

IMPLEMENTATION EXAMPLES

5.1 INTRODUCTION

This section provides a brief description of several successful collaborative planning efforts involving states, local governments, and the military. These examples come from around the nation and illustrate planning concepts and implementation strategies that further the goal of military and community land use compatibility. Table 5-1 identifies the planning tools described in Section 4 that are illustrated by each example.

It should be recognized that land use planning statutes and processes are very different among the states and their local governments. These examples are not meant to portray appropriate models for California. However, they do illustrate how specific tools mentioned in Section 4 were implemented. Local governments should make sure that any tool they plan to implement meets the specific needs and specific planning requirements of California law and their local jurisdiction.

The following is a list of the implementation examples described in this section:

- Kern County, California Restricted Height Ordinance - Edwards AFB,
- City of Fairfield, California – Travis AFB Protection Element;
- Escambia County, Florida – Joint Land Use Study (Naval Air Station [NAS] Pensacola, Navy Outlying Landing Field Saufley, and Navy Outlying Landing Field Site 8);
- Arizona Department of Commerce - Arizona Military Regional Compatibility Project;
- State of South Dakota – Ellsworth AFB;
- State of Florida and Nature Conservancy – Eglin AFB;
- Regions of Military Influence;
- Military Influence Areas;
- Coastal Georgia Regional Development Center – Joint Land Use Study (Fort Stewart/Hunter Army Air Field [AAF]); and
- City of Aurora, Colorado – Airport Zoning District (Buckley AFB).

Implementation Examples

Table 5-1. Implementation Examples for Planning Tools

Planning Tools (see Section 4 for details)	Kern County Restricted Height	Fairfield – Travis AFB, California	Escambia County JLUS, Florida	Arizona Military Compatibility	South Dakota - Ellsworth AFB	Florida, Eglin AFB	Regions of Military influence	Military Influence Areas	Ft. Stewart AAF, Georgia	Aurora-Buckley AFB, Colorado
1 Acquisition		●	●							
2 Air Installation Compatible Use Zone		●	●	●	●		●	●	●	●
3 Air Force General Plan		●		●						
4 Airport Land Use Compatibility Plan		●		●			●	●	●	●
5 Avigation Easement				●	●	●	●	●		
6 Bird/Wildlife Strike Hazard Program										
7 CEQA / NEPA						●				
8 Cluster Development										
9 Code Enforcement										
10 Conditional Use Permit										
11 Conservation Easement			●			●			●	
12 Conservation Partnering Authority						●			●	
13 Construction Standards										●
14 Deed Restrictions		●	●					●	●	●
15 General Plan		●	●	●			●	●	●	●
16 Habitat Conservation Tools			●							
17 Hazard Mitigation Plan					●					
18 Installation Encroachment Control Plan				●						
19 Installation Master Plan				●			●		●	
20 Joint Land Use Study		●	●	●	●		●	●	●	
21 Light and Glare Controls										
22 Military Influence Area		●	●	●			●	●	●	●
23 Memorandum of Understanding				●	●	●	●			
24 Operational Noise Management Program									●	
25 Range Air Installation Compatible Use Zone			●	●			●			
26 Real Estate Disclosure			●				●	●	●	●
27 Regional Shore Infrastructure Plan										
28 Sound Attenuation			●	●			●	●	●	●
29 Subdivision Ordinance										
30 Zoning	●			●	●		●	●	●	●

**5.2 KERN COUNTY,
CALIFORNIA RESTRICTED
HEIGHT ORDINANCE-
EDWARDS AFB**

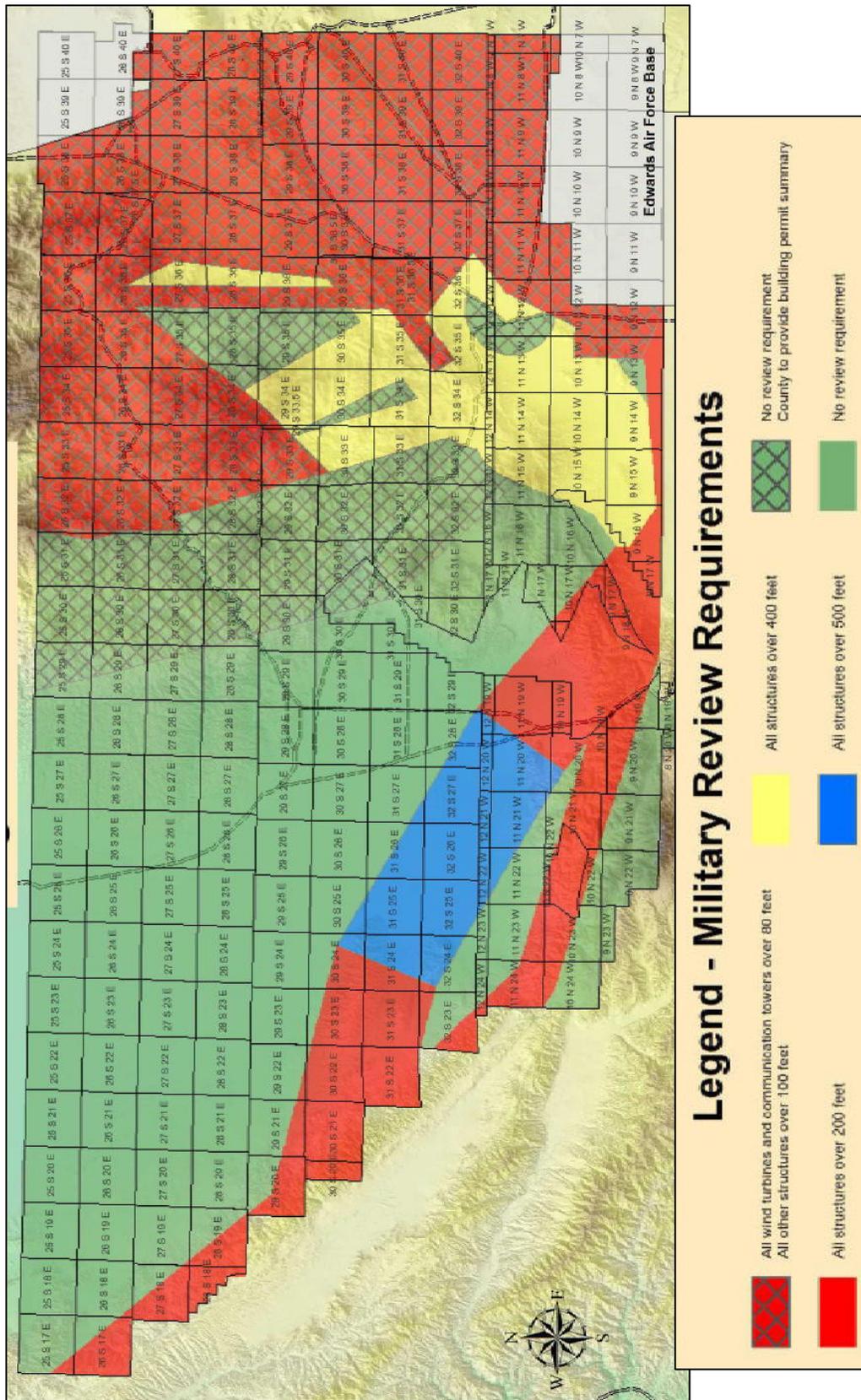
In order to protect the viability of Edwards AFB and its flying mission, the Kern County Board of Supervisors teamed with the base to identify existing areas of military concern and to develop a restricted height ordinance to insure the compatibility of future development in Kern County.

In 2004, the Kern County Board of Supervisors adopted into the Zoning Ordinance, a section that regulates the heights of permitted structures in areas impacted by military air space and flight corridors. Eastern Kern County includes over 3,200 square miles of the Joint Service R –2508 complex. This innovative solution was the result of a collaborative effort between the Kern Wind Energy Association (KWEA), representatives from the China Lake Naval Weapons Center, Edwards Air Force Base, and the Kern County Planning Department. The ordinance contains both text and a map that identifies military areas of concern.

The map shown in Figure 5-1, Kern County Military Areas of Concern illustrates the level of military concern through a series of colors. Red is used for areas of extreme military concern. Yellow applies to areas of slightly less concern. Green indicates areas where the military does not expect new construction to adversely impact their mission and activities. There is also a blue area that corresponds with a major military flight corridor where new structures above 500 feet could also adversely impact military operations. Each color has different development requirements associated with it. Structures within red areas are limited to 100 feet, except for wind turbines (commercial and noncommercial) and communication towers, for which a maximum height of 80 feet is recommended. Structures within the yellow areas are limited to a height of 400 feet.

Applicants seeking structures that would exceed the permitted heights are required to secure a letter from the appropriate military authority. The letter must indicate that the military has reviewed the proposed structure and determined it will not impact military operations. If the military concludes that the structure will adversely affect them and will not issue a letter, the applicant must either revise their request or petition the Board of Supervisors to allow the structure over the objections of the military. To date, no appeals have been presented to the Board of Supervisors. The ordinance provides guidance and direction for applicants. The military has the certainty of knowing that they will be consulted and their concerns discussed.

Figure 5-1. Kern County Military Areas of Concern



**5.3 CITY OF FAIRFIELD,
CALIFORNIA – TRAVIS
AFB PROTECTION
ELEMENT**

In compatibility planning, protections are often based on existing operations, leaving little room for change over time. The City of Fairfield, the Solano County Airport Land Use Commission, other jurisdictions in Solano County, and Travis AFB worked together to look at long-range needs and to create a land use plan that protected future operational needs at the base. The key components were a future maximum mission AICUZ, the incorporation of the Travis Influence Area as a separate element in the City's General Plan, and an updated Airport Land Use Plan for Travis AFB.

The City of Fairfield incorporated a specific element into the City's General Plan to demonstrate the city's strong support for Travis AFB. This element is called the Travis Air Force Base Protection Element. Many of the policies contained in this element also are discussed in other elements of the General Plan, including the land use, circulation, open space, conservation and recreation, health and safety, and economic development. Grouping these components into one cohesive element ensures that pertinent general plan policies related to the protection of Travis AFB can be recognized and used easily. The City of Fairfield voters also adopted an initiative measure, Ordinance 2003-10, which requires that certain provisions of the general plan relating to Travis Air Force Base, the urban limit line, and airport noise standards can be amended only by the voters.

During the development of the Travis Air Force Base Protection Element, the Air Force released a new AICUZ for Travis AFB. The new AICUZ differs from the earlier AICUZ by the inclusion of a maximum mission scenario, in addition to the current mission scenario. The maximum mission noise contours were generated by expanding current aircraft operations and the range of

aircraft types to reflect projected training and operational requirements. The intent of the maximum mission AICUZ was to assist local agencies in long-range land use planning in the vicinity of the base.

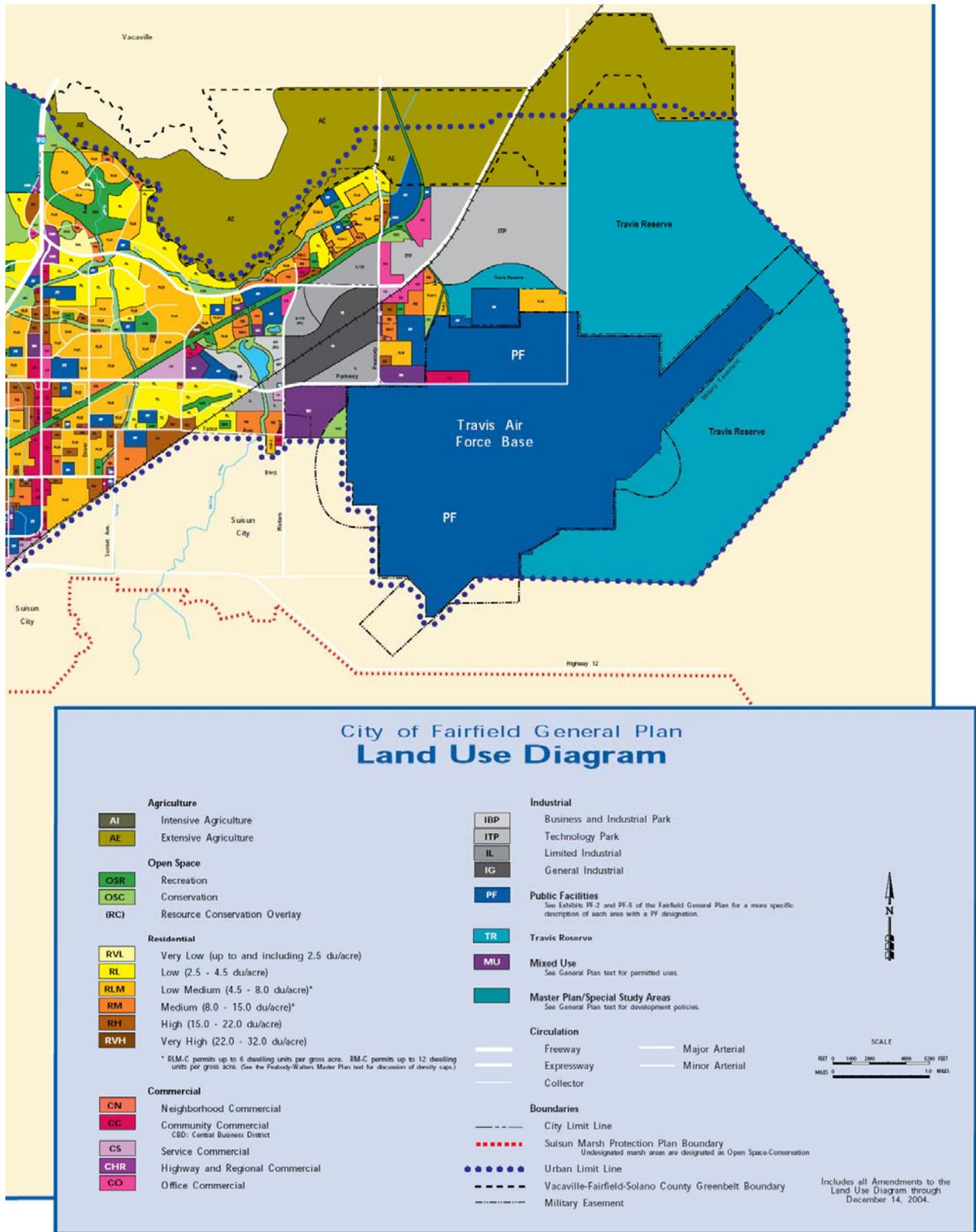
The updated Fairfield General Plan incorporated the AICUZ maximum mission scenario when developing the specific actions related to the Travis AFB Element. In addition, several tracts of land encompassing the installation were designated "Travis Reserve" (Figure 5-2). The intent of this designation was to preclude incompatible development on this land and to preserve its use for future Travis AFB mission requirements.

The County of Solano and the City of Fairfield jointly acquired approximately 1,848 acres of land located north and east of Travis AFB within the area designated as "Travis Reserve". The County and City recorded a deed restriction on this property limiting it to agricultural uses and prohibiting the construction of any improvements on the property, unless and until that property should be needed for air facility expansion.

The Comprehensive Airport Land Use Plan (ALUP) for Travis AFB was created to protect Travis AFB, the safety and general welfare of the people in the vicinity of the Base, and to ensure safe air navigation. This plan was updated by the Solano County Airport Land Use Commission, in a cooperative effort with the adjacent cities. The new ALUP is called the Travis AFB Land Use Compatibility Plan, and incorporates a future mission scenario for Travis AFB.

Implementation Examples

Figure 5-2. City of Fairfield General Plan (portion near Base)



5.4 ESCAMBIA COUNTY, FLORIDA JOINT LAND USE STUDY (JLUS)

This example effectively used Military Influence Areas (MIAs), and the application of the AICUZ and JLUS tools.

This JLUS incorporated several tools in addressing current and future land use compatibility issues. These tools enhanced and strengthened the ability of communities and the Navy to address development and land use compatibility surrounding NAS Pensacola, Navy Outlying Landing Field Saufley, and Navy Outlying Landing Field Site 8. This cooperative effort put in place a plan that can be adapted to mission changes, as well as new mission opportunities.

The following are the JLUS' key recommended implementation actions (Figure 5-3).

1. Airport Influence Planning District (AIPD)

This JLUS creates two separate MIAs referred to as AIPD-1 and AIPD-2.

- AIPD-1 includes the current Clear Zone (CZ), Accident Potential Zones (APZs), areas inside of the 65-decibel (dB) noise contour, and areas near to, or next to, the airfields.
- AIPD-2 includes land that is close enough to the airfield to potentially affect or be affected by operations.

2. Revise City of Pensacola Comprehensive Plan

Within the AIPD-1 area, the following are required:

- Reduced density and specific land use regulations;
- A mandatory referral of proposed projects to the Navy for review and comment;
- The dedication of avigation easements;
- Disclosure for real estate transactions; and
- Sound attenuation in new construction.

Within the AIPD-2 area, the following are required:

- A mandatory referral of proposed projects; to the Navy for review and comment;
- The dedication of avigation easements;
- Disclosure for real estate transactions;
- Sound attenuation in new construction; and
- Discouraging property rezoning that results in increased density.

3. Strengthen Real Estate Disclosure Ordinance

- Revise the ordinance to address disclosure in both AIPDs.

4. Transfer of Development Rights (TDR) – Long Term

- Review opportunities to implement TDRs within both AIPD areas.

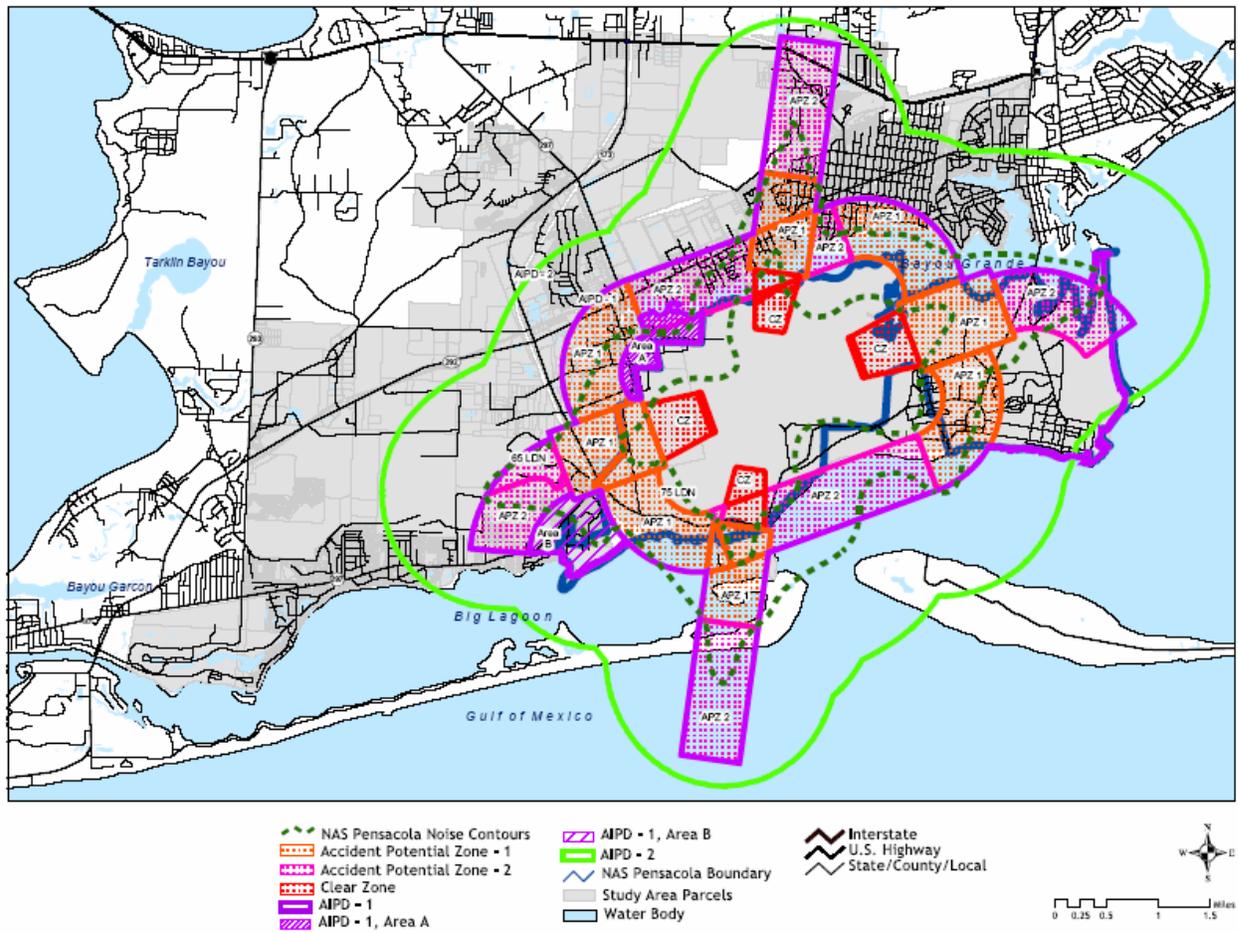
5. Land Acquisition Program – Long Term

- Identify opportunities to develop and fund a land acquisition program.

Implementation Examples

Figure 5-3. Escambia County JLUS

ESCAMBIA COUNTY JOINT LAND USE STUDY



5.5 ARIZONA MILITARY REGIONAL COMPATIBILITY PROJECT

This approach combines a broad spectrum of tools, including state legislative guidance, regional cooperation through the creation of an expanded MIA, and local implementation guidance for general planning processes.

Arizona is home to a network of U.S. military airports and installations that include Davis-Monthan AFB, Luke AFB, Yuma Proving Grounds, Yuma Marine Corps Air Station (MCAS), Fort Huachuca, and the Barry M. Goldwater Range Complex. As the communities near these installations have expanded, land use compatibility issues have moved to the forefront in many areas of Arizona. The military installations and surrounding jurisdictions play key roles in addressing compatibility.

The Arizona Military Compatibility Project was conceived as a proactive statewide program to convene the stakeholders on and around each installation – local jurisdictions, base personnel, landowners, and other interested parties – to address land use compatibility issues. The objective of this project was to provide the tools needed to address land use conflicts that might affect the ability of each installation and military area to conduct its mission, with emphasis on ensuring land use compatibility around active military airports.

To accomplish this objective, the state revised its statutes to address land use compatibility, safety, noise, community planning, and the rezoning processes. The legislation required the following.

- High-noise areas (>65 dB) or APZs should be addressed in municipal general plans and county comprehensive plans.
- Land development within the high-noise zones (>65 dB) or APZs should be compatible with military airport operations.

The state also enacted Growing Smarter and Growing Smarter Plus measures that address growth and land development issues through

changes in the community planning and rezoning processes. These measures require the following.

- Political jurisdictions with land within the vicinity of a military airport shall include consideration of military operations in their general plans and comprehensive plans.
- Military airport officials shall have the opportunity to comment officially on the general plans.
- Plans will provide for a rational pattern of land development.
- An extensive public participation program will be provided for the general plan. .

Controlled areas at Luke AFB are shown on Figure 5-4.

5.6 STATE OF SOUTH DAKOTA AND THE BLACK HILLS COUNCIL OF GOVERNMENTS – ELLSWORTH AFB

This approach involves directing state capital expenditures to remove current incompatible land uses and avoid creating new incompatibilities.

States can influence where and when growth will take place through capital investment decisions, such as the placement of roadways or other infrastructure systems.

The State of South Dakota and the Black Hills Council of Governments, along with Ellsworth AFB, coordinated the movement of an interchange along I-90, out of APZ I and the noise contour exceeding 80 db. The need to relocate this interchange was critical, given the associated development attracted by the exit and its proximity to the Ellsworth AFB main entrance (Figure 5-5).

Figure 5-4. Airport Vicinity Map – Luke AFB

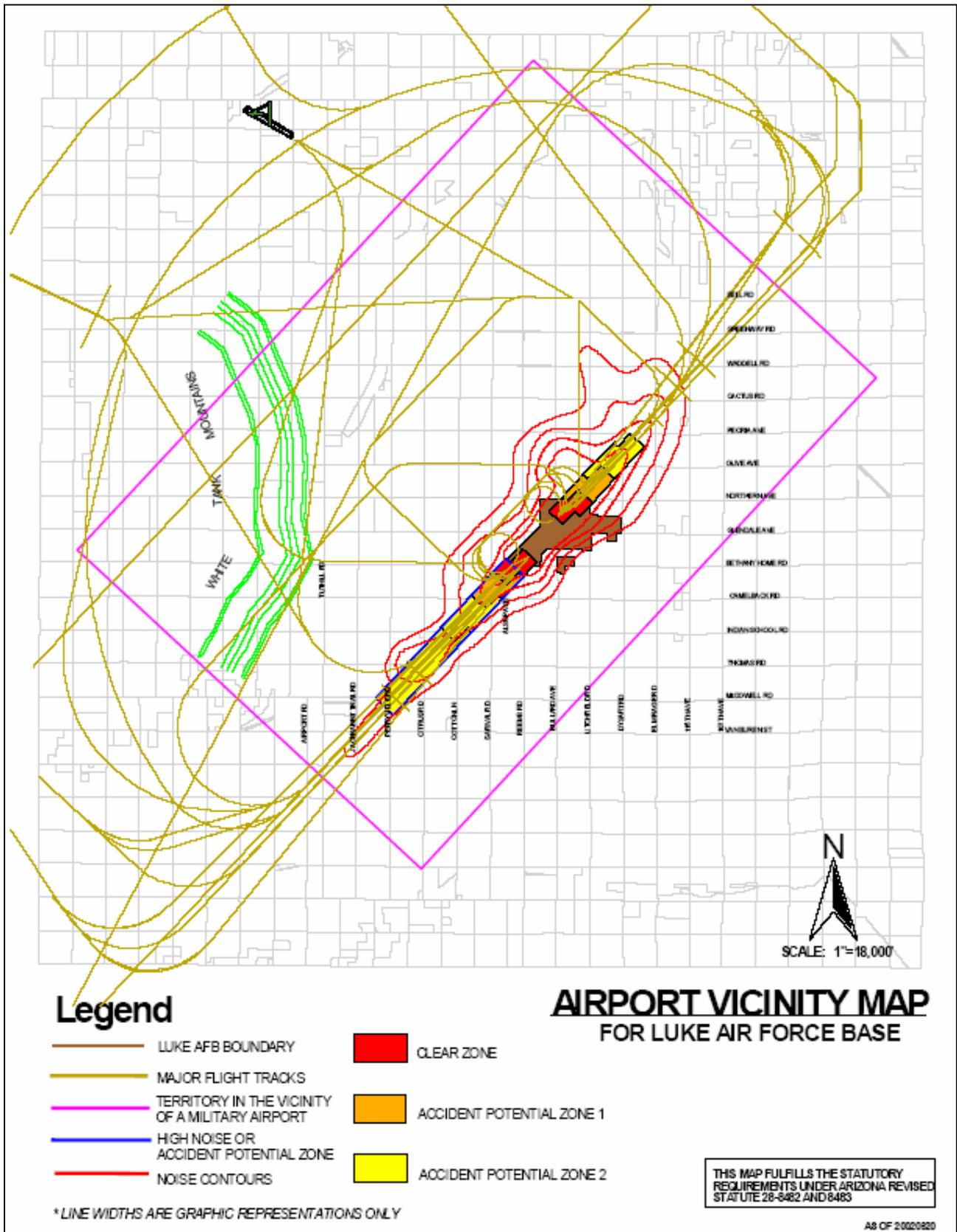


Figure 5-5. South Dakota Capital Improvements Planning



The use of the State's capital investment assisted in redirecting non-compatible development, as well as alleviating a current flight safety issue.

5.7 STATE OF FLORIDA – EGLIN AFB

This effort underscores a significant effort to leverage encroachment protection for a vast region by using DoD Conservation Partnering.

The Northwest Florida Greenway is an unprecedented partnership of military, federal, state, local governments, and nonprofit organizations that will conserve critical ecosystems in one of the most biologically diverse regions in the US. As designed, this project will enhance the Panhandle's economy and help protect military missions in northwest Florida.

For this project, a memorandum of partnership was created to establish a 100-mile protected corridor that connects Eglin AFB and the Apalachicola National Forest. This corridor protects the use of the Eglin AFB range complex and provides significant air routes from the Gulf of Mexico to the range complex for fleet pre-deployment training (Figure 5-6).

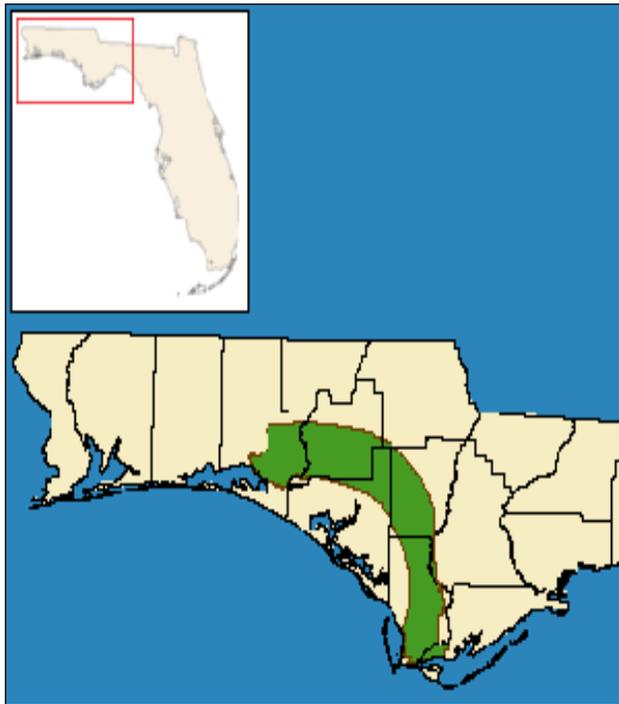
The Northwest Florida Greenway project has the following goals:

- Promote the sustainability of the military mission in northwest Florida to meet national defense testing, and operational and training requirements;
- Protect lands that will sustain the high biodiversity of the region, link protected areas, and provide for outdoor recreation; and

Implementation Examples

Strengthen the regional economy by sustaining the mission capabilities of the military in the region and enhancing outdoor recreation and tourism areas. The Northwest Florida Greenway will create a buffer zone between nearby communities and critical flight paths needed for military personnel training and defense development. This in turn protects the viability of the entire system.

Figure 5-6. Northwest Florida Greenway



5.8 REGIONS OF MILITARY INFLUENCE (RMI) – EXAMPLES

Following are some examples of the use of RMIs.

RMIs are new three-dimensional planning models that look beyond the immediate environs of the military base and adjacent jurisdictions.

RMIs are used to identify where DoD operations have impacts and where local activities can affect the DoD's ability to carry out its national defense missions. RMIs that cross large geographical areas within a state, or those that cross state

boundaries, are more complex and have broader effects on communities.

Samples of the use of RMIs are highlighted below.

- An RMI can include military training routes (MTRs) that connect a home base with distant testing and training ranges. For example, an RMI links Barry M. Goldwater Range Complex (BMGRC) with Luke AFB, Gila Bend Air Force Auxiliary Field (AFAF), and Yuma MCAS (Figure 5-7).
- Nellis AFB, outside of Las Vegas, Nevada, uses a very large airspace to accomplish its training and qualifying missions. The RMI includes the Nellis AFB complex, the range, and Indian Springs Field, now called Creech Air Force Station (AFS).
- The Naval Air Warfare Center (NAWC) China Lake and Edwards AFB use an MOA larger than 20,000 square miles, as well as MTRs. This RMI encompasses two major flight testing and training complexes.
- RMIs can cover portions of multiple states and jurisdictions. The states of Arizona, California, Nevada, and New Mexico function as a multi-state RMI. Each state is advised to communicate with its counterparts to assure the contiguity and functionality of this integrated system of installations, MTRs, and distant ranges.

5.9 MILITARY INFLUENCE AREAS (MIA) –EXAMPLES

Following are some examples of the use of the MIA concepts.

MIAS present a new framework for communities to integrate the military into their comprehensive planning process. This approach to joint military and community land use planning helps sustain military readiness. Examples of this concept are described below and illustrated on Figure 5-8.

Figure 5-7. Barry M. Goldwater Range Complex RMI

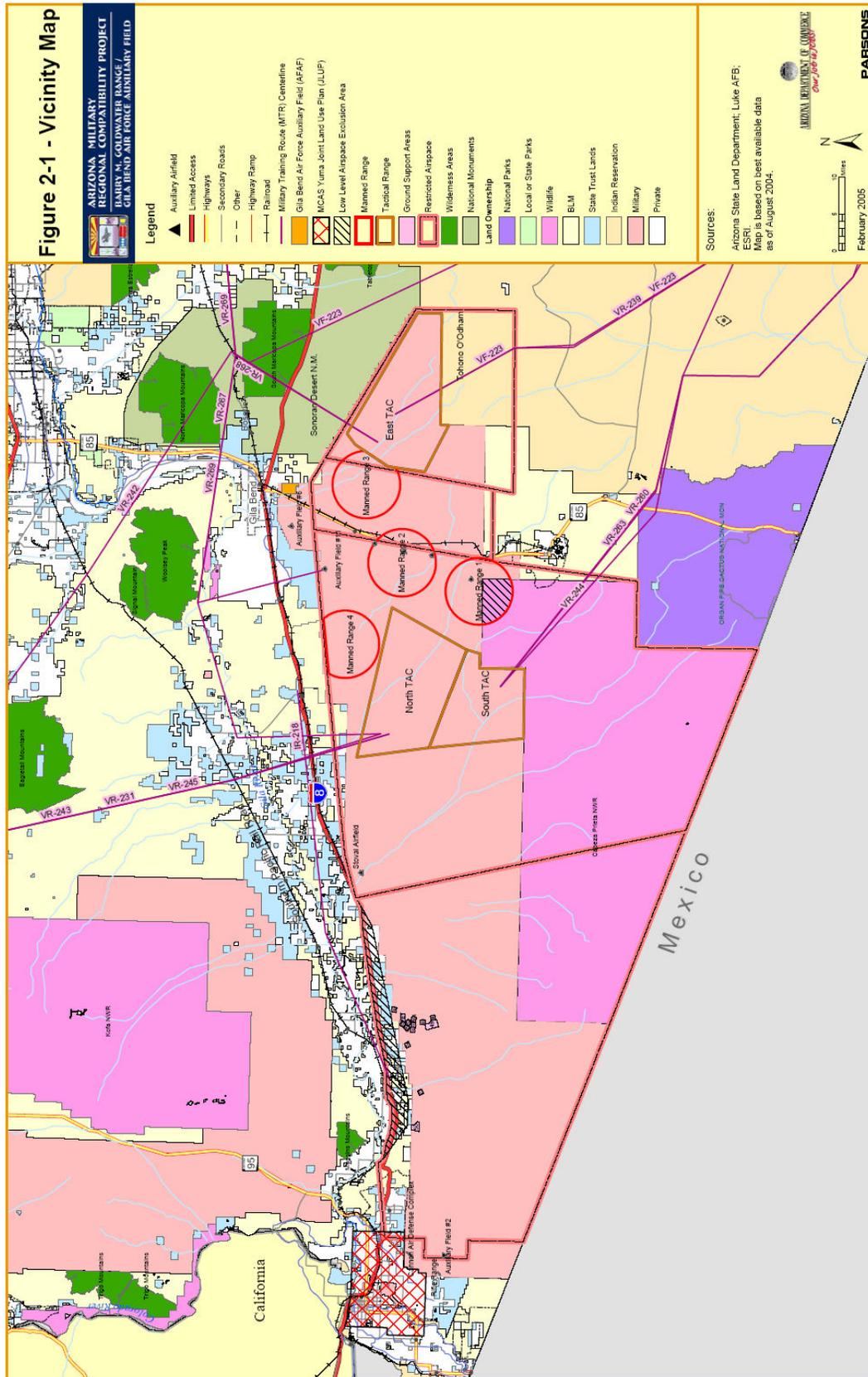
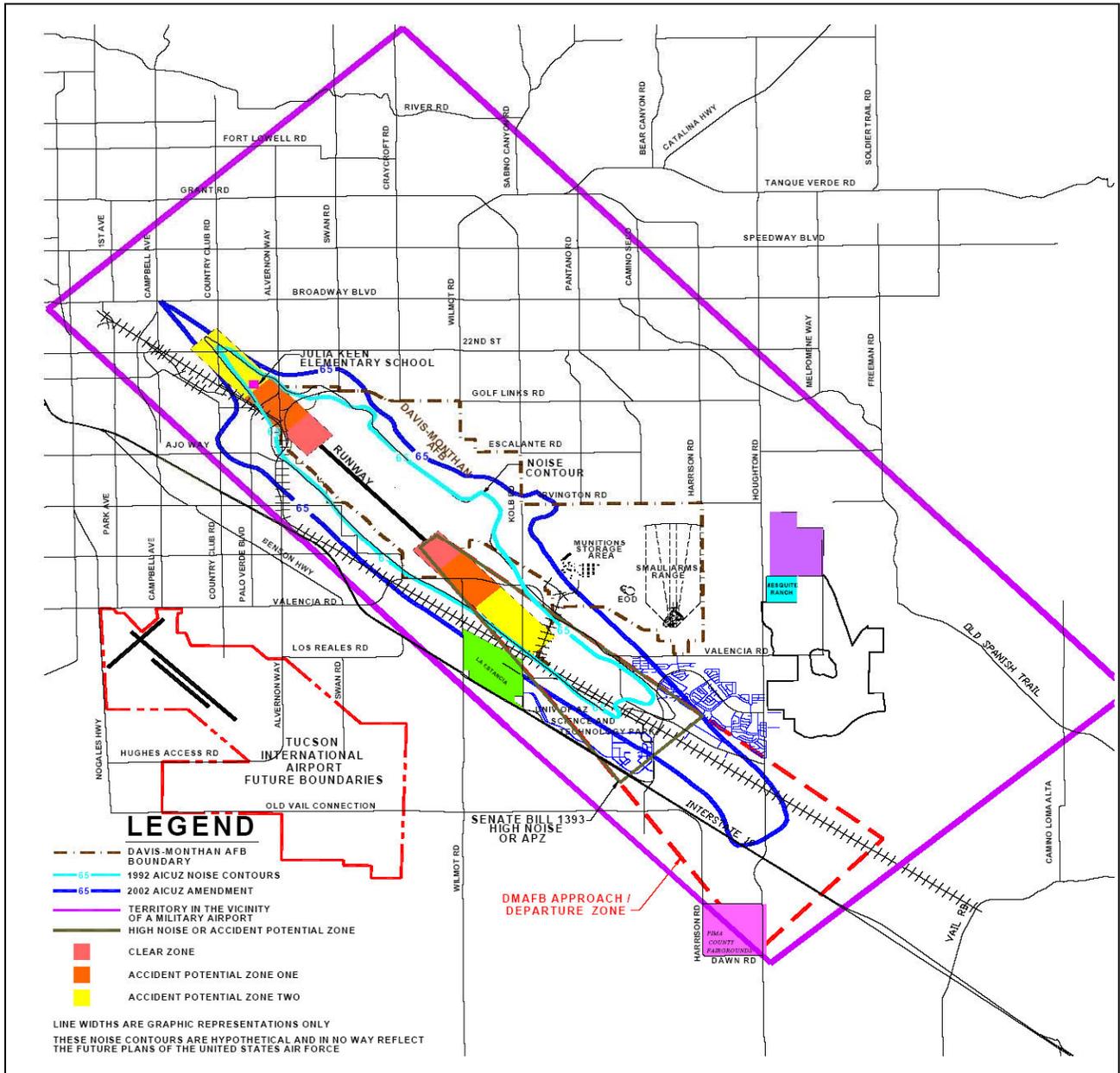


Figure 5-8. Military Influence Area



Military Influence Planning District (MIPD)

This application would call upon state legislatures or local governments to integrate the military presence and missions with the fabric and comprehensive picture of the community's future. MIPDs recognize the existence and mission of a military installation within a community's or region's sphere of influence (SOI) through integration into the general plan. State or local government initiatives are responsible for designation of an MIPD as an official planning policy area surrounding a military installation.

- The State of Arizona created a "Vicinity Box" to capture the territory in the vicinity of a military airport. The Vicinity Box contains all areas of potential conflict near the airport, such as the high noise areas defined in the installation's AICUZ study, approach and departure corridors, and local land uses around the airfield.
- For Luke AFB, the State of Arizona created an extended APZ II that extends the AICUZ required APZ II to include arrival and departure zones.
- Escambia County, Florida, defined the Airfield Influence Planning District (AIPD) by delineating an area that was one mile beyond the 65-dB noise contour defined in the Navy's AICUZ study.

Military Influence Overlay District (MIOD)

Complementing the MIPD is the MIOD. The MIOD is an adopted, mapped zoning overlay district used by a local government entity. A MIOD can prescribe more stringent requirements in terms of land use and development than the underlying zoning classification of the property in order to protect public health and safety.

- Arizona created an area designated as APZ II extended. The APZ II extended is larger than the standard APZ II and provides more specific and restrictive zoning than is required by the current DoD AICUZ. This new area adds additional layers

of protection for the live ordnance departure corridor. The area extends the normal APZ II zone by an additional 35,200 feet, for a total of 50,200 feet (9.8 miles) from the end of the runway. This area requires conforming zoning and land use ordinances that are supported by Arizona statute.

Military Influence Disclosure District (MIDD)

Real estate disclosure allows prospective purchasers of property the opportunity to make informed decisions. The MIDD planning area can designate the area requiring real estate disclosure.

Enhanced local notification and disclosure is recommended by the State of Arizona. The following specific requirements achieve enhanced public notification and disclosure:

- Notices and maps in real estate and leasing offices;
- Notices in model homes and sales offices advising the buyer that the area is subject to military over flight;
- Avigation easements and indemnification/release language on recorded subdivision plats; and
- Installation of over flight signage at road intersections within noise contour lines.

5.10 FT. STEWART/HUNTER ARMY AIR FIELD, GORGIA - JLUS

This approach effectively used the development of MIAs, the application of the AICUZ and JLUS tools, legislatively designated buffer zones, and conservation easements.

This JLUS incorporated several tools in addressing current and future compatibility issues. These tools provide policy that enhances and strengthens the ability of communities and the Army to address urban expansion issues and

Implementation Examples

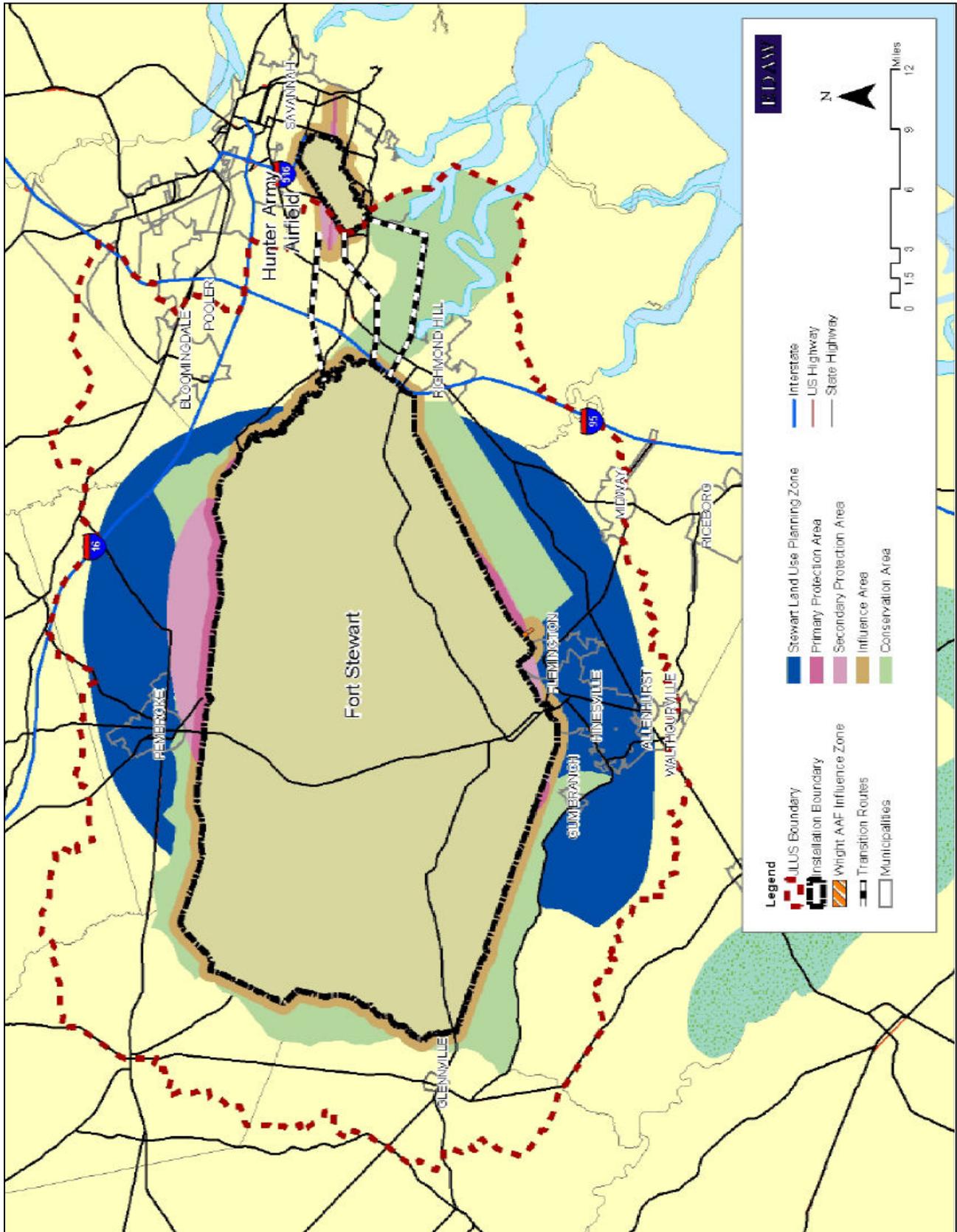
encroachment challenges. This cooperative effort put in place a plan that can adapt better to mission changes and new mission opportunities.

The Fort Stewart/Hunter Army Air Field Military Complex in southeastern Georgia consists of maneuver areas, ranges, a main base, impact areas, and two aviation complexes.

The JLUS incorporated the following planning tools (Figure 5-9).

- 3,000 foot Buffer. The State of Georgia passed legislation that requires local planning entities to request written comments from military commanders when considering proposed zoning decisions on land that is adjacent to or within 3,000 feet of an installation, or within the 3,000-foot CZ and APZs I and II.
- Army Compatible Use Boundary (ACUB). The ACUB represents an area of possible conservation interest, as identified by partners of the Coastal Georgia Private Lands Initiative. The criteria used to identify this boundary were based on factors such as adjacency to Fort Stewart/Hunter AAF, environmental features, and impacts from Fort Stewart/Hunter AAF operations.
- Fort Stewart Land Use Planning Zone (LUPZ). A special LUPZ was created to address non-compatible development. This zone comprises land extending off of the installation boundary that falls within the >55 to 62 dB zone created by small and large caliber weapons noise.

Figure 5-9. Areas of Concern, Ft. Stewart



Implementation Examples

5.11 CITY OF AURORA, COLORADO – BUCKLEY AFB

This example highlights a partnership between the City of Aurora and Buckley AFB. The use of airport and military influence areas, along with well defined zoning and land use regulations, provides protection of the military mission and enhanced safety and well being for the citizens of Aurora.

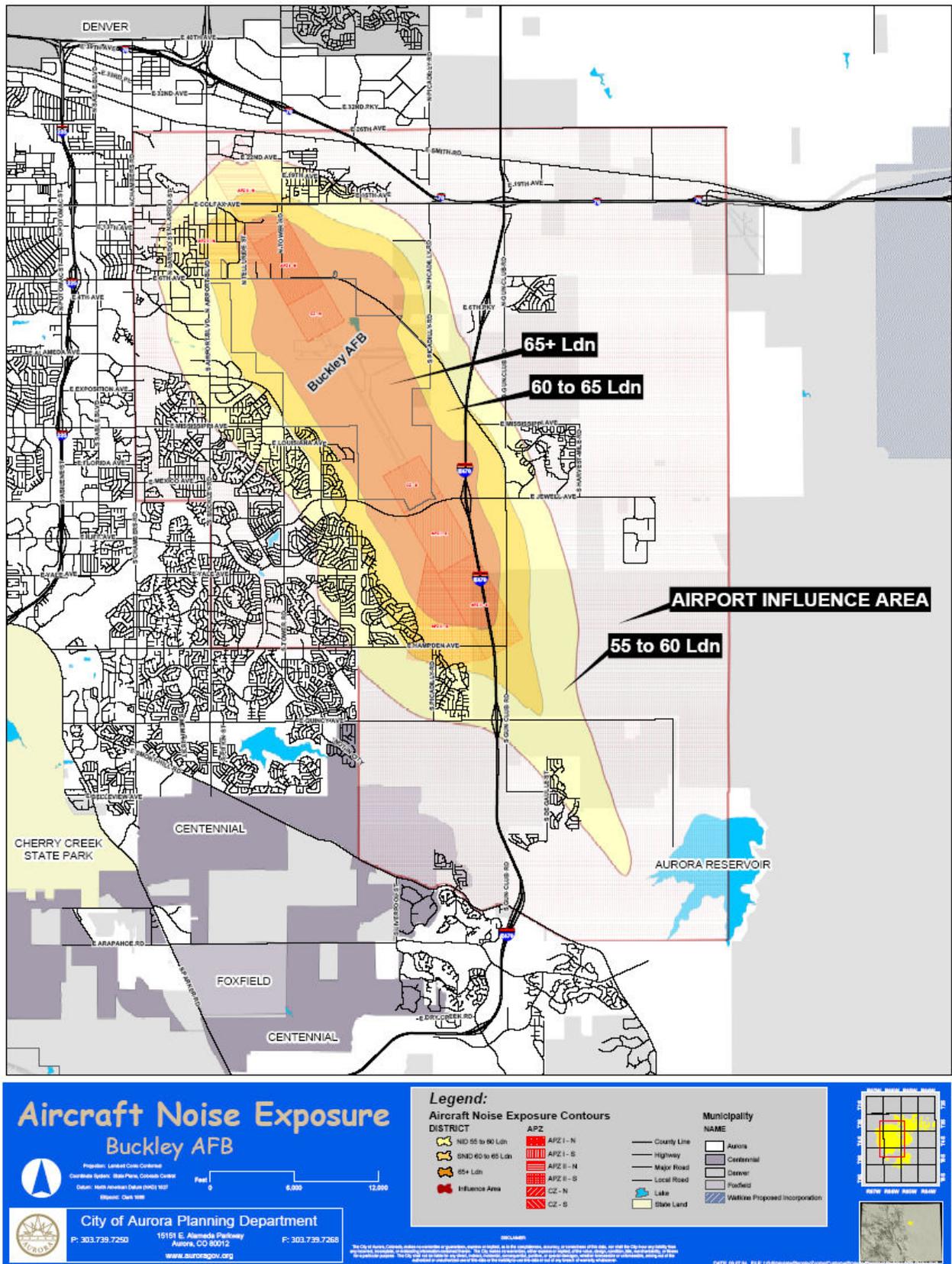
The City of Aurora, Colorado, is a neighbor to four airports: Denver International Airport, Buckley AFB, Front Range Airport, and Centennial Airport. The City of Aurora proactively addressed possible airport noise issues through the incorporation of a specific element into the City's General Plan, demonstrating the City's strong support for Buckley AFB.

There is a long-standing example of the MIPD concept within the City of Aurora zoning ordinance. The City of Aurora has an Airport Influence District (AID) that depicts noise zones and APZs and includes a real estate disclosure area. This ordinance covers commercial, executive, and military airfields. The 60-dB Day-Night Average Sound Level (Ldn) is the beginning of the noise district. This zoning ordinance is one of the strongest ordinances in the country (Figure 5-10). Following are specifics of the ordinance.

- No new residential zoning is permitted where existing or projected noise may exceed 60 dB DNL/Ldn.
- New residential uses may be permitted within the 55 Ldn and outside of the 60-dB DNL/Ldn noise contours, provided specific criteria are met.
- A Special Noise Impact District (SNID) comprised of areas between the 60 dB Ldn and the 65 dB Ldn noise contour lines.
- A Buckley AFB District specifically designed to address Buckley AFB flight operations.

The Aurora City Council intends to maintain an open process of negotiation and interpretation of AIDs and to inform citizens of potential impacts of AIDs on them and their properties.

Figure 5-10. Buckley AFB Airport Influence Area



Implementation Examples

Please see the next page.