



Joint Land Use Study

July 2016



This study was prepared under contract with the City of Bastrop, Texas, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the City of Bastrop and the other JLUS Partners and does not necessarily reflect the views of the Office of Economic Adjustment.



Joint Land Use Study

Prepared Under Contract with:



City of Bastrop
1311 Chestnut Street
Bastrop, TX 78602

Prepared by:



July 2016

This study was prepared under contract with the City of Bastrop, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the City of Bastrop and the JLUS Partners and does not necessarily reflect the views of the Office of Economic Adjustment.



Policy Committee

The Policy Committee (PC) served an active and important role in providing policy direction during the development of the Camp Swift Joint Land Use Study. The Policy Committee was composed of the following individuals:

-
- | | |
|--|--|
| ■ LTC Jamey Creek
<i>Texas Military Department</i> | ■ BG Tracy Norris
<i>Texas Military Department</i> |
| ■ COL Robert Crow
<i>Texas Military Department</i> | ■ Paul Pape
<i>Bastrop County</i> |
| ■ Marc Holm
<i>City of Elgin</i> | ■ Emily Parks
<i>Bastrop Independent School District</i> |
| ■ Dock Jackson
<i>City of Bastrop</i> | ■ Bubba Snowden
<i>Bastrop County</i> |
| ■ LTC Phillip Kost
<i>Camp Swift Army National Guard</i> | ■ Michael Talbot
<i>City of Bastrop</i> |
| ■ Kerry Lacy
<i>City of Elgin</i> | |
-

Technical Committee

The Technical Committee (TC) served a key role in the development of the Camp Swift Joint Land Use Study. They provided the overall technical support, review, and guidance of the study. The TC was composed of the following individuals:

-
- | | |
|--|---|
| ■ Smith Covey
<i>Pines & Prairies Land Trust</i> | ■ Todd McClanahan
<i>Texas Parks and Wildlife</i> |
| ■ Carolyn Dill
<i>Bastrop County</i> | ■ Melissa McCollum
<i>City of Bastrop</i> |
| ■ Roy Dill
<i>Texas Department of Transportation</i> | ■ Amy Miller
<i>City of Elgin</i> |
| ■ Blake Dommert
<i>Bastrop County</i> | ■ Kirsten Mt. Joy
<i>Texas Military Department</i> |
| ■ Mike Fisher
<i>Emergency Operations Center</i> | ■ Joe Newman
<i>City of Elgin</i> |
| ■ Robin Howard
<i>Texas Military Department</i> | ■ Melanie Pavlas
<i>Pines & Prairies Land Trust</i> |
-

Acknowledgements

Technical Committee (continued)

- **LTC Phillip Kost**
Camp Swift Army National Guard
 - **John Landwehr**
Coast Range Investments
 - **Maj. Ed Limbo**
Camp Swift Army National Guard
 - **Colton Stabeno**
Lost Pines Habitat Conservation
 - **Cathy Stevens**
Capital Area Metropolitan Planning Organization
-

City of Bastrop

The City of Bastrop served as the overall JLUS project management agency and the administrator of the Office of Economic Adjustment grant that helped to fund the study.



- **Melissa McCollum, AICP, LEED-AP**
Director
Planning and Development Department
 - **Marie Murnan**
Planning Technician
Planning and Development Department
-

JLUS Consultant / Technical Advisors

Matrix Design Group was the project consultant hired to conduct the JLUS project through coordination with and assistance from the City of Bastrop, the PC, the TC, the public, and other stakeholders.



- **Mike Hrapla**
Project Manager
 - **Celeste Werner, AICP**
Deputy Project Manager
 - **Rick Rust, AICP, GSP**
Technical Manager
 - **Michele Zehr Mora**
Lead Planner
-



Acronyms	v
1. Introduction	1
What Is A JLUS?	1
JLUS Goal and Objectives	1
Why Prepare A JLUS?	2
JLUS Partners / Public Outreach	2
JLUS Study Area	4
2. Community Profiles	7
Study Area Growth Trends	7
Development Overview within the JLUS Study Area	8
3. Military Profile	9
Texas Military Department	9
Texas Army National Guard	9
Camp Swift Economic Impact	10
Current Mission and Military Operations	10
Camp Swift Mission Footprint	10
4. Compatibility Tools	21
Federal Plans and Programs	21
Texas Army National Guard / Camp Swift	21
State of Texas Legislation, Agencies / Programs, and Initiatives / Other Information	22
County and Local Jurisdiction Planning Tools	23
5. Compatibility Assessment	25
Identification of Compatibility Issues	25
Methodology and Evaluation	25
Camp Swift Compatibility Issues by Factor	25
Air Quality	25
Anti-Terrorism / Force Protection	26
Biological Resources	26
Climate Adaptation	26
Communication / Coordination	26
Cultural Resources	27
Dust / Smoke / Steam	27
Energy Development	27
Land / Air Space Competition	27

Land Use	28
Legislative Initiatives.....	28
Light and Glare.....	28
Noise	28
Public Trespassing.....	29
Roadway Capacity.....	29
Safety Zones.....	29
Vertical Obstructions	29
6. Recommended Options	31
Recommended Options	31
Military Awareness Areas.....	32
How to Read the Recommended Options Table	40

Figures

Figure 1	Camp Swift JLUS Study Area.....	5
Figure 2	Forecasted Population in Bastrop County, 2010-2050.....	8
Figure 3	Unobstructed Clearance Area	12
Figure 4	Fixed Small Caliber Arms Noise Contours	13
Figure 5	Improvised Explosive Device (IED) Noise Contours.....	14
Figure 6	Demolition Two Pound Charge Noise Contours.....	15
Figure 7	Demolition 40 Pound Charge Noise Contours	16
Figure 8	Obstacles Near Drop Zone.....	17
Figure 9	DOD Rotary Wing Imaginary Surfaces	18
Figure 10	BASH Relevancy Area.....	19
Figure 11	Unobstructed Clearance Area Military Awareness Area	34
Figure 12	Camp Swift Small Arms / IED Military Awareness Area	35
Figure 13	Camp Swift Demolition Noise Military Awareness Area	36
Figure 14	Camp Swift Drop Zone Obstacle-Free Military Awareness Area	37
Figure 15	Camp Swift Vertical Obstruction Military Awareness Area.....	38
Figure 16	Camp Swift Military Awareness Overlay District.....	39
Figure 17	How to Read JLUS Options	41

Table of Contents

Tables

Table 1	JLUS Sponsor Responsibilities and Participants	3
Table 2	JLUS Policy Committee (PC) Responsibilities and Participants	3
Table 3	JLUS Technical Committee (TC) Responsibilities and Participants.....	3
Table 4	Study Area Population, 2000-2010	8
Table 5	Issues / Options by Compatibility Factor (Alphabetized by Factor).....	42

Please see the next page.



A

A	Airborne
ACUB	Army Compatible Use Buffer
AGL	above ground level
APZ	Accident Potential Zone
APZ-LZ	Accident Potential Zone – Landing Zone
AR	Army Regulation
ARR	Austin-Round Rock
ASP	Ammunition Supply Point
AT /	Anti-Terrorism / Force Protection
AT / FP	

B

BASH	Bird / Wildlife Aircraft Strike Hazard
BfSB	Battlefield Surveillance Brigade
BISD	Bastrop Independent School District
BRAC	Base Realignment and Closure
BUG	Backlight, Uplight, and Glare

C

CAB	Combat Aviation Brigade
CAMPO	Capital Area Metropolitan Planning Organization
CAPCOG	Capital Area Council of Governments
CFR	Code of Federal Regulations
COM	Communication / Coordination
CP	Comprehensive Plan
CR	Cultural Resources
CZ	Clear Zone

D

DA PAM	Department of the Army Pamphlet
dB	decibel
dba	A-weighted decibel
dBp	Peak decibels
DEAAG	Defense Economic Adjustment Assistance Grant
DNL	Day-Night Average Sound Level
DOD	Department of Defense
DODI	Department of Defense Instruction
du	dwelling unit
DZ	Drop Zone

E

ED	Energy Development
e.g.	for example
EMS	Environmental Management System
ESA	Endangered Species Act
ESQD	Explosive Safety Quantity Distance
ETJ	Extraterritorial Jurisdiction

F

FAA	Federal Aviation Administration
fc	footcandle (unit of measurement for light emission)
FEMA	Federal Emergency Management Agency
FM	Farm to Market Road
FM	Field Manual
ft	feet (unit of measurement)
FY	fiscal year

G

GIS geographic information system

H

HB House Bill

I

ICRMP Integrated Cultural Resources
Management Plan
ID Infantry Division
i.e. For example
IED Improvised Explosive Device
IESNA Illuminating Engineering Society of
North America
IGA Intergovernmental agreements
INRMP Integrated Natural Resources
Management Plan
IWFMP Integrated Wildland Fire
Management Plan

J

JLUS Joint Land Use Study

K, L

LAS Land / Air Space Competition
LGC Local Government Code
LPHCP Lost Pines Habitat Conservation Plan
LPS Low-Pressure Sodium
LU Land Use

M

MCA Military Compatibility Area
MCOD Military Compatibility Overlay District
MOA Memorandum of Agreement
MOU Memorandum of Understanding
MOUT Military Operations in Urban Terrain
MSA Metropolitan Statistical Area
MTC-L Maneuver Training Center – Light

N

NGOs nongovernmental organizations
NOAA National Oceanic and Atmospheric
Administration
NOI Noise
NOTAMs Notices to Airmen
NRHP National Register of Historic Places
NVG night vision goggles
NZ Noise Zone

O

OE Obstruction Evaluation
OEA Office of Economic Adjustment
OMB Office of Management and Budget
ONMP Operational Noise Management Plan

P

PC Policy Committee
PK MET Single Event Peak Level Exceeded by
15 Percent of Events
PL Public Law
PT Public Trespassing

Acronyms

Q, R

RC	Roadway Capacity
REPI	Readiness and Environment Protection Integration
RFMSS	Range Facility Management Support System
RMSC	Regional Military Sustainability Commission
ROW	Right-of-Way

V

VO	Vertical Obstructions
----	-----------------------

W, X, Y, Z

S

SA	Safety Zones
SARNAM	Small Arms Range Noise Assessment Model
SARSA	Small Arms Range Safety Areas
SDZ	surface danger zone
SH	State Highway
SIPs	State Implementation Plans
SR	State Route

T

TC	Technical Committee
TC	Troop Command
TCEQ	Texas Commission on Environmental Quality
TMPC	Texas Military Preparedness Commission
TPWD	Texas Parks and Wildlife Department
TXARNG	Texas Army National Guard
TXDOT	Texas Department of Transportation
TXMF	Texas Military Forces
TXNG	Texas National Guard

U

USAF	United States Air Force
US	United States
USFWS	United States Fish and Wildlife Service

Please see the next page.



Camp Swift is situated in north central Bastrop County, Texas covering approximately 11,750 acres, which includes administrative facilities, helicopter operational areas, and training areas. The communities that participated as partners in this Joint Land Use Study (JLUS) were Bastrop County, the City of Bastrop, the City of Elgin, and the Community of McDade. To promote and coordinate the compatibility of future growth around the installation, an organized communication effort between Camp Swift / Texas Military Department (TMD), the partner jurisdictions, and other stakeholder entities is essential.

The Camp Swift JLUS is a proactive approach for mitigating existing and preventing future military compatibility issues by facilitating collaboration between local communities, the public, and the Texas Army National Guard (TXARNG). This study seeks to prevent conflicts experienced between the military and local communities by engaging the military and local decision-makers in a collaborative multi-agency communication and planning process.

What Is A JLUS?

A JLUS is a planning process accomplished through the collaborative efforts of a comprehensive list of stakeholders in a defined study area. These stakeholders include local community, state, and federal officials, residents, and the military, who come together to identify compatible land uses and growth management recommendations within and adjacent to active military installations. The intent of the process is to establish and foster a relationship between the local communities, agencies, and Camp Swift / TMD.

JLUS Goal and Objectives

The goal of the Camp Swift JLUS is to protect the viability of current and future military operations, while simultaneously promoting community growth, sustaining the environmental and economic health of the region, and protecting public health, safety, and welfare.

To help meet this goal, three primary guiding principles were identified:

- **Understanding.** Convene community and military representatives to identify, confirm, and understand the issues in an open forum, taking into consideration both community and Camp Swift perspectives and needs. This includes public awareness, education, and input organized in a cohesive outreach program.
- **Collaboration.** Encourage cooperative land use and resource planning among Camp Swift and surrounding communities so future community growth and development are compatible with Camp Swift's operational missions, while at the same time seeking ways to reduce operational impacts on adjacent lands and communities within the Study Area.
- **Options.** Provide a set of mutually supported tools, options, and procedures from which local jurisdictions, agencies, and Camp Swift can select, prepare, and then use to apply the options developed during the JLUS process. The options proposed include both operational measures to mitigate installation impacts on surrounding communities and local government and agency approaches to reduce community impacts on military operations. These tools will help decision makers resolve compatibility issues and prioritize projects within the annual budgeting process of their respective entity / jurisdiction.

Why Prepare A JLUS?

Collaboration and joint planning among military installations, local communities, and agencies should occur to protect the long-term viability of existing and future military missions. Working together also enhances the health of economies and industry of the communities before incompatibility becomes an issue. Recognizing the close relationship that should exist between installations and adjacent communities, the Department of Defense, Office of Economic Adjustment (OEA) implemented the JLUS program in an effort to mitigate existing and future conflicts and to enhance communication and coordination among all stakeholders. This program aims to protect property rights and control within the JLUS Study Area while also protecting current and future operational and training missions at Camp Swift.

Economic Benefit to the Region

Camp Swift is under the TXARNG, which makes up the largest population segment in the TMD. In Fiscal Year (FY) 2011, the Army National Guard awarded over \$5 million dollars of military construction contracts to the state of Texas, \$2.6 million specifically for Camp Swift.

In lieu of direct jobs and traditional economic output data, the intensity of usage at the installation helps to characterize the economic potential of Camp Swift on the local economies. From 2012-2014, 346,561 Guardsmen were reported to have used Camp Swift for training. There were several hundred thousand persons, non-DOD who used the Camp Swift training ranges and areas during this time as well. This usage equates to more than 250,000 users of Camp Swift's assets annually through the years 2012-2014. Indirect benefits include catering and local purchases made at various eateries and businesses, like Walmart.

JLUS Partners / Public Outreach

The JLUS process is designed to create a locally relevant document that builds consensus and obtains support from the various stakeholders involved. To achieve the JLUS goals and objectives, the process included a public outreach program with a variety of participation opportunities for interested and affected parties.

Stakeholders

An early step in any planning process is the identification of stakeholders. Informing and involving them early in the project is essential to understanding, addressing, and resolving their most important issues through the development of integrated options. Stakeholders include individuals, groups, organizations, and governmental entities interested in, affected by, or affecting the outcome of the JLUS document. Stakeholders identified for the Camp Swift JLUS include, but were not limited to, the following:

- The public (including residents and landowners)
- Local jurisdictions (counties and cities)
- DOD officials (including OEA representatives)
- Camp Swift / TMD
- Local, regional, and state planning agencies
- Bastrop Independent School District
- Non-governmental organizations

Policy and Technical Committees

The development of the Camp Swift JLUS was guided by two committees, comprised of city, county, Camp Swift / TMD personnel, federal and state agencies, local governments, and other stakeholders.

Policy Committee. The Policy Committee (PC) consisted of officials from participating jurisdictions, military installation leadership, and representatives from Camp Swift and federal and state agencies. The PC was responsible for the overall direction of the JLUS, preparation and approval of the study design, approval of JLUS options, and approval of draft and final JLUS documents.

Technical Committee. The Technical Committee (TC) was responsible for identifying and studying technical issues. Membership included city planners and staff, military base planners and staff, and other subject matter experts as needed to help assist in the development and evaluation of implementation options and tools. Items discussed by the TC were brought before the PC for consideration.

The PC and TC served as liaisons to their respective stakeholder groups. The PC and TC members were charged with conveying committee activities and information to their organizations and constituencies and relaying their organization's comments and suggestions to both committees for consideration. The PC members were encouraged to conduct meetings with their organizations and / or constituencies to facilitate this input. The responsibilities and participants for the JLUS sponsors, the PC, and the TC are identified in Tables 1, 2, and 3, respectively.

Table 1. JLUS Sponsor Responsibilities and Participants

Responsibilities	Participants
<ul style="list-style-type: none"> ■ Coordination ■ Accountability ■ Grant management ■ Financial contribution 	<ul style="list-style-type: none"> ■ Office of Economic Adjustment ■ City of Bastrop

Table 2. JLUS PC Responsibilities and Participants

Responsibilities	Participants
<ul style="list-style-type: none"> ■ Policy direction ■ Study oversight ■ Monitoring ■ Report adoption 	<ul style="list-style-type: none"> ■ City of Bastrop ■ City of Elgin ■ Bastrop County ■ Camp Swift / TMD ■ Texas National Guard (TXNG) / Texas Army National Guard (TXARNG) ■ Bastrop Independent School District

Table 3. JLUS TC Responsibilities and Participants

Responsibilities	Participants
<ul style="list-style-type: none"> ■ Identify issues ■ Provide expertise to address technical issues ■ Evaluate and recommend options to the PC ■ Provide draft and final report recommendations to the PC 	<ul style="list-style-type: none"> ■ City of Bastrop ■ City of Elgin ■ Bastrop County ■ Camp Swift / TMD ■ TXNG / TXARNG ■ Bastrop Independent School District ■ Texas Department of Transportation ■ Texas Parks and Wildlife ■ Pines & Prairies Land Trust ■ Emergency Operations Center

Public Workshops

In addition to the PC and TC meetings, a series of public workshops were held throughout the development of the JLUS. These workshops provided an opportunity to exchange information with the greater community, assist in identifying the issues to be addressed in the JLUS, and provide an opportunity for input on the proposed options. Each workshop included an interactive presentation and facilitated exercise for the public to participate in the development of the plan.

Public Outreach Materials



Joint Land Use Study Overview / Compatibility Factors Fact Sheet. At the beginning of the JLUS process, a Fact Sheet was developed describing the JLUS program, objectives, public participation methods, and the Camp Swift JLUS Study Area. This Fact Sheet was made

available at the meetings and on the website for review by interested members of the public.

This Fact Sheet also described each of the 25 compatibility factors used for the JLUS analysis. While not every factor applied to the Camp Swift JLUS, the list provides an effective tool to ensure a comprehensive evaluation of compatibility factors is conducted within the JLUS Study Area.

Options Tools Fact Sheet. JLUS options comprise a variety of actions that local governments, military installations, agencies, and other stakeholders can use to promote compatible land use planning. This Fact Sheet provided an overview of the option types that could be applied to address compatibility issues in the Study Area. This Fact Sheet was an internal JLUS organization brochure.

Website. A project website was developed to provide stakeholders, the public, and media representatives with access to project information. This website was maintained for the duration of the project to ensure information was easily accessible. Information contained on the website included program points of contact, documents, maps, public meeting information, and other JLUS resources. The project website is located at www.campswiftjlus.com.

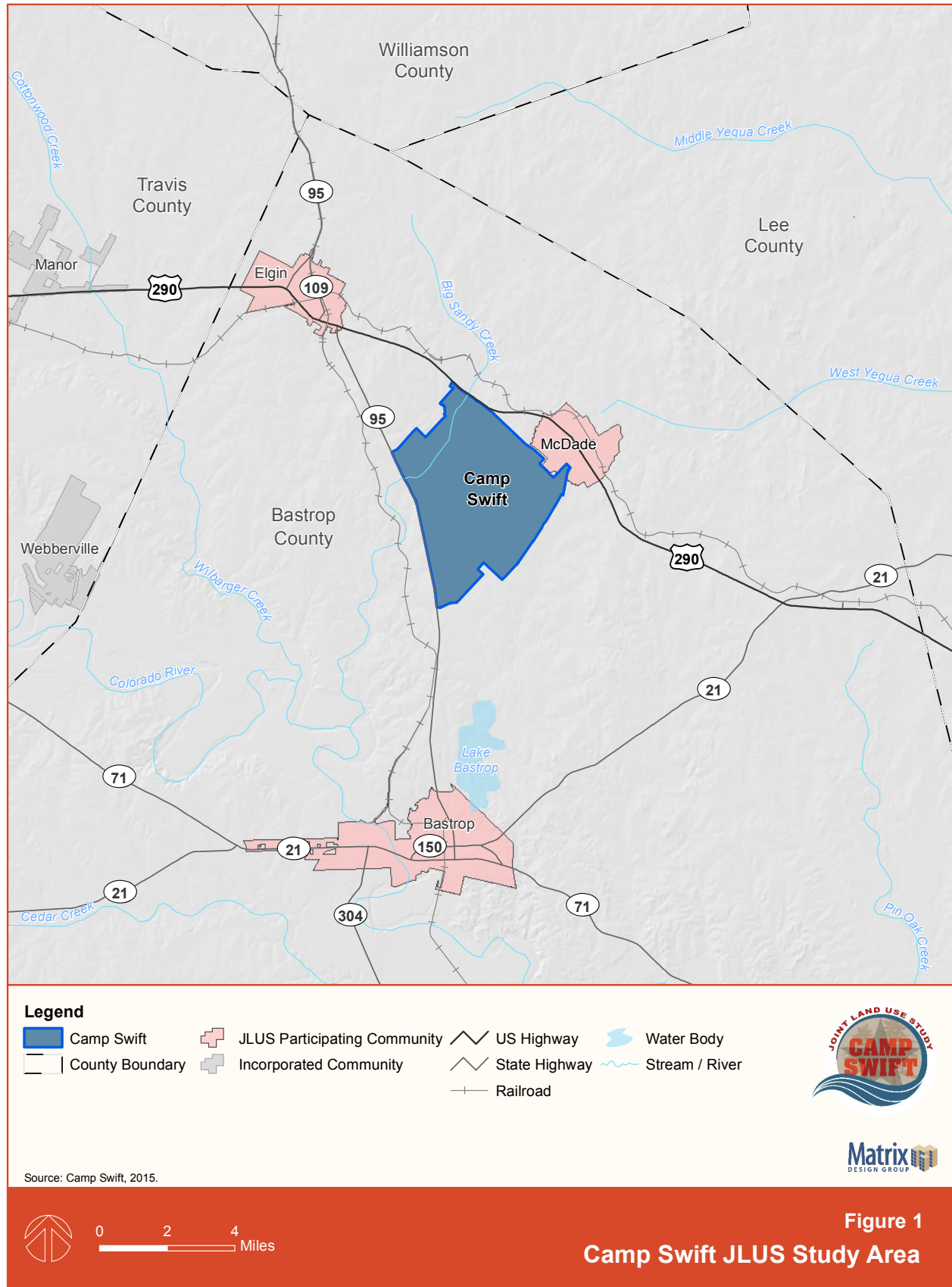


surrounding communities are connected geographically and economically to the Capital region.

The Camp Swift JLUS Study Area was designed to encompass all operational areas of the installation, including all lands in the vicinity that may impact or be impacted by current and future military operations. This area includes land associated with helicopter operations, training ranges, and demolition activities within the county of Bastrop, the cities of Bastrop and Elgin, and the Community of McDade as illustrated in Figure 1. The Study Area was finalized and refined based on information and input collected from the public and the JLUS communities.

JLUS Study Area

Camp Swift is located approximately nine miles north of the City of Bastrop and approximately four miles southeast of the City of Elgin in Bastrop County, east of the City of Austin, Texas. The installation is located in a primarily rural agriculture area, surrounded by farmland, forests and small communities such as McDade. There are transportation corridors within the study area that are projected to grow. These corridors include State Highway 95 on the installation's western boundary and U.S. Highway 290 on the installation's northern boundary. It is important to note that this area is located in the Capital Area Metropolitan Planning Organization and Capital Area Council of Governments planning area. Although this area is not as urban as Austin, Texas, the installation and



Please see next page.



The Camp Swift JLUS Study Area includes the facilities at Camp Swift, Bastrop County, City of Bastrop, City of Elgin, and the Community of McDade. Capturing and describing certain demographic characteristics of the participating JLUS communities can help to provide a baseline context from which informed decisions can be made when developing compatibility options.

The goal is to provide information that enables stakeholders to gain an understanding of population and development trends that have the potential to affect the future missions and operations of Camp Swift. It is intended that this information, combined with other factors presented herein, to the extent allowable under Texas law and with ample input from the public, help decision-makers develop consistent, informed planning policies about future development and economic growth of the communities they represent before compatibility issues arise. Further, this section is designed to foster an understanding by the military about the types of activities occurring “outside the fence” when considering future missions and operations.

Study Area Growth Trends

Extraordinary growth has been reported within the State of Texas, as the state with the highest number of individuals moving into it (529,000) between April 1, 2010 and July 1, 2011. The 2.9 percent increase in total population has local communities planning for potential encroachment issues from larger surrounding cities. The eastward expansion from Austin is palpable, as the metropolitan area of Austin, Round Rock, and San Marcos were named as the second fastest growing metropolitan area in the US, with an increase in population of 3.9 percent.

Population

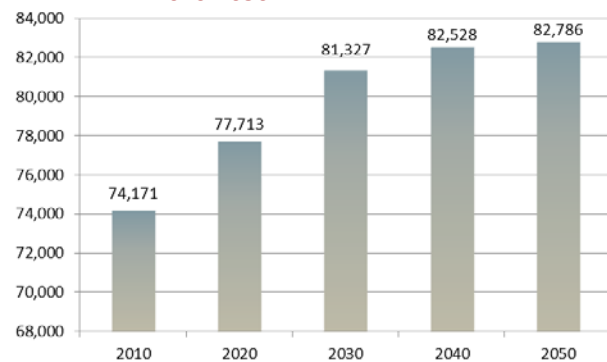
Population data for Texas, Bastrop County, and the communities within the Study Area is based on a combination of information provided by the U.S. Census Bureau and the Texas State Data Center. Population growth observed from the 2000 and 2010 Census counts show an increase of nearly 30 percent for Bastrop County, which is approximately 38 percent higher than the State of Texas as a whole. The communities identified in Table 4 are all located within the Study Area, and all have demonstrated significant population increases, ranging from 28-49 percent between 2000 and 2010. These communities all exhibited a greater increase in population than the growth recorded at the county and state levels.

Table 4. Study Area Population, 2000-2010

Area	2000	2010	Number Change	Percent Change
Texas	20,851,820	25,145,561	4,293,741	20.6%
Bastrop County	57,733	74,171	16,438	28.5%
City of Bastrop	5,340	7,218	1,878	35.2%
City of Elgin	5,700	8,135	2,435	42.7%
McDade, CDP	459	685	226	49.2%

Source: US Census Bureau 2000 & 2010

In addition to the population growth already experienced within Bastrop County between 2000 and 2010, the population forecast from 2010 to 2050 projects an additional 11.6 percent, or 8,615 additional people, as illustrated on Figure 2. The most significant increase in population is anticipated to occur within the next 15 years, with conditions projected to be relatively stable from 2040 to 2050.

Figure 2. Forecasted Population in Bastrop County, 2010-2050

Source: US Census Bureau, 2010; Texas Data Center, 2014. Projections of the Population of Texas and Counties in Texas by Age, Sex and Race/Ethnicity for 2010-2050.

Development Overview within the JLUS Study Area

Land uses throughout the JLUS Study Area range from open space, protected habitat conservation areas, and agriculture, to the residential and urban population centers of Bastrop County and the Cities of Bastrop and Elgin.

The area surrounding Camp Swift is a mix of protected habitat areas, agriculture, rural residential and open space lands. At the time this JLUS was developed, there were discussions about phased subdivisions located in the unincorporated county southwest of Camp Swift.

Economic Growth Trends

Bastrop County, with its proximity to Austin, is well positioned to acquire some of the workforce demand from the metropolitan area. The cities of Bastrop and Elgin have large factions of workers that have already chosen to live in the rural historic communities and commute to Austin for work. In addition to the segment of the rural population commuting to Austin for work, there are an estimated 591 local businesses employing 3,604 employees within five minutes from downtown Bastrop. The Bastrop Independent School District is the largest employer in the area, with over 1,300 employees.

The education sector makes up over 15 percent of employment in the City of Elgin, and with the new addition of a local branch of Austin Community College, the education sector is poised for additional employment opportunities. The majority of the population of Elgin is employed in retail trade, with education serving as the second largest employment industry. Elgin's economy is composed of approximately 440 businesses centered primarily on retail, food, and various local services. Elgin, like the City of Bastrop, is ideally situated for residents choosing to commute rather than work within the city, as evidenced by the 60 percent of residents currently working outside of the city limits.

The proximity to Austin and ease of travel have paved the way for economic and housing development within the Camp Swift JLUS Study Area. With plans for shopping and retail aimed at increasing employment opportunities for Elgin, and the newly built higher learning institution, along with plans for new subdivisions southwest of Camp Swift, it is apparent that the rural communities of Bastrop County will continue to grow at a rate that is on par with population projections for the county.



To appropriately develop and assess compatibility issues for the Camp Swift JLUS, it is important to understand the military operations and activities associated with Camp Swift missions and how those operations interface with nearby communities. This section provides a brief overview of the mission and military operational footprint at Camp Swift.

This information will aid stakeholders as they make informed decisions relative to the future development and economic growth of their communities, which may be influenced by installation activities due to their relative proximity to Camp Swift. These decisions ultimately impact the continued existence and future role of the installation.

Texas Military Department

The Texas Military Department (TMD) consists of four organizations, they are:

- Adjutant General's Office,
- Texas Air National Guard,
- Texas Army National Guard, and
- Texas State Guard.

The TMD is the largest military force in the country, and has deployed over 31,000 soldiers and airmen in support of the Global War on Terror since 2001. The TMD mission is to provide the Governor and President with mission-ready, trained forces in support of state and federal initiatives. These initiatives include:

- Natural disasters,
- Civil unrest,
- Protect critical infrastructure and resources,
- Protect Texans from all hazards, and
- Protect Federal Emergency Management Agency Region VI.

In order to achieve the mission, over 5.5 million square feet of facility space is owned, leased, or licensed by the state of Texas to support the TMD. The Texas National Guard (TXNG) inventory has over 100 facilities in 65 counties across the state of Texas. These facilities are Readiness Centers (armories), maintenance facilities, Army aviation support facilities, Armed Forces Reserve Centers, and Air Wings. TXARNG facilities are utilized by the TMD to store and maintain military equipment and to train personnel.



Camp Swift Main Gate

Texas Army National Guard

The Texas Army National Guard (TXARNG), one of three guard entities in the TMD, comprises over 19,000 personnel living in 102 communities throughout the State of Texas.

Currently, TXARNG units are involved in missions that range from engineering and military intelligence to airborne and combat helicopter support. These units serve multiple missions that provide security, disaster response, force-protection, medical emergency readiness, and movement and maneuver war fighting.

Source: Texas Military Biennial Report, December 2014

Camp Swift Economic Impact

In addition to its strategic military value, Camp Swift contributes economically to both the local and regional economies through the purchase of goods and services. Approximately 250,000 people, both military and non-military, used Camp Swift ranges and training areas annually between 2012 and 2014.

In addition, Camp Swift, as a facility under the TXARNG, makes up the largest population segment in the TMD. In Fiscal Year (FY) 2011, the Army National Guard awarded over \$5 million dollars of military construction contracts to the state of Texas, \$2.6 million specifically for Camp Swift. This means approximately \$2.6 million could have been awarded to local companies that bid on and won military construction contracts.

Source: Camp Swift Range Facility Management Support System (RFMSS), 2012-2014.

Current Mission and Military Operations

Camp Swift's mission is to provide Inactive Duty Training and annual training primarily for the TXARNG and Reserve Forces, and to a lesser degree, for active components of the Armed Forces and other government and civilians organizations. The goal of this mission is to sustain a highly trained and ready force for wartime operations and community-based capability to respond rapidly to the needs of civil authorities in times of natural or man-made disasters.



Camp Swift Cantonment Area

The Camp maintains institutional training as well as pre-mobilization missions, and is oriented towards providing national defense and troop readiness for the

protection of the United States from foreign and domestic threats.

Source: Texas Military Biennial Report, December 2014

Camp Swift is a Maneuver Training Center-Light (MTC-L) with both pre-mobilization and institutional training missions, and has six designated training areas, over 200 acres of which consist of firing ranges. The Camp is the premier site for pre-mobilization training for the TXARNG and is the preferred training center for the 72nd Infantry Brigade Combat Team.

Training activities currently conducted at Camp Swift range from small arms and weapons qualifications and proficiency to land navigation and combat engineering skills. Training facilities on the base include; seven live-fire ranges, which comprise a Light Demolition Range and an Improvised Explosive Device (IED) Lane, a Drop Zone for airborne training, military operations in urban terrain (MOUT), physical training, aerial personnel and equipment drops, land navigation, and night vision operations.

Camp Swift Mission Footprint

Mission and training activities at Camp Swift generate a number of impacts that can affect the health, safety, and quality of life of the general public in surrounding communities. Examples of mission impacts include noise and vibration from demolition activities or aviation operations.

These overlapping spatial patterns comprise the mission footprint, which serves as a compatibility tool that can be used by surrounding private property owners and proximate jurisdictions in making informed land use decisions.

Explosive Safety Quantity Distance

In addition to the live-fire ranges, the Ammunition Supply Point (ASP), a munitions storage facility located within Training Area IIA, has an associated Explosive Safety Quantity Distance (ESQD) arc. The ESQD arc defines the area that would be affected by an explosion at the ASP. Inhabitable buildings are not allowed to be located within ESQD arcs. Contours of the ASP ESQD arcs are based on the type and amount of ammunition / ordnance stored. The current

ASP ESQD arcs are contained within the boundaries of the installation.

Surface Danger Zones

For safety purposes, each small arms live-fire range is required by Army Regulation to have a designated Surface Danger Zone (SDZ). SDZs encompass the anticipated area where munitions and debris could fall after fired from a certain point. Camp Swift only supports weapons training with ammunition that generates SDZs that are entirely contained within the boundary of the installation.

Unobstructed Clear Zone

The Military Handbook, Design Guidelines for Security Fencing, Gates, Barriers, and Guard Facilities identifies a combined interior / exterior clear zone distance of 50 feet minimum. A 30 feet minimum internal clear zone is mandatory, with the remaining 20 feet reserved for outside of the fence line. The clear zone serves multiple purposes, including reducing opportunities for intruder concealment, maintaining a 50 foot wide fire break, and, in the case of Camp Swift, maintaining adequate separation between the installation and the roadways. This 20 foot clearance zone would be ideally maintained through development coordination with the military. There is no desire to acquire the 20-foot clear zone through fee simple purchase, so easements may be used as a tool in this case. Figure 3 illustrates the 20 foot unobstructed clear zone outside the boundary of Camp Swift.

Small Caliber Weapons Noise Contours

The primary sources of small arms noise at Camp Swift include small caliber weapons firing, as illustrated in Figure 4, and IED Lane noise contours, as illustrated in Figure 5. These, along with the large caliber noise contours, comprise the noise zones for Camp Swift.

Large Caliber Weapons Noise Contours

Large caliber weapons noise contours comprise noise zones for demolition activities. More specifically, Camp Swift has capabilities to perform a 2-lb. and 40-lb. charge demolition explosion, illustrated in Figures 6 and 7 respectively.

Drop Zone Obstacle Free Area

The Drop Zone (DZ) Obstacle Free Area is a footprint of the personnel and equipment drops activities. Camp Swift performs DZ operations and as such requires a 1,000 meter operational area from the Blackwell DZ. This DZ Obstacle Free Area is illustrated in Figure 8.

Helicopter Imaginary Surfaces

The helicopter imaginary surfaces define volumes of airspace that must remain free of obstructions to air navigation in order to maintain safe navigable airspace around the airfield. Each imaginary surface builds upon each other, as illustrated in Figure 9. Helicopter imaginary surfaces include three surfaces, and it should be noted that improvement of the existing landing strip at Camp Swift to accommodate rotary wing landings would require application of the following imaginary surfaces:

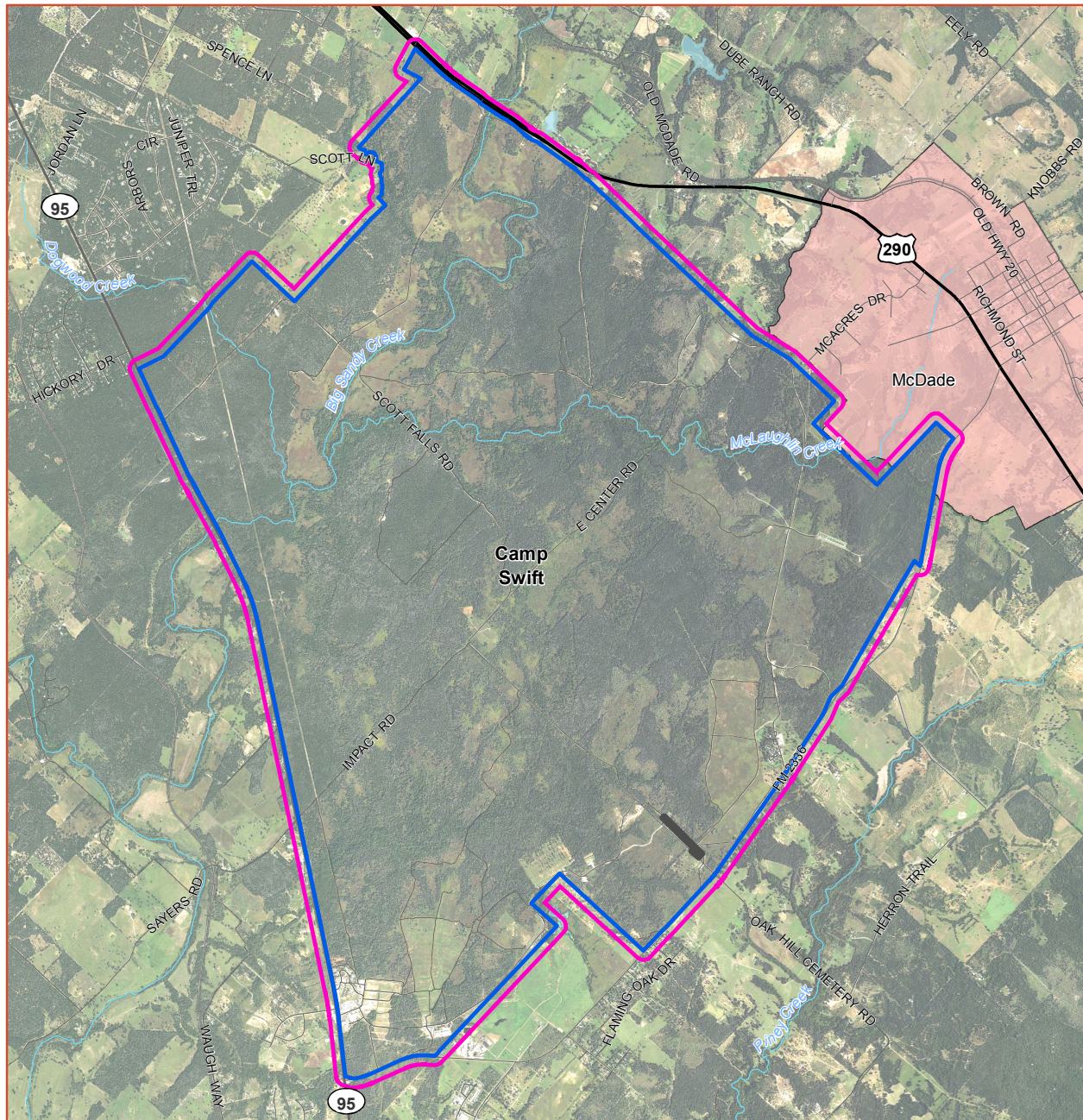
- Primary surface,
- Approach-departure clearance surface, and
- Transitional surface.

If Camp Swift / TMD improves the landing strip, then the imaginary surfaces would apply and there would be minimal impact on land outside the installation. Currently, the approach-departure clearance and the transitional surfaces extend off Camp Swift slightly.

Source: United Facilities Criteria, Airfield and Heliport Planning and Design

Bird Aircraft Strike Hazard

The Bird / Wildlife Aircraft Strike Hazard (BASH) area comprises an additional safety zone around the airfield as illustrated on Figure 10. Camp Swift has a variety of facilities and natural areas that inadvertently provide ideal habitat for a variety of wildlife. The FAA has identified a five statute mile area radiating outward from an area of air activity where birds and wildlife pose the greatest safety risk to aircraft, referred to as the BASH Relevancy Area. It is important to note that aviation operations occur infrequently at Camp Swift, and as such the risk profile associated with this footprint is minimal. While not an issue right now, this footprint should be considered in the future if Camp Swift is aligned with other aviation missions, i.e. fixed-wing missions.



Legend

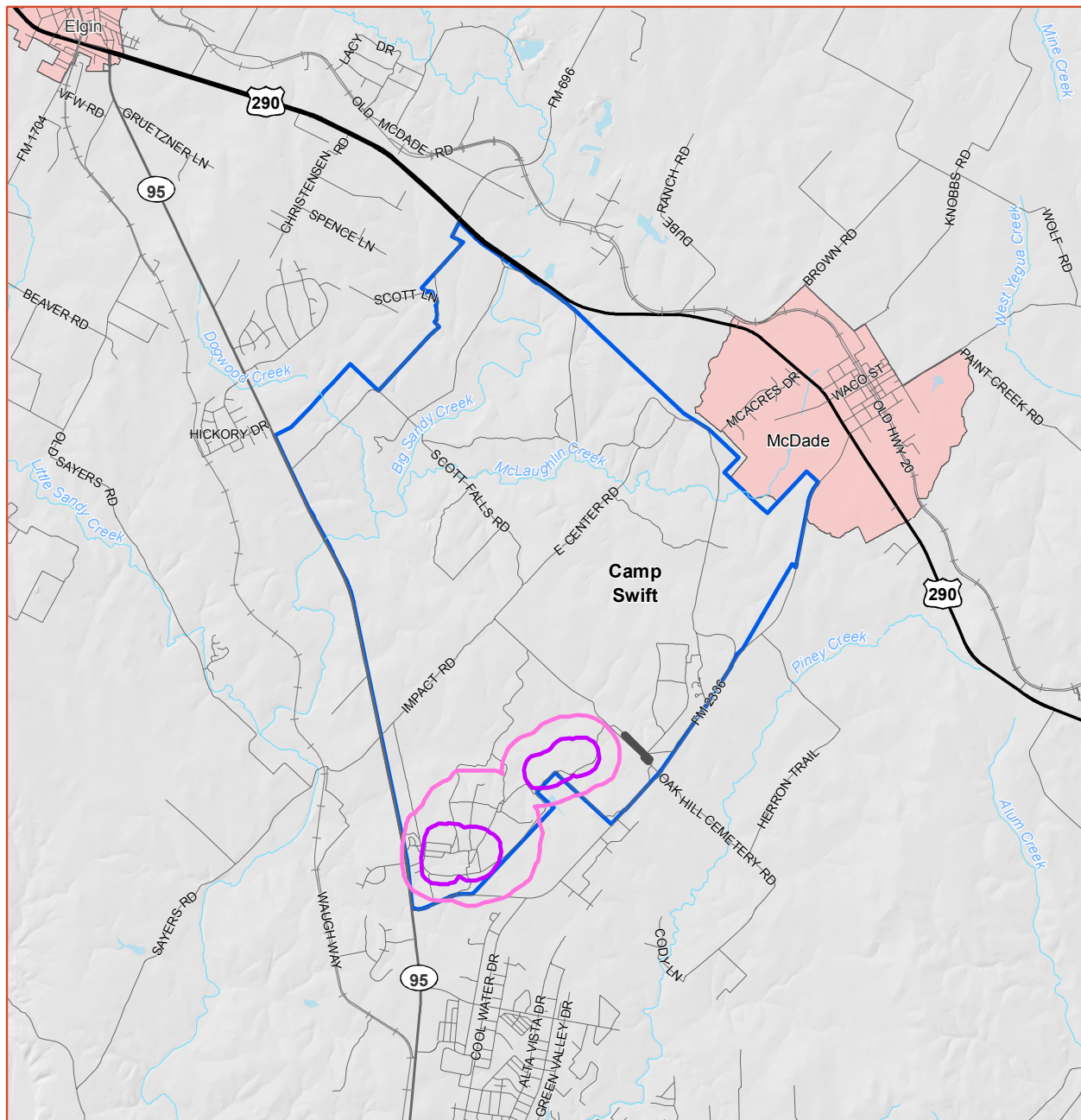
- | | | |
|------------------------------|---------------|----------------|
| Clearance Area (20 feet) | US Highway | Water Body |
| Camp Swift | State Highway | Stream / River |
| JLUS Participating Community | Local Road | |
| | Railroad | |
| | Landing Strip | |

Source: MIL-HNDBK-1013/A, 1993.



0 0.5 1 Mile

Figure 3
Unobstructed Clearance Area



Legend

Fixed Small Caliber Arms Noise Contour

- Zone II
87 dB PK15(MET)
- Zone III
104 dB PK15(MET)

Landing Strip

Camp Swift

JLUS Participating Community

US Highway

State Highway

Local Road

Railroad

Water Body

Stream / River

Source: Camp Swift, 2015.



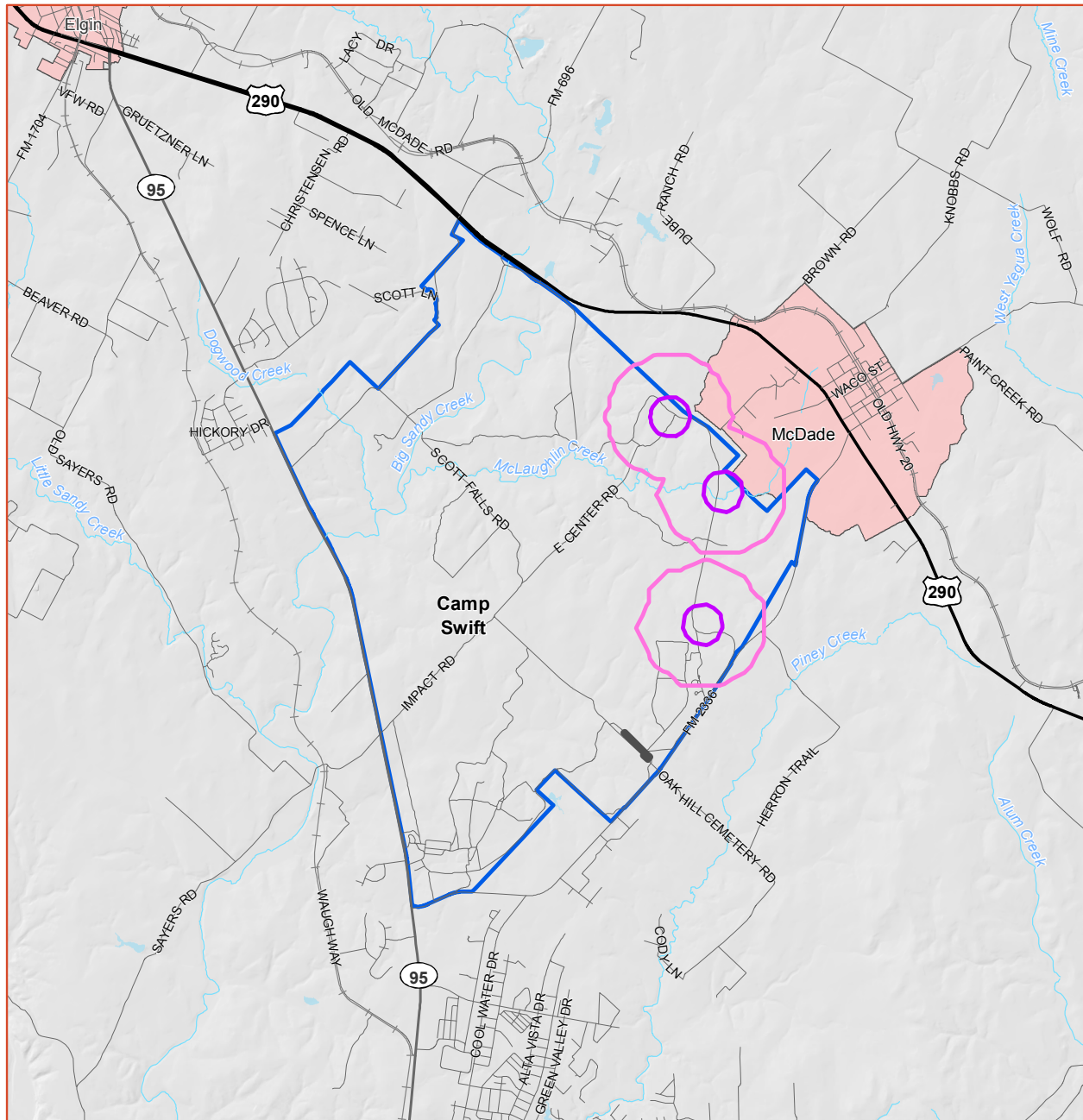
Matrix
DESIGN GROUP



0 0.75 1.5
Miles

Figure 4

Fixed Small Caliber Arms Noise Contours



Legend

IED Noise Contour

Zone II
115 dB PK15(MET)

Zone III
130 dB PK15(MET)

Landing Strip

Camp Swift

JLUS Participating
Community

US Highway

State Highway

Local Road

Railroad

Water Body

Stream / River

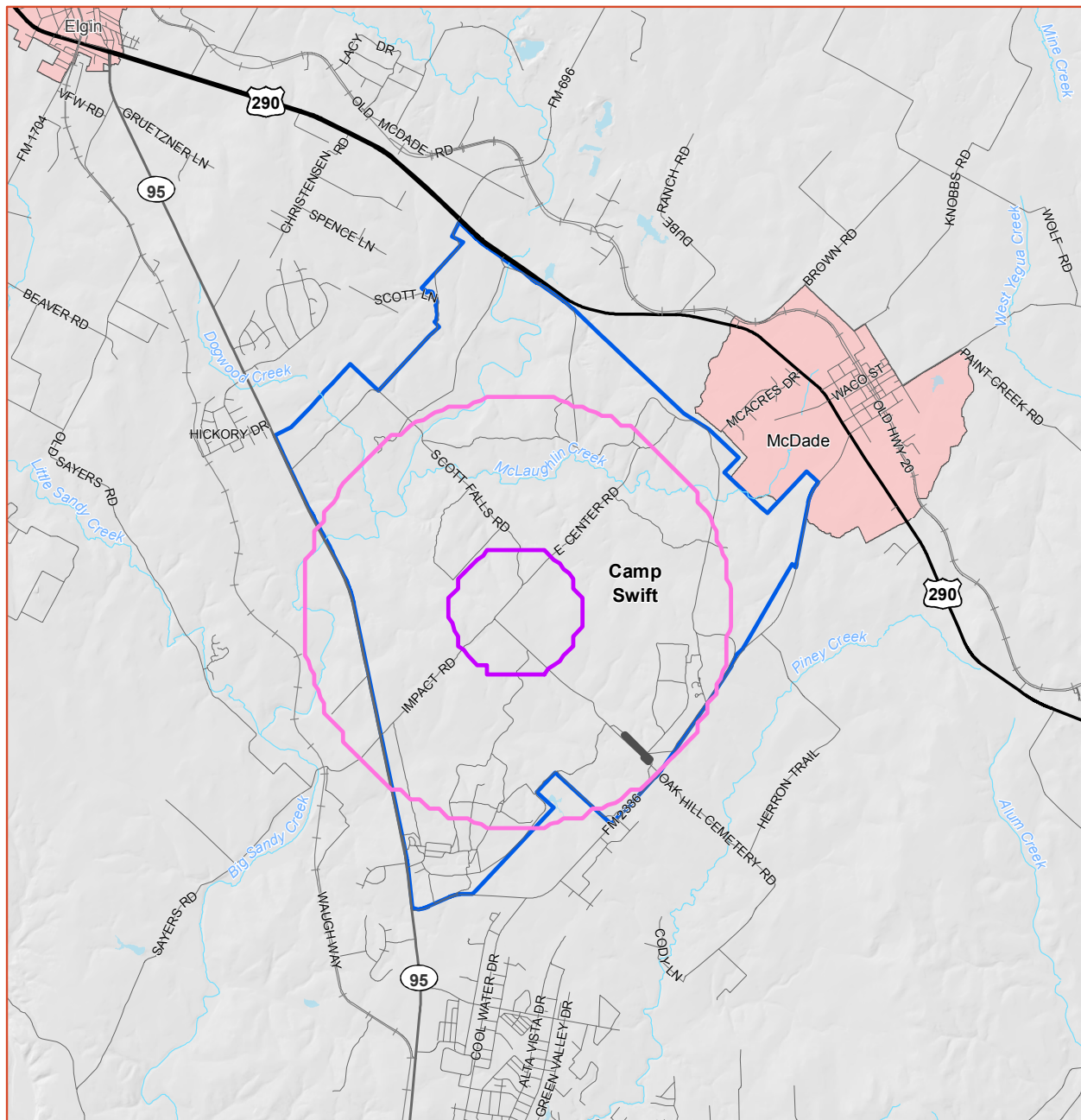


Source: Camp Swift, 2015.



0 0.75 1.5
Miles

Figure 5
Improvised Explosive Device (IED) Noise Contours



Legend

Demolition Two Pound Charge Noise Contour

- Moderate Complaint Risk
115 dB PK15(MET)
- High Complaint Risk
130 dB PK15(MET)

- Landing Strip
- Camp Swift
- JLUS Participating Community
- US Highway
- State Highway
- Local Road
- Railroad

- Water Body
- Stream / River

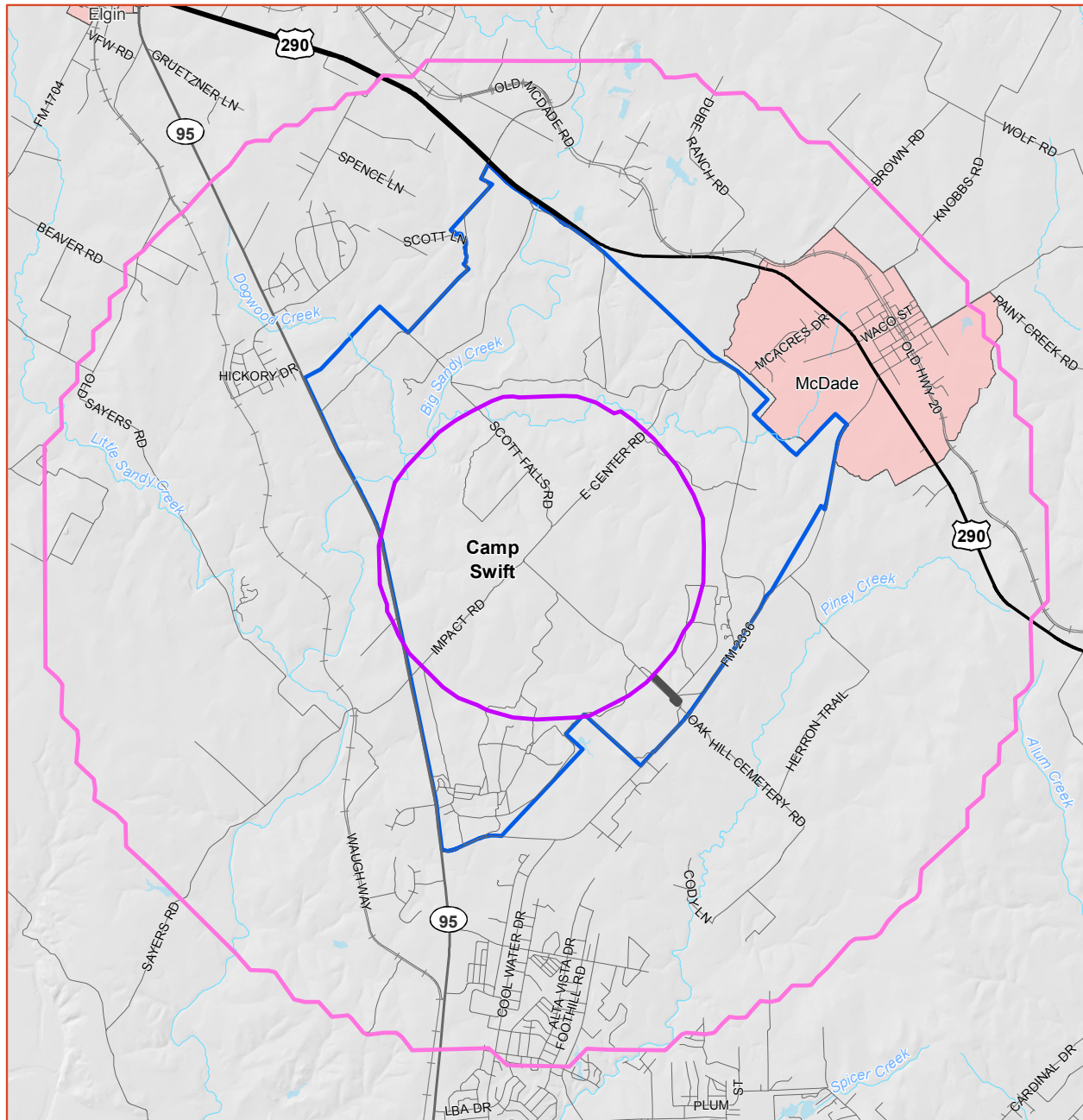
Source: Camp Swift, 2015.



0 0.75 1.5 Miles



Figure 6
Demolition Two Pound Charge Noise Contours



Legend

Demolition 40 Pound Charge Noise Contour

- Moderate Complaint Risk
115 dB PK15(MET)
- High Complaint Risk
130 dB PK15(MET)

- Landing Strip
- Camp Swift
- JLUS
- Participating Community
- US Highway
- State Highway
- Local Road
- Railroad

- Water Body
- Stream / River

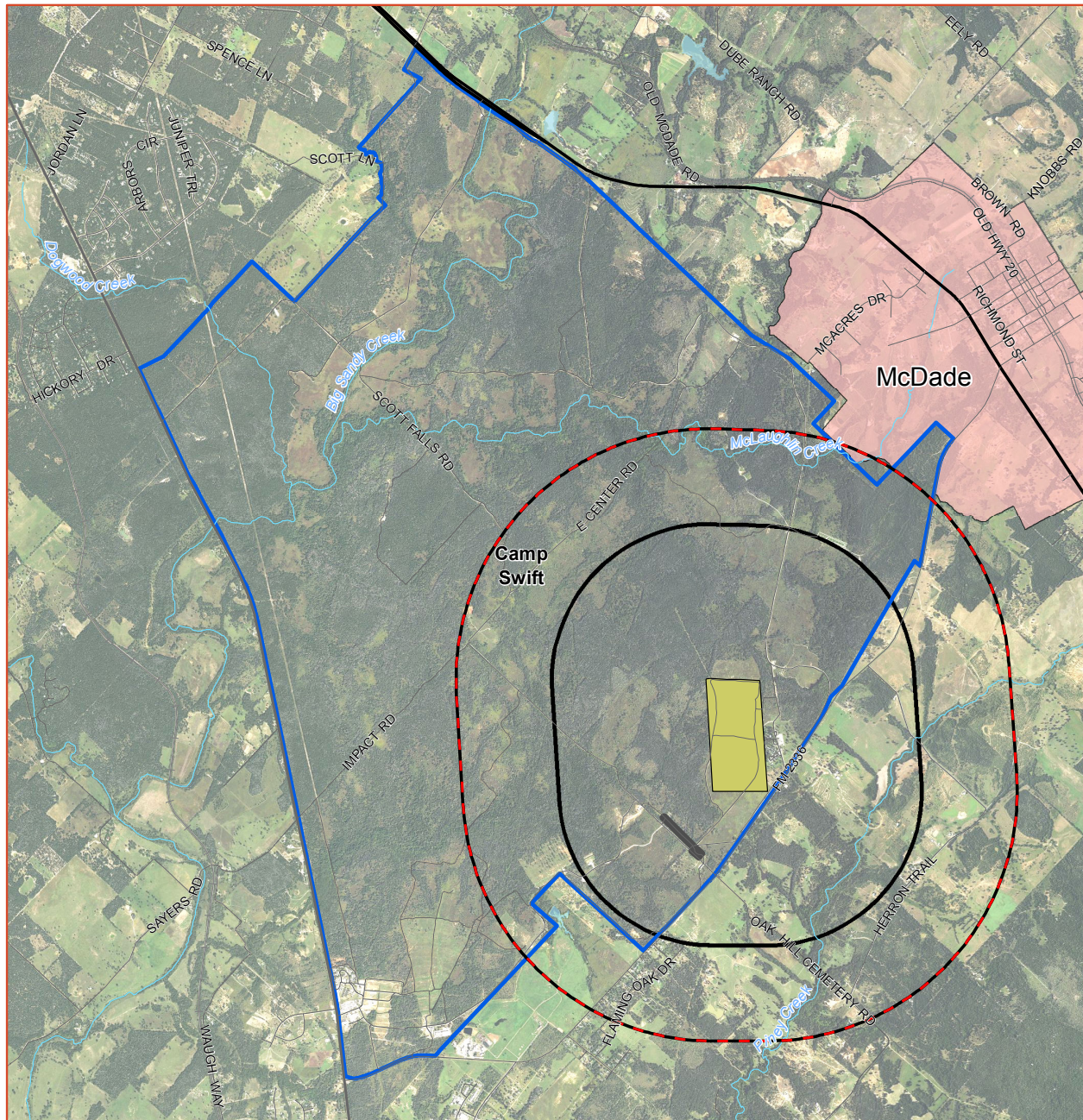
Source: Camp Swift, 2015.



0 0.75 1.5 Miles



Figure 7
Demolition 40 Pound Charge Noise Contours



Legend

Drop Zone Obstacle-Free Area

Military Drop Zone Area

Camp Swift

Blackwell Drop Zone

Area of Activity

Landing Strip

JLUS Participating Community

US Highway

State Highway

Local Road

Railroad

Water Body

Stream / River



Source: Camp Swift, 2008. Army FM 83-21.38, 2006.



0 0.5 1 Miles

Figure 8
Obstacles Near Drop Zone

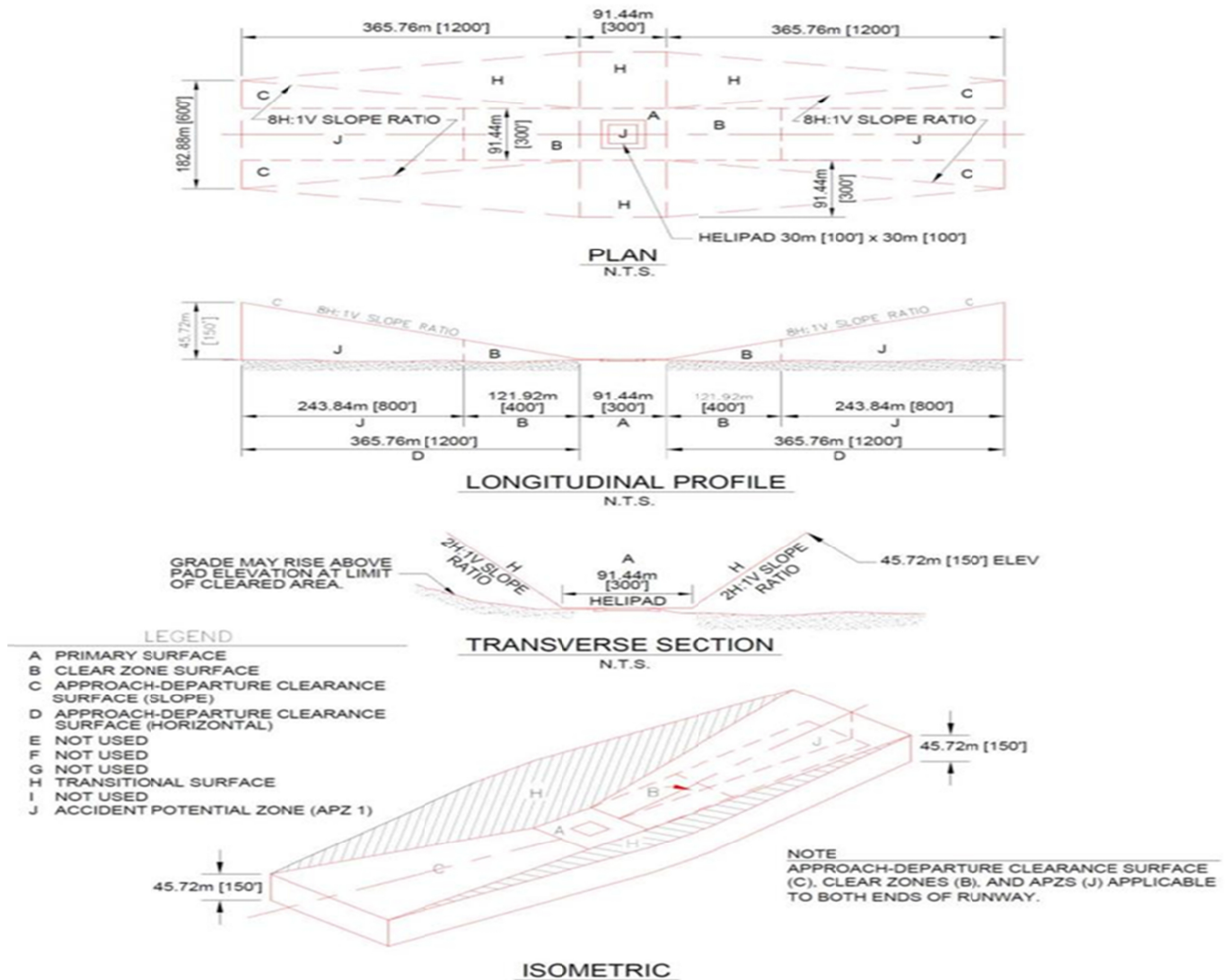
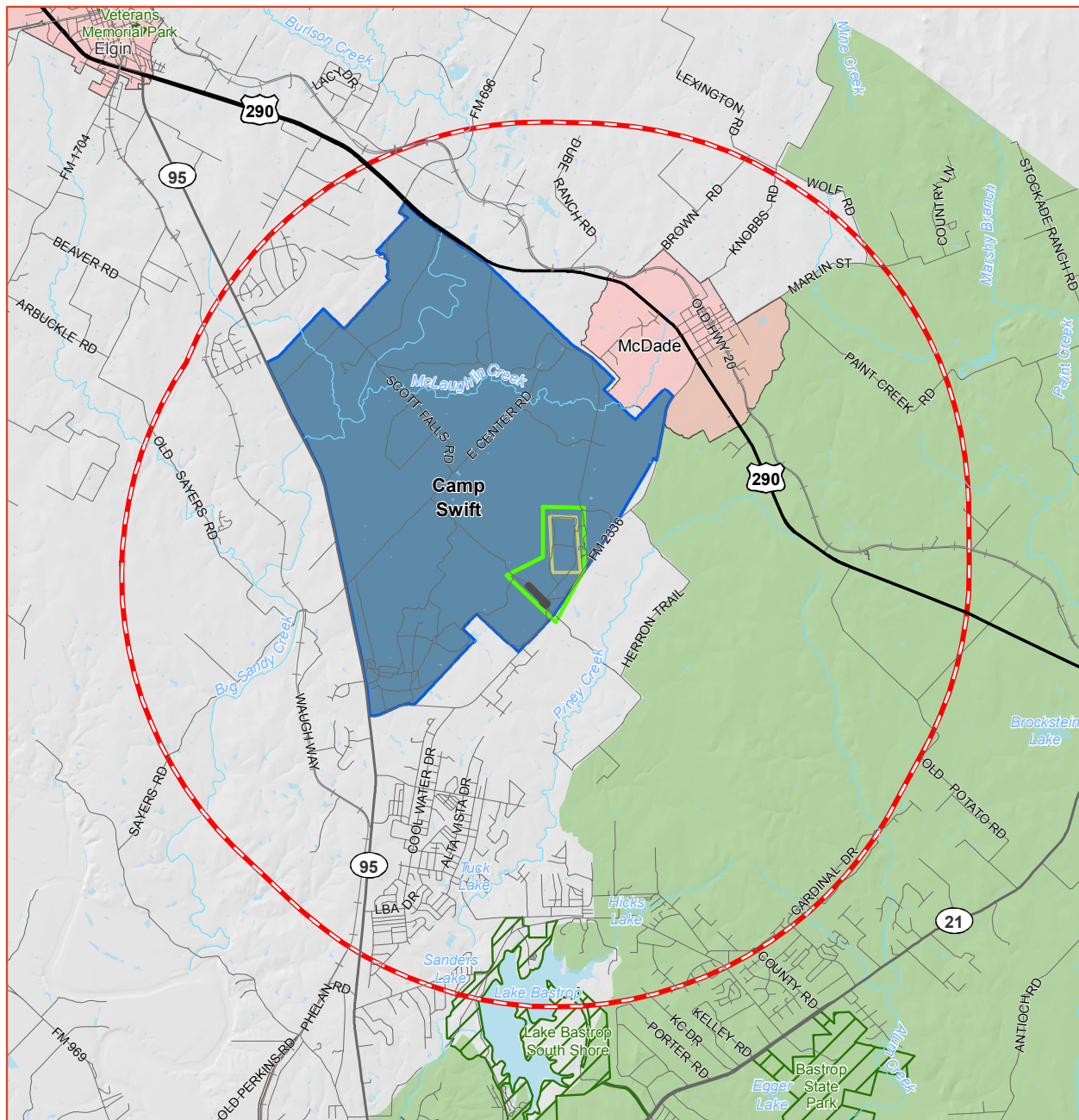


Figure 9. DOD Rotary Wing Imaginary Surfaces



Legend

- | | | |
|----------------------------|---|------------------------------|
| 5-Mile BASH Relevancy Area | Lost Pines Habitat Conservation Plan Area (LPHCP) | JLUS Participating Community |
| Air Operations Area | Water Body /Wetland | US Highway |
| Military Drop Zone Area | Stream / River | State Highway |
| Parks | Landing Strip | Local Road |
| Camp Swift | | Railroad |

Source: Camp Swift, 2015.



Matrix
DESIGN GROUP



0 1 2 Miles

Figure 10
BASH Relevancy Area

Please see the next page.



This section provides an overview of plans and programs that are currently used or applied in evaluating and addressing compatibility issues in the Camp Swift JLUS Study Area. Relative to compatibility planning, there are a number of existing plans and programs that are designed to address compatibility either directly or indirectly.

This is not meant as an exhaustive list of plans and programs that influence planning in this study area, but rather a highlight of the plans and programs for the Camp Swift JLUS. For an exhaustive list of plans and programs refer to Chapter 4 of the Background Report.

Federal Plans and Programs

Ammunition and Explosives Safety Standards 385-64

The Department of the Army Pamphlet 385-64 details the Army's safety criteria and standards for operations involving ammunition and explosives. The pamphlet includes mandatory procedures and guidance as well as preferred methods of accomplishing those procedures. Pertinent information in the pamphlet includes, but is not limited to, explosives safety training standards, explosives safety management programs, safety inspection procedures, and guidance for the creation of installation ammunition / explosive location maps. Camp Swift personnel utilize these standards when preparing for training to ensure safety management is of the essence.

Army Regulation 200-1, Environmental Protection and Enhancement

This regulation implements federal, state, and local environmental laws and DOD policies for preserving, conserving, and restoring the environment. This

regulation should be used in conjunction with 32 Code of Federal Regulation Part 651, which provides Army policy on National Environmental Policy Act requirements and supplemental program guidance. This regulation defines Army Environmental Management System (EMS) framework and the five interconnected EMS areas of policy which include policy, planning and implementation, program management and operation, checking and corrective action, and management review. This is pertinent to military installations that have environmental resources such as habitats for protected species.

Texas Army National Guard / Camp Swift

Army Compatible Use Buffer Program

Title 10, Section 2684a of the United States Code authorizes the Department of Defense (DOD) to partner with local and state governments and private organizations to establish buffer zones around active military assets. Within the Department of the Army, this program is called the Army Compatible Use Buffer (ACUB) program. Through the ACUB program, military installations work with partners (e.g. Land Trusts, Nature Conservancy, other established foundations, and willing landowners) to establish buffer zones that protect habitat, sensitive areas, and training areas without acquiring any new land for Army ownership.

Texas Army National Guard Operational Noise Management Plan

The Environmental Noise Management Program was established by the Army as the framework for the control of noise produced by Army activities. This is done in accordance with the Noise Control Act of 1972 which seeks to limit the effects of any activity which may, "present danger to the health and welfare of this Nation's population" (PL 92-574 1972). The primary strategy for noise management is the ONMP. The current TXARNG Statewide Operational Noise

Management Plan (ONMP), which includes Camp Swift, was adopted in 2014. The ONMP provides a methodology for analyzing noise related to military training operations, educates and discusses noise mitigation measures, noise complaint management procedures, and noise abatement

State of Texas Legislation, Agencies / Programs, and Initiatives / Other Information

Legislation

House Bill 2232 Creating a Regional Military Sustainability Commission

House Bill 2232 (HB 2232), Creating a Regional Military Sustainability Commission (RMSC), passed in the 2015 Texas Legislative Session, is a tool offers jurisdictions that meet certain criteria the authorization to provide limited land use planning that would be compatible with military operations. The criteria includes the following:

- is a county that has three or more locations of a joint military base located in it;
- has a population of more than 1.7 million; or
- is a county that is adjacent to a county described by the preceding bullets; or
- is a municipality located in a county that meets the previous bullets.

Jurisdictions meeting the criteria would enact the HB, establish and fund a RMSC, and identify the appropriate planning area as delineated by the HB. Ultimately this would assist jurisdictions to consider military compatibility in areas where traditional land use planning may not apply. It should be noted that Bastrop County and the Cities of Bastrop and Elgin do not meet the criteria for HB 2232, thus the law does not apply to the participating jurisdictions in this JLUS.

Texas Local Government Code

Texas Local Government Code Chapter 240, Outdoor Lighting

Texas LGC, Title 7, Subchapter B: Outdoor Lighting near Observatories and Military Installations was enacted

September 1, 1987 and subsequently amended September 2001, May 2007, and January 2012. The LGC grants certain Texas counties authority to regulate the use of lighting in order to mitigate interference with military training activities, operations, or research within five miles of a military installation. Counties authorized to adopt these regulations must meet two criteria: they must have a population greater than one million and host at least five military bases. An adjacent county to the sponsoring county also has the authority to regulate lighting types, adopt shielding requirements, and specify times of usage in their county areas within five miles of the designated military base.

Source: Texas International Dark Sky Association website; House Bill No. 1852, Texas Constitution and Statutes, 2001.

Agencies / Programs

Texas Military Preparedness Commission

In 2003, Senate Bill No. 652 established the Texas Military Preparedness Commission and the Texas Military Value Revolving Loan Account. The Commission's responsibilities includes reporting to the Governor's office and working with state agencies in preparing annual reports for the Governor and Legislature regarding the military installations, their adjacent communities, and the associated defense-related business within the state.

Under the law, a community near a military installation may request financial assistance to prepare a comprehensive defense installation and community strategic impact plan (SIP) that identifies the communities' long-range goals and development proposals. Information required within the SIP includes a list of existing and future land uses surrounding the military installation; the proposed distribution, location, and extent of land uses, e.g. housing, business, industry, agriculture, recreation, public facilities and grounds; and other categories of existing and proposed land use regulations, e.g. zoning, annexation, and planning recommendations.

Source: Senate Bill No. 652, Texas Legislature website

Initiatives / Other Information

Real Estate Disclosures

Real estate disclosures are used in some Texas jurisdictions to notify potential homebuyers of conditions affecting the property which they should be aware of prior to purchase. Section 5.008 of the Texas Property Code requires real estate disclosures to be provided to the purchaser on or before the effective date of the contract binding the purchaser to a property purchase.

Source: Texas Real Estate Commission website.

County and Local Jurisdiction Planning Tools

The planning tools used by the study area jurisdictions were analyzed and categorized as permanent, semi-permanent, or conditional. It is important to note that unlike counties in other states, Texas counties do not have traditional land use authority (zoning); however, there are a few counties in Texas (Bexar, Guadalupe counties) that have minimal regulatory authority due to recent state legislation. Counties are not legally bound by statute to develop comprehensive plans. Similar to cities, however, Section 232 of the Texas LGC provides counties with the authority to regulate the subdivision of land. Under this authority, the focus of a county's ability to regulate the subdivision of land is limited to roads, streets, drainage, and rights-of-way.

Bastrop County

Comprehensive Plan / Zoning

Bastrop County is not authorized by law to develop a comprehensive plan or zoning regulations. Counties in Texas do not have a planning function.

Subdivision Regulations

Bastrop County has adopted subdivision regulations pursuant to Texas LGC Chapter 232 to regulate lots, streets, drainage, and rights-of-way, which can guide development within unincorporated areas in a limited capacity.

Bastrop County does not have the ability to regulate subdivisions in any municipality's ETJ unless the land owner has entered into an agreement with the County.

Building Codes

Texas LGC Chapter 233, County Regulation of Housing and Other Structures, provides counties the authority to regulate residential building codes in unincorporated areas within the county. The authority is restricted to:

- new residential construction,
- additions comprising more than 50 percent of the original structure,
- occurring after September 1, 2009, and
- does not apply to modular home construction.

Bastrop County utilizes and references the 2009 International Code Series and amendments found in the Bastrop County Rules for the Enforcement of the International Fire Code and International Building Codes.

City of Bastrop

Comprehensive Plan

Approved in May 2001, the Comprehensive Plan of the City of Bastrop focuses on preserving the historic character of the city while recognizing its place within a vibrant and bustling metropolitan region.

The City of Bastrop Comprehensive Plan does not contain any policies related to military compatibility.

Zoning Ordinance

The City of Bastrop's Zoning Code is Chapter 14 of the City Code and current zoning defines the maximum height limit for any building as 2 ½ stories or 35 feet, which typically does not pose as a threat to aviation operations.

In 2007, the City replaced Section 45 of Article 12 "Appendix A" of the Bastrop City Code, pertaining to the rules governing lighting and glare standards, with new outdoor lighting standards. The purpose for the revision was to prevent light pollution, waste, trespass, or clutter while maintaining night-time safety, security, and productivity.

Regulation related to noise, dust and smoke, and vibration is covered in Section 44 of Chapter 12.

Subdivision Ordinance

Chapter 10 of the City Code sets forth standards for the subdivision of land. Provisions for the subdivision platting process, inspections, variances, and parks and public areas are included in Chapter 10, as well as design criteria for streets, alleys, sewers and drainage structures.

Building Code

Chapter 3 of the Bastrop City Code establishes building regulations, including construction standards, for construction within the city limits. The City has adopted the following codes:

- The National Electric Code, 2011 Edition
- The International Building Code, 2009 Edition

Annexation Ordinance

In November 2011, the City of Bastrop approved an annexation ordinance to annex approximately 1,265 acres into the city, extending the city limits by approximately one and half miles to the west and a little over a half mile to the north from a sliver of a parcel totaling 17 acres. It is unknown at the time of the Camp Swift JLUS if the city planned for additional annexations or if Camp Swift was notified of this action.

City of Elgin

Comprehensive Plan

The City of Elgin Comprehensive Plan was officially adopted by City Council in October 2009.

The City of Elgin's Comprehensive Plan does not contain any policies related to military compatibility.

Zoning Ordinance

The City of Elgin's Zoning Code is Chapter 46 of the City Code. Current city regulation defines the maximum height limit for any building as 90 feet, which corresponds to the maximum height allowed within the General Industrial District.

The City has not adopted a lighting ordinance.

Subdivision Ordinance

Chapter 36 of the City's Code establishes standards for the subdivision of land. Provisions for the subdivision platting process, inspections, variances, and parks and public areas are included in Chapter 36, as well as design criteria for streets, alleys, sewers and drainage structures.

Building Code

Elgin has adopted Building Codes by reference under Article II Section 6-19. Building codes regulate building construction, materials, alteration, and occupancy to ensure health, safety, and welfare within the community. The City of Elgin has adopted the following Codes by reference:

- The International Building Code; 2006 Edition
- The International Residential Code for One and Two Family Dwellings 2006 Edition

Annexation History

The City of Elgin has not annexed any land in the last 10 years; however, the planning and development department is considering annexation. It is unknown at the time the Camp Swift JLUS was developed if Camp Swift / TXARNG were notified of this potential action.



Identification of Compatibility Issues

Compatibility, in relation to military readiness, can be defined as achieving a balance between the needs and interests of a military installation, including its operational areas, and those of the communities that surround it. The goal of compatibility planning is to promote an environment where private property owners, the community, and military entities communicate, coordinate, and apply mutually supportive options that allow all stakeholders to achieve their respective objectives.

A number of factors assist in determining whether community and military plans, programs, and activities are compatible or in conflict with joint land uses such as community activities and military installations. For this JLUS, the following 25 compatibility factors were reviewed to identify, determine, and establish a set of key JLUS compatibility issues.

COMPATIBILITY FACTORS			
AQ	Air Quality	LAS	Land / Air / Sea Spaces
AT	Anti-Terrorism / Force Protection	LU	Land Use
BIO	Biological Resources	LEG	Legislative Initiatives
CA	Climate Adaptation	LG	Light and Glare
COM	Coordination / Communication	MAR	Marine Environments
CR	Cultural Resources	NOI	Noise
DSS	Dust / Smoke / Steam	PT	Public Trespassing
ED	Energy Development	RC	Roadway Capacity
FSC	Frequency Spectrum Capacity	SA	Safety Zones
FSI	Frequency Spectrum Impedance / Interference	SNR	Scarce Natural Resources
HA	Housing Availability	VO	Vertical Obstructions
IE	Infrastructure Extensions	V	Vibration
		WQQ	Water Quality / Quantity

Methodology and Evaluation

The methodology for the Camp Swift JLUS consisted of a comprehensive and inclusive discovery process to identify key stakeholder issues associated with the compatibility factors. At the initial Policy Committee (PC) and Technical Committee (TC) workshops and public meetings, stakeholders were asked to identify the location and type of issue in conjunction with compatibility factors they thought existed today or could occur in the future. As a part of the evaluation phase, the PC, TC, and the public examined and prioritized the extent of existing and potential future compatibility issues that could impact land within or around the Study Area. Other factors and associated issues were analyzed based on available information as well as similarity with other community JLUS projects around the country.

Of the 25 compatibility factors considered, eight were determined to be inapplicable to this JLUS:

- Frequency Spectrum Capacity
- Frequency Spectrum Impedance / Interference
- Housing Availability
- Infrastructure Extensions
- Marine Environments
- Scarce Natural Resources
- Vibration
- Water Quality / Quantity

Camp Swift Compatibility Issues by Factor

Air Quality

Air quality is defined by numerous components that are regulated at the federal and state level. For compatibility, the primary concerns are pollutants that limit visibility (such as particulates, ozone, etc.) and potential non-attainment of air quality standards that may limit future changes in operations at the

installation or in the area. The following Air Quality issue was identified:

- **Potential for Ozone Nonattainment**

The new national air quality standard for ozone could potentially put Bastrop County into nonattainment for ozone, which can have an impact on community activities and military operations.

Anti-Terrorism / Force Protection

Anti-Terrorism / Force Protection (AT) relates to the safety of personnel, facilities, and information on an installation from outside threats. Methods to protect the installation and its supportive facilities can impact off-installation uses. The following Anti-Terrorism / Force Protection issues were identified:

- **Security Concern around Gate Access**

Roadway infrastructure improvements can increase queuing issues which causes a general security concern for the installation.

- **Development Compliance with AT / FP Standards**

Continued growth and future development near Camp Swift may increase issues with AT / FP compliance.

Biological Resources

Biological resources include federal and state listed species (threatened and endangered species) and the habitats they live in or utilize. These resources may also include areas such as wetlands and migratory corridors that support these species. The presence of sensitive biological resources may require special development considerations and should be included early in the planning process. The following Biological Resources issue was identified:

- **Biological Resource Monitoring**

There are numerous biological resources in the area, including those that inhabit the Lost Pines Habitat Conservation Plan Area, which should be continually monitored, coordinated, and updated as necessary.



Houston Toad

Climate Adaptation

Climate adaptation is the gradual shift of global weather patterns and temperature resulting from natural factors and human activities (e.g. burning of fossil fuels) that produce long-term impacts on atmospheric conditions. The effects of climate adaptation vary and may include fluctuations in sea levels, alterations of ecosystems, variations in weather patterns, and natural resource availability issues. The results of climate change, i.e. ozone depletion and inefficiencies in land use, can present operational and planning challenges for the military and communities as resources are depleted and environments altered. The following Climate Adaptation issue was identified:

- **Climate Adaptation Related to Flooding and Drought Conditions**

Concerns from years of severe drought conditions and recent flooding, and their associated impacts on the communities and base.

Communication / Coordination

Communication / coordination relates to the level of interaction on compatibility issues among military installations, jurisdictions, land and resource management agencies, and conservation authorities. The following Communication / Coordination issues were identified:

■ Lack of Formalized Communication between Local Jurisdictions and the Installation

Lack of formalized communication between Camp Swift and local communities makes it difficult to share vital information and voice concerns related to noise, safety, and military training operations.

■ Limited Public Affairs

Limited military resources available to the local newspaper have minimized opportunities for coverage of activities at Camp Swift.

■ Limited Public Affairs for TXARNG / Camp Swift

Limited public affairs resources available for TXARNG / Camp Swift have minimized opportunities for coverage of installation operations and activities for community affairs.

Cultural Resources

Cultural resources are an aspect of a cultural system that is valued by or significantly representative of a culture or contain significant information about a culture. A cultural resource may be a tangible entity or a cultural practice. Tangible cultural resources are categorized as artifacts, records, districts, pre-contact archaeological sites, historic archaeological sites, buildings, structures, and objects. Historic properties are cultural resources that are eligible or listed on the National Register of Historic Places. Cultural resources may prevent development, require development constraints, or require special access by Native American tribal governments or other authorities. The following Cultural Resources issue was identified:

■ Access to Historic and Cultural Resources

Camp Swift has historic and cultural sites on the installation; including burial grounds and a historic wine cellar, which could have restricted access during times of heightened security or with mission changes.

Dust / Smoke / Steam

Dust results from the suspension of particulate matter in the air. Dust (and smoke) can be created by fire (controlled or prescribed burns, agricultural burning, and artillery exercises), ground disturbance (agricultural activities, military operations, grading), industrial activities, or other similar processes. Dust,

smoke and steam are compatibility issues if sufficient enough in quantity to impact flight operations (such as reduced visibility or causing equipment damage). The following Dust / Smoke / Steam issues were identified:

■ Prescribed Burn Smoke Impacts

Smoke from prescribed burns conducted at Camp Swift migrate off installation onto public and private properties.

■ Dust and Smoke from Community Activities Can Impact Base Operations

Dust and smoke generated from agricultural and construction activities can impede, delay, or postpone base operations and activities.



Prescribed burn at Camp Swift

Energy Development

Development of energy sources, including alternative energy sources (such as solar, wind, or biofuels) could pose compatibility issues related to glare (solar energy), vertical obstruction (wind generation), or water quality / quantity. The following Energy Development issue was identified:

■ Potential for Future Alternative Energy Development

There are no controls for alternative energy development in the area.

Land / Air Space Competition

The military manages or uses land and air space to accomplish testing, training, and operational missions. These resources must be available and of a sufficient

size, cohesiveness, and quality to accommodate effective training and testing. Military and civilian air operations can compete for limited air space, especially when the airfields are proximate to each other. Use of this shared resource can impact future growth in operations for all users. The following Land / Air Space Competition issue was identified:

- **Unrestricted Airspace Over Camp Swift**
General aviation and personal aircraft enter the airspace over the live fire training ranges without proper notification.

Land Use

The basis of land use planning relates to the government's role in protecting the public's health, safety, and welfare. County and local jurisdictions' growth policy plans, zoning ordinances, and subdivision regulations can be the most effective tools for preventing or resolving land use compatibility issues. These tools can encourage the separation of land uses that differ significantly in character. Land use separation also applies to properties where the use of one property may impact the use of another. For instance, industrial uses are often separated from residential uses to avoid impacts related to noise, odors, lighting, etc. The Land Use issues were identified as:

- **Potential Development Adjacent to Camp Swift**
If the right-of-way for State Highway 95 is acquired, then the roadway can be expanded, which could potentially spur development in areas near the base that may not be compatible.

Legislative Initiatives

Legislative initiatives are federal, state, or local laws and regulations that may have a direct or indirect effect on a military installation to conduct its current or future mission. They can also constrain development potential in areas surrounding the installation. The following Legislative Initiatives issue was identified:

- **State Legislation Applicability**
There are two new House Bills that potentially address limited land use authority for counties in Texas that could be applied to this area.

Light and Glare

This factor refers to man-made lighting (street lights, airfield lighting, building lights) and glare (direct or reflected light) that disrupts vision. Light sources from commercial, industrial, recreational, and residential uses at night can cause excessive glare and illumination, impacting the use of military night vision devices and air operations. Conversely, high intensity light sources generated from a military area (such as ramp lighting) may have a negative impact on the adjacent community. The following Light and Glare issue was identified:

- **Light Encroachment from New Development**
Unregulated lighting in nearby jurisdictions can facilitate light encroachment on Camp Swift, which could adversely impact night vision training operations.

Noise

Sound is the mechanical energy transmitted by pressure waves in a compressible medium such as air. Simply stated, sound is what we hear. As sound reaches unwanted levels, this is referred to as noise. The central issue of noise is the impact or perceived impact, on people, animals (wild and domestic), and general land use compatibility. Exposure to high noise levels can have a significant impact on human activity, health, and safety. The following Noise issues were identified:

- **Noise Generated by Community Activities**
Noise associated with past activities at nearby ALCOA mine were often attributed to Camp Swift, prompting complaints from the surrounding communities.
- **Noise Generated by Training Activities**
Noise generated from training activities at Camp Swift can prompt complaints from the surrounding communities.
- **Noise Generated by Transient Helicopters**
Several military / National Guard rotary wing units within the region and state traverse the area over Camp Swift, which causes noise that is attributed to the installation.

Public Trespassing

Public Trespassing addresses either purposeful or unintentional trespassing onto a military installation. The potential for trespassing increases when public use areas are proximate to the installation. The following Public Trespassing issue was identified:

■ Trespassing on Camp Swift

Trespassing in the northwest corner of the installation near the historic dam is a safety concern as people shoot guns and, at times, engage in unlawful activities.

Roadway Capacity

Roadway capacity relates to the ability of existing freeways, highways, arterials, and other local roads to provide adequate mobility and access between military installations and their surrounding communities. The following Roadway Capacity issue was identified:

■ State Highway 95 is at Capacity

SR 95 is operating at capacity at some segments of the roadway. To meet future demand, some roadway improvements could require obtaining right-of-way from Camp Swift.



FM 2236 branches southwest around Camp Swift Military Reservation to Texas 95 north of Bastrop

Safety Zones

Safety zones are areas in which property owners and jurisdictions should consider lesser densities and intensities for residential and non-residential development, in terms of concentrations of people, due to the higher risks to public safety. Issues to

consider include aircraft accident potential zones, weapons firing range safety zones, and explosive safety zones. The following Safety Zones issues were identified:

■ Obstacles near Drop Zone

There are obstacles near Blackwell Drop Zone that have the potential to impede military training activities.

■ Uncontrolled Airspace Over Training Ranges

General aviation and personal aircraft operations in the area over the training ranges can pose safety hazards for both pilots and training personnel.

Vertical Obstructions

Vertical obstructions are created by buildings, trees, structures, or other features that may encroach into the navigable airspace used for military operations (aircraft approach, as well as military training routes). These can present a safety hazard to both the public and military personnel. The following Vertical Obstructions issues were identified:

■ Imaginary Surfaces Extend Off-Installation into Unincorporated Areas

There are no controls for building or structure heights including trees in the unincorporated areas where the imaginary surfaces extend off-installation.

■ Wind Energy Potential at Heights of 80 Meters

There are no land use controls in areas around Camp Swift for wind energy development above 80 meters.

Please see the next page.



Recommended Options



Camp Swift Training Center

This chapter identifies and organizes the recommended options developed through a collaborative effort between representatives of applicable local jurisdictions, Camp Swift / the Texas Military Department (TMD), state and federal agencies, local organizations, the general public and other stakeholders that own or manage land or resources in the region. Since the Camp Swift JLUS is the result of a collaborative planning process, the options in this chapter represent a true consensus plan; a realistic and coordinated approach to compatibility planning developed with the support of stakeholders involved.

JLUS recommendations incorporate a variety of options that can be implemented to promote compatible land use and resource planning. Upon application, existing and potential compatibility issues arising from the civilian-military interface can be removed or significantly mitigated. As such, the recommended options function as the heart of the JLUS document and are the culmination of the planning process. It is important to note that the JLUS is not an adopted plan, but rather a recommended set of options which should be carried out by the JLUS participants to address current and potential future compatibility issues.

The goal of the Camp Swift JLUS is to promote compatibility planning to foster the successful coexistence of the communities' economic activities and the military mission and potential growth opportunities.

The key to the application of these options is the establishment of a JLUS Coordination Committee (see option COM-1A) to oversee the JLUS application. This committee will allow local jurisdictions, Camp Swift / the TMD, and other interested parties to continue working together to establish communication and coordination procedures, recommend or refine specific actions for member agencies, and make adjustments to options over time to ensure the JLUS continues to address key compatibility issues through realistic options and application.



Recommended Options Guidelines

The key to a successful plan is balancing the needs of all involved stakeholders. Several guidelines form the basis upon which the options were developed. These guidelines include:

- The recommended options were developed with the understanding that they must not result in a taking of property value as defined by state law.
- The goal of this JLUS is to focus the recommended options in the communication coordination, and information perspective as opposed to the regulatory perspective.
- In order to minimize or eliminate the need for regulation, many of the options are only recommended within the certain geographic area for which the issue they address occurs (e.g., within the noise contours), instead of recommended for the whole JLUS Study Area.
- Similar to other planning processes that include numerous stakeholders, the challenge is to create a solution or option that meets the needs of all parties. In lieu of eliminating options that do not have 100 percent buy-in from all stakeholders, it was determined that the option may result in the creation of multiple options that address the same issue but are tailored to individual circumstances.
- Since this JLUS is intended to be a “living document,” and state and federal regulations are subject to change, before implementing one of the recommended options, the responsible jurisdiction or party should ensure there is no conflict between the option and any existing state or federal law.

Military Awareness Areas

In compatibility planning, the generic term “Military Awareness Area” (MAA) is used to formally designate a geographic area where military operations may impact local communities, and conversely, where local activities may affect the military’s ability to carry out its mission. An MAA is designated to accomplish the following:

- Provide awareness to the communities and the public of areas where military activities occur.
- Create a broader framework for making sound planning decisions around military installations.
- Promote an orderly transition between community and military land uses so that land uses remain compatible.
- Protect and maintain operational capabilities of military installations and areas.
- More accurately identify areas that can affect or be affected by military missions, and
- Protect the public health, safety, and welfare.

The MAAs are used to define the geographic areas where the recommended JLUS options are to be applied. This technique ensures the options are applied to the appropriate areas, and locations that are deemed not subject to a specific compatibility issue are not adversely impacted by JLUS options inappropriate for their location or circumstance.

There are five MAAs with several subzones proposed for the Camp Swift JLUS. They are: 1) Unobstructed Clearance Area MAA; 2) Small Arms / Improvised Explosive Noise Device MAA; 3) Demolition Noise MAA; 4) Drop Zone (DZ) Obstacle-Free MAA; and 5) Vertical Obstruction MAA. The Military Awareness Overlay District (MAOD) contains all the MAAs and their associated subzones proposed for this JLUS. The MAOD and MAAs are described and illustrated on the following pages. In the Recommended Options Table (Table 5), options that apply to the entire JLUS Study Area are identified by the term “Study Area”.

Unobstructed Clearance Area MAA [Clear Area MAA] (Figure 11)

This MAA, as illustrated on Figure 11 is a 20-foot area from the installation boundary in all directions. Land uses within this MAA should not obstruct the view into and off the installation. This will enable a clear, unobstructed view for Camp Swift to ensure compliance with AT/FP standards well into the future.

Small Arms / Improvised Explosive Device Noise MAA (Figure 12)

This MAA, as illustrated on Figure 12 is the modeled noise contours for the small arms caliber training area and the Improvised Explosive Device (IED) Lane Course. Each set of noise contours contains noise zones (NZ). For the small arms range, the NZ III measured at >104 dB PK15(MET) extends off-installation. For the IED Lane Course, NZ II measured at 115 dB PK15(MET) and NZ III at 130 dB PK15(MET) both extend off-installation. This MAA is meant to minimize incompatible development of noise-sensitive land uses, (e.g., residential, schools, churches, etc.) in areas impacted by noise generated from small arms firing and IED training.

Demolition Noise MAA (Figure 13)

This MAA includes all land under the 2-pound and 40-pound demolition noise contours shown on Figure 13. The Demolition Noise MAA contains two subzones—one for each charge, the 2-pound charge and the 40-pound charge.

Drop Zone Obstacle-Free MAA (Figure 14)

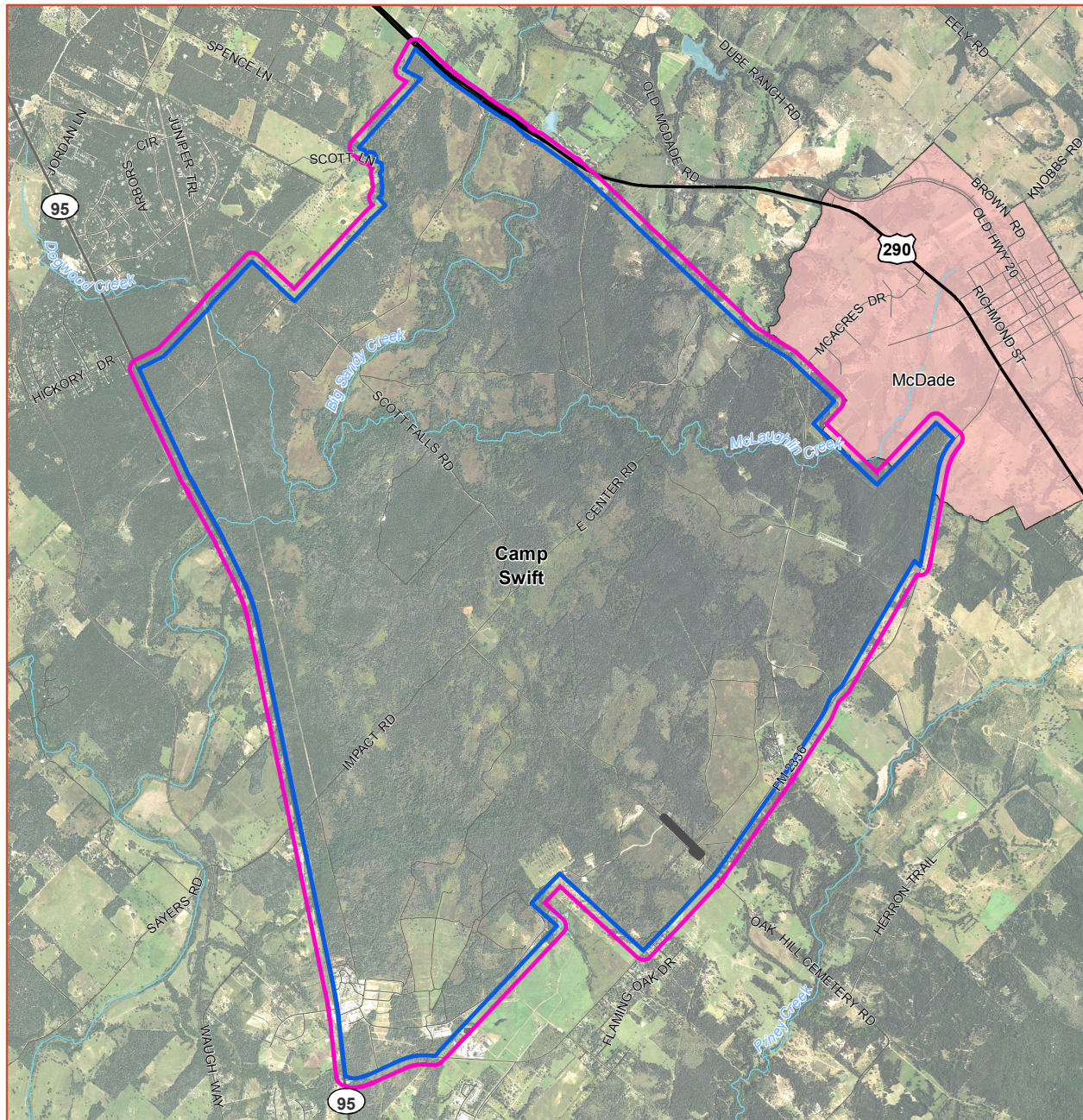
This MAA includes all land within 1,000 meters of the DZ activity area that extends outside the installation as illustrated on Figure 14. This MAA provides for an additional level of safety for DZ training exercises.

Vertical Obstruction MAA (Figure 15)

This MAA comprises the flight corridor that various reservist units use to perform necessary aviation training operations, as illustrated on Figure 15. The land under this MAA could be impacted from overflight, including low altitude flying. Figure 15 only shows the predominant flight corridor that is located in Bastrop County, which is the Study Area for the Camp Swift JLUS.

Military Awareness Overlay District (Figure 16)

The MAOD contains all the aforementioned MAAs and associated subzones to comprise one overlay district for the application of the recommended Camp Swift JLUS options. The MAOD is illustrated on Figure 16 as a composite map.



Legend

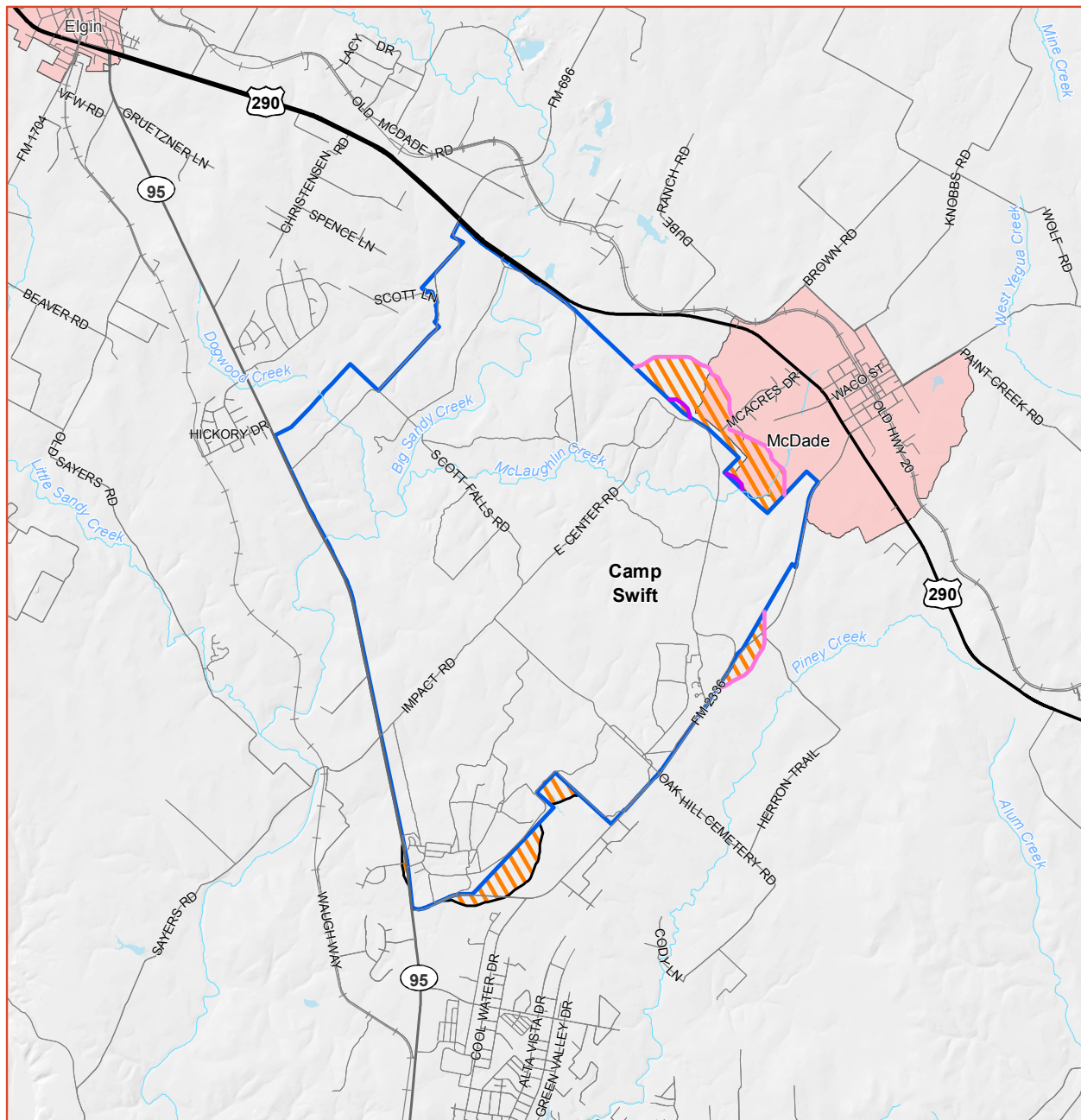
- Clearance Area (20 feet)
- Camp Swift
- JLUS Participating Community
- US Highway
- State Highway
- Local Road
- Railroad
- Landing Strip
- Water Body
- Stream / River

Source: MIL-HNDBK-1013/A, 1993.



Figure 11

Unobstructed Clearance Area Military Awareness Area



Legend

Small Arms/IED MAA

IED Noise Contour

Zone II
115 dB PK15(MET)

Zone III
130 dB PK15(MET)

Source: Camp Swift, 2015.

Camp Swift

JLUS Participating Community

US Highway

State Highway

Local Road

Railroad

Water Body

Stream / River

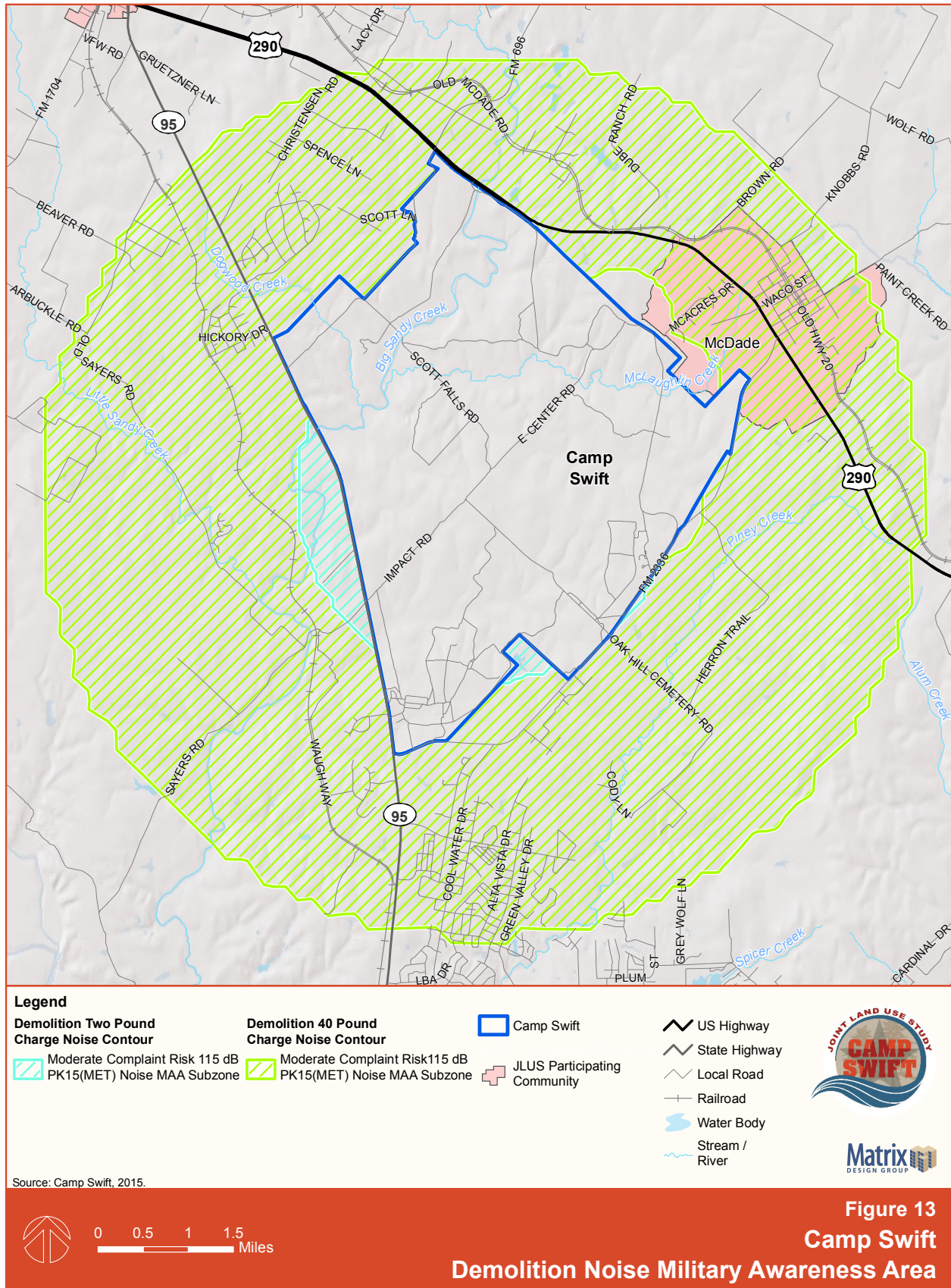


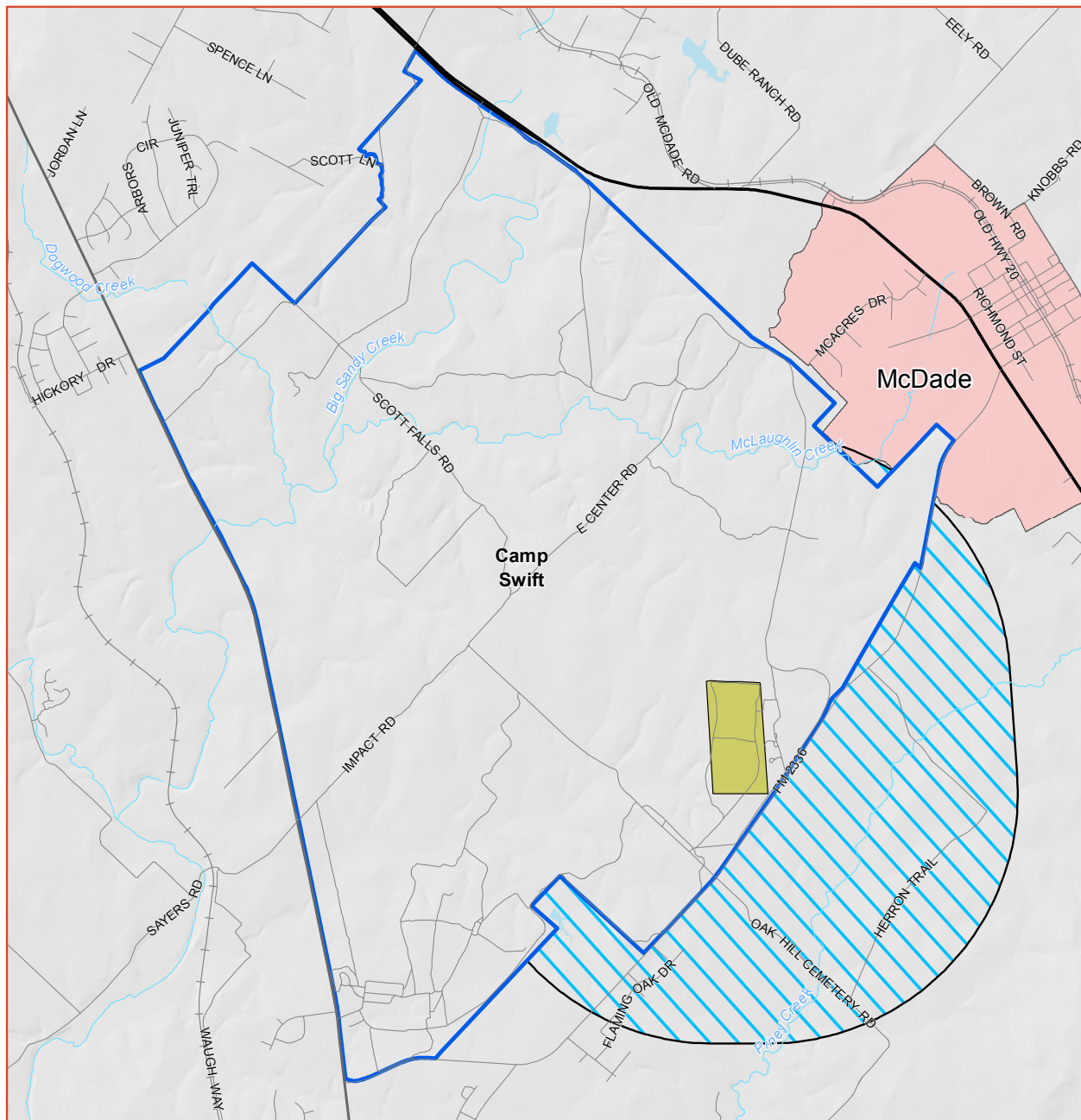
Matrix
DESIGN GROUP



0 0.5 1 1.5
Miles

Figure 12
Camp Swift
Small Arms / IED Military Awareness Area





Legend

- Drop Zone Obstacle-Free Military Awareness Area (1,000 meters from the DZ Activity Area)
- Blackwell Drop Zone Area

- Camp Swift
- JLUS Participating Community

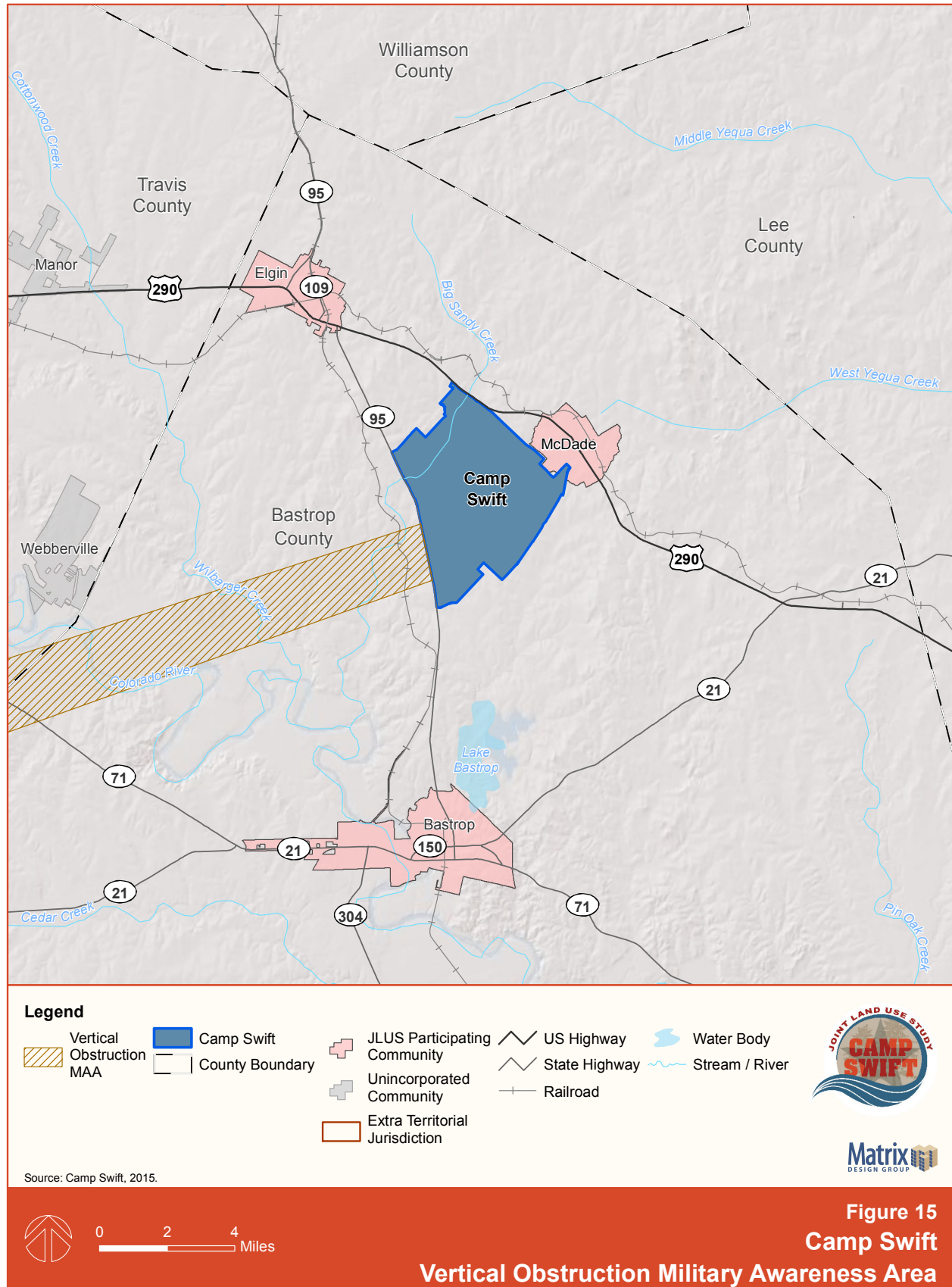
- US Highway
- State Highway
- Local Road
- Railroad
- Water Body
- ~ Stream / River

Source: Camp Swift, 2015. Field Manual 25-32.



0 0.5 1 Miles

Figure 14
Camp Swift
Drop Zone Obstacle-Free Military Awareness Area



6



How to Read the Recommended Options Table

The options are designed to address the issues identified during preparation of the JLUS, and discussed in detail in Chapter 5 of the Background Report. The purpose of each option is to:

- avoid future actions, operations, or approvals that would cause a compatibility issue,
- eliminate or reduce the adversity of existing compatibility issues where possible, and
- provide for enhanced and on-going communications and collaboration.

To make the options easier to use, they are presented in a table format that provides the option as well as information on when and how that option can be applied. The options are arranged in a table to correspond with their compatibility factor. The issue within each factor is presented first to provide a linkage between the option and the condition it is intended to resolve or minimize. Figure 17 highlights the format and content of the option table. The following paragraphs provide an overview of how to read the information presented for each option.

Issue or Option ID. The issue # and option # are unique alpha-numeric identifiers that provide a reference for each specific issue and option. An option's reference number is composed of the Compatibility Issue number and its ID (e.g., COM-1, COM-1B, etc.).



Completed Stamp. This stamp indicates this option was identified during the JLUS process and completed before the end of the process concluded.



In Progress Stamp. This stamp indicates this option has been initiated by the responsible parties indicated in the table.



On-Going Stamp. This stamp indicates this option is currently on-going by the responsible parties indicated in the table. In addition, this provides awareness that the responsible parties are already implementing the option.

Military Awareness Area (MAA). This column indicates the applicable MAA in which the option should be applied. The MAA geographies for the Camp Swift JLUS options are defined in Option LU-1A. Some of the options are designated as "Study Area", meaning that they apply to the entire JLUS Study Area.

Issue / Option. In bold type is a title that describes the issue or option. This is followed by the complete issue or option statement that describes the recommended action. Each set of options is preceded by the issue which they are meant to address.

Timeframe. This column indicates the projected timeframe of each option. The timeframes describe the year in which an option is recommended to be initiated or if it is an on-going action.

Short	Option proposed for initiation in 2016 – 2017 (within year of JLUS completion)
Mid	Option proposed to be initiated in 2018 – 2019 (within 2-3 years of JLUS completion)
Long	Option proposed to be initiated in 2020 – 2022 (within 4-6 years from JLUS completion)
On-going	An on-going option

Responsible Party. At the right end of the option table are a series of columns, one for each jurisdiction, military entity, agency, and organization with responsibility for applying the JLUS options. If an entity has responsibility relative to applying an option, one of two marks is shown under their name. A solid square

(■) indicates that the entity identified is responsible for applying the option. A hollow square (□) indicates that the entity plays a key supporting role, but is not directly responsible for application. The responsible parties are identified by their name or assigned acronym in the heading at the top of each page.

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Air Quality									
AQ-1A	Study Area	Maintain Local Monitoring and Coordination of NAAQS for Ozone The county, cities, and Texas Military Department (TMD) should continue to maintain local monitoring and coordination with the Texas Commission on Environmental Quality (TCEQ) of ozone in the county. Other Partner: TCEQ	On-going	□	□	■	□	□	□

Issue / Option Number: Alpha-numeric identifier used for reference.

Military Awareness Area: Geographic area where each option applies.


Option: Description of the option.

Timeframe: The expected initiation date for option implementation.

Responsible Party: The primary and partner responsible agencies. For example, the ■ denotes the primary agency who will take the lead in implementation. The □ denotes partner agency who will assist the primary agency in implementation.

Figure 17. How to Read JLUS Options

Table 5. Issues / Options by Compatibility Factor (Alphabetized by Factor)

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Air Quality (AQ)									
AQ-1	Potential for Ozone Nonattainment The new national air quality standards for ozone could potentially put Bastrop County into nonattainment for ozone, which can have an impact on community activities and military operations.								
AQ-1A 	Study Area	Maintain Local Monitoring and Coordination of National Ambient Air Quality Standards (NAAQS) for Ozone The County, cities, and Texas Military Department (TMD) should continue to maintain local monitoring and coordination with the Texas Commission on Environmental Quality (TCEQ) of Ozone in the county. Other Partner: TCEQ	On-going	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
AQ-1B	Study Area	Update Ozone Advanced Program (OAP) Action Plan The Central Texas Clean Air Coalition (CAC) of the Capital Area Council of Governments (CAPCOG) should update its OAP Action Plan to include military compatibility in its implementation actions and coordinate with the TMD in future updates to the plan. Primary Partner: CAC of CAPCOG	Mid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
AQ-1C	Study Area	Establish Performance Metrics in OAP Action Plan The current OAP Action Plan is recommended for updating to establish performance metrics for the various measures identified for each participating group to ensure the measures implemented will result in measurable outcomes that will yield cleaner air and maintenance of attainment for the region. Primary Partner: CAC of CAPCOG	Mid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
AQ-1D	Study Area	Adopt Heavy-Equipment Idling Reduction Ordinances The cities should consider adopting heavy-equipment idling reduction ordinances pursuant to Section (§) 30 Texas Administrative Code (TAC), Chapter 114, Subchapter J to reduce heavy-vehicle emissions of ozone. The §30 TAC 114, J, exempts military vehicles; however, the military should consider voluntary compliance. Other Partner: CAPCOG	Mid	■	■		<input type="checkbox"/>		■
AQ-1E	Study Area	Update Ozone Action Plans Upon decision of the new federal standard for Ozone, CAPCOG and partner jurisdictions should update plans to incorporate appropriate measures for the new standard. Plans should consider implementing measures that are designed to create a standard for Ozone in the range of 65 ppb to 70 ppb to be proactive for future changes in federal standards. Primary Partner: CAC of CAPCOG	Long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		■
Anti-Terrorism / Force Protection (AT)									
AT-1	Security Concern around Gate Access Roadway infrastructure improvements can increase queuing issues which causes a general security concern for the installation.								
AT-1A	Clear Area MAA	Consider Incorporating Unobstructed Clearance Area in Planning Documents The cities should consider incorporating the Unobstructed Clearance Area in their planning documents to serve as a trigger for coordination / communication with Camp Swift / TMD.	Mid	■	■		<input type="checkbox"/>		

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
AT-1B	Clear Area MAA	Consider Gate Closures Camp Swift / TMD should consider closing some of the gates that do not support mission critical activities to minimize AT/FP concerns near the installation.	Long				■		
AT-2	Development Compliance with AT/FP Standards Continued growth and future development near Camp Swift may increase issues with ATFP compliance.								
AT-2A	Clear Area MAA	Develop a Memorandum of Understanding (MOU) for Coordination The cities and counties and other participating agencies should work with Camp Swift / TMD to develop a MOU to establish procedures for coordinating with the military regarding development and infrastructure improvements that may impact AT/FP compliance. Such procedures should include but not be limited to: <ul style="list-style-type: none"> ■ Establish points of contact for each agency, ■ Establish triggers for coordination, (e.g., intensity, density, height, proximity to Camp Swift), and ■ Establish procedures for sharing plans of development with Camp Swift prior to approval so TMD can advise how it may impact AT/FP standards. Other Partners: TCEQ, CAPCOG	Mid	■	■	■	□	■	□

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
AT-2B	Clear Are MAA	<p>Consider Updating Military Handbook, Design Guidelines for Security Fencing, Gates, Barriers, and Guard Facilities (MIL-HDBK-1013/10)</p> <p>Camp Swift / TMD should consider initiating an update or developing an addendum for the MIL-HDBK-1013/10 that provides guidance to the military's communities. The guidance should establish points-of-contact and procedures about coordinating with the communities and educating the communities on the benefits of planning in consideration of new AT/FP standards.</p> <p>Other Partner: U.S. Army</p>	Long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		See Options for AT-1.							
Biological Resources (BIO)									
BIO-1	<p>Biological Resources Monitoring</p> <p>There are numerous biological resources in the area, including those that inhabit the Lost Pines Habitat Conservation Plan Area that should be continually monitored, coordinated, and updated as necessary.</p>								
BIO-1A	Camp Swift	<p>Update Integrated Natural Resources Management Plan (INRMP)</p> <p>Camp Swift / TMD should budget and plan for an update of the INRMP to include all rare or special species of concern including the Texas Horned-Lizard.</p> <p>Other Partners: Texas Parks and Wildlife Department (TPWD), United States Fish and Wildlife Service (USFWS)</p>	Long				<input checked="" type="checkbox"/>		<input type="checkbox"/>
BIO-1B	Study Area	<p>Develop Resource Management Plans (RMPs) for Other Rare Species</p> <p>TPWD should partner with USFWS and other JLUS participating entities to develop RMPs for other rare or special species of concern including the Texas Horned-Lizard and its habitat.</p> <p>Primary Partners: TPWD, USFWS</p>	Long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Climate Adaptation (CA)									
CA-1	Climate Adaptation Related to Flooding and Drought Conditions Concerns from years of severe drought conditions and recent flooding, and their associated impacts on the communities and base.								
CA-1A	Camp Swift	Develop Climate Change Impact Assessment Camp Swift / TMD should work with the local jurisdictions, and the DOD to develop a Climate Change Impact Assessment that addresses issues related to climate change for the installation, including references to drought, wildfires, and flooding. This assessment and its associated actions should be coordinated with other local on-going studies. Other Partners: DOD, nongovernmental organizations	Long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
CA-1B	Study Area	Consider Updating Comprehensive Plans / Hazard Mitigation Plans The cities should consider updating their comprehensive plans to incorporate guidance and policy about climate change and the impacts that are likely to occur in this region. The cities should collaborate with Camp Swift to ensure military compatibility is included in the updates. Primary Partner: CAPCOG	Long	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Communication / Coordination (COM)									
COM-1	Lack of Formalized Communication Between Local Jurisdictions and the Installation Lack of formalized communication between Camp Swift and local communities makes it difficult to share vital information and voice concerns related to noise, safety, and military training operations.								
COM-1A	MAOD	Consider a Camp Swift JLUS Coordination Committee Formalize through a resolution that the Camp Swift Policy and Technical Committees will transition to a JLUS Coordination Committee, and be responsible for monitoring the achievement of the recommended JLUS options or feasible resolutions and act as a forum for continued communication and sharing of information and current events associated with military compatibility. Other Partners: Bastrop Independent School District (BISD), CAPCOG, Elgin Independent School District (EISD), McDade Independent School District (MISD), TPWD	Short	■	□	□	□	□	□
COM-1B	MAOD	Invite a Camp Swift Representative to Serve as a Non-Voting Member of the Jurisdiction Planning Commission and Other Planning Bodies In an effort to continue a collaborative partnership, include in a MOU between stakeholders and Camp Swift that Camp Swift agrees to provide a representative, as available, to attend and comment on mission compatibility issues on proposed developments at City Council, Planning Commission, County Commissioner Court and other select agency board meetings. Note: The Camp Swift representative will provide technical information on items being considered, but shall not directly vote to approve, conditionally approve, or deny a project or development application.	Mid / On-going	■	■	■	□	■	■

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
COM-1B (cont'd)		Other Primary Partners: BISD, CAPCOG, EISD, Lost Pines Habitat Conservation, MISD							
COM-1C	MAOD	<p>Provide Copies to Camp Swift as One of the Agencies that Review Pre-Development Applications / Proposals</p> <p>Consider establishing a MOU (may be the same MOU used for other options) between Camp Swift and the jurisdictions, formalizing a process that provides copies of conditional use, master plan, subdivision, annexation, etc. submittals located within the MAOD to be reviewed by Camp Swift. Such review periods shall conform to existing community review periods for comment. This supports a proactive approach to identifying potential conflicts early in the proposed development application phase.</p> <p>Primary Partners: BISD, CAPCOG, EISD, MISD, TXNG</p>	Short	■	■		<input type="checkbox"/>	■	■
COM-1D	Study Area	<p>Develop Memorandum of Understanding</p> <p>Camp Swift / TMD should collaborate through the JLUS Coordination Committee to facilitate the development of a formal MOU that delineates the roles and responsibilities for each agency in the JLUS Study Area. This MOU should contain information such as:</p> <ul style="list-style-type: none"> ■ Point of contact and information for each agency, ■ Role in communicating with the base on compatibility concerns, ■ Responsibility in coordinating on the resolution of compatibility concerns, ■ Community and military response times, and ■ Triggers for coordination and communication, (e.g., infrastructure planning, water resources planning, 	Mid	■	■	■	■	<input type="checkbox"/>	<input type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		economic development, new or changes to subdivision plats, etc.) Other Partners: TPWD, TCEQ, JLUS Coordination Committee							
COM-2	Limited Public Affairs Limited military resources available to the local newspaper have minimized opportunities for coverage of activities at Camp Swift.								
COM-2A	Study Area	Develop Memorandum of Understanding for Public Affairs Camp Swift / TMD should work with the local jurisdictions to develop a MOU that delineates procedures for sharing information with the local jurisdictions in an effort to be proactive and consistent with communications. The MOU should set points of contact for jurisdictions, types of information to be shared with local jurisdictions, frequency, etc.	Mid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
COM-3	Limited Public Affairs for TXARNG / Camp Swift Limited public affairs resources available for TXARNG / Camp Swift have minimized opportunities for coverage of installation operations and activities for community affairs.								
COM-3A	Study Area	Establish Official Facebook and Other Social Media Webpage(s) Camp Swift / TMD should establish an official Facebook and / or other social media webpages to provide notifications to the public who follow the pages. Camp Swift / TMD should distribute the webpage addresses to local jurisdictions to share important information about Camp Swift activities, operations, and events.	Short	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
COM-3B <i>IN PROGRESS</i>	Study Area	Develop an Official Website for Camp Swift Camp Swift / TMD should work with TXNG to develop an official website for Camp Swift that not only provides a platform for public awareness and notification but also enhances the visibility and presentation of the installation.	Short				■		
COM-3C	MAOD	Enhanced Public Education of the Camp Swift Mission Develop fact sheets or brochures which outline the mission and community benefits that are generated from the training activities that occur at Camp Swift. Public education materials should be made available on an official TMD or Camp Swift website. The education materials can also be distributed to the County, cities, and other interested entities for inclusion on their websites or printed material for their government offices. Other Partners: BISD, CAPCOG, EISD, MISD	Short	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
COM-3D	Study Area	Consider Hosting Open House Events Camp Swift should consider hosting open house and installation tours and visits. Camp Swift can provide enhanced insight to educate all groups, (e.g., building and development community, elected officials, and the general public) about the unique mission at Camp Swift. Other Partners: BISD, CAPCOG, EISD, MISD	On-going	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>


Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
COM-3E	MAOD	Foster Enhanced Public Awareness Through Accurate Mapping Camp Swift / TMD should provide all of the surrounding local, county, regional, and state governments with an accurate geographic information system (GIS) data layer or geodatabase of the installation boundaries for inclusion in all land use, transportation, park and recreation, public facilities, and other related planning efforts. Other Partners: BISD, CAPCOG, EISD, MISD	Short	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural Resources (CR)									
CR-1	Access to Historic and Cultural Resources Camp Swift has historic and cultural sites on the installation; including burial grounds and a historic wine cellar, which could have restricted access during times of heightened security or with mission changes.								
CR-1A	MAOD	Enhance Visibility of Cultural Resources Personnel Camp Swift / TMD should enhance the visibility of the cultural resources personnel that manage the access and scheduling of visits to the historic cemeteries. Such enhancements can include but not be limited to: <ul style="list-style-type: none"> ■ Providing links on webpages about the cultural resources and their accessibility procedures on Camp Swift and ■ Reaching out to the groups, families, and other enthusiasts to inform them of the procedures and to collect their contact information so the installation can provide a pass to those families and groups enabling access to the cemeteries and other pertinent cultural resources. 	Mid				<input checked="" type="checkbox"/>		<input type="checkbox"/>


Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
CR-1B	MAOD	Update Integrated Cultural Resources Management Plan (ICRMP) Camp Swift / TMD should budget and plan for the update of the ICRMP to incorporate identified personnel responsible for the access of the cultural resources on the installation. This point of contact should be delineated on all the informational pamphlets distributed to the public to ensure appropriate persons have access to such sites.	Long				■		
Dust, Smoke, Steam (DSS)									
DSS-1	Prescribed Burn Smoke Impacts Smoke from prescribed burns conducted at Camp Swift migrates off installation onto public and private properties.								
DSS-1A	MAOD	Enhance Notification of Prescribed Burns Camp Swift / TMD should enhance their notifications for prescribed burns by: <ul style="list-style-type: none"> ■ Posting notifications to the official website for Camp Swift / TMD (when established), ■ Distributing notifications to local jurisdictions' public information offices, and ■ Establishing public service announcements. 	Short				■		
DSS-2	Dust and Smoke from Community Activities Can Impact Base Operations Dust and smoke generated from agricultural and construction activities can impede, delay, or postpone base operations and activities.								
DSS-2A	MAOD	Communicate with Camp Swift Regarding Proposed Developments that Generate Dust, Smoke, or Steam Within the MAOD Communicate with Camp Swift about any existing facilities undergoing renovations and proposed developments and subdivisions that generate dust, smoke, or steam that are located within the MAOD	Short	■	■	■	□	■	■

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		that may impact the base so that Camp Swift can inform nearby property owners to proactively educate and keep landowners aware. Primary Partners: BISD, EISD, MISD, Lost Pines Conservation Habitat, willing property owners							
DSS-2B	MAOD	Consider Adopting Dust Control Ordinance Elgin should consider developing and adopting a dust control ordinance to ensure community activities do not contribute to air pollution in the region.	Long		■				
Energy Development (ED)									
ED-1	Potential for Future Alternative Energy Development There are no controls for alternative energy development in the area.								
ED-1A	MAOD	Consider Coordinating with DOD Siting Clearinghouse Consider updating plans to include policies or a guiding framework including communication with the military to promote compatible planning for proposed alternative energy development projects. Such communication should include submission of proposed projects to Camp Swift and the DOD Siting Clearinghouse to review each project for mission compatibility. Include coordination with DOD Siting Clearinghouse as part of the MOU between Camp Swift and stakeholders. This guiding framework should include at a minimum: <ul style="list-style-type: none">■ Delineation of the area for which communication and coordination occurs for proposed alternative energy development, and■ Triggers for communication and coordination such as capacity, height of towers, and construction technology for	Short / On-going	<input type="checkbox"/>	<input type="checkbox"/>		■	<input type="checkbox"/>	<input type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		<p>solar panels (e.g. photovoltaic or concentrated solar power).</p> <p><i>Note: The DOD Siting Clearinghouse requirements and standards published in Title 32, Code of Federal Regulations, Part 211 shall advise and guide the process to facilitate the early submission of renewable energy project proposals to the Clearinghouse for military mission compatible review.</i></p> <p>Other Partners: BISD, CAPCOG, EISD, MISD, willing landowners</p>							
ED-1B	Study Area	<p>“Red, Yellow, Green” Map</p> <p>Develop a "Red, Yellow, Green" Map in which the TXNG communicates specific locations where structures that exceed a mutually agreed upon height would be incompatible with frequency interference and helicopter flight routes.</p> <p>Primary Partner: TXNG</p>	Mid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Land / Air Space Competition (LAS)									
LAS-1	<p>Unrestricted Airspace Over Camp Swift</p> <p>General aviation and personal aircraft enter the airspace over the live fire training ranges without proper notification.</p>								
LAS-1A	MAOD	<p>Consider Sharing Unclassified Training Schedule Information with General Aviation (GA) and Personal Aircraft Operators</p> <p>Camp Swift should consider sharing training schedule information regarding the ranges with GA and personal aircraft operators in the vicinity of the installation. The training schedules should include information such as:</p> <ul style="list-style-type: none"> ■ Times of year, ■ Times of day, ■ Ranges that are “hot,” 	Mid				<input checked="" type="checkbox"/>		


Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		<ul style="list-style-type: none"> Days when ranges are not “hot,” and Points of contact information if questions or concerns arise. <p>Including this information or a notification on an official website would also benefit aviators in the area and the general public.</p>							
LAS-1B	MAOD	<p>Consider Developing and Sharing Range Avoidance Program</p> <p>Camp Swift should consider developing a Range Avoidance Program when ranges are “hot” or active. The program should delineate the following information, at minimum:</p> <ul style="list-style-type: none"> Points of contact for all nearby airports including GA facilities, Standard Operating Procedures when Camp Swift Ranges are “hot,” and Distribution methods (e.g., email blasts or posted on official websites of local jurisdictions and airports.) <p>Other Partners: Federal Aviation Administration (FAA), area airports— Austin Bergstrom International Airport (ABIA), Houston, Dallas, US Air Force</p>	Long				■	□	□
LAS-1C	MAOD	<p>Provide Notices to Airmen (NOTAMs) in the Area, Especially Airmen Entering Airspace Over the Installation from the South / Southeast</p> <p>Camp Swift should coordinate with ABIA and other local airports to provide NOTAMs to pilots operating in the area and inform them that the Camp Swift ranges are “hot” and to avoid area. Enhance NOTAMs flying in the south / southeast area to ensure they are aware ranges are “hot” as they may not visually see the red flags displayed by Camp Swift.</p>	Short				■		□

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
LAS-1C (cont'd)		Other Partners: ABIA, Houston, Dallas, and other affiliated airports							
LAS-1D 	MAOD	Strobe Light for Nighttime Flight Training Camp Swift should continue to use the strobe light notification method for nighttime flight training of Blackhawk pilots. Consider developing an informational brochure or adding to an already existing informational brochure about this tool used for nighttime training and distribute to local governing agencies.	Short				■		
Land Use (LU)									
LU-1	Potential Development Adjacent to Camp Swift If the right-of-way for State Highway 95 is acquired, then the roadway can be expanded, which could potentially spur development in areas near the base that may not be compatible.								
LU-1A	MAOD	Consider Including the Military Awareness Overlay District (MAOD) Information in Available Mapping and Communication Efforts Consider including the MAOD and its subzones information in available mapping and communication efforts. The MAOD could assist in achieving military compatibility in the future. A description of the MAOD and its subzones can be found in the Recommended Options section narrative. The MAOD consists of five military awareness areas (MAAs) and several subzones: <ul style="list-style-type: none"> ■ <i>Clearance Area MAA</i> – This MAA is a 20-foot area from the installation boundary in all directions. Land uses within the area should not obstruct the view into and off-installation. ■ <i>Small Arms / IED Noise MAA</i> – This MAA covers the area for the small arms ranges and its noise contours and the 	Mid / On-going	■	■	■	□		

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		<p>IED Lane and its associated noise contours containing two noise zones, Zone II 115 dB PK15(MET) and Zone III 130 dB PK15(MET).</p> <ul style="list-style-type: none"> ■ <i>Demolitions Noise MAA</i> – This MAA includes all land under the 2-pound and 40-pound demolitions noise contours. ■ <i>Drop Zone Obstacle-Free MAA</i> – This MAA includes all land within 1,000 meters of the Drop Zone Activity Area at the Blackwell Drop Zone. ■ <i>Vertical Obstruction MAA</i> – This MAA comprises the predominant flight corridor that various reservist units use to perform necessary aviation training operations. Land uses under this MAA can be impacted by low altitude flying. 							
LU-1B	MAOD	<p>Coordinate Roadway Improvements with TMD / TXNG / Camp Swift</p> <p>TXDOT should coordinate any roadway improvements proposed / planned within the Camp Swift MAOD with the installation. This coordination includes invitation to participate in any pre-planning meetings, advisement of potentially adverse impacts to Camp Swift, and any other matters that could impact military operations at the installation.</p> <p>Other Partner: TXNG</p>	On-going				<input type="checkbox"/>	■	<input type="checkbox"/>
LU-1C 	Clear Zone MAA	<p>Acquire Lands that Would Provide an Additional Buffer Between Camp Swift and the Community to Promote Compatible Development</p> <p>Identify lands that meet the criteria to compete for Army Compatible Use Buffer (ACUB) and Readiness Environmental Protection Integration (REPI) program funds to establish easements from local, willing landowners or consider fee simple purchase.</p>	Long / On-going	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		Other Partners: BISD, EISD, Lost Pines Habitat Conservation, MISD, Pines & Prairies Land Trust, The Nature Conservancy, Colorado River Land Trust, Texas Land Conservancy, willing landowners							
LU-1D <i>IN PROGRESS</i>	MAOD	Develop An Army Compatible Use Buffer (ACUB) Plan The ACUB will identify areas outside the installation that are high priority to achieve compatibility or at risk for encroachment. Other Partners: BISD, EISD, Lost Pines Habitat Conservation, MISD, Pines & Prairies Land Trust, The Nature Conservancy, Colorado River Land Trust, Texas Land Conservancy, willing landowners	Long / On-going	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LU-1E	MAOD	Consider Evaluating the Potential for a Conservation Easement Program Consider developing a conservation easement program to preserve the rural character of the critical areas adjacent to the installation. Pursue conservation partnering opportunities utilizing REPI and ACUB programs and involving local land trusts. Primary Partners: Pines & Prairies Land Trust, The Nature Conservancy, Colorado River Land Trust, Texas Land Conservancy, willing landowners	Long / On-going	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LU-1F	MAOD	Consider Coordinating School District Master Plans with Camp Swift School Districts should consider coordinating and consulting with Camp Swift prior to identifying future school sites. Primary Partners: School Districts (BISD, EISD, MISD)	On-going				<input type="checkbox"/>		<input checked="" type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Legislative Initiatives (LEG)									
LEG-1	State Legislation Applicability There are two new House Bills that potentially address limited land use authority for counties in Texas that could be applied to this area.								
	State laws do not apply to the JLUS participating jurisdictions.								
Light and Glare (LG)									
LG-1	Light Encroachment from New Development Unregulated lighting in nearby jurisdictions can facilitate light encroachment on Camp Swift, which could adversely impact night vision training operations.								
LG-1A	Study Area	Consider Amending Lighting Ordinance for Compatible Lighting The next time the City of Bastrop amends its zoning ordinance, it should consider amending its lighting ordinance to incorporate Backlight, Uplight, and Glare (BUG)-rated fixtures, as BUG fixtures are the new fixture recommended by the Illuminating Engineering Society of North America to mitigate light pollution from commercial development.	Long	■					
LG-1B	MAOD	Consider Developing a Lighting Ordinance The City of Elgin should consider developing a lighting ordinance to control light pollution in the city, which can have an adverse impact on nighttime training. The ordinance at a minimum should include regulations for BUG-rated fixtures for commercial development and fully cutoff fixtures for residential uses. The ordinance should also include controls for timers for lights, establish lumens per fixture and how many footcandles a fixture can emit over property lines, etc.	Long		■				

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Noise (NOI)									
NOI-1	Noise Generated by Community Activities Noise associated with past activities at nearby ALCOA mine were often attributed to Camp Swift, prompting complaints from the surrounding communities.								
NOI-1A	Small Arms Noise MAA & Demolitions Noise MAA	Consider Requiring Sound Attenuation Building Standards For New Construction Consider requiring sound attenuation for new construction of noise sensitive land uses located in the Small Arms / IED and Demolitions Noise MAAs. Structures shall be required to be designed and constructed so as to limit their interior noise level to no greater than 45 dB.	Long	■	■				
NOI-1B	Small Arms Noise MAA & Demolitions Noise MAA	Consider Amending Noise Ordinance The City of Elgin should consider amending its noise ordinance to incorporate military compatibility regulations and establish interior noise levels as the city is proximate to or within a majority of the noise contours modeled for the installation.	Long		■				
NOI-1C 	MAOD	Leverage ACUB and REPI Funds to Acquire Easements of Non-Federal Lands that are High Priority for Preserving the Mission at Camp Swift Prioritize parcels that would provide an additional buffer to Camp Swift and protect the existing and future missions from encroachment. Also see Options LU-2A through LU-2C	Long / On-going	□	□	□	■	□	□

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other												
NOI-2	Noise Generated by Training Activities Noise generated from training activities at Camp Swift can prompt complaints from the surrounding communities.																				
NOI-2A	Small Arms Noise MAA & Demolitions Noise MAA	<p>Consider Encouraging the Inclusion of Sound Attenuation Building Standards for New Construction</p> <p>The cities should consider promoting the inclusion of sound attenuation standards in building codes for new construction of noise-sensitive land uses located within the noise contours for small arms, IED, and demolition and defined as being within the Small Arms / IED and Demolitions Noise MAAs.</p> <p>One of the standards that should be considered to be promoted is: the minimum sound transmission class (STC) rating of structure components shall be provided in compliance with the table shown below. As an alternative to compliance with this table, structures shall be permitted to be designed and constructed so as to limit their interior noise level to no greater than 45 dB Ldn. Exterior structures, terrain and permanent plantings shall be permitted to be included as part of the alternative design. The alternative design shall be certified by an acoustical engineer.</p> <table><tr><th>dB LDN</th><th>STC of Exterior</th><th>STC of Doors /</th></tr><tr><td>65-69</td><td>39</td><td>25</td></tr><tr><td>70-74</td><td>44</td><td>33</td></tr><tr><td>> 75</td><td>49</td><td>38</td></tr></table>	dB LDN	STC of Exterior	STC of Doors /	65-69	39	25	70-74	44	33	> 75	49	38	Long	■	■				
dB LDN	STC of Exterior	STC of Doors /																			
65-69	39	25																			
70-74	44	33																			
> 75	49	38																			


Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
NOI-2B	Small Arms Noise MAA	Consider Developing a Voluntary Sound Attenuation Retrofit Program for Residential Uses Consider developing a program that provides guidance on sound attenuation standards for retrofitting existing residential and commercial facilities. The program can include grant opportunities available to assist property owners in retrofitting structures in noise-sensitive areas. Other funding sources for retrofitting homes should be identified and provided within the program materials as well.	Long	■	■				
NOI-2C	Small Arms Noise MAA	Sound Attenuation for Existing Structures Significant (defined as an activity that modifies, alters or expands an existing use by 50 percent) extension, enlargement, relocation, reconstruction or substantial alteration of an existing residential use within the Zone II noise contour for small arms shall include the implementation of sound attenuation materials. This shall also apply to changes in a structure that result in an increase in the number of habitable units (as defined by the 2010 U.S. Census) within the structure.	Long	■	■				
NOI-2D	Small Arms Noise MAA & Demo- litions Noise MAA	Develop and Provide Sound Attenuation Technical Support Develop and provide educational materials, either through inclusion in the adopted building codes or as a supplemental educational document, describing building techniques which can be used to achieve the required 45 dB Ldn interior noise maximum threshold. Jurisdictions could pursue funding from DOD to produce technical support materials, with other stakeholders distributing and using these materials.	Mid	■	■				

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
NOI-3	Noise Generated by Transient Helicopters Several military / national guard rotary wing units within the region and state traverse the area over Camp Swift, which causes noise that is attributed to the installation.								
NOI-3A	Study Area	Enforce and Inform About The “Fly Neighbor-Friendly” Protocol Camp Swift should continue to follow the policy to “fly neighbor-friendly,” routing their rotary wing routes over rural areas and when possible avoiding overflight of residential areas. This policy should be shared with local communities and posted on the Camp Swift website (once developed and completed).	Mid				■		
NOI-3B	Study Area	Foster Enhanced Public Awareness Of Military Flight Paths Through Accurate Mapping Provide all of the surrounding local, county, regional and state governments with an accurate electronic map of the flight paths utilized by the TMD / TXNG Army Aviation Support Facility for inclusion on applicable planning efforts. Other Partner: TXNG	Mid				■		□
		See Options for NOI-1							

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Public Trespassing (PT)									
PT-1	Trespassing on Camp Swift Trespassing in the northwest corner of the installation near the historic dam is a safety concern as people shoot guns and, at times, engage in unlawful activities.								
PT-1A	Clear Area MAA	Develop MOU for Monitoring and Apprehending Trespassers Camp Swift / TMD should coordinate with Bastrop County Sheriff's Office and other local law enforcement agencies to assist in the monitoring and apprehending of trespassers that trespass on Camp Swift. The initial apprehension would occur with Camp Swift Military Police, and the trespassers would be transferred to the appropriate civil authorities to ensure appropriate prosecution. This would facilitate the safety of the public and maintain military readiness. Other Partners: Bastrop County Sheriff's Office, Elgin and Bastrop Police Departments	Short				■		□
PT-1B	Clear Area MAA	Increase Situational Awareness at the Installation Boundary Install "No Trespassing – DANGER Live-Fire Area" signs along the horizontal distance every 100 feet along the perimeter of the installation for the public's health, safety, and welfare.	Mid				■		
PT-1C	Clear Area MAA	Enhance Perimeter Security From the Air Utilize surveillance drones and consider scheduling additional flight time by TXARNG / TXNG aviators to conduct partial or complete perimeter passes (prior to or at the conclusion of mission training and within the boundary) around the installation during typical day and night missions and report any suspected trespass activity. Increase such surveillance during high activity periods (summer, hunting season, etc.).	Mid				■		

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
PT-1D	Clear Area MAA	Develop Awareness Program For “Red Flags – Ranges HOT” Camp Swift should continue to post red flags around the perimeter of the ranges indicating the ranges are HOT, or active. Camp Swift should also enhance awareness about this practice through public announcements, website postings, and NOTAMs.	On-going				■		
PT-1E	Clear Area MAA	Initiate “Eyes On Camp Swift” Program Engage local community groups and jurisdictions to work with law enforcement agencies to create a voluntary vigilance program, whereby citizens and public safety officers that witness trespassing onto Camp Swift inform a designated point of contact at the base. Other Partners: BISD, TPWD, EISD, MISD	Long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
Roadway Capacity (RC)									
RC-1	State Highway 95 is at Capacity SR 95 is operating at capacity at some segments of the roadway. To meet future demand, some roadway improvements would require obtaining right-of-way from Camp Swift.								
RC-1A	Study Area	Infrastructure Planning Coordination Notify and coordinate infrastructure expansion plans with Camp Swift / TMD. When communities or other service providers move forward with any plans of extending / enhancing infrastructure in the vicinity of Camp Swift, such as a roadway capacity, acquisition of right-of-way, Camp Swift should be notified. The provider should be prepared to discuss alternatives that would help reduce potential future incompatible development along the infrastructure line (incompatible growth--inducement). The coordination should be done early in the planning process to optimize compatibility and reduce costs	On-going	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	■	<input type="checkbox"/>

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
		associated with plan changes. Camp Swift / TMD should prepare and provide feedback within a reasonable timeframe so as not to delay development. Other Partners-+: BISD, EISD, MISD							
		Also see Option COM-1D							
Safety Zones (SA)									
SA-1	Obstacles near Drop Zone There are obstacles near Blackwell Drop Zone that have the potential to impede military training activities.								
SA-1A <i>ON-GOING</i>	DZ Obs Free MAA	Coordinate with Private Property Owners to Have a Boat in Nearby Water Body Camp Swift / TMD should establish relationships with nearby property owners and coordinate with them to placing a boat in bodies of water located on private land in the Obstacle-Free Drop Zone Area. This will ensure safety precautions are met should equipment or military personnel miss the drop zone (DZ) area and land in the water. Primary Partner: Property owners	Mid				■		■
SA-1B	MAOD	Initiate Update Field Manuals 57-38 and 3-21.38 Camp Swift / TMD / TXNG should initiate an update of Field Manuals 57-38 and 3-21.38 to incorporate guidance for handling safety requirements that need to occur off-installation on private property. Primary Partner: TXNG	Mid				■		■

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
SA-2	Uncontrolled Airspace Over Training Ranges General aviation and personal aircraft operations in the area over the training ranges can pose safety hazards for both pilot and training personnel.								
SA-2A	Camp Swift	Small Arms Range Safety Areas (SARSA) Designation Camp Swift should coordinate with the TXNG and the FAA to have airspace over its ranges designated as a SARSA-controlled airspace. This will assist in coordination of NOTAMs and official posting of the area as a SARSA-controlled airspace with other airports and installations. Other Partner: FAA, TXNG	Short				■		□
SA-2B 	MAOD	Red Flags Posted Around Ranges to Indicate "Hot" Status Camp Swift should continue to post the red flags around the ranges indicating the Camp Swift ranges are hot and active.	On-going				■		
SA-2C	Study Area	Initiate Update of Army Regulation 350-19 (AR 350-19) Camp Swift / TMD should either initiate an update of AR 350-19 or develop an addendum specific to this area incorporating additional guidelines for notification including outreach to local radio stations and social media outlets and other official websites / webpages to enhance notification efforts. Primary Partner: US Army	Mid				■		■
		Also see Options LAS-1C, PT-1D							

Issue / Option ID	Military Awareness Area (MAA)	Option	Timeframe	City of Bastrop	City of Elgin	Bastrop County / Community of McDade	Camp Swift / TMD	TXDOT	Other
Vertical Obstructions (VO)									
VO-1	Imaginary Surfaces Extend Off-Installation into Unincorporated Areas There are no controls for building or structure heights including trees in the unincorporated areas where the imaginary surfaces extend off-installation.								
VO-1A	Vert Obs MAA	Development Coordination The County, cities, and other agencies should consider establishing formal development coordination procedures for the unincorporated areas of the county. While the County does not have traditional land use authority, formal coordination with the military in areas subject to overflight and aviation operations could assist in compatible development and prevent loss of missions. Other Partners: BISD, EISD, MISD	Mid	■	■	■	□		□
VO-2	Wind Energy Potential at Heights of 80 Meters There are no land use controls in areas around Camp Swift for wind energy development above 80 meters.								
		See Options for Issue VO-1							



Photo Credits:

Bastrop Sign by Sleeping Owl Photography, 2012, www.visitbastroptx.com; **Bastrop Texas 1** by Larry D. Moore, CC BY SA 3.0, commons.wikimedia.org; **Rail Bridge over the Colorado River, Bastrop TX** by Luke Parker, 2014, CC BY SA 2.0, [Flickr.com](https://www.flickr.com);



JOINT LAND USE STUDY

CAMP SWIFT