Currently the 232-acre acquisition area and proposed Growdon Road relocation area are  
25 unsecured and access is unrestricted from US Highway 90 to the north. The Proposed Action  
26 would relocate the secured entrance to the new CVIA/ECP. As part of the Proposed Action, the  
27 secured entrance at the existing Growdon Road CVIA/ECP would remain open during  
28 construction activities. Access to the 232-acre acquisition area and proposed Growdon Road  
29 relocation area would remain open throughout construction activities. Once the new Growdon  
30 Road construction and the CVIA/ECP are complete, the 232-acre acquisition area would be  
31 secured and surrounded by security chain-link fences and patrolled and monitored by Air Force  
32 Security Forces with the rest of the installation. Following the completion of the relocated  
33 Growdon Road CVIA/ECP and Growdon Road, the existing security entrance would be  
34 permanently closed by connecting the adjacent security chain-link fences. The Proposed Action  
35 is not expected to result in any security breaches and contractors would be responsible for  
36 maintaining the security of their own work sites, if outside gated areas of JBSA-Lackland.

#### 37 **4.3.9.2 No-Action Alternative**

38 Under the No Action Alternative, there would be no change in the baseline conditions for any  
39 utilities as described in Section 3.3.9.

1     **4.3.9.3 Measures to Reduce Impacts**

2     No mitigation measures are proposed for the Proposed Action. In accordance with permitting  
3     requirements and in order to minimize the potential for increased sediment loading of drainage  
4     areas and downstream surface waterbodies, a SWPPP would be developed for the construction of  
5     the Proposed Action. The SWPPP would include the implementation of appropriate BMPs, such  
6     as silt fencing and rock filter dams during construction activities. Likewise, all solid wastes  
7     generated during the construction phase and subsequent operation would be disposed of  
8     properly.

9             **4.3.10 Transportation**

10     The potential effects on transportation were evaluated by comparing the projected transportation  
11     conditions with the existing conditions. The assessment analyzes whether changes resulting from  
12     the Proposed Action would have adverse impacts on the transportation services within the ROI  
13     discussed in Section 3.3.10. Impacts to transportation would be significant if they would create  
14     major traffic hazards or increase traffic to an LOS E or worse.

15             **4.3.10.1 Proposed Action**

16     According to the 2011 traffic study prepared for the project area (Appendix F), relocation of  
17     Growdon Road and the CVIA/ECP would have little effect on the overall traffic situation within  
18     the ROI. The future condition analysis shows that after relocation of Growdon Road and the  
19     CVIA/ECP, the eastbound frontage road of US Highway 90 at Callaghan Road would remain at  
20     LOS A with only slightly longer delay times (Table 4-3). The intersection capacity for both  
21     eastbound and westbound US Highway 90 frontage roads at Callaghan Road would remain less  
22     than 50 percent utilized. In the event that large numbers of additional commercial trucks were to  
23     use the new CVIA/ECP, the percent utilization of the eastbound and westbound US Highway 90  
24     frontage roads at Callaghan Road would increase, possibly affecting the LOS. However, with  
25     the current level of traffic within the ROI, the current roadways would have sufficient capacity to  
26     support the relocation of Growdon Road and CVIA/ECP. The Proposed Action would not be  
27     expected to create major traffic hazards or increase traffic to a LOS E or worse. Permits for new  
28     road access would be cleared through state and federal agencies, as required.

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1 **Table 4-3 Traffic Conditions at Relocated Growdon Road Access to US Highway 90**

US 90 Frontage Road at Callaghan	Peak Hours	Existing Conditions			Predicted Future Conditions		
		Level of Service	Delay (seconds)	% of capacity used	Level of Service	Delay (seconds)	% of capacity used <sup>1</sup>
Westbound	a.m.	A	0.23	23.2	A	0.41	40.8
Eastbound	a.m.	A	0.31	30.7	A	0.41	40.8
Westbound	p.m.	A	0.20	19.5	A	0.45	45.2
Eastbound	p.m.	A	0.26	26.1	A	0.45	45.2

Source: ARA-VEP 2011–Appendix C

Notes:

<sup>1</sup> Capacity utilization is the same for east and westbound frontage roads due to nature of the Synchro 7 model.

2 **4.3.10.2 No-action Alternative**

3 Under the No-action Alternative, the existing Growdon Road CVIA/ECP would continue to be  
4 used. Daily traffic volumes in the area would likely increase significantly under the No-action  
5 Alternative due to other installation development activities (yet to be evaluated under NEPA);  
6 however, the No-action Alternative would not be expected to create major traffic hazards or  
7 increase traffic to a LOS E or worse. Additionally, it is possible that there could be changes to  
8 future traffic levels due to off-installation development or traffic growth trends projected within  
9 the next few years.

10 **4.3.10.3 Measures to Reduce Impacts**

11 No mitigation measures or BMPs are proposed, as no adverse impacts were found for the  
12 Proposed Action. Some potential may exist for improvement of LOS at other gates if existing or  
13 future classes of traffic (e.g. commercial truck traffic) are redirected to the proposed Growdon  
14 Road CVIA/ECP.

15 **4.3.11 Socioeconomic Resources**

16 Since the Proposed Action would not affect local populations, housing, or education, the  
17 socioeconomic analysis in this EA was limited to effects on the economy. Socioeconomic  
18 impacts would be considered significant if long-term employment rates decreased or the amount  
19 of local business decreased.

20 **4.3.11.1 Proposed Action**

21 Under the Proposed Action, the local economy would benefit from expenditures incurred from  
22 the relocation of Growdon Gate and Growdon Road. Construction materials and goods (e.g,  
23 gasoline for equipment and trucks) would be expected to be purchased from the local area.  
24 However; it should be noted that employment in the area would not increase since it is expected  
25 that the construction companies would utilize their current employees. The Proposed Action  
26 would not affect long-term employment rates or decrease local business.

1     **4.3.11.2 No-action Alternative**

2     Under the No-action Alternative, there would be no change in the baseline conditions described  
3     in Section 3.3.11.

4     **4.3.11.3 Measures to Reduce Impacts**

5     The Proposed Action would have short-term positive impacts on the local economy; therefore,  
6     no mitigative actions or BMPs are proposed.

7             **4.3.12 Environmental Justice**

8     In order to comply with EO 12898, ethnicity and poverty status in the study area has been  
9     analyzed. The ROI for each resource area has been evaluated within the COC in order to  
10    identify the presence or absence of environmental justice populations. Environmental justice  
11    impacts would be considered significant if there are disproportionate and adverse impacts to  
12    minority or low-income populations as a result of the Proposed Action.

13    **4.3.12.1 Proposed Action**

14    As established in earlier sections, the ROI for the environmental justice analysis are the Census  
15    Tracts affected by the Proposed Action. There are minority and low-income populations present  
16    within the ROI that could be impacted by the Proposed Action. Since it is unknown which  
17    residences within these Census Tracts are minorities or low-income, for purposes of this  
18    analysis, it was assumed that all residences within Census Tracts 1614, 1616, 1716.01, and  
19    1716.02 were minority or low-income. These populations are hereinafter referred to as  
20    environmental justice communities.

21    Most impacts would be localized to the project site and would not impact surrounding  
22    communities. Construction activities would result in a short-term increase in noise levels at  
23    residences of environmental justice communities; however, the distance of the construction  
24    activities to the environmental justice communities would result in an attenuation of outdoor  
25    construction noise to approximately 75 dB. Additionally, interior noise levels within residences  
26    would be reduced below 57 dB due to the properties of the building’s construction materials.  
27    Since these residences are located within the 65 dB to 79 dB DNL noise contours, and are also  
28    located near US Highway 90 traffic, they are currently exposed to higher noise levels on a daily  
29    basis and the increase in construction noise over baseline conditions would be negligible.  
30    Construction noise would be limited to the hours of 7:00 a.m. and 7:00 p.m. and would last only  
31    as long as the duration of construction activities.

32    Under the Proposed Action there would not be an increase in traffic utilizing the newly  
33    constructed Growdon Road or CVIA/ECP. Vehicles accessing the new Growdon Road would  
34    turn off of the US Highway 90 Access Road approximately 0.7 miles west of the current  
35    Growdon Road access point at Acme Road. This new access point is directly across US  
36    Highway 90 from a residential neighborhood considered as an Environmental Justice community  
37    in this analysis. Since commercial vehicles utilizing both the existing and proposed Growdon

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1 CVIA/ECP would likely access the gate via the US Highway 90 Access Road, and there would  
2 not be a change in commercial vehicle throughput at the gate, it is expected that there would not  
3 be an increase in commercial vehicle traffic on the US Highway 90 Access Road as a result of  
4 the Proposed Action. Therefore, there would be no change in noise levels as a result of modified  
5 commercial vehicle traffic patterns. Additionally, since these residences are located near US  
6 Highway 90 traffic, they are currently exposed to higher noise levels on a daily basis.

7 The single residence located adjacent to the existing Growdon Road is considered in this analysis  
8 for Environmental Justice impacts. The house located on the property is located approximately  
9 553 feet from the existing Growdon Road, and approximately 340 feet from the proposed  
10 Growdon Road. The residence currently experiences exterior intermittent noise levels between  
11 68 dBA and 71 dBA from the existing Growdon Road, and would experience noise levels of  
12 approximately 71 dBA from the proposed Growdon Road, which is not markedly louder  
13 (USDOT 1995). Additionally, the residence is already within the aircraft noise contour of 75-79  
14 dB DNL, so the average daily noise is currently greater than that of the intermittent traffic noise  
15 that would be experienced from the proposed Growdon Road. There would be no  
16 disproportionate and adverse impacts to minority or low-income populations as a result of the  
17 Proposed Action.

#### 18 **4.3.12.2 No-action Alternative**

19 Under the No-action Alternative, there would be no change to baseline conditions described in  
20 Section 3.3.12 and no impacts to environmental justice communities.

#### 21 **4.3.12.3 Measures to Reduce Impacts**

22 No mitigation measures are proposed for the Proposed Action. However, for construction  
23 related noise, BMPs to reduce noise would include utilization of standard noise control devices  
24 on equipment and limitation of hours of construction. Additionally, noise level reduction  
25 properties of building's construction materials would serve to lessen noise impacts. Additionally,  
26 noise related to traffic may show improvements for receptors near other gates should additional  
27 traffic be directed through Growdon rather than one of the other gate (e.g. on Military Drive).

#### 28 **4.3.13 Cumulative Impacts**

##### 29 **Noise**

30 The actions of others (e.g. major known projects described in Section 2.5) are all principally  
31 construction projects of temporary duration and the noise would naturally dissipate with distance  
32 from the site. The only project close enough to potentially generate noise impacts in the same  
33 time frame as the Proposed Action is the SAWS Western Watershed Sewer Relief Line C  
34 project. Construction noise generated from this project would not be appreciably different from  
35 those projects that are part of the Proposed Action. The distance of construction activities from  
36 the Western Watershed Sewer Relief Line C to noise sensitive receptors located 0.08 miles from  
37 the Proposed Action is such that its construction noise would be expected to produce a peak SPL  
38 of approximately 49 dBA at the noise sensitive receptors. This SPL, in combination with that



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1 from construction and demolition associated with the Proposed Action (67 dBA) would be  
2 expected to produce a peak SPL of 67.08 dBA. This is only minimally higher than that from the  
3 Proposed Action and is still lower than the average noise levels generated from aircraft utilizing  
4 the nearby runway. Therefore, the projects described in Section 2.5 like the SAWS project  
5 would have a negligible cumulative impact on existing noise levels in the area when combined  
6 with impacts from the Proposed Action. If future additional development were to occur within  
7 the project area, it is likely that increased traffic on the new Growdon Road and nearby roadways  
8 would result in increases in vehicle noise and congestion.

## 9 **Land Use**

10 Projects described in Section 2.5, when considered with the Proposed Action, would not  
11 adversely affect land use resources. The Proposed Action would result in land use designation  
12 changes that would remain compatible with existing land uses. These impacts would be limited  
13 to the project area and would not contribute to land use impacts from the reasonably foreseeable  
14 actions of others (e.g. the projects described in Section 2.5). The remaining 152 undeveloped  
15 acres under the Proposed Action is anticipated to be developed at some point in the future;  
16 however, it is not yet known how it will be developed. Future development would be assessed  
17 under a separate NEPA document. The two projects described in Section 2.5 that are nearest to  
18 the Proposed Action, the SAWS Western Watershed Sewer Relief Line C project and the  
19 Ambulatory Care Center would not result in changes to land use designations and would not  
20 change the footprint of developed areas. The SAWS Sewer Relief Line would be installed  
21 underground and would not impact land use. The Ambulatory Care Center would be constructed  
22 on a previously disturbed area.

## 23 **Air Quality**

24 The Proposed Action would not result in a long-term increase in emissions. The short term  
25 emissions from the Proposed Action would be from mobile sources (equipment and vehicles)  
26 and fugitive dust. These emissions quickly dissipate within the vicinity of activity source,  
27 thereby resulting in a temporary minor impact when considering similar impacts from the  
28 reasonably foreseeable actions of others (such as form projects described in Section 2.5).

29 The limited amount of GHG emissions from the Proposed Action and the other foreseeable  
30 projects (e.g. Section 2.5) would not contribute significantly to climate change, but any emission  
31 of GHGs represents an incremental increase in global GHG concentrations.

32 Finally, the effect of vehicle emissions due to traffic is not anticipated to be significantly  
33 different from current conditions due to the Proposed Action. However, efficiencies in  
34 commercial vehicle screening at the new CVIA/ECP would lessen engine idling times, resulting  
35 in a decrease in engine emissions. This would help to improve air quality when considering  
36 various engine emissions resulting from other reasonably foreseeable projects.

## 37 **Earth Resources**

38 Construction and demolition activities occurring under the Proposed Action, would result in a  
39 short-term increase in soil disturbance and dust generated. These impacts would fall off rapidly  
40 with distance from the construction site, would last only as long as the duration of construction

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1 and would be managed through use of BMPs associated with a site specific SWPPP. Similar  
2 impacts would be expected for the other projects described in Section 2.5, including the project  
3 nearest to the Proposed Action – the SAWS Western Watershed Sewer Relief Line C. While the  
4 impacts to earth resources as a result of that project would be localized to the project site, a  
5 portion of that project would occur within the project site of the Proposed Action. If these two  
6 projects were to occur during the same timeframe, it is possible that there could be increased  
7 erosion due to soil disturbance from construction. The area of project overlap is located  
8 approximately 600 feet from Leon Creek, indicating potential for sediment loading of the creek  
9 during heavy rain events. Contractors should take care to implement BMPs on both projects to  
10 help avoid impacts to water quality from sediment loading. The cumulative effect of loss of soils  
11 due to erosion from the combined actions of the proposed project and others is not known;  
12 however, it is anticipated that should all similar projects utilize local/state/federal BMPs, that the  
13 effect would be minimized. Finally, the Proposed Action would reduce the amount of Prime  
14 Farmlands available for agricultural use by approximately 212 acres (70 of which are currently  
15 used for agricultural purposes), while the other projects listed in Section 2.5 would be  
16 constructed on areas already urbanized or on military lands. Therefore, there would not be a  
17 cumulative impact to Prime Farmlands.

## 18 **Biological Resources**

19 The riparian area west of the proposed Growdon Road route provides breeding sites and foraging  
20 and resting habitat for migratory birds. The Proposed Action would create noise and disturbance  
21 during construction that could cause nesting birds to abandon their nests. The cumulative effect  
22 of the nearest other project (SAWS Sewer Line C) if performed around the same time could, due  
23 to its location along the western edge of Leon Creek, have a similar potential to disturb nesting  
24 migratory birds. The Proposed Action would mitigate the potential loss of migratory bird nests  
25 during construction by scheduling construction in that area for the non-breeding months (August  
26 through January); therefore, the Proposed Action would not be anticipated to have an adverse  
27 effect on migratory birds alone or cumulatively with the SAWS project. It is however reasonable  
28 to assume that minor incremental loss of even low-quality habitat such as within the proposed  
29 project foot print may contribute to regional development trends within JBSA and COSA and  
30 could have a adverse cumulative effect on habitats and foraging areas within the county. This  
31 effect is insignificant compared to the total acreage of undeveloped habitats across the state.

## 32 **Cultural and Traditional Resources**

33 Since there are no known eligible archeological resources or historic properties within the APE,  
34 the Proposed Action would not contribute to any cumulative effects trends for these resources in  
35 the area.

## 36 **Water Resources**

37 The Proposed Action would not impact groundwater and would contribute minimal impacts to  
38 surface water. The actions of others (section 2.5) in conjunction with the minimal impact of the  
39 Proposed Action could result in adverse impacts to the water quality of Lower Leon Creek. The  
40 Proposed Action would not permanently alter or affect Leon Creek or surface water flows or

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1 geomorphic features. Under the Proposed Action, construction and demolition activities would  
2 incorporate BMPs to address sediment control and runoff to minimize impacts to the current  
3 floodplain and Leon Creek water quality.

## 4 **Hazardous Materials and Wastes**

5 The Proposed Action would require the management of minimal amounts of potential hazardous  
6 materials, including ACM and LBP, if found during surveys of buildings to be demolished.  
7 Management of these materials would occur under the existing JBSA-Lackland management  
8 programs and would not result in adverse effects. Hazardous wastes are not expected to be  
9 generated as a result of the Proposed Action. Therefore, the Proposed Action would not  
10 contribute to cumulative effects to hazardous materials and wastes in or around JBSA-Lackland.  
11 The actions of others (e.g. section 2.5 projects) and the Proposed Action are anticipated to  
12 cumulatively contribute over time to a reduced capacity in the nearest hazardous waste landfill  
13 and or increased use of treatment systems to reduce the materials to non-hazardous or less  
14 hazardous constituents which may ultimately displace capacity in a more common solid waste  
15 landfill (i.e. Covel Gardens Landfill). This effect is anticipated to be minimal and minor.

## 16 **Utilities and Infrastructure**

17 The Proposed Action would not change overall wastewater generation, potable water usage,  
18 installation communications, electricity/natural gas consumption, or security and therefore,  
19 would not contribute to cumulative effects to these resources.

20 Temporary increases in solid waste disposal resulting from the Proposed Action, combined with  
21 solid waste generated from the actions of others described in Section 2.5 would generate an  
22 additional load on the Covel Gardens landfill. The amount of waste generated by the Proposed  
23 Action would be minor in comparison to the waste generated from the other four projects  
24 considered for cumulative effects analysis. It should be noted that the construction and  
25 demolition of all of these projects would not likely occur simultaneously; therefore, the increased  
26 load on the Covel Garden landfill operations would be distributed over several years and would  
27 only last as long as the duration of construction and demolition activities. Currently, the Covel  
28 Garden landfill has a life expectancy of 75 years. The waste disposed from these projects could  
29 slightly shorten the landfill life expectancy; however, there is sufficient capacity at the landfill to  
30 accommodate this increase.

31 The actions of others (section 2.5) in conjunction with the minimal impact to surface water from  
32 the Proposed Action could result in adverse impacts to the water quality of Lower Leon Creek  
33 due to increased erosion and sedimentation. Under the Proposed Action, construction and  
34 demolition activities would incorporate BMPs to address sediment control and runoff to  
35 minimize impacts to water quality of the Lower Leon Creek.

## 36 **Transportation**

37 The Proposed Action is not expected to adversely affect the transportation systems within the  
38 ROI. Future conditions, including the other installation projects described in Section 2.5, are  
39 likely to have an adverse impact on traffic in the ROI. The effect on the intersection of US

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1 Highway 90 and Callahan Road would be minor. The cumulative changes in the traffic  
2 conditions at some of the other intersections would be severe. The cumulative impact on the  
3 intersection of westbound US Highway 90 at Military Drive would be reduced to an  
4 unacceptable LOS if not mitigated. Mitigation measures to help alleviate these conditions are  
5 recommended in the Transportation Impact Study in Appendix C (ARA-VEP 2011). As the other  
6 installation or regional projects are planned, JBSA-Lackland would need to implement the  
7 measures identified for mitigating the traffic impact on this intersection. It is anticipated that  
8 capacity and LOS for the primary arteries and highways serving JBSA-Lackland could degrade  
9 due to increased regional development and population growth demand increase in the region,  
10 however participation in local and regional transportation planning agencies and programs (e.g.  
11 metropolitan planning organizations and State long-range planning documents) could mitigate  
12 these cumulative effects through planned facility or system improvements. Specifically,  
13 improvements to 36th Street could serve to improve traffic conditions in the area near US  
14 Highway 90.

## 15 **Socioeconomic Resources**

16 The Proposed Action would not affect local populations, housing or education; therefore, it  
17 would not contribute to cumulative effects for these components of Socioeconomic Resources.  
18 However, short-term economic expenditures associated with the construction of the Proposed  
19 Action and other installation development projects described in Section 2.5 would cumulatively  
20 have beneficial socioeconomic effects in and around the area of JBSA-Lackland.

## 21 **Environmental Justice**

22 There is an environmental justice population in the ROI. Most impacts to resources would be  
23 localized to the project site and would not impact surrounding communities. Cumulative  
24 construction noise impacts to minority populations from the Proposed Action or those reasonably  
25 foreseeable actions of others (i.e. section 2.5 projects) would be temporary and would not exceed  
26 baseline conditions. Impacts due to local and regional transportation noise are not anticipated to  
27 change due to the proposed project or those projects of others identified in Section 2.5; however,  
28 increased ambient noise levels may be experienced within the entire JBSA area due to regional  
29 trends. Therefore, cumulative noise impacts would not disproportionately and adversely impact  
30 minority or low-income populations identified nearest to the proposed project.

**Chapter 5**

**List of Preparers**



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2

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Joint Base San Antonio-Lackland, Texas*

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**Chapter 6**

**List of Persons and Agencies Consulted**



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## CHAPTER 6 LIST OF PERSONS AND AGENCIES CONSULTED

### **Federal Agencies**

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Texas Commission on Environmental Quality  
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Texas Parks and Wildlife Department  
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Texas Review and Comment System  
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### **Local Agencies**

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City of San Antonio  
James Henderson  
John Cantu, Environmental Manager, Capital Improvements Management Services  
Department  
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### **Tribal Agencies**

Comanche Tribe  
Johnny Wauqua, Chariman

Mescalero Apache and Affiliated Tribes

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*Environmental Assessment  
List of Persons and Agencies Consulted*

*Growdon Gate/Road Relocation and Property Acquisition  
Joint Base San Antonio-Lackland, Texas*

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- 1           Mark Chino, President
- 2   Tonkawa Tribe
- 3           Donald Patterson, President
- 4   Wichita and Affiliated Tribes
- 5           Leslie Standing, President
- 6   **Businesses**
- 7   Covel Gardens Landfill
- 8           Byran Turner

**Chapter 7**

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