California Advisory Handbook for Community and Military Compatibility Planning

2016 Update

Governor's Office of Planning and Research
State of California
Edmund G. Brown Jr., Governor

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The State of California, its cities and counties, and the U.S. Department of Defense have a long history of partnership and cooperation. California is home to some of the world's most valuable air, sea and land assets that train our nation's military. Its strategic location plays an important role in our nation's defense. Military bases and activities are vital to our state's economy, bringing direct investment and driving technological innovation.

As our diverse state continues to grow, planning for the future must be proactive and collaborative to support our military and local communities. The 2016 update to the *California Advisory Handbook for Community and Military Compatibility Planning*, published by my Office of Planning and Research, in coordination with my Military Council and in cooperation with the U.S. Department of Defense, is a comprehensive resource for local planners and decision makers, property owners, developers, and the military to encourage responsible land use and growth.

Edmund G. Brown Jr.

Governor Edmund G. Brown Jr.

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How Will This Handbook Help Me?

This Handbook is intended for community and military planners, property owners and developers, and anyone interested in supporting our nation's military readiness. Community planners can use the Handbook to better understand military mission footprints and encroachment concerns, while military planners can use it to better understand local plans, programs, and planning processes as a precursor to effective community outreach and engagement. The Handbook is also a valuable resource for property owners and developers who need to understand potential site-specific development constraints - and opportunities - in the vicinity of military installations and operating areas.

The updated 2016 Handbook is designed to be interactive and user-friendly so you can easily navigate to your areas of interest and quickly access key information most applicable to your current needs. For example, a military planner can bypass information about military operations and go directly to the section on community planning or to descriptions of specific planning processes or issues.

Below is a description of each of the interactive features of the document:

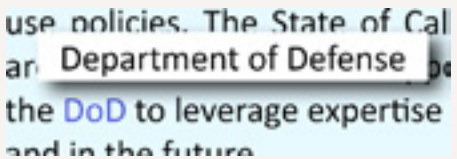
- ✓ **Table of Contents** – The table of contents is interactive and contains hyperlinks so that you can jump to each section by clicking on the topic with your mouse.
- ✓ **Bookmarks** – Similar to the Table of Contents interactive feature, the bookmark feature will take you directly to a section without having to scroll through each page.
- ✓ **Web Addresses** – All web addresses within the Handbook are hyperlinks that will open your internet browser and take you directly to that web page.

  http://www.coastal.ca.gov/
- ✓ **Links for Sections, Tables, and Charts** – Throughout the Handbook there are highlighted callouts to pertinent sections, tables, or diagrams that are designed to further illustrate or expand upon key concepts. Each of these callouts will be highlighted in blue and, when clicked on, will open a new window containing the section, table, or chart.

  EIR (CEQA)
- ✓ **Interactive Maps and Diagrams** – Use your mouse to reveal and explore details and clarifying information embedded in maps and diagrams.

- ✓ **Acronyms** – The first occurrence of acronyms on any given page is highlighted in blue and a pop-up definition of the acronym will be shown when you hover your mouse cursor over the acronym.

- ✓ **Keywords/terms** – All terms are highlighted in blue within the text. Simply hover your mouse over any highlighted term and a pop-up box will appear with a brief definition or description of the word. Similar to the acronym hyperlinks, these terms are defined once per page or as otherwise appropriate.

Finding My Way Around the Handbook

This Handbook describes tools and strategies that have proven effective at achieving and maintaining compatibility between community land uses and military activities through implementation of the planning process. The following is a brief overview of how the rest of the updated Handbook is organized:

- Section 1 briefly introduces the purpose of the Handbook, explains why planning for land use compatibility near military operating areas is important, and describes California's perspective regarding the common goals and opportunities that the state shares with our nation's military.
- Section 2 is tailored specifically for a non-military audience and provides background information to help local planners and community members better understand military operations, the military planning process, and key compatibility concerns.
- Section 3 is tailored specifically for the Military Planner audience and provides background information for the Military Planner to better understand community plans and planning processes.
- Section 4 provides more detailed information for all audiences regarding specific strategies and tools that can be used to address encroachment-related issues and achieve greater compatibility with military installations and operations.
- Section 5 contains real world Case Studies describing compatibility planning and collaboration in action.
- Appendix A provides information on military installations in California as well as additional mapping resources that provide geographical information about military operations.
- Appendix B provides examples of General Plan policies and Zoning Ordinances that have been adopted throughout the State of California to support military readiness.
- Appendix C contains an overview of key planning resources available to help local and military planners with compatibility planning.
- Keyword Index – This index contains multiple variations of keywords representing specific issues, concepts, and project types that are typically encountered in compatibility planning. From this index you can link directly to an appropriate discussion of the issues/tools/examples that are relevant to the chosen keyword.

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Section 1

PURPOSE

Purpose of the California Advisory Handbook – 2016 Update

In 2006, the Governor's OPR collaborated with local, state, and federal stakeholders to develop and publish an Advisory Planning Handbook in compliance with SB 1468 (Knight, Chapter 971, Statutes of 2002). This 2016 update expands upon the 2006 Handbook with new and updated descriptions of processes, tools and strategies, new case study examples, and a new interactive PDF format, with links and pop-up text to enable easy navigation to specific areas of interest. The Handbook's primary purpose is to guide city and county planners, property owners, developers, and military personnel on how best to engage and collaborate on proactive planning efforts, to encourage land use compatibility, and to reduce encroachment on military installations and operating areas. The Handbook contains a menu of available planning tools, best practices and processes, and case study examples that demonstrate successful efforts to achieve or maintain compatibility between community land uses and military activities. This information will enable local planners, builders, and the military to share information and communicate in a timely and cooperative way so that all parties can make fully informed land use decisions. The Handbook also provides advice to cities and counties as they revise and update their general plans.

Why is Planning for Community and Military Compatibility Important?

The State of California and the military have a long and successful history of working together to build a stronger California and a more secure nation. California is home to an integrated network of installations, training ranges, and special use airspace that cannot be replaced or replicated. The state's varied climate, terrain, and coastline provide unique training and testing opportunities for each of the Armed Services, and the military also benefits from California's aeronautical and technological heritage. In return, the strong military presence contributes significantly to the demographic and socioeconomic vitality of cities and counties throughout the state. During 2013 and 2014, the military directly employed an average of nearly 280,000 personnel per year in California (active duty, civilian employees, Reserves, and National Guard), and military expenditures in the state averaged nearly $54 billion annually (Office of Economic Adjustment Defense Spending by State FY2013 and FY2014).

Despite the many shared goals and positive interactions between local communities and military installations, certain actions (or inaction) by one entity can sometimes directly or indirectly impact the other and create conflicts. As communities develop and expand in response to population growth, economic investment, and market demands, land use decisions can push incompatible land use development closer to military installations and operating areas. The resulting land use conflicts, often referred to as encroachment, can have negative effects on sustainment of military activities and overall readiness, as well as on the quality of life, safety, and economic development of local communities.

In the past, incompatible development has been a major factor in DoD decisions to curtail or modify training operations, to relocate (or "realign") mission-critical activities to other installations, and, in extreme cases, to close installations entirely. Even small degradations of training operations can have an incremental and cumulative impact on the military's readiness over time. And more permanent responses to encroachment, such as installation realignments and closures, can also result in significant impacts to the economic vitality of surrounding communities. Once relatively isolated from civilian populations, military activities are increasingly affected by civilian communities and incompatible land uses because of population growth and expansion of community boundaries. Over the next 35 years, the state is projected to grow by over 25 percent, with a projected 2050 population of almost 50 million residents. This growth presents a wide range of planning challenges for the state, its regions and local communities, as well as for military installations and operating areas that call California home. Compatibility between military installations and local communities is essential to preserving military mission capability, the health of local economies and industries, and the quality of life for residents. The ongoing challenge to protect military activities from encroachment is currently one of the military's greatest concerns. The preservation and sustainment of installations and operational flexibility is vital to California and to the nation's overall military readiness.

The term "land use compatibility," as it relates to sustainment of military readiness, can be defined as the balance or compromise between community and military needs and interests. Finding this balance promotes an environment where both entities can productively coexist.

Transition to Collaborative Land Use Planning

Land use compatibility is achievable when communities and military installations work together to balance complementary and competing needs and interests. In recognition of the importance of increasing compatibility and reducing community encroachment on military readiness activities, the State of California in 1999 began addressing the need for closer collaboration between agencies in the planning process.

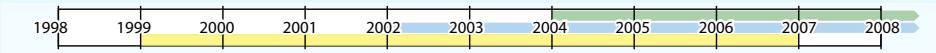
The timeline below illustrates some of the background and key milestones in that effort. Through a combination of legislation, OPR planning guidance (including this Handbook), and development of new planning processes and tools, the groundwork was laid to encourage greater collaboration in the planning process and work toward a more compatible coexistence between communities and the military.

For more information, click on the legislation.

SB 1468 and AB 1108

SB 1462

SB 1099



To identify which tools and strategies may work for a given community or installation, compatibility factors applicable to the area must be identified. The factors that influence compatibility may range from anthropogenic activities and outcomes (land use, infrastructure, noise, dust, light and glare) to natural resource issues (water quality, biological habitats) to the competition for scarce resources (land, sea, and airspace). The unique and varied planning processes used by state, local, and federal entities must also be factored into the collaborative process.

This Handbook represents a flexible planning guide and toolbox that can be applied in a variety of ways to meet the unique needs of each stakeholder as they pursue and achieve land use compatibility in community and military planning.

California's Perspective: Shared Goals = Opportunities

California plays an essential role in our nation's national defense, and military installations and activities are driving forces in our state and local economies. Through extensive communication and coordinated land use efforts, California and the military are working together to achieve common goals described in this section. Positive collaboration and innovative partnerships can provide an excellent resource to communities and installations in the development and implementation of compatible land use policies. The State of California has identified a number of policy areas in which abundant opportunities exist for local governments and the DoD to leverage expertise and resources to support each other, now and in the future.

Governor's Military Council

California is home to more than 30 major military installations, supported by a broad network of communities, industries, preeminent universities, national laboratories and government entities. Since the original publication of this Handbook, California has taken a number of practical actions to support and grow military operations in the State. The most noteworthy development has been the creation of the Governor's Military Council by Governor Brown in 2013, and its subsequent codification by the State Legislature in 2015. The Council consists of a bipartisan group of State policymakers, retired flag officers, civic leaders and State Legislators and is directed to protect, retain and enhance U.S. military and national security operations and installations in California, as well as to promote key policies benefiting California's veterans and military families. The Council has been highly successful over the last few years, facilitating partnerships between military installations, local communities and the private sector; convening an Annual All California Defense Summit with all California-based installation commanders, local communities and state officials; supporting the construction of large on-base renewable energy projects; addressing base water scarcity issues with state and federal assistance; engaging DoD and the congressional delegation to support the State's aerospace and innovation economy; and bringing more than $1 billion in annual federal funding to California, helping to create tens of thousands of jobs. Furthermore, the Council produced the *Maintaining and Expanding California's National Security Mission* Report, providing deep insight and strategic recommendations to protect and grow the unique military operations and national security mission in California.

Economic Development

With its immense military footprint, California provides more support for military options than any other state, including enacting tax credits, local government incentives, and the Governor's creation of the Office of Business and Economic Development. The economies of local communities, as well as the state, are impacted by the military's presence. The DoD spends roughly 54 billion dollars each year in California on defense contracts and direct salaries and benefits for approximately 280,000 Californians. Local business organizations are increasingly focused on supporting the defense and aerospace industry and communities have organized themselves to provide strong and consistent support for local military installations. Maintaining a consistent working relationship with local governments, non-governmental community organizations, and the military is paramount to developing creative ways to build a better business climate and successful partnerships within the state.

Reduce Greenhouse Gas Emissions

California was the first state in the country to take a comprehensive, long term approach to addressing climate change. AB 32 mandates economy-wide reductions of greenhouse gas emissions to 1990 levels by 2020. Longer term goals established through Executive Order B-30-15 include emission reductions of 40% below 1990 levels by 2030 and 80% below by 2050. SB 350, adopted in 2015, includes a broad objective of meeting established emissions reduction goals. Full implementation will help mitigate risks associated with climate change while increasing efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste. The DoD has set similar goals in an effort to benefit mission effectiveness, the environment, and the bottom line. Abundant opportunities exist to assist California, its communities, and the military in achieving emission reduction goals.

Energy Resources and Innovation

California's abundant sunshine, wind, and underground geothermal heat provide important energy sources for California and the military to diversify energy generation in the face of climate change. The State of California has adopted an ambitious energy policy to expand renewable energy, reduce petroleum use, and increase building efficiency that will keep California at the forefront of tackling climate change. The DoD has set similar targets to expand renewable energy, energy efficiency, and energy storage in the interest of national security, and these priorities align closely with California's own energy priorities. California's policy framework that promotes energy innovation and diversification advances these energy related national security efforts.

Reliable Water Security

California's history of extreme drought has forced a change in water management and planning at all levels. The state has begun taking actions to save water, increase enforcement of wasteful use, streamline government response, and invest in new technologies that will make the state more resilient to drought. Military installations in California have set ambitious water conservation and efficiency targets in recent years. In fact, the importance of water security has been highlighted by Pentagon leaders due to historic drought in California and climate change. Local water suppliers are required to submit monthly reporting of water usage, conservation, and enforcement actions. The DoD has the opportunity to work with local agencies to effectively realize water reductions and discourage water waste.

Sustainable Groundwater Management

California's Sustainable Groundwater Management Act is a state law that requires monitoring, regulation, and management of groundwater supplies for a sustainable yield, to ensure that water users have stable and adequate access to groundwater. This is a landmark change in California that will help to ensure the sustainable use of groundwater resources in the future. The law requires formation of agencies to develop and implement plans to manage groundwater. The State law provides the opportunity for the military to be involved with Groundwater Management Agencies in order to assure sustainable supplies moving forward. Achieving water security is an increasing concern for the DoD. Considering that future installation decisions and force structure changes will include consideration of water availability, effective groundwater management will help to achieve water security for bases across the state.

Develop Partnerships with Installations, Local Governments and Companies

Given continuous budget constraints, military and community leaders are eager to embrace creative ways to reduce costs while retaining critical capabilities. Partnerships between military installations and local communities and/or private-sector businesses can reduce costs and strengthen the installations' connection with the local community. Such partnerships introduce new models to provide municipal services, operate and maintain facilities, expand research and development, plan future land use to prevent encroachment, and enhance efficient energy and water use. The City of Monterey pioneered the use of these partnerships and the DoD has authorized these partnerships for all military installations. The State of California, local and regional governments, and military installations should continue to identify where such partnerships can be expanded in the state.

Sustainable Communities

In recent years, the State of California and the Department of Defense have incorporated compact, transit-oriented, mixed-use infill development into community planning. In 2008, California enacted SB 375, which builds on the existing framework of regional planning to tie together regional housing and transportation needs and offers regulatory incentives for transit-oriented, mixed use infill development. The DoD published similar planning strategies in the most recent Unified Facilities Criteria system, promoting compact, connected, and low impact mixed-use infill development. High connectivity, mixed land uses, and well-designed infrastructure decrease auto dependence and increase active transportation choices including walking and cycling. A number of opportunities exist for coordinating state, military, and local planning efforts in achieving healthy, integrated, and sustainable communities.

Climate Change Adaptation and Resiliency

California and the world's climate are changing, posing an escalated threat to human health and safety, environmental quality, and physical capital. Extreme weather, rising sea levels, shifting snowpack, among other impacts will touch every part of peoples' lives in the next century. Many of the impacts of climate change will be localized and will vary based on a community's characteristics. In 2008, Executive Order S-13-08 required the development of three resources to both understand and start addressing the impacts of climate change on State operations and local governments. Executive Order B-30-15 updated these requirements. The Safeguarding California Plan is the core of these resources and was designed to capture how State agencies would work to understand climate change vulnerabilities and address those vulnerabilities. Cal-Adapt was developed as a supporting resource to compile research data funded by the State to better understand climate change impacts in California. In 2012, this resource was updated to include broader sets of information and research and guidance relevant to local governments. The California Adaptation Planning Guide was another resource developed to help inform local governments of how to plan for climate change impacts in their communities. Numerous changes will take place in 2016 and 2017 to provide greater clarity on State and local initiatives to address climate change adaptation and resilience. Similarly, the DoD has published the Climate Change Adaptation Roadmap to articulate and facilitate climate change adaptation activities. Local governments are at the forefront of adaptation efforts and coordinating with installations could prove valuable when planning key actions now that will help to reduce impacts and cope with changes.

Section 2

Guide To Understanding Military Operations And Sustainability

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Guide To Understanding Military Operations And Sustainability

The vast open areas and varied terrain in California provide an irreplaceable environment for the training of military personnel, as well as for the research, development, testing, and evaluation of military technologies. Historically, most military installations and training/testing areas were strategically located away from populated areas to avoid incompatibilities with non-military land uses and activities. However, as the populations and land use needs of communities in California continue to grow, the need for partnering and cooperation between local governments and the military is essential to help identify and achieve common goals.

> *Compatibility, in relation to military readiness, can be defined as the balance between the needs & interests of the community and military. The goal of compatibility planning is to promote an environment where both entities can coexist successfully.*

A mutual understanding of both local planning processes and military readiness needs is critical to developing collaborative planning partnerships and processes to address compatibility challenges. This section will help local communities (planners, landowners, developers, and decision makers) to better understand military operations and potential challenges that could impact readiness. In addition, this section outlines key planning processes used by the military to address internal planning needs and external compatibility and encroachment management issues.

California Senate Bill 1468 (codified in Government Code 65302(a)) defines "military readiness activities" as:

- Training, support, and operations that prepare the men and women of the military for combat;
- Operation, maintenance, and security of any military installation; and
- Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

Understanding Military Assets and Operations

People often associate military land uses with the local military base in their region when, in fact, there are many different types of military operating areas. The military requires and utilizes large expanses of land, air, and sea space beyond installation boundaries 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. The demands of maintaining an extended operational reach require that military installations, training areas, airspace, and sea space form a network of training and testing assets. This connected system is more critical to sustain as requirements and capabilities of weapons and command/control systems continue to advance.

As development moves closer to military operating area and mission footprints, the coordination required to maintain unencumbered testing and training environments becomes increasingly important. To foster cooperation and minimize encroachment, local governments, landowners, developers, and other entities need to understand where the military operates and how they use designated operating areas to sustain military readiness and enhance national security.

Land Space

Installations

An installation is a military base, camp, post, station, yard, center, homeport facility for any ship, or any other activity under the jurisdiction of the DoD. It may be situated on land owned by the DoD or on leased space that is controlled by or primarily supports the DoD's activities. Installations can vary widely in terms of size, type, assigned mission, operational profile, command structure, tenant organizations, assigned personnel loading (both military and civilian), security and access control, and susceptibility to encroachment.

Interactive map with major installations in California

Large installations are typically self-sustaining military communities inside the fence line that include:

- Command and administrative support functions;
- Operations (which may include an airfield, a port, ammunition storage facilities, weapons ranges, etc.);
- AT/FP and other security functions;
- Public works, supply, and maintenance functions;
- Personnel housing and community support functions (retail, educational, recreational, medical, day care, and religious facilities); and
- Training functions (e.g., classrooms, simulators, physical fitness areas, parade grounds, and other training areas).

Smaller installations may serve a more limited or focused purpose (e.g., an armory, hospital, postgraduate school, observatory, recruitment center, etc.,) and may sometimes occupy leased space that is co-located with a non-military entity (e.g., an Air National Guard squadron sharing space at a commercial airport). Typically all installations of any size or complexity are fenced and clearly marked as military installations, usually with public access strictly controlled.

Installations may be situated on a single contiguous site, or as a main installation with associated contiguous or noncontiguous properties (e.g., ranges, auxiliary air fields, annexes, specialized training sites, etc.) that provide direct support to or are supported by that installation. Whatever their size or physical orientation, installations exist to support the assigned military mission(s) and associated testing and training operations, whether those occur onsite, at a training or test range, or at another off-site location.

The mission and operational profile for any given installation and their associated operational areas will be the primary factor in determining the susceptibility of the installation to outside encroachment, and the level of concern about compatible land uses beyond the fence line.

For example, installations that produce a substantial noise footprint (e.g., due to aircraft activity or weapons firing) will be concerned about the presence of noise-sensitive land uses (e.g, residential housing, schools, etc.), because of the likelihood of increased noise complaints and public pressure to modify flight tracks or operations schedules. Agricultural, industrial, and some commercial land uses would be more compatible in such cases. Alternatively, an installation that conducts training operations at night may be impacted by land uses that illuminate the night sky.

Encroachment challenges and compatibility concerns at each installation will vary according to the installation's mission and operational profile, as well as the planning and development conditions in the vicinity. The challenges at an urban installation such as NB Ventura County are very different from installations in a more rural area like NAF El Centro or MCAGCC Twentynine Palms. Local jurisdictions are encouraged to designate land uses surrounding installations in such a way to reduce compatibility challenges that may adversely impact the mission of the installation or reduce the quality of life of the public that may live or work nearby.

Ranges

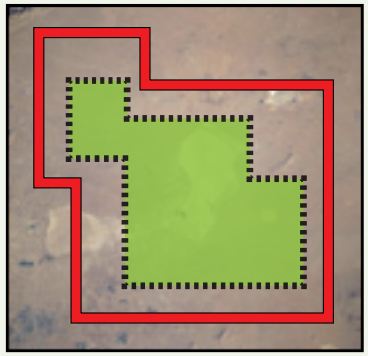
Testing and training ranges are expansive land areas that are set aside, managed, and used to conduct RDT&E of military munitions, explosives, and weapons systems, and to train military personnel in their use and handling. Ranges are often set up to include firing lines and positions, target arrays, test pads, detonation areas, and impact areas, with buffer zones, restricted access, and exclusionary areas established to promote safety during range operations. Range operations frequently involve intensive aircraft activity and widespread use of air-to-air and air-to-ground weapons throughout restricted airspace overlying the range, as well as ground operations involving tanks and other vehicles, artillery firing, and varying numbers of troops in both small- and large-scale warfighting maneuvers.

While most range operations occur well within range boundaries, which are often marked with signage but not always fenced, ranges can still impact or be impacted by local jurisdictions and incompatible land uses. Anthropogenic challenges, which are typically associated with incompatible land use issues related to noise sensitivity, vertical obstructions, light and glare, alternative energy development, unauthorized access, etc., can be mitigated or avoided using collaborative planning efforts. Natural challenges, such as cultural sites, air quality, water quality, threatened and endangered species, and marine environments, can also present resource management challenges and regulatory constraints on range use. While the expansiveness of many ranges affords some level of flexibility, public pressure to modify or suspend operations can impact the viability of the mission. Such impacts may include the creation of avoidance areas, prohibition or segmentation of certain test or training events, reductions in training realism, and limitations on the use of new technologies.

Encroachment Planning Areas and Safety Buffers

Military Influence Area (MIA)

An MIA is a geographic planning area where military operations may impact the local community and, conversely, where local conditions may affect the military's ability to carry out its mission. The development of an MIA considers the current land uses and future development goals of a local community as well as the current and future operational characteristics and requirements of a military installation, range, or other training area. The purpose of establishing an MIA is to identify a focus area for effective implementation of planning strategies and land use controls that will help avoid or reduce encroachment by minimizing the influence of specific types of encroachment challenges.



Generic MIA around an installation

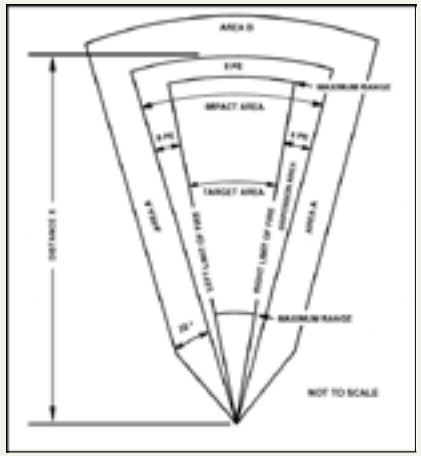
Explosive Safety Quantity Distance (ESQD) Arcs

ESQD Arcs are a very specific safety zone for explosives. They vary in size and shape according to the quantity of explosive material and distance separation relationships that provide definitive types of protection. These relationships are based on the level of risk considered acceptable for each stipulated exposure. Separation distances are not absolute safe distances but are relative protective or safe distances. ESQD arcs are required to be contained entirely within installation or range boundaries.

Generic ESQD Arc

Surface Danger Zone (SDZ)

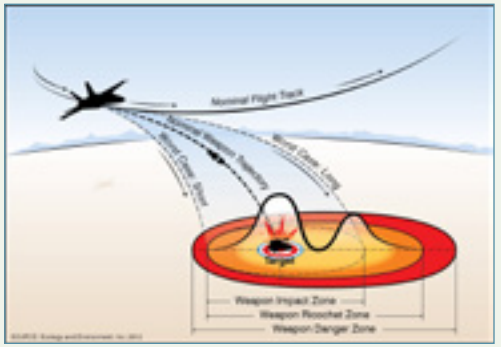
Every weapon system and the ammunition/ordnance related to that weapon system requires a danger zone. Danger zones are three-dimensional areas derived from computer modeling and/or laboratory data. The size and shape of a danger zone are dependent on the performance characteristics of the weapon system, ammunition, training requirements, geographical location, and environmental conditions. SDZs are exclusion areas that delineate the land footprint and overlying airspace in which personnel and/or equipment may be endangered by ground weapons firing or demolition activities. SDZs are designed to make the probability of hazardous fragment or round escapement from installation boundaries unlikely and to minimize the danger to the public, installation personnel, facilities/equipment, or property. They are factored into decisions about where to establish live-fire areas and necessary buffer zones relative to the boundary of a range or installation to ensure that munitions and projectiles will not land outside the installation.



Generic SDZs (Click to enlarge)

Weapons Danger Zone (WDZ)

A WDZ is a type of danger zone that encompasses the ground and airspace for lateral and vertical containment of projectiles, fragments, debris, and components from aviation delivered ordnance. This three-dimensional zone accounts for weapon accuracy (failures, ricochets, etc.) of a specific weapon/munition type delivered by a specific aircraft type. WDZs represent the minimum safety requirements designed for aviation weapons training on DoD ranges and are calculated using sophisticated models to promote the safest testing and training environment possible.



Generic WDZ (Click to enlarge)

Airfields

An airfield is a specific land use within some military installations that is designed for the accommodation, landing, and take-off of aircraft. Beyond the runway area, there are multiple safety zones with graduated restrictions on development to maintain a pristine operating area for the pilots, personnel on the ground, and aircraft. Surrounding the primary surface of an airfield are two different sets of airspace designations: APZs and Imaginary Surfaces. APZs (CZs and APZs) are based on historical accident and operations data throughout the military and the application of margins of safety within those areas (which have been determined to be potential impact areas) if an accident were to occur. Specific criteria on APZs are found in OPNAVINST 1010.36C. Imaginary Surfaces are established in relation to airfields and runways to define volumes of airspace in order to conduct safe and unobstructed flight operations. Imaginary surfaces represent well-established criteria for naval air installations. Height restrictions of natural and anthropogenic structures proximate to military airports that should be controlled to prevent obstructions to air navigation associated with airfield operations are outlined in FAR PART 77 and UFC-3-260-1.

Airfield Areas

(Roll over to view)

Clear Zone (CZs)

Accident Potential Zone (APZ)

Transitional Surface

Approach Clearance Surface

Inner Horizontal Surface

Conical Surface

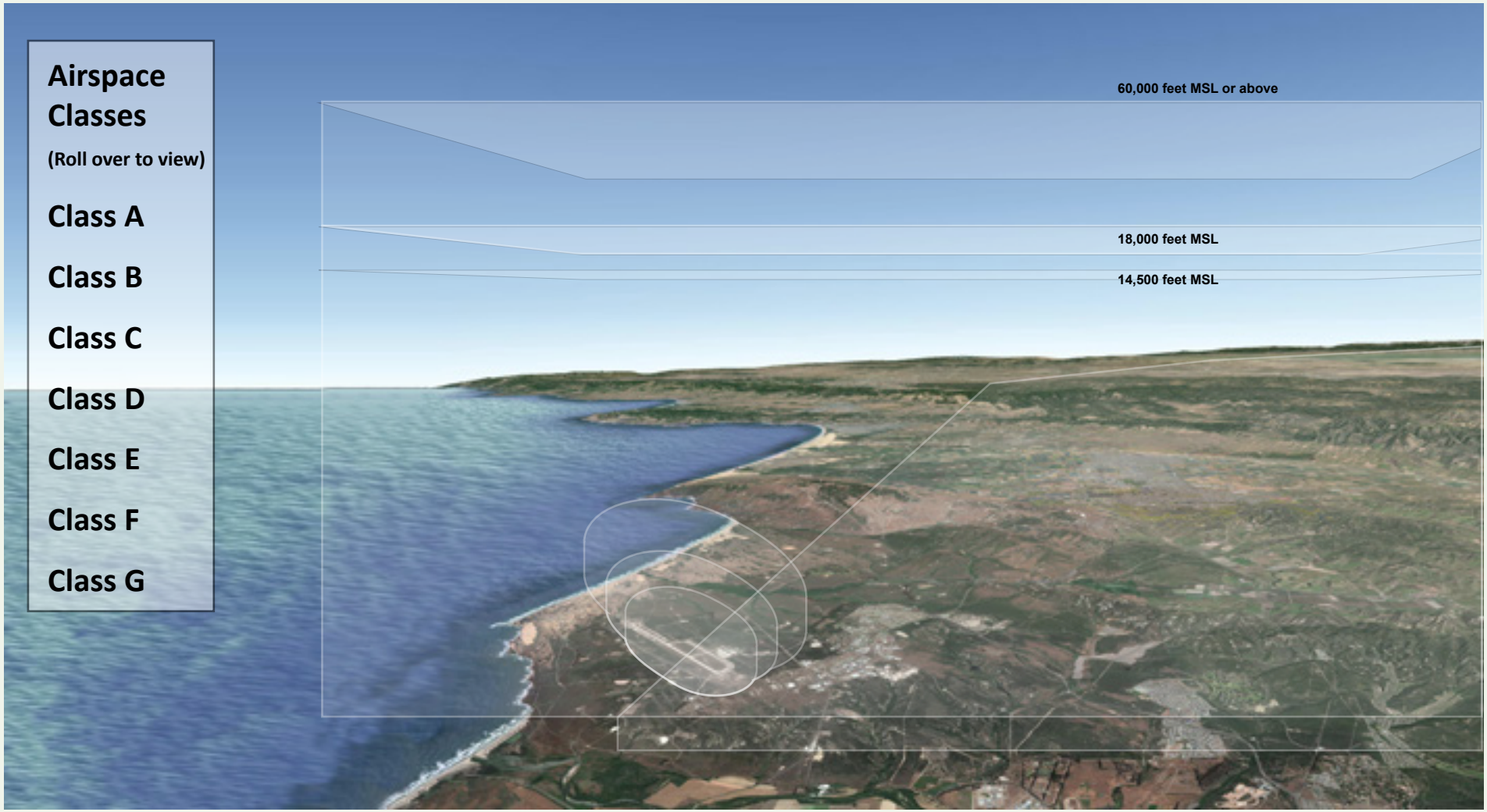
Outer Horizontal Surface

Airspace

Designated areas of airspace over both land and sea are necessary for military testing and training. Airspace corridors are also needed to provide airspace connectivity to and from military installations and operating areas. The Interagency Airspace Coordination Guide provides a wealth of information on the definition and use of airspace.

Airspace Classifications

"Controlled" and "uncontrolled" airspace are generic terms that broadly cover all airspace. These refer to the level of air traffic control required to operate within the airspace. Most controlled airspace has specific, predetermined dimensions whereas uncontrolled airspace can be of almost any size. Class G is the only class of uncontrolled airspace.



Special Use Airspace (SUA)

SUA is an airspace designation wherein activities must be confined because of their nature and/or wherein limitations are imposed upon aircraft operations that are not a part of those activities, to protect pilots and the health, safety, and welfare of the public. Except for controlled firing areas, SUA areas are depicted on aeronautical charts. There are six types of SUAs. Common anthropogenic compatibility challenges that can constrain SUA use include: sensitive land uses, vertical obstructions, infrastructure extensions, excessive light or glare, public trespassing, alternative energy development, and communication system siting.

Restricted Area (RA)

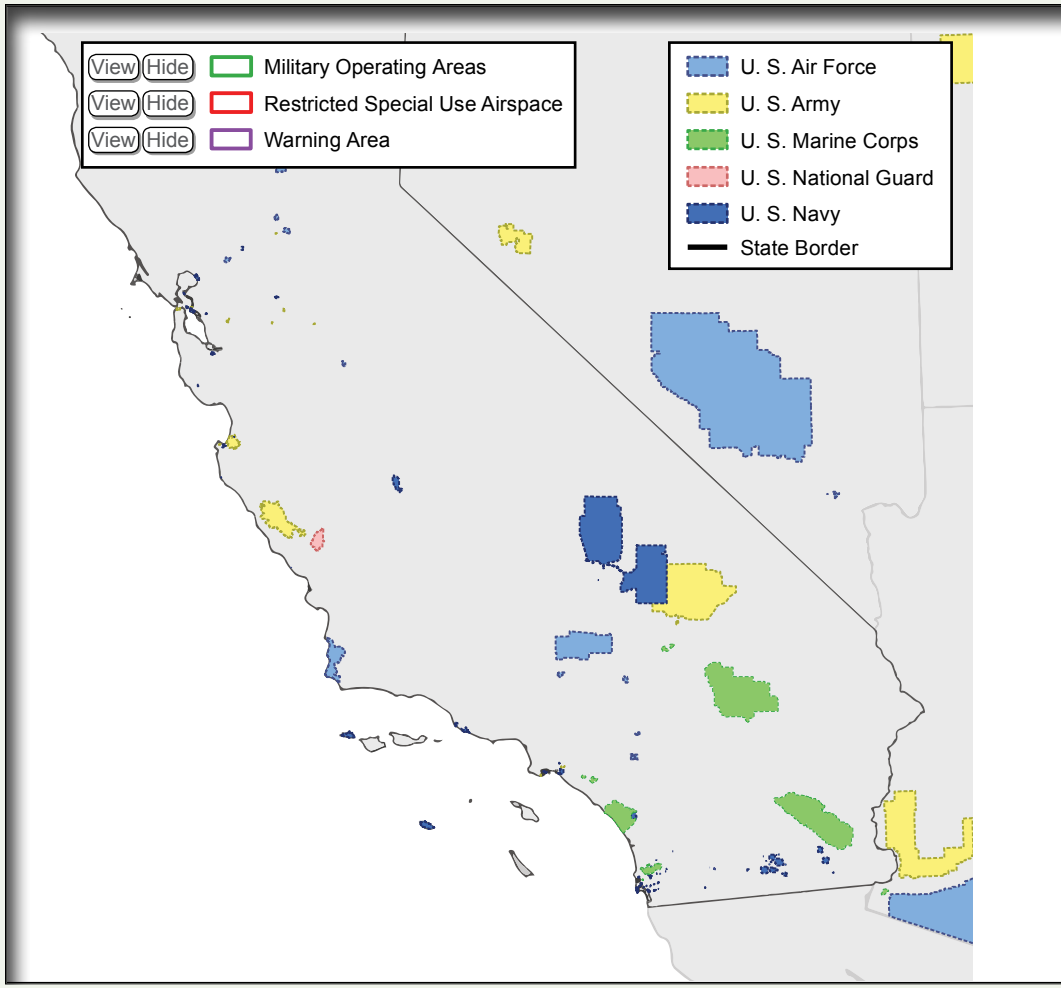
RAs are an important asset to the DoD because they allow for the use of weapons for training and testing purposes. These areas are necessary for ground weapons and artillery firing, aerial gunnery, live and inert practice bomb drops, and guided missile testing. RAs provide locations for training and testing to support combat readiness of aviation and ground combat units while separating these activities from the public and general aviation users. These areas are identified by the letter "R" followed by a number aeronautical charts. The floor and ceiling altitudes, operating hours, and controlling agency can be found in the sectional chart legend.

Warning Areas (WA)

A WA is airspace established for military use over domestic or international waters. These airspace areas are similar to a combination of RAs and MOAs because the activities that occur can be hazardous, non- hazardous, or both. Within these areas, the military can conduct major exercises using dozens of ships and aircraft performing an array of training and testing activities, such as naval gunfire, aerial gunnery, guided missile exercises, and practice interceptions. These areas are identified by a "W" followed by a number on aeronautical charts.

Military Operating Area (MOA)

A MOA is airspace established to segregate certain non-hazardous flight activities from IFR traffic and to identify VFR traffic. Within these areas, the military conducts flight activities, such as acrobatic or abrupt flight maneuvers, intercepts, air combat maneuvering missions, and aerial refueling. In addition to maintaining military readiness in the air, these areas are used to train student pilots. MOAs are three dimensional areas with bounding altitudes that can range from the surface up to the maximum ceiling of 17,999 feet MSL. On aeronautical charts, MOAs are identified by a specific name followed by the letters "MOA."



Alert Area (AA)

AAs accommodate high volumes of pilot training or an unusual type of aerial activity (e.g., test flights by an aircraft manufacturer). No special requirements are needed for operations in an AA, but all operations taking place in an AA must comply with FAA regulations. These areas are defined by an "A" followed by a number on aeronautical charts.

Controlled Firing Area (CFA)

CFAs contain military or civilian activities that could be hazardous to aircraft not participating in the activity (e.g., rocket testing, ordnance detonation, and small arms fire). CFAs use ground lookouts or radar to identify aircraft that might be approaching the area. When this happens, all activities in the CFA are suspended until the area is clear again. Non-participating aircraft are not required to change their flight path with regards to a CFA; therefore, CFAs are not charted by the FAA. CFA information can be obtained by contacting the nearest regional FAA headquarters.

Military Training Routes

MTRs are interrelated and interdependent airspace corridors that connect military installations, ranges, and operating areas. They are used by the DoD to conduct low-altitude navigation and tactical training at airspeeds in excess of 250 knots and at altitudes as low as just above surface level. These low-level, high-speed routes allow pilots to develop the skills necessary to avoid detection by enemy radar. In California Law (AB 1108, Pavley, Chapter 638, Statutes of 2002), a low-altitude MTR is defined as a route where aircraft operate below 1,500 feet MSL. MTRs are divided into segments (labeled A, B, C, etc.) and each segment is defined by a floor altitude, a ceiling altitude, a corridor width (in NM), and a route centerline. All of these specifications can vary from one MTR to the next, and from one segment to the next within a single MTR. Compatibility challenges for MTRs are very similar to those described for SUAs and include anthropogenic compatibility challenges such as the location of sensitive uses, vertical obstructions, infrastructure extensions, excessive light or glare, public trespassing, alternative energy development, communication system siting. If these compatibility challenges are not mitigated, impacts to the military operations may include reduced range access, the creation of avoidance areas, radar interference, and the prohibition of, segmentation of, or a reduction in realism of training events.

Frequency Spectrum

The military's use of frequency spectrum is an essential part of the national security framework that includes, but is not limited to communications, weapons targeting, and UAS operations. The military's frequency spectrum needs for testing, evaluation, and training is constantly increasing, while the spectrum available for DoD use is decreasing. The NTIA Office of Spectrum Management explains that: "almost every agency of the Federal Government uses the spectrum in performing mandated missions. The DoD uses the spectrum extensively for tactical uses and non-tactical uses. In the U.S., tactical uses are generally limited to a number of specific testing sites and training facilities, but DoD's non-tactical applications are extensive and include aircraft command and control, mobile communication in and around military bases, and air fields and long distance communications using satellites."

Radar

The Navy at NAWS China Lake and Air Force at Edwards AFB conduct testing and evaluation of aircraft and weapons systems. Incompatible development within the radio frequency line of sight of some systems being tested or the instrumentation that is used to support testing may have a significant adverse impact to testing and evaluation activities depending on height and distance from the station. Incompatible development within these areas will impact Navy or Air Force testing and a high likelihood of an unacceptable risk to national security.

Sea Space

Proficiency on the sea enables the military to perform many functions, ranging from peacekeeping and humanitarian operations to wartime operations such as AAW, ASW, AMW, MIO, and special operations. Sea space, like land space and airspace, requires both test and training areas. Dedicated DoD sea space areas are dependent on waterway channels that provide connectivity between the test and training areas located at sea and ship homeports.

Warfare Center Enterprises

Warfare Center Enterprises are specialized sea space areas that supply the technical operations, people, technology, engineering services and products needed to equip and support the fleet and meet the warfighters' needs. The Warfare Centers are the Navy's principal RDT&E assessment activity for surface ship and submarine systems and subsystems. In addition, the Warfare Centers provide depot maintenance and in-service engineering support to ensure the systems fielded today perform consistently and reliably in the future.

Surface

On the surface, the Navy operates its full spectrum RDT&E, engineering, and fleet support centers for offensive and defensive systems associated with surface warfare and related areas of joint, homeland, and national defense systems from the sea.

Undersea

To support missions and operations under the surface of the sea, the Navy operates its research, development, test and evaluation, engineering, and Fleet support center for submarines, autonomous underwater systems, and offensive and defensive weapon systems associated with USW and related areas of homeland security and national defense. These provide the Navy's core technical capability for the integration of weapons, combat and ship systems into submarines and undersea vehicles.

Challenges To Sustaining Military Readiness

Anthropogenic Challenges

Most compatibility challenges that contribute to encroachment are anthropogenic. They can include issues originating from the civilian community that impact military readiness and/or issues generated from military activities that can impact a community's development patterns and quality of life. A local jurisdiction's general plan and zoning ordinances can be the most effective tools for resolving issues of land use compatibility. Local jurisdictions already consider compatibility when establishing zoning ordinances (e.g., to avoid placing residential developments too close to industrial areas). Likewise, the DoD has (for example) compatible land use standards around airfields relative to noise and safety issues. Some local governments have taken these guidelines and tailored them to their needs, making them more restrictive in some cases.

There are a number of tools outlined in Compatibility Planning Toolbox for local planners and the military to collaboratively implement to limit impacts from such challenges.

Sensitive Uses

Sensitive land uses may include residential housing, schools, nursing homes, retirement communities, health care facilities, and others. The most common sensitivity relative to military activities are concerns about noise and safety in the vicinity of installations, ranges, airfields, SUAs, and MTRs. As such land uses become more prevalent in a high-noise area and public complaints about military noise sources increase, impacts to military operations and readiness may include the creation of avoidance areas, prohibition of training events, restricted flight altitudes/airspeeds/timing, and suspensions or delays in conducting testing or training events.

State Required Planning and Military Notification Requirements

California Government Code §65302 (a)(2), states the land use element of the General Plan:

"shall consider the impact of new growth on military readiness activities carried out on military bases, installations, and operation and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace."

To ensure early notification to the military of proposed discretionary development projects within Military Operating Areas, California Government Code §65352 (a)(5) and (6)(A), §65940, and §65944 require the exchange of project related information pertinent to military operations:

"when the proposed action is within 1,000 feet of a military installation, or lies within special use airspace, or beneath a low-level flight path…"

Vertical Obstructions (Height of Structures)

The height of buildings and other structures may encroach into the navigable airspace used by military operations (airfield surfaces, SUAs, MTRs, radar operations), presenting a safety hazard to both the public and military personnel and potentially impacting military readiness. Trying to avoid such obstructions increases flight safety risks, as pilots are frequently flying at very low altitudes and very high speeds. Designated airspaces defined by SUAs and MTRs are intended to give pilots safe, navigable airspace to conduct training while limiting potential harm to themselves or those on the ground.

Noise

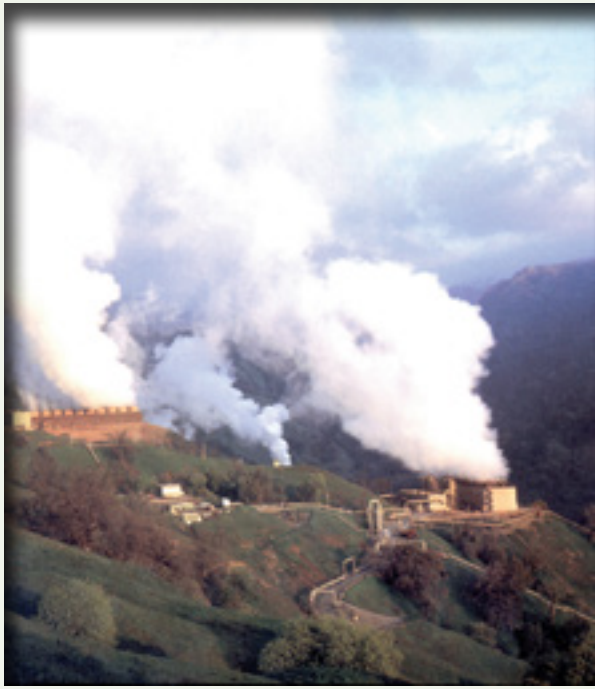
The central issue of noise is the impact, or perceived impact, on people, animals (wild and domestic), structures, and land use. Exterior noise can have a significant impact on human activity, health, and safety. The magnitude of the noise problem, resulting complaints, pressure to modify or suspend operations, and threats of litigation are directly related to the degree to which there are people, wildlife, and noise- sensitive land uses in the vicinity of military installations, ranges, airfields, SUAs, and MTRs. Impacts to operations may include the creation of avoidance areas, prohibition of training events, restricted flight altitudes/airspeeds/timing, and suspensions or delays in conducting testing and training events.

Vibration

Vibration generated from military aircraft and ground training exercises impacts buildings and other structures within adjacent communities. In some cases, vibration impacts from these exercises can occur in areas where a military presence may not be obvious, such as under SUAs and MTRs. In addition, vibration from industrial land uses adjacent to an installation may impact the development and testing of sensitive equipment. These impacts can compromise the development of new technologies and inhibit new tactics.

Dust, Smoke, or Steam

Range training activities can produce dust from vehicle movement and munitions use resulting in impacts to local air quality. In local communities, dust created by grading activities or agriculture, and smoke, steam, or other airborne emissions from industrial facilities can reduce visibility and thereby impact military operations. While air quality impacts are usually temporary and intermittent, the fact that they are unpredictable creates concerns for operators.



Light and Glare

Light sources from commercial, industrial, and residential uses at night can cause excessive glare and illumination, which impacts the use of military night vision devices, nighttime aircraft operations and other light-sensitive activities. Conversely, nighttime military operations may disturb the community. Voluntary restrictions on military training at night may foster better community relations, but they pose especially critical limits on essential military testing and training.

Public Trespassing

Military areas that are located on other federal lands or are adjacent to federal lands designated for public recreation often experience issues related to public trespassing into training ranges and other areas with safety hazards related to military operations. When trespassing occurs within these areas, military training and operations can be suspended from a few hours to several days.

Alternative Energy Development

With natural resources becoming increasingly scarce, there is an increased need to develop alternative energy sources to meet energy needs today and in the future. Renewable energy is a national imperative as well as a national security issue. However, renewable energy, whether developed on or off DoD land or waters, has the potential to negatively impact critical test and training missions. Renewable energy comes in many forms including wind, solar, geothermal, hydrologic, and biomass. Some forms of renewable energy have no mission impacts, but others have major impacts depending on location. Alternative energy sources are often located in open areas where military operations also occur, thus impacting military readiness. Impacts to operations may include reduced operational security, training distractions, and reduced training flexibility as a result of factors such as noise, light pollution, increased human presence, vertical obstructions, and radar interference.

Examples of conflicting energy uses include wind energy farms consisting of tall wind turbines that can obstruct the military airspace, or offshore energy platforms that can impact military testing and training on off-shore ranges and operating areas. Offshore facilities could impact sea lanes, submarine transit lanes, coastal test and training ranges, and may even insonate the surrounding sea area and compromise sonar test and training. They also have the potential to create electromagnetic interference that can negatively affect ground based and airborne radars, sensors, communications systems and navigational aids. Some types of solar facilities incorporate towers over 600 feet tall and some facilities have been planned with towers of several thousand feet. In addition, glint/glare from solar facilities could cause unwanted visual impacts to pilots from flash blindness to retinal burn.

All renewable energy plants require transmission lines, which can limit the military's ability to fly at low altitude in those areas, create electromagnetic interference, and limit buffer zones. Even biomass and geothermal plants can have negative impacts. Conventional energy sources such as smoke stacks may also be problem. Impacts from renewable energy projects on species listed as threatened or endangered under the Endangered Species Act, or species who are or may become candidates for such listing, or on habitat (occupied or unoccupied) for any such species can in turn result in additional restrictions on DoD where such species or habitat for such species are also found on DoD installations or ranges.

Frequency Spectrum Impedance and Interference

In carrying out readiness activities, the military relies on a range of frequencies for communications and support systems. Public uses also rely on a range of frequencies to support daily life. As the use of the frequency spectrum increases (such as the rapid increase in cellular phone technology) and as development expands near military installations and operating areas, the issue of frequency spectrum impedance, interference, and competition increases.

Key issues to consider relative to frequency spectrum impedance include the construction of buildings or other facilities that block or impede the transmission of signals from antennas, satellite dishes, or other transmission/reception devices affected by line-of-sight requirements. Some transmission/reception devices have what are called “look angles.” Look angles relate to a transmission or reception source that is targeted to another device in a specific direction and angle (both horizontal and vertical). For some systems, this look angle is fixed (like a microwave relay tower); for others, such as a satellite tracking facility, the look angles will change over time.

Frequency interference is related to other transmission sources. Interference can result from a number of factors, including: new transmissions using a frequency that is near an existing frequency, moving an antennae transmitting on a similar frequency to a closer location, increasing the power of a similar transmission signal, use of poorly adjusted transmission devices that transmit outside their assigned frequency, or production of an electromagnetic signal that interferes with a signal transmission.

When reviewing new facilities or transmission sources near a military installation, facility, or operating area, military and local government planners should consult in order to reduce conflicts.

The competition for available frequency bandwidth reduces available frequency spectrum capacity for training and developmental/operational testing activities. The lack of spectrum capacity decreases the effectiveness of exercises by restricting the number or types of weapons that can participate. In addition, spectrum limitations may restrict the use of state- of-the-art instrumentation systems, resulting in less data for evaluators to use in training assessments. Limitations also may restrict the development testing of new technologies. As the potential for residential and commercial encroachment increases, so does the risk of increased RF emitters and receivers that create EMI problems between military systems and public or commercial systems. For example, some low power consumer devices, such as remote controls, cordless phones, garage door openers, and baby monitors, utilize frequencies assigned to the military. These low power, short range systems operate under rules set out in Part 15 of the FCC. Given their low power output, these are not supposed to impact, or be impacted by, other devices in the assigned frequency ranges. But, as military and community uses have come in closer proximity, conflicts sometimes occur.

Local Housing Availability

Given personal choice to live off-base and DoD budget constraints, the military only provides on-base housing to a portion of the military personnel assigned to an installation. The remaining housing demand relies on adjacent communities to meet the needs of military personnel. Given the high cost of housing in California, and limited housing supplies in some areas, it may be difficult for military personnel to find affordable housing in neighboring communities. Also, changes in personnel assigned to an installation can impact local housing supplies. For instance, a large reduction in personnel loading of a certain type (e.g., unaccompanied personnel or married personnel or a large deployment) may reduce demand in the market for a period of time, thereby affecting local housing prices. The opposite occurs when increases result in short- to long-term shortages of housing and increases in prices.

Infrastructure Extensions

Infrastructure plays an interesting role in compatibility. In many areas, the DoD is looking at the viability of obtaining infrastructure services from off-installation providers. For instance, an installation may look at connecting to a community's water system instead of operating an independent system of wells, storage, and treatment facilities on the installation. For this to work, the installation needs to work with communities, service districts, and other utility providers to ensure that adequate plans are in place to service future demand.

Another example of coordinated planning relates to roadway systems. The military and local governments can work together to plan for adequate capacity and to deal with issues such as delays at installation entrance gates.

The extension or expansion of infrastructure to the installation, or to areas near an installation, also raises the issue of growth inducement. If infrastructure is extended toward military areas, growth may be directed to these areas, causing a potential conflict with sustaining military readiness.

Anti-Terrorism Force Protection (AT/FP) Requirements

Since September 11, 2001, military installations have been required to meet new restrictive standards for anti-terrorism and force protection. Among these new standards are new entry gate design criteria and vehicle search procedures for all military installations. These new design standards have created long queues that can impact local roadways and circulation adjacent to some installations and ranges. Structures (e.g., hotels) near an access gate are of great concern to the military if such structures could provide someone an opportunity to conduct surveillance of the installation's access protocols and vehicle search procedures. Coordination between the local community and the military installation is necessary to work proactively to avoid or mitigate these types of situations.

Natural Challenges

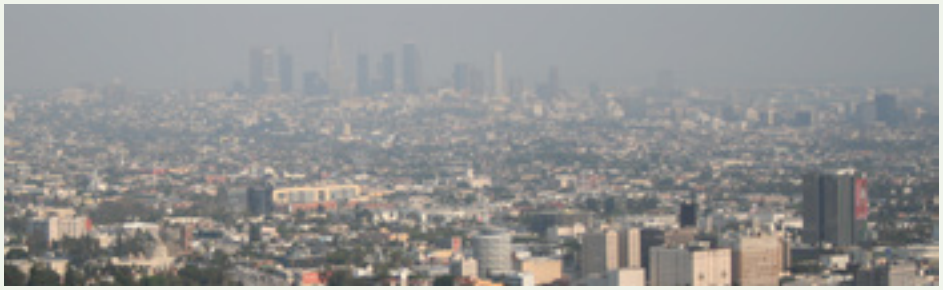
In addition to anthropogenic compatibility factors, natural compatibility factors also are potential sources of conflict with military readiness activities. Natural challenges are not as easily mitigated because they are not predictable. However, advance planning may minimize impacts when conflicts arise.

Threatened and Endangered Species

Development near military installations or operating areas can cause the natural areas being managed by the military to become the last refuge for wildlife and native vegetation. The diminishing quantity and quality of habitat in a developing area increases the value of the habitat on the military lands. As development continues, regulations designed to protect species and habitat can reduce the military value of the installation, range, or special use airspace by limiting the types of permissible activities in terms of composition, magnitude, or timing.

Air Quality

As a federal agency, the military is required to conform to the CAA, which is governed in California by the California Air Resources Board. Air quality permits are issued at a regional level by the Regional Air Quality Control Boards. Air quality issues, such as dust and exhaust generated from testing and training operations, can impact adjacent communities. When these air impacts are generated by operational, training, and testing missions in nonattainment areas, conformance with individual State Implementation Plans can restrict existing mission requirements or preclude the execution of new missions or the deployment and use of new weapon platforms.



Water Quality

Discharge permit requirements and prohibited or restricted access to wetlands or their buffer zones can restrict existing mission training, preclude or restrict the integration of new technology and weapons systems into existing missions and training, or prevent the future growth and execution of new missions in amphibious, riverine, estuarine, and other salt and fresh water areas.

Sea Level Rise

Rising sea levels may affect military waterfront lands and facilities as well as coastal population centers. Possible effects include inundation of low lying development and roads, increased erosion of coastlines and beaches, salt intrusion into aquifers, higher water tables, and increased inundation from storm surge and tsunamis.

Marine Environments

Regulatory or permit requirements protecting marine and ocean resources can cumulatively affect the military's ability to conduct operations, training exercises, or testing in the marine environment.

Understanding Military Planning Processes

Military planning activities establish a systematic framework for decision makers with regard to military installations. Such planning incorporates military programs (such as operations, environmental, urban planning, INRMP, AICUZ, and others), to identify and assess development alternatives and ensure compliance with applicable federal, state, and local laws, regulations, and policies.

Military planning practices incorporate a wide range of data and information that allow commanders to logically and thoroughly analyze various factors before making decisions that affect the installation or the surrounding community. The process generally involves most installation departments, users and providers of services, base residents, and mission leaders and their staffs.

Comprehensive Planning Practices

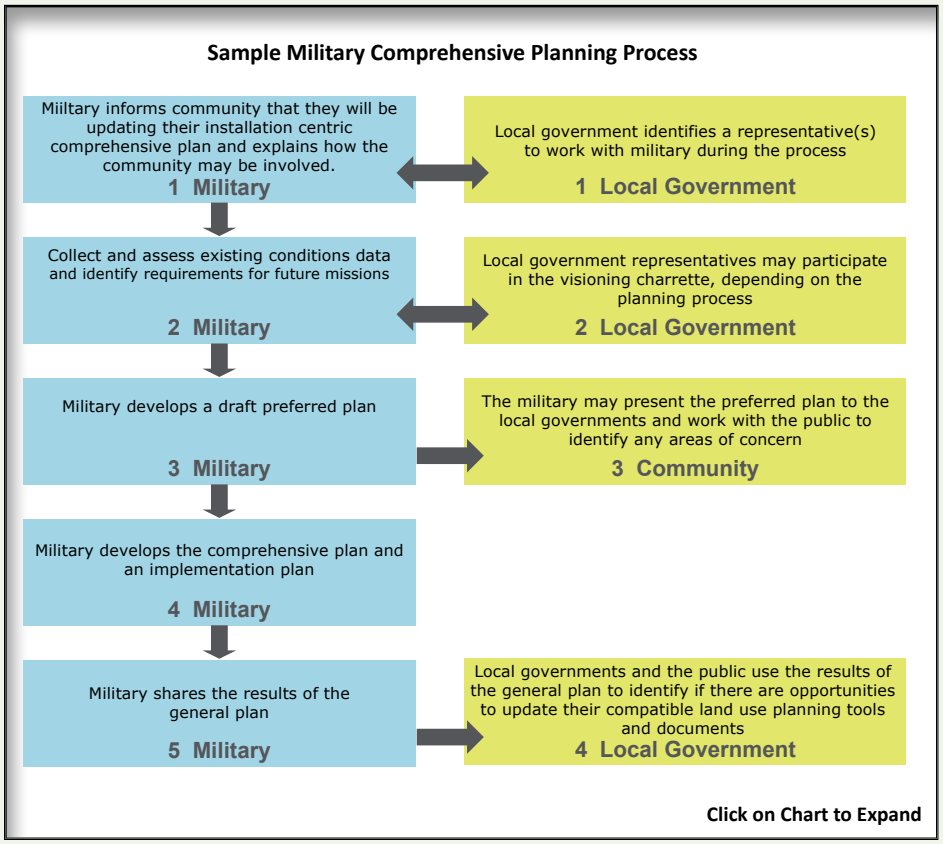
The military community is both similar to and different from a comparably sized civilian community. The similarities arise from the broad range of activities that take place at the military installation. Office, commercial, service, industrial, and recreational land uses on military installations are all analogous to the same land uses in a town or city. Military installations, particularly those in remote rural areas, can be viewed as self-contained communities that meet all of their inhabitants' day-to-day needs. In this regard, some of the goals of a base comprehensive plan are similar to the goals used by a community: to allocate resources efficiently, protect the natural environment, and enhance the quality of life for the men, women, and children who live and work on the installation.

Despite these similarities, the military community differs from the civilian community in one essential aspect. The military community owes its existence to, and is united around, one central purpose: to carry out the mission of the installation. Therefore, military communities are physically and socially more homogeneous than the typical civilian community. Military planners must take into account these unique social characteristics in the development of comprehensive plans for military installations.

Like cities and counties, military installations are guided by comprehensive plans that are intended to guide growth in a responsible way to promote a high quality of life and a sustainable future. Given the stated similarities and differences, it is important that respective plans are not developed in a vacuum. Community planners are encouraged to participate in the planning process by assisting their military counterparts with needed data

collection (e.g., transportation infrastructure information, socioeconomic data, etc.). After adoption, the results of the comprehensive plan may be used by the local government to plan for compatible growth and to identify opportunities to update their land use planning tools and documents. In a similar manner, military planners are encouraged to participate in the local planning process by sharing current and future testing and training mission needs (e.g., anticipated personnel changes, equipment updates, etc.) so the local community can incorporate relevant changes into their plan.

As with any iterative planning process, periodic review and evaluation is necessary. In addition, mission changes or other factors impacting installation infrastructure should trigger a comprehensive review and update of comprehensive plans.



Navy and Marine Corps

While representing organizationally distinct forces, the Navy and Marine Corps work closely together and share several key planning resources. For the Navy, planning administration is divided between shore-based facilities and fleet activities. For the Marine Corps, planning is focused on shore-based facilities.

Development and implementation of an installation's land use plans falls under the direction of the PWO. For coordination with on-base personnel and adjacent communities, the installation's CPLO is typically the focal point.

Regional Shoreline Infrastructure Plan (RSIP)

A RSIP is a tool used by the Navy and Marine Corps to evaluate mission requirements on a regional level to inform a very specific type of master plan. RSIPs are facilities-based plans designed to ensure that the shore infrastructure is in alignment with the force structure. The RSIP evaluates mission facility requirements by assessing existing environmental and anthropogenic constraints and balancing those constraints with the current and future needs to optimize facility infrastructure.

One of the main purposes of an RSIP is to achieve cost savings by eliminating infrastructure duplication. This can be achieved by using existing off-base community facilities and services. In order to remain relevant, the RSIP should be evaluated and updated every five to ten years. The RSIP identifies alternatives for optimizing the use of land and facilities, and incorporates the strategic vision of the region through functional consolidations, regionalization, outsourcing, privatization, and joint use with other DoD and federal and government entities.

Air Force

Ultimate responsibility for base development in the Air Force rests with the Installation Commander. To make development decisions, the commander depends on input from the Base Facilities Board or the EPC. Development and implementation of the Air Force land use plans (including general plan and area development plans) are under the direction of the BCE and staff in Civil Engineering. Headquarters Air Force and the AFCEC provide technical support and guidance on a wide range of planning issues. The installation's Community Planner, known as the Sustainability Officer, is typically the key person involved with on-base personnel and adjacent local governments relative to land use planning.

Air Force General Plan (AFGP)

The AFGP provides the installation commander and other decision makers with a condensed picture of an installation's ability to support the mission, given its current physical assets and delivery systems. The general plan provides a summary of four component plans: Constraints and Opportunities, Infrastructure, Land Use and Transportation, and Capital Improvements Program. In addition, the general plan summarizes other special plans and studies, such as the installation's AICUZ study, the INRMP, and the Housing Community Plans.

The AFGP is a living document that requires, at minimum, a yearly review, with a comprehensive update typically done on a 5-year cycle. AFI 32-7062 contains the responsibilities and requirements for comprehensive planning and describes procedures for developing, implementing, and maintaining an installation general plan.

Area Development Plan (ADP)

An ADP examines a specific area on base that is unified by its function or by its architectural character and provides a detailed plan for future development in that area. For more information about ADPs, see page 34 of UFC 2-100-01.

Army

At the Army installation level, the Garrison Commander is the primary agent responsible for directing, influencing, and addressing present challenges and implementing future change. The Garrison Commander's instrument for unifying planning and programming for installation real property management, development, and associated services is the installation master planning process. Assisting the Garrison Commander in planning decisions is the RPPB. This board comprises members of the command, operational, engineering, planning, and tenant interests of the installation.

The Garrison Commander receives assistance with real property planning from several entities. The USACE provides planning assistance to installations. This assistance is provided on a national level (such as the development and publication of technical guidance manual) and on a regional level through USACE districts. In California, the USACE has district offices in Los Angeles, Sacramento, and San Francisco.

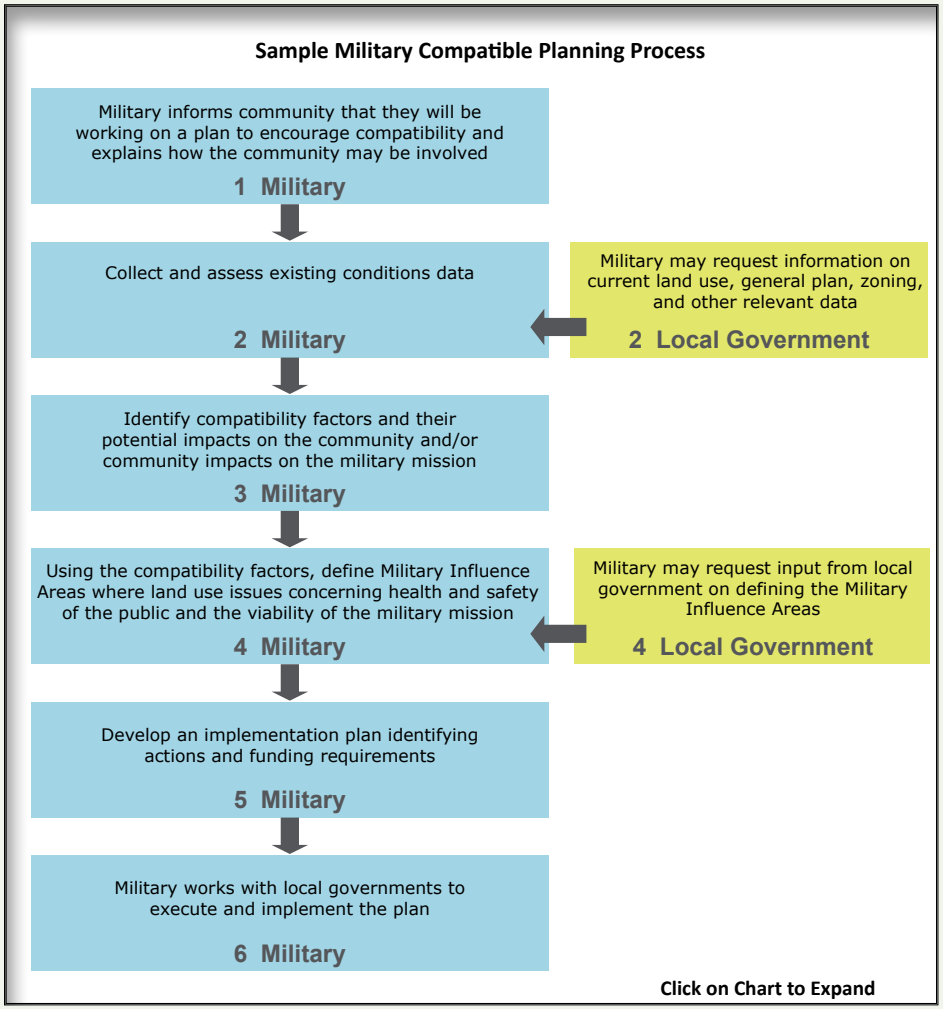
Army Installation Master Plan

Development and implementation of an Army installation's master plan is under the direction of the installation's DPW and staff in the Plans and Projects group. The installation's Master Planner coordinates with on-post personnel and adjacent communities.

The Installation Master Plan is a long-range plan designed to guide physical growth and future land use changes at the installation. It must create and maintain a vision and a blueprint plan that enables the installation to respond to future Army missions and provide a good quality of life on the post, while providing and maintaining the capability to train, protect, sustain, and support today's force. This plan is composed of at least three interdependent elements: a Land Use Plan, a Circulation Plan, and a Utility Service Plan. The Installation Master Plan also contains an Existing Conditions Map, a Tabulation of Existing and Required Facilities, a Future Development Plans, and a Project Phasing Map. Other long-range plans also may be prepared for special topics, such as wildlife management or historic preservation. AR 210-20 and TM 5-803-14 define the real property master planning concept and requirements and also establish policies and responsibilities for implementing the real property master planning process for Army communities.

Compatible Planning Practices

For many years, military and civilian communities had minimal land use compatibility conflicts. However, as community development intensifies and the military missions expand, growing pains are felt on both sides of the fence line. Aircraft become noisier, artillery bigger, and armored vehicles heavier — all producing noise, vibration, dust, smoke, and the potential for accidents that could occur on or off a military base or range. At the same time, community development spreads across the landscape approaching and, in some instances, surrounding a military installation.



Just as the military has publicly stated that the encroachment of incompatible civilian land use activities near a military installation can threaten mission capabilities; so also have neighboring community leaders and residents publicly stated that the encroachment of the military can threaten their "quality of life," create excessive noise, and negatively affect property values.

The military consistently recommends compatible land use activities around military installations. The purpose is to both protect the military mission and public health and safety. The military has adopted planning processes that can provide important information that local governments can use in their planning processes. The findings of such practices help guide the military to reduce adverse impacts that their training has on neighboring jurisdictions, while also informing the neighboring jurisdictions of potential concerns, their sources, and anticipated impacts.

Installation Buffer

With the rapid pace of population growth in California, civilian and military land use incompatibilities are to be expected. In order to avoid land use conflicts that can threaten military missions, reduce the quality of life in the community, and ultimately lead to base closure, planners must confer with military representatives and incorporate findings from military planning documents into guiding planning documents.

Encroachment Action Plan (EAP)

An EAP is a comprehensive plan developed by the Navy that looks at operations and all applicable compatibility factors, not just aviation noise and safety factors covered by an AICUZ study. The purpose of an EAP is to identify strategies and actions to mitigate potential encroachment challenges. The EAP provides methodology, background, analysis, and recommended short-, mid-, and long-term encroachment management actions for all existing and potential land use compatibility challenges for each Navy installation, range, airspace, or training area. This is primarily an internal document used by the Navy in its planning process guided by OPNAVINST 11010.40. EAPs are developed by working with local community planners as the Navy gathers information on proposed plans and projects.

Encroachment Control Plan (ECP)

The Marine Corps' ECP is designed to discuss issues relative to the installation and the surrounding communities. The ECP, guided by MCO 11011.23, identifies potential encroachment challenges and provides methodology, background, analysis, and recommended short-, mid-, and long-term implementation strategies.

Installation Complex Encroachment Management Action Plan (ICEMAP)

The Air Force's ICEMAP identifies opportunities where base leaders can work with local communities, regional agencies and elected officials to address encroachment and sustainment challenges facing their installations. The Air Force Encroachment Control Order is 90-2001.

Army Compatibility Use Buffer (ACUB)

ACUBs establish buffer areas around Army installations to limit effects of encroachment and maximize land inside the installation that can be used to support the installation's mission by implementing instruction. ACUBs support local and regional planning and sustainability efforts by emphasizing partnerships with state and local governments and private conservation organizations to work towards common objectives and leveraging public and private funds toward those common goals.

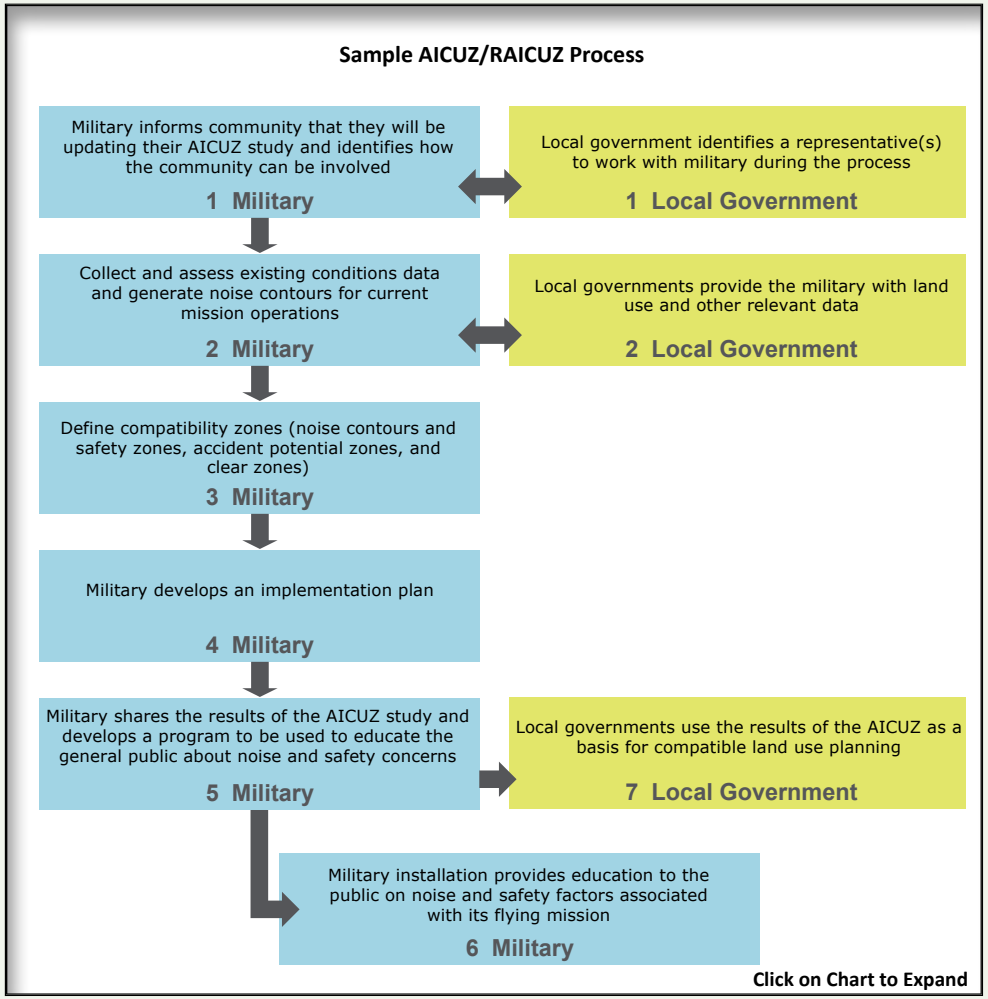
Noise

Areas contiguous to military installations often provide attractive land development opportunities. Certain types of development are not compatible with the high noise and high potential for aircraft accidents associated with airfield activities. In the absence of compatible land use controls, inappropriate uses may occur near or adjacent to the installation causing eventual conflicts between flight operations and landowners.

Military operations and activities often generate significant levels of noise, which can have an impact on the activity, health, and safety of people, animals (wild and domestic), structures, and land use. The magnitude of the noise is directly related to the proximity to military installations, ranges, and other military areas. In order to mitigate this impact, cities and counties should include implementation measures and solutions to address existing and foreseeable noise issues according to noise contours shared by the military.

Air Installation Compatible Use Zone (AICUZ) & Range Air Installations Compatible use Zone (RAICUZ)

The AICUZ and RAICUZ programs were developed in response to incompatible urban development and land use conflicts around military airfields. These programs seek to provide information on compatibility, develop a cooperative relationship between communities and military installations, and providing land use compatibility guidelines that protect public health and safety and maintain military readiness.



An AICUZ study contains an analysis of accident potential, and noise produced by military operations. The aircraft noise is analyzed using computer modeling that produces noise compatibility zones. The study also identifies areas of current and future encroachment based on local land use plans, and provides local communities with compatible land use recommendations for consideration in development of their comprehensive plans and zoning ordinances. The compatible land use recommendations for aircraft are used nationwide for military and commercial airfields.

The RAICUZ is an extension of the AICUZ program for air-to-ground ranges and is comprised of detailed analyses of current and proposed range utilization, restricted airspace, range safety zones including weapons impact areas, aircraft noise, land use compatibility, risk areas, and mitigation alternatives for air-to-ground ordnance activities at Navy and Marine Corps ranges. The studies result in land use recommendations that are compatible with range safety zones and noise levels associated with range operations. RAICUZ land use recommendations are used to support collaborative planning efforts with state, local, regional, and tribal governments to foster compatible development outside installation boundaries and minimize both military and community encroachment impacts.

The AICUZ and RAICUZ programs are intended to inform local and state agencies and other federal agencies, community groups, and the general public about the requirements of military flight operations, the military's efforts to reduce potential off-range impacts, and the military's recommendations regarding specific land uses within military operating areas.

Local governments have the ability to implement AICUZ and RAICUZ guidelines by reviewing and amending, when appropriate, local planning documents and policies. For example, a local Airport Land Use Compatibility Plan is required to be consistent with the safety and noise standards in the AICUZ of a nearby military airfield (PUC §21675(b)) . The use of AICUZ and RAICUZ recommendations by local governments, the ALUC, land owners, developers, and other agencies will ensure land uses are compatible with military operations.

The AICUZ and RAICUZ programs have been adopted by the Navy and the Air Force. Each service has their own instruction for implementation. OPNAVINST 11010.36C provides Navy policy, procedures, and guidelines for implantation of the AICUZ program and OPNAVINST 3550.1A does the same for ranges. The Air Force AICUZ program is defined in AFH 32-7084 and supplemented by AFI 32-7063.

Army Operational Noise Management Program (ONMP)

The ONMP is intended to promote compatible land use planning through the use of LUPZs based on noise levels. The primary purposes of the ONMP program is to protect the health and welfare of people from environmental noise generated by Army activities both on and off installations and reduce the impacts of Army generated noise on communities to the extent feasible without curtailing necessary Army activities.

Local planners should actively participate in the development of the noise zones for use in the ONMP. By providing Army planners with technical advice and information on land use plans within the vicinity of the installation community planners are encouraged to; inform and include neighboring military installations in the land entitlement process for projects proposed within or in close proximity to established ONMP zones. Strategies for inclusion could include inviting military counterparts to serve as ex-officio members of local planning boards and commissions, and providing information on land entitlement requests to the military installations for review and comment prior to local action. Following the completion of the ONMP, community planners are encouraged to review and amend, when appropriate, local planning documents (e.g, zoning ordinance, subdivision guidelines, building codes) and policies (e.g., general plan) to mitigate land use conflicts within and in close proximity to ONMP zones. ONMPs should be periodically reviewed in accordance with Army regulations. Substantial mission and operation changes warrant a thorough review of noise zones and their potential impacts to neighboring land uses.

Compatible Planning Practices (Continued)

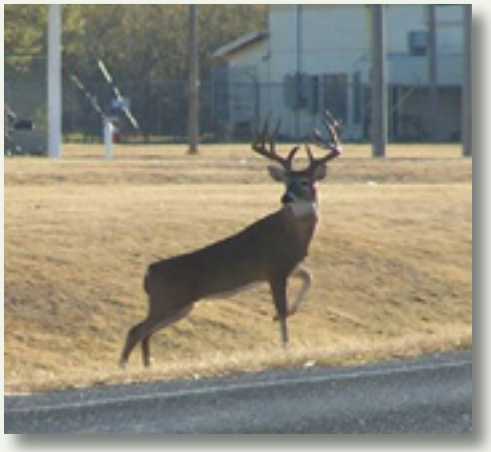
Natural Resources

Bird/Wildlife Aircraft Strike Hazard (BASH)

The BASH program is aimed at minimizing collisions between military aircraft and wildlife. Knowledge of wildlife movements and feeding patterns helps DoD avoid problem areas, and therefore save lives and avoid the destruction of valuable aircraft. The program considers not only wildlife within the confines of the airfield, but also in neighboring areas. The BASH program covers predatory birds, nuisance flocking birds (gulls), and migratory geese and ducks. In addition to birds, the BASH program also addresses other animals that could pose a hazard to aircraft operations including coyotes, deer, moose, and rabbits.

The main focus of BASH remains bird hazards. However, Wildlife Biologists from the Department of Agriculture's Wildlife Services Division in conjunction with the individual bases are beginning to treat each airfield as its own ecosystem. BASH programs are now based on each base's specific issues and requirements. National and international military and other public and private agencies have organized to promote educational, technical, and related research activities.

Development and implementation of an effective BASH program requires constant interaction between military sections covering natural resources, aviation safety, and air operations, as well as pilots, aircrews, and natural resource planners. Habitat modifications and scaring birds away from the runways is an integral part of the answer, but understanding the behavior and movements of birds in relation to the airfield environment and military training routes is also a critical factor in reducing bird strikes.



Integrated Natural Resource Management Plan (INRMP)

INRMPs are planning documents that allow DoD installations to implement landscape-level management of their natural resources while coordinating with various stakeholders. INRMPs are extremely important management tools that ensure military operations and natural resources conservation are integrated and consistent with stewardship and legal requirements. INRMPs are living documents that provide direction for daily natural resource management activities and are the foundation for sustained military training. This plan is based on ecosystem management and describes and delineates the natural resources and land use activities affecting land management and use. The plan defines the natural resource elements and the activities required to implement the base's stated goals and objectives for those resources. The DoD, with the assistance of the USFWS and state fish and wildlife agencies, is responsible under the Sikes Act (16 USC 670a-670f, as amended) for carrying out programs and implementing management strategies to conserve and protect biological resources on its lands.

Environmental Protection and Enhancement

The Environmental Protection and Enhancement Regulation, AR 200-1, provides a brief overview of army environmental programs and requirements. It does not provide a complete listing of requirements or detailed guidance on complying with environmental laws and regulations. This regulation supplements federal, state, and local environmental laws for preserving, protecting, and restoring the quality of the environment. It also integrates pollution prevention, natural and cultural resources, and NEPA into the Army Environmental Program.

Section 3

GUIDE TO UNDERSTANDING CIVILIAN LAND USE PLANS, PROGRAMS, NON-LOCAL AGENCIES AND PROCESSES

Section 3 Table of Contents

Section 3

GUIDE TO UNDERSTANDING CIVILIAN LAND USE PLANS, PROGRAMS, NON-LOCAL AGENCIES AND PROCESSES

The land use planning processes implemented by cities and counties in California provide many opportunities for collaboration between stakeholders to achieve common goals and objectives. In general, the planning process consists of an organized decision making system that ensures that specific actions (i.e., programs, policies, codes, regulations, and legislation) are directed toward actionable outcomes. The process is also often used to modify plans or regulations when new information becomes available or conditions change. In other words, planning is an adaptable, ongoing process that encourages stakeholder participation, and timely engagement in the process by the military can be a very effective mechanism for reducing and limiting encroachment.

To successfully engage with local communities and planning agencies, and potentially achieve improved land use compatibility and reduced encroachment pressures, military authorities and planners must first have a solid understanding of the planning processes, procedures, and decision making that occur at the local, state, and federal levels. This section describes the fundamentals of civilian planning in California, including plans and programs related to land use and development, the primary players involved (agencies, commissions, boards, etc.), and specific process flows and implementing actions. The focus is on describing planning at the local city and county levels, but the section also addresses some of the unique land use planning processes implemented by key agencies at the state and other federal (non-DoD) levels.

Local Planning Agencies

Key Plans and Programs

The following are the key plans and programs typically developed and maintained by local jurisdictions (i.e., cities and counties). Links to further details on the implementation of these plans and programs, as they relate to coordination between local and military planning processes, are presented for each planning tool.

General Plan

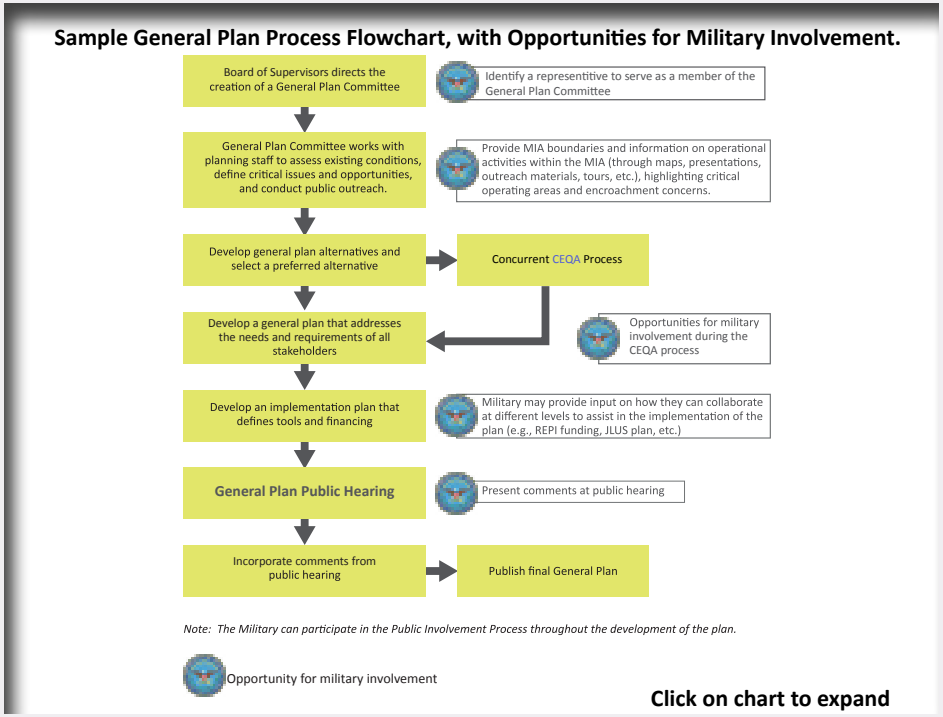
Every city and county in California is required by state law (GC §65300) to prepare and maintain a planning document called a General Plan (sometimes called a Comprehensive Plan). A general plan represents a long-term, comprehensive vision for the future of the jurisdiction and contains a thorough description of goals and development policies to guide the growth of the community. A general plan is the "constitution" to frame future development within a jurisdiction, and is designed to serve as the blueprint for future decisions concerning land use, infrastructure, public services, and resource conservation. All land use approvals (e.g., specific plans, subdivisions, public works projects, and zoning decisions) made by the city or county are required by law to be consistent with the general plan.

California requires that general plans include seven mandated elements: land use, housing, circulation, noise, safety, open space, and conservation. The local jurisdiction may combine or repackage these seven elements as long as the required topics are covered. The land use element is typically the most often used and cited element, although all elements are equal from a legal perspective. With respect to military compatibility planning, California GC §65302 (a)(2) requires that the land use element must "consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas."

Local jurisdictions may also include additional optional elements designed to address specific community issues or opportunities. Examples of optional elements include hazardous waste, energy, agriculture, historic preservation, economic development, urban design, and citizen participation. A separate and distinct military compatibility element or military readiness element may be added to the general plan as an optional element. This element would incorporate compatible goals, policies, and strategies for the local jurisdiction and military activities within the jurisdiction on issues of mutual concern and interest. The Supplement to the General Plan Guidelines for Military and Community Compatibility Planning provides more information on including military readiness into the general plan.

The housing element of a general plan must be updated every five years per GC §65588. There are no state mandates requiring that the other general plan elements be updated at specific time intervals.

The following comprehensive planning processes may be used to address compatibility between communities and military activities. For each of these comprehensive planning tools, the potential for collaboration with the military is similar.



General Plan Updates and Amendments

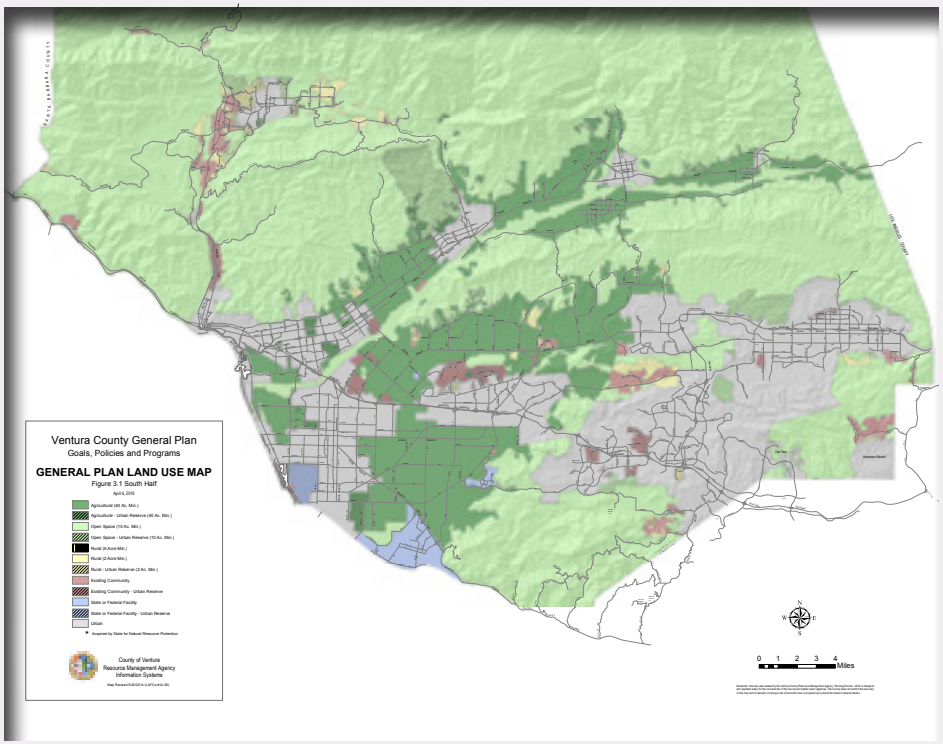
The most common sort of revision to a general plan is an amendment associated with a privately initiated development project, but they may be amended for other reasons and purposes as well. The General Plan Guidelines provide specific advice on how to update and adopt a General Plan. The general process for an update or amendment is similar to the process described in the generalized planning processes section. General plan adoptions or updates require a minimum of two public hearings. GC §65352(a) (State Planning Law) requires local governments to notify branches of the military when proposed general plan actions and amendments might have an impact on military facilities and operations. This notification process only applies to jurisdictions that meet one or more of the following criteria:

- located within 1,000 feet of a military installation;
- beneath a low-level flight path; or
- within special use airspace as defined in Section 21098 of the Public Resources Code.

Area and Community Plans

Area and community plans may be part of the general plan, and must be consistent with the general plan (Public Resources Code §21083.3). An area or community plan focuses on a particular region or community within the overall general plan area. These plans are commonly used in large cities and counties where there are a variety of distinct communities or regions. It refines the policies of the general plan as they apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning. The area or community plan process also provides a forum for resolving local conflicts. For example, the MIA of a local military installation could be used by the local jurisdiction to define a Military Area Community Plan.

An area or community plan is adopted by resolution as an amendment to the general plan, in the manner set out in GC §65350, et seq.



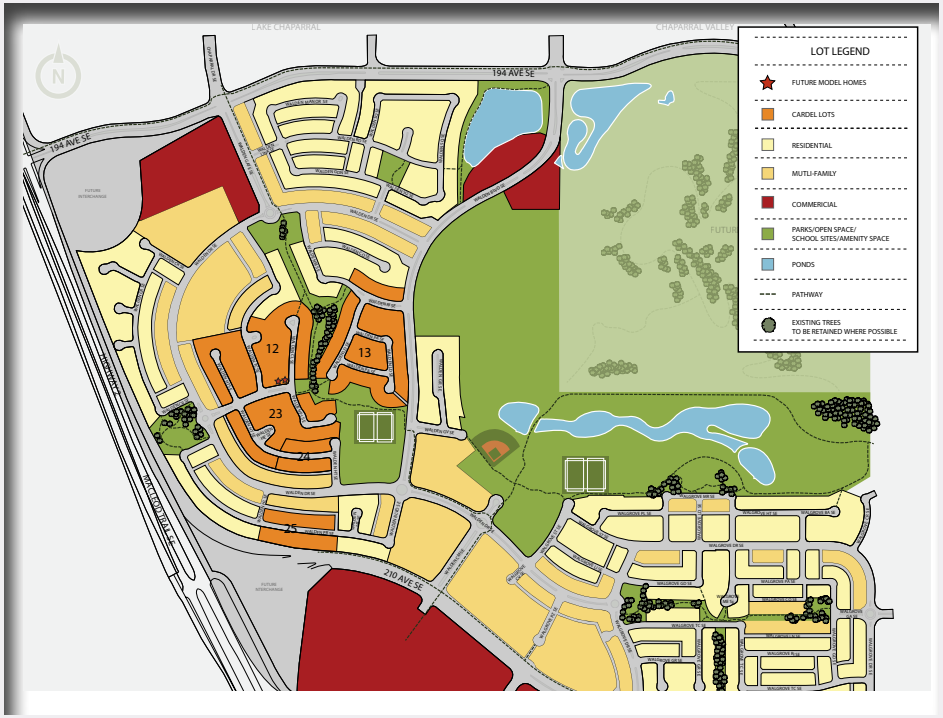
Specific Plans

A specific plan may be adopted for the "systematic implementation of the general plan for all or part of the area covered by the general plan (GC §65450)." The physical area covered by a specific plan is defined by the city or county. Often, specific plans are focused on a specific portion of the community, such as a neighborhood or district. Specific plans describe allowable land uses, identify open space, and detail infrastructure availability and financing for a specific area. In some jurisdictions, specific plans also take the place of zoning. A specific plan must be consistent with the general plan. In turn, zoning, subdivision, and public works decisions must comply with the provisions of the specific plan. Specific plans require a public hearing for approval. Specific Plans may be developer driven for a specific development project within a city or county. The specific plan process could be used by a local jurisdiction to prepare a Military Area Specific Plan, using the MIA boundaries of the local military installation as the planning area boundaries. More information on specific plans can be found in the Planner's Guide to Specific Plans.

In addition to the general, area/community plans, and specific plans, other important local planning tools include:

Zoning

The zoning ordinance (also referred to as a zoning or development code) is used to regulate the allowable types of land use within a particular area. The zoning ordinance is the principal tool used to implement the general plan. While the general plan provides broad policy direction on land use (the policy framework), the zoning ordinance provides the specific rules under which land can be developed and used. This includes standards for building setbacks, height restrictions, lot coverage, and design requirements. Adoption of the zoning ordinance, zoning changes, or amendments requires review at a public hearing (GC §65854).



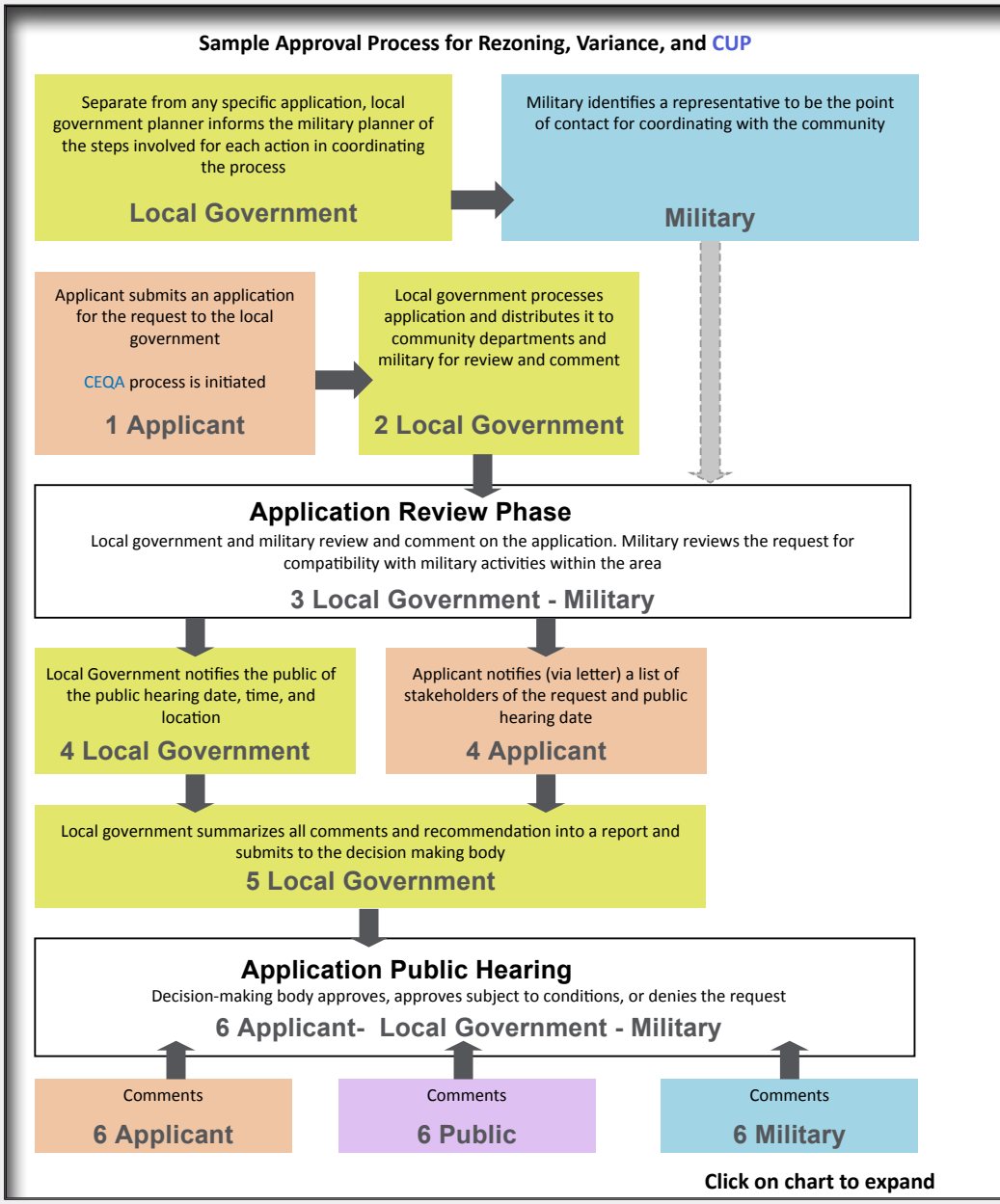
Rezoning

In general, in the rezoning request process, a request is made to amend the zoning map and/or text of a zoning ordinance to change the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel (GC §65860). In all cases, rezoning requests must be consistent with the General Plan.

The following are examples of different types of rezoning requests:

- Requests initiated by a city, county, private landowner or developer, or the military where appropriate.
- Applicant requests to delete or modify stipulations imposed by the zoning ordinance.
- Applicant requests to change a type of zoning district to another one that allows for a different use on a parcel of land.

The usual steps involved in processing a rezoning request are illustrated on this Figure and are described in detail in Section 4.



Subdivision Regulations

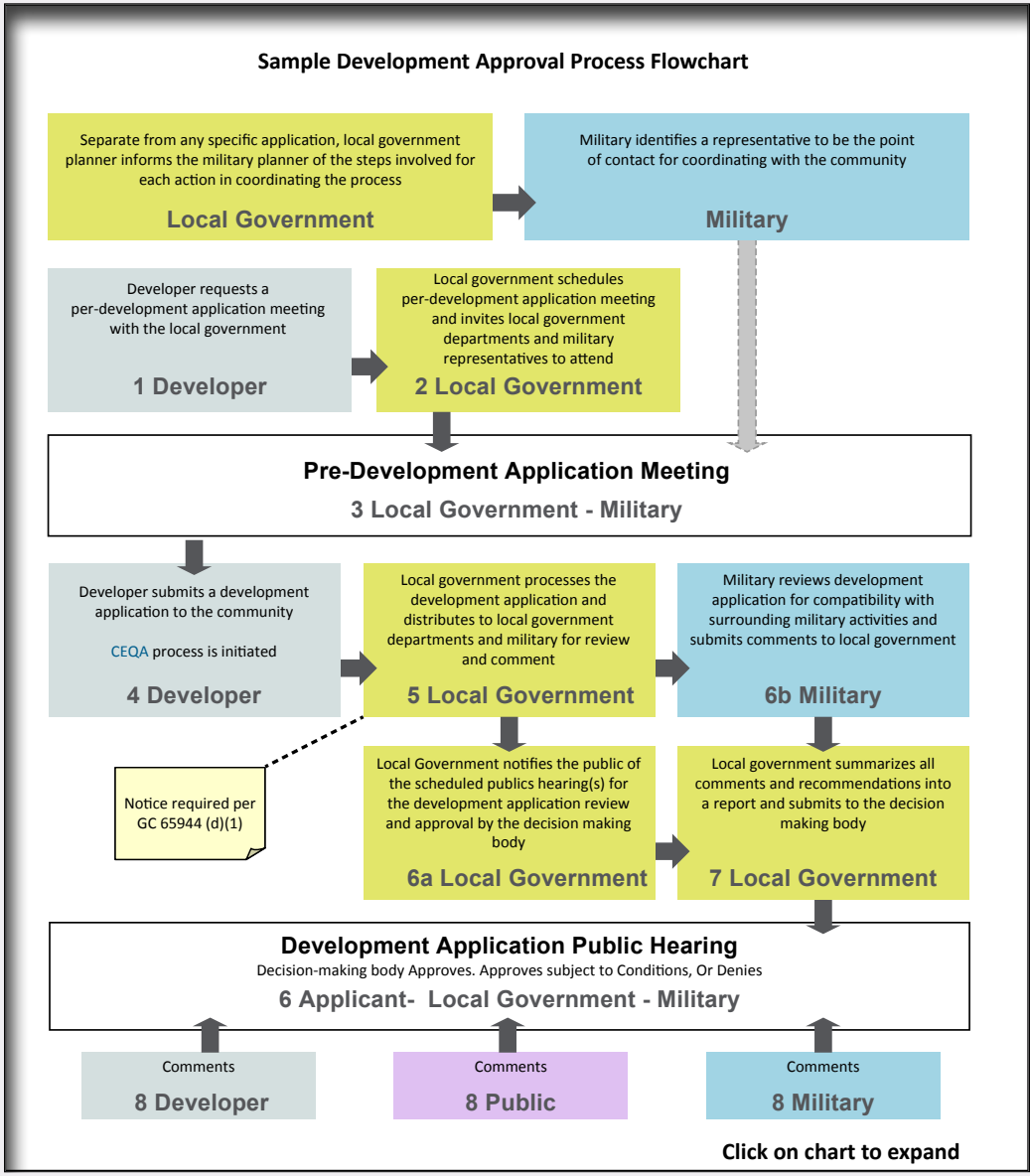
Subdivision map regulations control the division of property and detail the location of individual parcels/lots, road rights-of-way, and easements. The local jurisdiction will typically have a subdivision ordinance that guides the review and approval of new subdivisions based on the State's Subdivision Map Act (commencing at GC §66410). There are two types of subdivisions: parcel maps, which are limited to divisions resulting in fewer than five lots (with certain exceptions); and subdivision maps/ tract maps, which create five or more lots.

Development Approvals and Agreements

In the development approval process, a property owner or developer seeks approval for the development of land. The landowner or developer submits a development application for review and approval by the local government. Authorized officials of the local government are responsible for reviewing site plans, maps, and other documentation for a proposed development to determine its compliance with the local government's codes and plans.

The development review and permitting process is divided into two paths: ministerial (e.g., "over the counter") permits, and discretionary permits. Ministerial permits are typically authorized by staff and do not require a public hearing. Ministerial permits include land use permits and building permits, and are approved when the proposed development meets the specified zoning and planning requirements within that specific zone.

Discretionary permits require a public hearing, and thereby provide opportunities for the military to actively participate in the process. Discretionary permit types include rezones, variances, conditional use permits, and coastal development permits. Opportunities to provide valuable input into the decision making process are illustrated below.



The general steps involved in processing a discretionary development request are described below:

- ✓ Before submitting a development application for approval, the property owner/developer may request a pre-application meeting with the local government to identify any issues that may affect the approval of the proposed development.
- ✓ The property owner/developer submits a development application to the local jurisdiction.
- ✓ The local government makes the application and applicable CEQA documents available to applicable departments within the organization and other agencies, including the military as required by SB 1462 (GC §65944(d)), for review and comment.
- ✓ The local government is responsible for publishing/posting a public notice of any required public hearing. This notice will describe the proposed project and state the date, time, and location for the public hearing.
- ✓ Usually, two public hearings are held (i.e., a planning commission hearing and a city council or board of supervisors hearing) to discuss the development application.
- ✓ For items such as general plan amendments, the city council or board of supervisors must be the final approval. Depending on the local jurisdiction's practices, some development applications can be approved by the planning commission.

Where a public hearing is required, public notice must be given at least 10 days before the hearing (per GC §65090(a)). This can be done by advertisement in a newspaper of general circulation or by direct mail to the owners of property located within 300 feet of the proposed project's boundaries.

Two specific types of discretionary permits, CUPs and Variances, are discussed next.

Conditional Use Permits (CUP)

A locality's zoning ordinance describes uses that are approved by right within a certain zone, and allows for other uses that are approved conditionally. Individual uses that are allowed by right are often approved administratively by the planning staff if the project complies with the general plan, zoning, and other local regulations. In some localities, a separate design review may be required.

The CUP process enables the approval of land uses not routinely allowed on a particular site, or uses that require site-specific conditions because of their location or operating requirements.

Most CUP approvals require that two conditions exist to rule favorably on a use permit request. The burden of proof is with the applicant and the granting of a use permit is usually at the zoning administrator's or planning commission's discretion. The two conditions are that:

1. The use will not cause an adverse impact on adjacent property or properties in the area. Adverse impacts would include, for example: a significant increase in vehicular or pedestrian traffic in adjacent residential areas; emission of odor, dust, gas, noise, vibration, smoke, heat, or glare at a level exceeding ambient conditions; contribution in a measurable way to the deterioration of the area or contribution to the lowering of property values.
2. The use will be in compliance with all applicable provisions of the zoning ordinance.

A CUP is subject to a public hearing. If the project is approved, the developer must meet specific conditions designed to integrate the project with its surrounding environs. Often, a CUP must be renewed at certain time intervals, and it expires if the use ceases to exist on that parcel.

For compatibility planning with a military use, a jurisdiction could require a CUP to address specific issues of concern. For instance, a local government could require a CUP for uses over a certain height in areas under military flight paths.

The usual steps involved in processing a CUP are illustrated on Sample Approval Process for Rezone, Variance, and CUP.

Variances

A variance is a limited waiver from the requirements of the zoning ordinance. Variance requests are subject to a public hearing and may only be granted under special circumstances. Odd shaped lots or physical constraints on a site (topography) are common reasons for justifying a variance. Once approved, variances "run with the land", and therefore continue to be in effect for subsequent land owners.

A landowner may request a variance from the property development requirements and regulations of a zoning ordinance, if they can prove that adhering to the zoning regulations would impose a "hardship" upon them. The hardship cannot be self-imposed. The authorization of a variance would be necessary for the owner or applicant to enjoy reasonable and substantial property rights. (In other words, unless a variance is granted, the property cannot be used reasonably, in accordance with the applicable zoning district and development regulations.)

An area variance allows a deviation from the dimensional (i.e., height, bulk, yards) requirements of the ordinance. Use variances allow property owners to establish a land use on their property that would otherwise be prohibited based on the zoning district; however, use variances are not allowed in California.

The planning commission and/or board of supervisors must make specific findings in order to grant the variance request. Basically, they must find that the authorization of a variance will not be materially detrimental to persons residing or working in the vicinity, to the adjacent property, to the neighborhood, or to the public welfare in general.

A decision made in response to a variance request may have an adverse impact on military activities. For example, a variance may be granted on a property underneath an MTR, to allow a building or tower to be higher than the height allowed in the zoning district. To prevent this situation, collaboration with and participation by the military in a variance approval process (where the variance may impact the installation or its use) is suggested. A typical variance process is illustrated in this Figure.

Minor Grading Permits

Minor permits are examples of ministerial actions (approved administratively or "over the counter"). City or county staff issue these permits based on compliance with project conditions of approval (if applicable) and compliance with zoning and other local requirements (such as a grading ordinance). Typically, there is no formal public review prior to permit issuance, and no public hearing is required.

Generalized Planning Processes: Common Process Flows and Implementation Steps

Land use planning is a rational, sequential decision-making process performed through a series of well-defined steps, always encompassed by the specific political framework and climate of each individual public agency. The information generated during each step contributes to the efforts in the next step.

The common steps used in framing a planning process are illustrated in this Figure and described below.

Step 1: Participation

From the public planning perspective, a general plan is only as good as its ability to balance the competing interests involved. Just as a complete understanding of existing conditions is vital to the plan preparation, input from a full range of agencies, organizations, and interested persons (including from the local military installation) is critical. Early in the planning process and as part of this first step, the city or county should identify public members, stakeholder groups, public agencies, and others that are required to be involved in the planning process or have asked to be notified. Specific processes for updating and amending plans were discussed previously in this Section. Identification of key participants early in the process is important in all planning exercises.

GC §65351 requires public participation when updating or amending the general plan. The participation process should be used to integrate input from the public stakeholder groups, and the military, whenever appropriate. Members of the public can be involved in planning in a variety of ways. They can vote for local government officials who support their planning preferences; contact local officials about planning issues; participate in a neighborhood group; learn from and educate others in the community about planning issues; and participate in planning meetings, focus groups, advisory committees and public hearings.

Most local planning processes require public outreach, notice, and a hearing. A public hearing is open to everyone and offers the opportunity to learn about a proposed plan amendment, update, development, and to express one's opinions about the matter being discussed at the public hearing. Individual and organizations can request that their names be added to a local planning department mailing list to assure that they receive information about specific projects.

Public participation should happen early and throughout the planning process. As shown on the figure to the left, participation is not a single point in time, but an ongoing activity. This approach to participation provides:

- Identification of issues early in the planning process;
- Integration of alternative concepts;
- Opportunities to keep all parties involved and informed throughout the process; and
- Improved implementation because of participant support.

During the development and review of plans and projects, integration of military organizations and planners into the local planning process is a key component of successful compatibility planning. The Key Plans and Programs section goes into detail on the opportunities available for collaboration between local and military planners on a range of typical planning processes.

Step 2: Defining the Planning Area

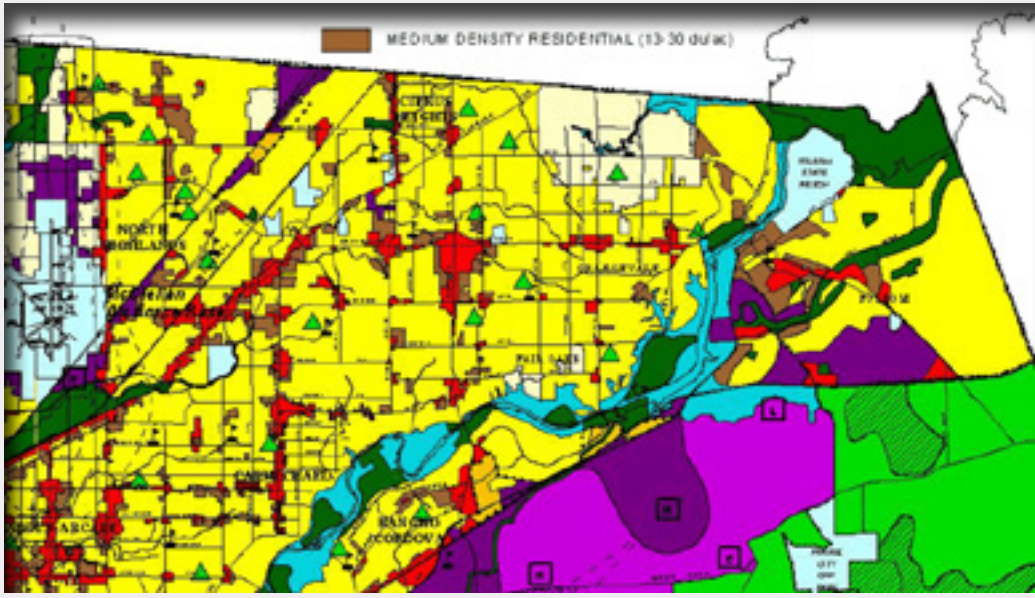
Defining the planning area is an important component in the planning process. On the local side, several political and jurisdictional boundaries are commonly used to define the planning area. These are described below.

Counties

The planning area for a county is usually all the unincorporated lands within the county's jurisdictional boundaries. A general plan must cover a planning area and address the broad range of issues associated with the jurisdiction's development (see the California General Plan Guidelines). While the general plan addresses the county as a whole, the jurisdiction for land use decisions can be divided into four generalized groups: (1) unincorporated areas, (2) unincorporated areas under state or federal management, (3) Native American trust lands, and (4) incorporated areas (cities).

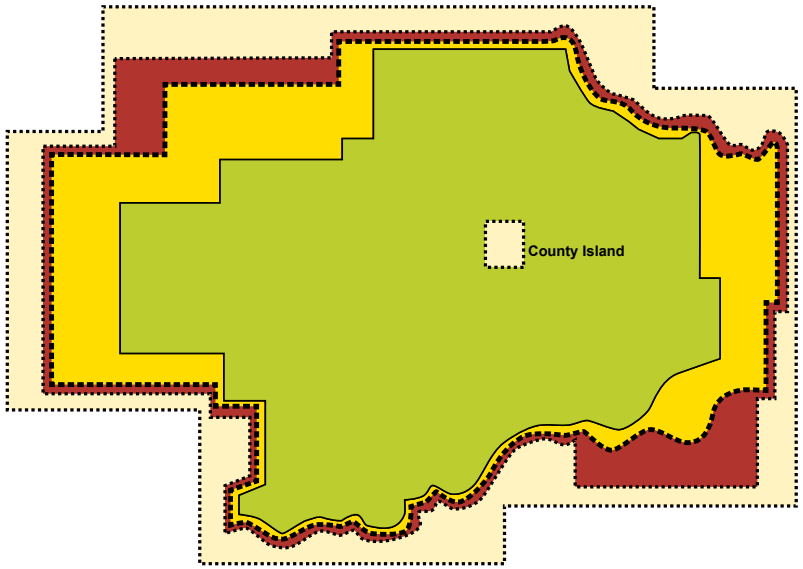
- **Unincorporated Areas**. Counties have the authority to make land use planning decisions for unincorporated land that does not fall into one of the other three following categories.
- **Unincorporated Lands under State or Federal Management**. Within many counties, the State of California and the federal government manage broad expanses of land. The CSLC and California State Department of Parks and Recreation are two agencies that manage property on behalf of the state. On the federal side, land management agencies include the DoD, the BLM, the NPS, and the USFS. The lands managed by these state and federal entities are not subject to county land use controls.
- **Native American Trust Lands**. Lands held in trust for Native American tribes are not subject to county land use controls.
- **Incorporated Areas (Cities)**. See the discussion on cities on the next page.

On a county's general plan land use diagram, unincorporated lands under state or federal management, Native American trust lands, and incorporated cities may be shown with a land use designation (such as "Public") or as an area with no designation.



Cities

A city's planning area usually includes all lands within official city limits, the city's sphere of influence, and any lands that are proposed for annexation. Cities have their own land use planning policies, programs, and procedures (general plan, zoning ordinance, etc.) that are used for land use decisions on property within the city limits. The diagram below shows the various boundaries discussed, including the city limits, the sphere of influence, and the planning area. In addition there may be "unincorporated islands" within a city's boundaries that are controlled by a county. The SOI and planning area outside of city limits represent areas where the county or city may have overlapping planning interests.



Current City Jurisdictional Boundary
Encompasses incorporated territory where land use is controlled by the city.

City's Sphere of Influence:
Adopted by the LAFCO, encompasses incorporated and unincorporated territory that is the city's ultimate service area.

City's Planning Area Boundary:
Encompasses incorporated and unincorporated territory bearing a relation to the city's planning. The planning area may extend beyond the sphere of influence.

Current County Jurisdictional Boundary

Relationship between a City and County Jurisdictional Boundaries, Planning Area Boundary, and Sphere of Influence.

The LAFCO in every county adopts an SOI for each city to represent "the probable physical boundaries and service area" of that city (GC §56001). Although there is no direct requirement that the SOI and the planning area match, the SOI provides a convenient measure of the city's region of interest.

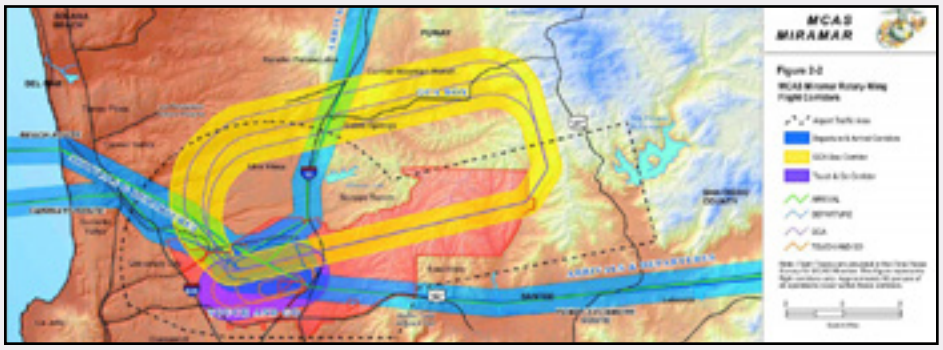
Military Influence Area

An MIA is a geographic planning or regulatory area that can be defined jointly by local governments and neighboring military installations. The MIA covers the areas where military operations may impact local jurisdictions and, conversely, where local activities may affect the military's ability to carry out its mission. Military planners should work with local city and county planning agencies to incorporate mapping and other aspects of the MIA into the general plan where appropriate.

Differing Guidance for Cooperative Extraterritorial Planning and Military Compatibility Planning

Since some planning issues cannot be confined to political boundaries, California law (GC §65300) provides for local planning agencies to plan for the physical development of land outside its jurisdictional boundaries if, in the planning agency's judgment, such development bears relation to its planning. Cooperative extraterritorial planning can be used to guide the orderly and efficient extension of services and utilities; ensure the preservation of open space, agricultural, and resource conservation lands; and establish consistent standards for development in the plans of adjoining jurisdictions. Guidance on this extraterritorial planning is targeted primarily at cooperative planning between local governments.

In the case of compatibility planning between local governments and the military, existing guidance is more limited. For example, although the military may include land use recommendations for local actions in an AICUZ study, the only statutory obligation that local agencies have (per PUC §21675(b)) is that any local ALUCP be consistent with the latest safety and noise standards in the AICUZ of a nearby military airfield. Otherwise, local agency implementation of other AICUZ recommendations is voluntary. However, local jurisdictions can override the recommendations, but in doing so assume the risks and liability associated with the action. Similarly, local policies and ordinances are not typically implemented or enforced within areas controlled by the military. The independent nature of jurisdictional authority presents challenges to a multi-jurisdictional planning process. However, these challenges are not insurmountable and can be overcome by a thorough understanding of each entity's unique planning processes, requirements, and a willingness to work cooperatively towards a common solution. Cities, counties, military installations, and state and federal organizations that manage lands can work together to delineate planning areas and may establish formal agreements for processing development proposals. Examples of this cooperative planning process (e.g., JLUS) are described in Section 4.



Step 3: Identification of Existing Conditions/Issues

The objective of this step is to develop a snapshot of the conditions, trends, and regulations that influence the planning area early in the planning process. Compiling this information involves reviewing existing studies and documents (e.g., existing specific plans, master plans, special studies (NCCP/HCCPs), and environmental documents) and contacting appropriate agencies and organizations. Use of the information on existing conditions should lead to a better understanding of the issues facing the area and to the development of a plan that helps local governments and the military address their issues.

During this identification step, the organizations involved should note who is contributing to the planning process and who is missing from the table. This is a good time to check that all agencies and organizations identified in Step 1 for inclusion in the process are accounted for and are actively involved.

Step 4: Evaluation

The following are the objectives of this step:

- Evaluate the range of issues and opportunities that were identified in Step 3 and exist in the study area that should be addressed by any resulting plan.
- Based on evaluation of issues and opportunities, develop a set of alternatives that will be considered in the selection of a preferred alternative.
- Conduct necessary analyses to gain a good understanding of the trade-offs associated with each alternative. Refine the proposed alternatives as needed to address the identified issues or impacts.

Step 5: Plan Development

In this step, the proposed plan is finalized. First, a draft plan is prepared for review and comment. This is followed by a final plan that is considered by the decision-making body. Public hearings or other public reviews are held during this step.

Step 6: Implementation

The overall objective of the planning process is to develop a plan that can be implemented successfully and achieves its stated goals. A separate implementation plan can be created, to break down the planning goals and strategies into actionable steps. The implementation plan can assist in identifying the staff resources and projected timelines needed to fulfill the desired planning goals and strategies. Example implementation plans: Sunnyvale and San Diego.

Step 7: Review and Revise (Adaptive Management)

Planning is a continuous process. As areas change in response to future conditions and trends, changing demographics, shifting land demands, or changes in military operations, long-range plans need to be reviewed and adjusted to maintain their relevance and effectiveness. Step 7 in the process is designed to build in this continuous feedback loop.

When local governments and the military work together on compatibility planning issues, they should periodically review the plans they produce to ensure that the agreements in place are still:

- Accurately portraying the planning environment,
- Effective at producing the desired results, and
- Relevant to current planning needs.

California Environmental Quality Act

Another key aspect of plan and/or project review in California is compliance with CEQA. The CEQA process provides information to a public agency as it considers approving or denying a proposed plan or development project. The CEQA process begins when a project is proposed and must be completed before a project can be approved.

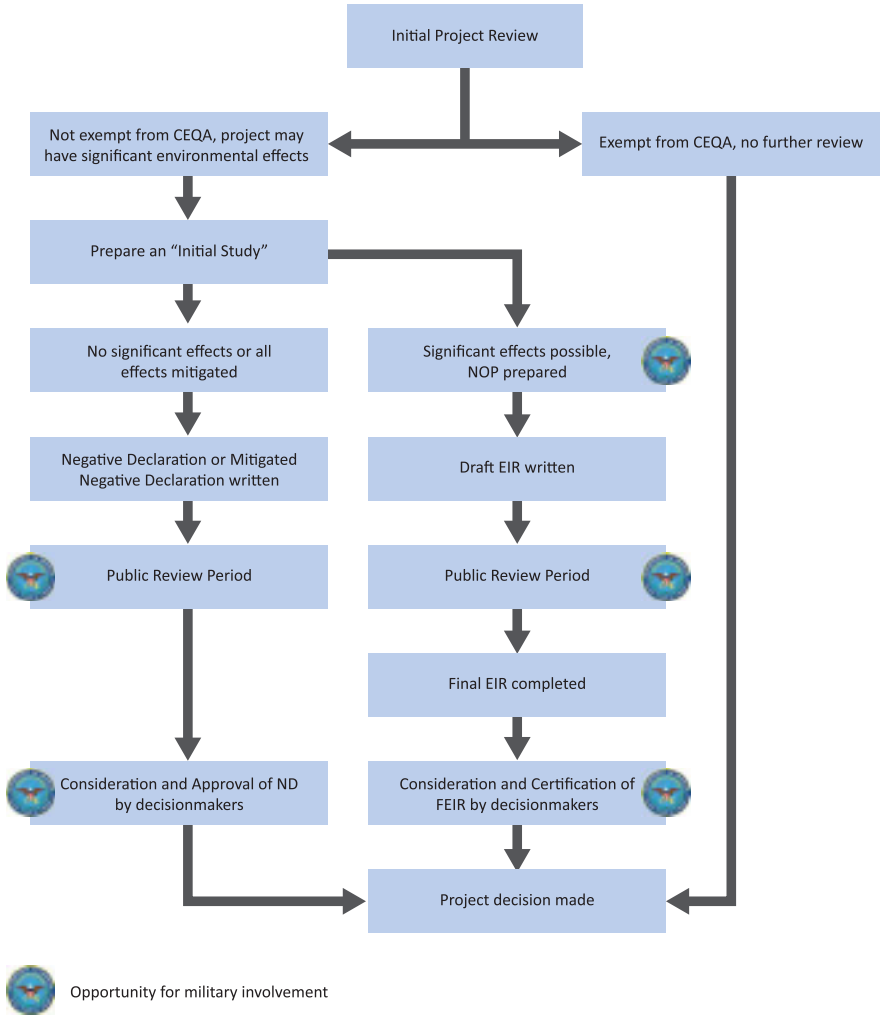
CEQA was enacted in 1970 to protect the environment by requiring public agencies to analyze and disclose the potential environmental impacts of proposed land use decisions. CEQA is modeled after NEPA, which was passed by the federal government in 1969.

The CEQA process requires public disclosure and input. Key benefits of the CEQA process include:

- It discloses to decision makers and the public the significant environmental effects of proposed projects.
- The act requires public agencies to consider the environmental effects of their permitting decisions before approval, and in a public forum.
- Ways to avoid or reduce environmental damage are identified during the CEQA analysis of a proposed project.
- The agency's justification for approval of projects that would have significant environmental effects is explained to the public.

CEQA applies to "projects" as defined by statute Public Resources Code §21065 and applies to both public projects and private projects that need public agency approvals. CEQA also allows for exemptions from the act for certain types of projects.

General CEQA Process Flowchart with Opportunities for Military Involvement



For any project subject to CEQA, the agency that has the authority to approve the project (the Lead Agency) must do a brief analysis of the environmental impact of the project (an Initial Study). If this analysis reveals that the project will have no significant environmental impacts, then the Lead Agency can prepare a Negative Declaration. If the Initial Study reveals that the project may have significant environmental impacts, but all the impacts can be mitigated to a less than significant level, a Mitigated Negative Declaration can be prepared. If significant impacts cannot be mitigated, the Lead Agency must issue a NOP and prepare an EIR. The EIR is a comprehensive analysis that includes a thorough discussion of environmental impacts, alternatives, and ways to mitigate the impacts. A Project EIR is the most common type of EIR (analyzing a specific land use project), but other types of EIRs may be applicable depending upon the nature of the project (e.g., Program EIR, Staged EIR, EIR Addendum, Joint EIR/EIS when a federal agency is a co-lead agency, etc.).

Public Resources Code §21098 requires that local jurisdictions provide a notice of availability of CEQA documents to the military when:

- projects are within the boundaries of a low-level flight path, military impact zone, or special use airspace and if the project includes a general plan amendment;
- the project is of statewide, regional, or area wide significance; or
- the project is required to be referred to the airport land use commission or appropriately designated body, as defined in the Code.

Based on this notice, the military can be involved early in the CEQA process by commenting on the negative declaration, mitigated negative declaration, or NOP. Each of these items has a mandated 30 day public review period. The NOP describes the project and lays out the Lead Agency's approach to the analysis that will be conducted in the EIR. This is an excellent time to express concerns that should be evaluated further in the EIR. Comments also can be made during the public review period for the draft EIR, which typically ranges from 30 to 45 days.

Planning Organization at the Local Level

The primary decision-making bodies for local governments are the City Council (cities) and the Board of Supervisors (counties). Depending on the city, city councils can be elected by districts or at-large. The mayor may be elected by a popular vote or appointed by a vote of the city council members.

Counties are usually divided into supervisorial districts, with voters in each district electing a board member to represent that district. For purposes of representation on the Board of Supervisors, the districts cover the entire county, including land within incorporated cities and land managed by federal agencies; however, the county's land use jurisdiction does not extend to lands within incorporated city boundaries or that are owned/managed by state, federal, or tribal entities.

Most cities and counties have a Planning Department run by a Planning Director that oversees the planning processes for the city or county, as well as dealing with private development applications. Some jurisdictions may combine planning activities within an Economic Development Department. In most local governments, the city council or board of supervisors also appoints one or more groups to assist in the review or approval of planning decisions. The following are some of the more common planning groups.

- The **Planning Commission** advises the city council or county board of supervisors on land use planning. It considers discretionary actions such as general plan amendments and specific plans, zone change requests, and major subdivisions. Commissioners serve at the pleasure of the council or supervisors, so commission membership may change as a result of changes in those bodies.

- The **Zoning Adjustment Board** or Zoning Administrator considers minor discretionary actions such as conditional use permits, variances, and other minor permits. Depending on the jurisdiction, this can be an administrative review panel headed by city staff, an appointed board, or these responsibilities can be handled by another board, such as the planning commission.

- The **Architectural Review** or **Design Review Board** reviews projects to ensure that they meet aesthetic standards or design guidelines established by the local government. For some jurisdictions, this function is handled by the planning commission or conducted as a staff function. Other jurisdictions have discrete review boards and required projects must be appraised by the board before going to the planning commission for review or approval.

- Local jurisdictions will often have a variety of **advisory technical committees** that provide input on specific topics of interest to that jurisdiction. Common topics include historic preservation, parks and recreation, and senior services.

The responsibilities and approval authority of these appointed groups can vary by jurisdiction. For instance, in some jurisdictions, a planning commission can approve a tract map while in others the planning commission only makes recommendations to the city council or board of supervisors. The responsibilities and approval authorities are delineated in the jurisdiction's regulating codes.

Some types of planning decisions have state-mandated approval processes. For example per GC §65354, general plans and general plan amendments must first be reviewed by the planning commission. Their recommendation is then forwarded to the city council or board of supervisors for a final decision.

Private Development

As part of the pre-application process, a pre-application meeting is common. The major difference is that the steps tend to be internalized within the developer's planning team during plan development. Most cities and counties have established pre-application processes for private development projects. During the pre-application process, a developer will consult with the local government planner to obtain a better understanding of local regulations and obtain preliminary feedback on the ideas being considered, the documents or studies to include with an application, and any other information the city or county will want included with an application. Developers may also begin conducting their own coordination with stakeholders and those potentially impacted by the proposed development. If a military installation or operations area is determined to be a potentially affected party, developers may choose to include military representatives early in the planning process, to reduce uncertainty in their project process and outcome. The early identification of potential conflicts is mutually beneficial as concerns can potentially be addressed prior to formal submittal of a project application, thereby saving the time and resources of the developer.

A pre-application meeting is common for most major development proposals. During this meeting, developers can review their initial plans with representatives from the local planning and public works departments. Other affected departments should also attend. Generally, this occurs during the preparation of a concept plan that articulates the developer's vision for the site, preliminary infrastructure concepts, amenities, character of the project, and functional relationships among the proposed land uses.

From this point, an application package can be submitted to the city or county based on the pre-application feedback. State law (SB 1462) requires that the applicant identifies as part of the application if the proposed project is located: (1) within 1,000 feet of a military installation, (2) beneath a low-level flight path, or (3) within SUA. City or county staff will review the submittal to determine whether the application package is complete. When deemed complete, the local jurisdiction is required to notify the appropriate military branch(es) of the proposed development. The development application process is also guided by the Permit Streamlining Act which places timelines on a jurisdiction deeming an application complete (GC §65943) and making a decision once the CEQA process is completed (GC §65950). In addition, certain development types, such as subdivisions, have mandated review timeframes. Before the development proposal can be approved, local planners must ensure that appropriate CEQA review and public hearings are completed.

Non-Local Agencies and Processes

Governor's Office of Planning and Research

The OPR was created by statute in 1970 (Chapter 1534) as the comprehensive statewide planning agency. The roles of OPR include intergovernmental relations (including the state CEQA clearinghouse function), local government planning liaison, environmental policy coordination, and research assistance for the Governor. OPR also has been assigned various other duties by statute and executive order; these are summarized below and can be found on OPR's website. These include the responsibility to develop this planning Handbook for local governments and military installations.

The following are the major activities of OPR:

- Recommending and implementing state policies with regard to land use and growth planning;
- Carrying out policy research for the Governor and Cabinet;
- Providing technical planning advice to local governments, and state agencies and departments;
- Advising local governments, the public, and government agencies and departments on provisions of CEQA;
- Operating the State Clearinghouse to distribute environmental documents for state review and process federal grant documents; and
- Conducting other activities at the Governor's direction.

However, OPR publishes General Plan Guidelines and various technical advice papers, and provides local jurisdictions with technical advice and assistance regarding planning and zoning regulations and CEQA compliance.

California Coastal Commission

The Coastal Commission was established by the California Coastal Act of 1976 to regulate and oversee coastal planning efforts along the coast. The Coastal Act (Public Resources Code §30000, et seq.) was enacted to "protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources". The Coastal Act applies to the coastal zone, a strip along the California coast generally "extending seaward to the state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea". The actual coastal zone boundary is delineated on a set of maps adopted by the Legislature and located at the Coastal Commission's San Francisco office.

The Coastal Act's policies are implemented through cooperative action between the Commission and local governments. A central feature of this joint action is the LCP. The Coastal Commission certifies the adequacy of LCPs, which include relevant portions of local general plans for jurisdictions in the coastal zone. With certain exceptions, development within the coastal zone is subject to a coastal development permit issued either by a local government pursuant to a certified LCP or, where no certified LCP exists, by the Coastal Commission. A city or county that lacks a certified LCP surrenders a good deal of planning authority within the coastal zone.

California Energy Commission

The CEC is the state's primary energy policy and planning agency. The Warren-Alquist State Energy Resources Conservation and Development Act of 1974 (Public Resources Code §25000 et seq.) created and gives statutory authority to the CEC. The CEC's Strategic Plan (2014) describes the Commission's mission, values statement, and goals. The governor appoints, with State Senate confirmation, five commissioners to staggered five-year terms. The commissioners must come from and represent specific areas of expertise: law, environment, economics, science/engineering, and the public at large.

The CEC is committed to reducing energy costs and environmental impacts of energy use – such as greenhouse gases – while ensuring a safe, resilient and reliable supply of energy. Seven core responsibilities guide the CEC:

- Forecasting future energy needs;
- Promoting energy efficiency and conservation by setting the state's appliance and building energy efficiency standards;
- Supporting energy research that advances energy science and technology through research, development and demonstration projects;
- Developing renewable energy resources;
- Advancing alternative and renewable transportation fuels and technologies;
- Certifying thermal power plants 50 megawatts and larger; and
- Planning for and directing state response to energy emergencies.

The Warren-Alquist Act mandated that the CEC develop and periodically update Building Efficiency Standards for the State of California. According to the CEC's 2016 Building Efficiency Standards, the CEC's 2007 Integrated Energy Policy Report established the goal that new building standards achieve "net zero energy" level by 2020 for residences and by 2030 for non-residential buildings. A "net zero energy" building consumes only as much energy on an annual base as can be generated with an on-site renewable energy system.

California Department of Fish and Wildlife

The mission of the CDFW is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for the ecological values and for their use and enjoyment by the public. California's wide range of topography, hydrology, and climate has given rise to a remarkable diversity of habitats that support a multitude of plant and animal species. California has more species than any other state in the U.S, and also has the greatest number of species that occur nowhere else in the world.

The California State Wildlife Action Plan 2015 Update examines the health of wildlife and prescribes actions to conserve wildlife and vital habitat. The plan also promotes wildlife conservation while furthering responsible development and addressing the needs of a growing human population. The CDFW is responsible for over one million acres of fish and wildlife habitat, managed through 711 properties throughout the California, comprising habitats from every major ecosystem in the state. The CDFW's Environmental Review and Permitting Programs implement sections of the California Fish and Game Code, California Code of Regulations, and other statutes and regulations. The Marine Life Protection Act of 1999 (CA FISH & GAME §2850-2863) aims to protect California's marine natural heritage through establishing a statewide network of MPAs. MPAs include state marine reserves; state marine parks; SMCAs; one State Marine Recreational Management Area, and special closures.

San Francisco Bay Conservation and Development Commission (BCDC)

The coastal zone excludes the jurisdiction area of the San Francisco BCDC. The BCDC performs activities that are similar to those of the Coastal Commission for areas within its jurisdiction.

California State Lands Commission

According to its website, "The CSLC is responsible for the management and protection of important natural and cultural resources on certain public lands within the state and the public's rights to access these lands." The public lands under the Commission's jurisdiction are of two distinct types: sovereign and school lands. Sovereign lands encompass approximately 4 million acres. These lands include the beds of California's naturally navigable rivers, lakes and streams. It also includes the State's tidelands and submerged lands along the California's more than 1,100 miles of coastline, extending from the shoreline out to three miles offshore. School lands are what remain of the nearly 5.5 million acres throughout the state that were originally granted to California by Congress in 1853 to benefit public education. The state retains surface and mineral ownership of approximately 473,000 acres of these lands and retains the mineral rights to an additional 790,000 acres."

California State Department of Parks and Recreation (State Parks)

California State Parks is responsible for 280 miles of California's coastline, and manages an area of nearly 1.4 million acres contained within 270 park facilities. The state parks are managed using the 2013-2014 Strategic Action Plan.

In addition, there are general plans for each facility, some of which are not yet available online.

California Department of Transportation (Caltrans)

As owner/operator of the State Highway System, the mission and vision of Caltrans is to improve mobility across California. Caltrans is charged by federal and State statute to undertake a continuous statewide planning process, which includes considering access to military installations and operation areas. Coordinating State and local transportation planning is a key to the success of a local agency's general plan circulation element, and it reflects the vital integration of transportation and land use. Caltrans also assists in compatibility planning with aviation resources. The Airport Land Use Planning Handbook, prepared by the Caltrans Division of Aeronautics in 2011, supports implementation of the State Aeronautics Act (California PUC §21670 et seq.), which established statewide requirements for the conduct of airport land use compatibility planning. In addition, it serves as the primary source of information regarding compatibility plans.

Federal Land Management Agencies

Federal and state agencies manage a wide range of lands within California. To successfully manage these lands, each agency prepares, maintains, and implements plans that describe the utilization and preservation of the land and its resources.

Military installations and operation areas often are adjacent to, or use, lands and airspace within areas managed by these agencies. The management plans of State and federal agencies and the implications they have on military operations are important components in the overall picture of military compatibility planning.

Several agencies have land management responsibilities in California, but the primary land managing agencies are the USFS, BLM, NPS, CSLC, and the California State Department of Parks and Recreation.

United States Forest Service

The USFS is the agency of the US Department of Agriculture, charged with managing public lands in national forests and grasslands. According to the USFS website, the mission of the USFS is "to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations."

The USFS is organized into 9 regions covering the United States. Region 5, the Pacific Southwest Region, is made up of lands within California and Hawaii. In California, the USFS currently manages lands in 18 national forests covering almost 21 million acres. California also contains one national grassland area.

The USFS has worked closely with the military to ensure compatible development on Forest System lands."

Bureau of Land Management

The BLM is a bureau within the US Department of the Interior. Its mission is to "...sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." According to the BLM, they currently manage over 15 million acres of public lands in California. This equates to about 15 percent of the state's land area.

A summary of existing BLM land use plans in California can be found here.

National Park Service

The mission of the NPS is to preserve "unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations." In California, the NPS manages 27 national parks. The largest land areas are within the seven national parks (Channel Islands, Death Valley, Joshua Tree, Lassen Volcanic, Redwood, Sequoia and Kings Canyon, and Yosemite) and the Mojave National Reserve.

Federal, State, and Local Collaboration – "Bringing It All Together"

Collaboration is the foundation for the implementation of a successful compatibility program. Collaboration allows for shared leadership, vision, informed decision making, ownership, and responsibility. It also allows participants to discover new solutions.

Many factors support this foundation for successful implementation. These include:

- Buy-in from stakeholders;
- Support from decision makers at all levels;
- Sufficient staffing / manpower resources;
- Sufficient funding resources;
- Realistic time schedule; and
- A workable and collaborative process. Collaboration should be a constant factor throughout a given process, from the development through the implementation of a plan.

The most successful collaborative planning efforts consist of a proactive and ongoing outreach and partnering effort, to establish personal connections with agency partners and to create effective processes and solutions.

A plethora of different local, state, and federal agencies collaborate to ensure compatible development and sustainable land use within California. The specific planning and land-use tools available to local jurisdictions and military planners to work toward and achieve compatible growth are discussed in detail in Section 4.

Section 4

Strategies and Tools for Improving Land Use Compatibility

Section 4 Table of Contents

Section 4

Strategies and Tools for Improving Land Use Compatibility

Overview

This section describes a variety of useful planning tools, policy suggestions, and procedural tips that have been proven successful in improving military land use compatibility under widely varying conditions. Think of it as a Compatibility Planning Toolbox that can help you explore different ideas and planning options and adapt them to meet your specific needs.

There is no guaranteed, "one size fits all" planning solution, strategy, or textbook example for how best to address land use compatibility issues between local jurisdictions and the military. Each of California's cities and counties has unique perspectives and policies related to community development and growth objectives, and each military branch, installation, and asset has a unique mission, operational profile, and perspective on which land uses would or would not be compatible in specific locations and circumstances. Because of these varying and dynamic parameters and their role in defining the challenges at hand, compatibility planning typically requires a combination of approaches and each of them requires collaboration, creative implementation, and ongoing monitoring and maintenance to achieve success.

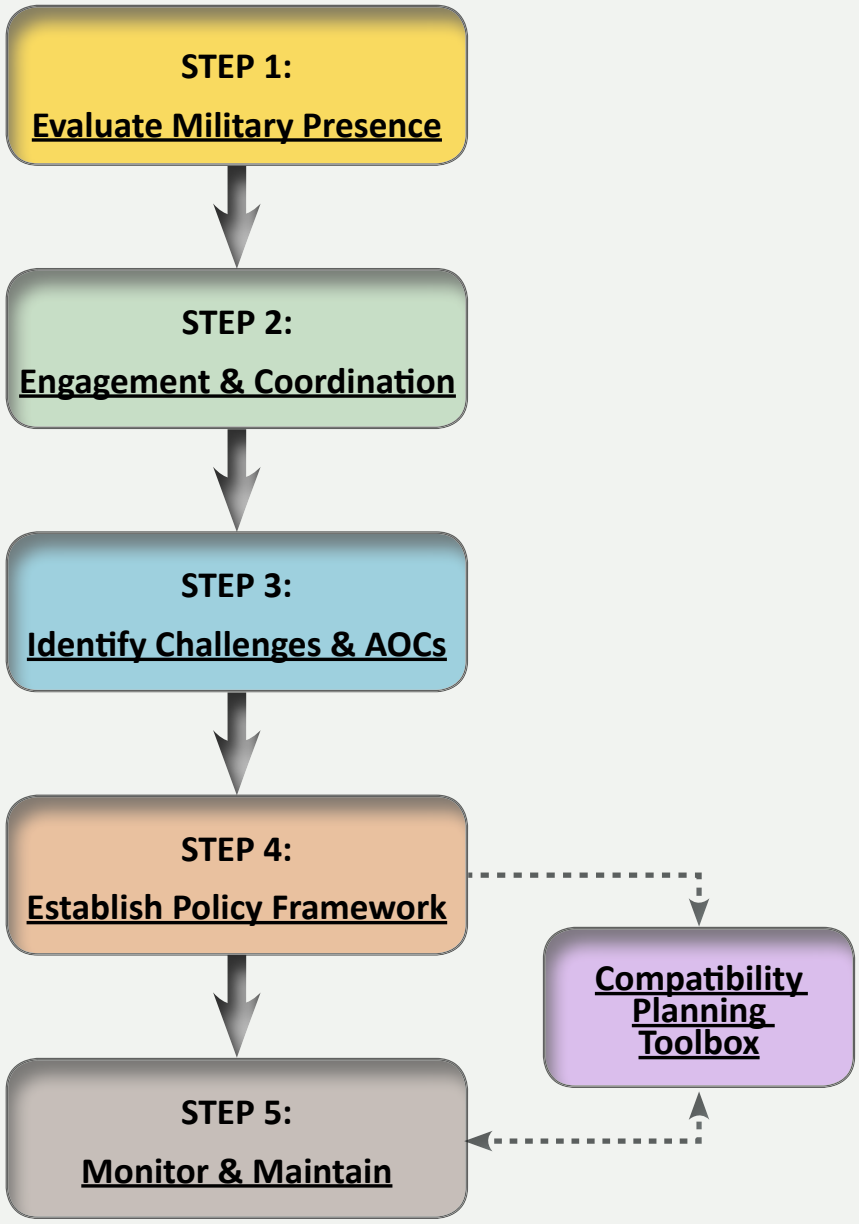
While there is no shortcut way to resolve military compatibility issues, we can recommend a generalized, common sense process flow that encourages the exploration and understanding of each stakeholder's goals and perspectives. This process will enable you to adapt to varying conditions, and can help to identify the specific tools and methods that would be most effective in your specific situation. By following each of the steps in this *Compatibility Planning Process* and reviewing the contents of the *Compatibility Planning Toolbox* later in this section, you'll be well on your way to achieving land use compatibility. You will also be able to sustain the local military presence in compliance with state regulations, while meeting local community development and quality of life objectives.

Compatibility Planning Process Flow

The purpose of the Compatibility Planning Process described here is to establish a contextual framework for the tools and techniques presented later in the Compatibility Planning Toolbox, and to promote a solid understanding of why, when, and how to effectively apply these tools. The flowchart depicts a fundamental 5-step process for achieving land use compatibility near military installations and operating areas. This process framework explains how to:

- Evaluate whether or not there is a military presence in your area that requires consideration of land use compatibility planning (Step 1).
- Engage and coordinate with your counterparts on the other side of the military fence line to understand each other's perspective, and to foster a productive relationship going forward (Step 2).
- Identify the nature of the encroachment challenges that could arise if measures are not taken to plan for land use compatibility with local military activities and, perhaps most importantly, identify which areas are most susceptible to each type of concern (Step 3).
- Establish a sound policy framework to support the successful implementation of compatibility solutions (Step 4).
- Monitor the effectiveness of your planning solutions and adapt to changing conditions to maintain compatible land use over time (Step 5).

To explore the steps in the process flow diagram shown here, hover over each step to reveal a brief summary of the step, and click on each step's title to open a more detailed description and specific recommendations in a new window.



(Hover over an individual step box to reveal a brief explanation about that step.)

Step 1 – Evaluate Military Presence

The first step in the compatibility planning process is to evaluate the presence of military facilities and activities within your jurisdiction. People often associate military land uses only with respect to the local military installation in their region when, in fact, there are many different types of military operating areas. The military requires and utilizes large expanses of land, air, and sea space beyond installation boundaries to accomplish testing, training, and operational missions. For a better understanding of the types of military assets and operations, see Section 2.

The CMLUCA website is an effective tool to determine which military resources are near a proposed project site or within a specific jurisdiction. CMLUCA was developed by OPR to allow users to identify a project location (or other area of interest) using a single point location, and then running a query to determine if any military assets are on, under, or adjacent to the location selected. The program can also be used to find flight paths, military bases, and airspace within a city or county. This project locator tool is available for use by local planners, permit applicants, and developers to easily determine if a project triggers military notification requirements.

Additional information on CMLUCA as well as other mapping resources found in Appendix A may aid in the identification of local military assets and operational areas.

If there is a military presence within your area of interest, and the details of the military assets and/or operations have been identified, the next step in the compatibility planning process is to contact pertinent local military personnel to begin understanding shared land use concerns and potential approaches for promoting compatibility.

Step 2 - Engagement & Coordination

Once you've determined in Step 1 that there is an active military presence in your area, the next step is to initiate or continue direct engagement and coordination with your counterparts on the other side of the military fenceline. Such coordination remains an essential component of every one of the remaining steps in the Compatibility Planning Process. More broadly, it can also contribute substantially to your efforts to support national security, promote a more inclusive sense of community, facilitate good planning practices, and encourage economic stability and sustainable growth.

Depending on your situation and perspective, there are several good reasons why you would want to and may need to initiate engagement and develop a close working relationship. For example there may be opportunities for the military and local governments to work together on combined infrastructure projects, affordable housing, etc. in a way the reduces future encroachment and should be identified early in the planning process.

Local Planner and Decision-Maker Perspective

Regular engagement with military authorities provides an opportunity to:

- ◊ confirm or expand your understanding of and support for your local "military presence" (Step 1);
- ◊ understand the primary and secondary sources of military encroachment challenges and where they are most likely to occur (Step 3);
- ◊ identify effective planning/policy solutions (Step 4); and
- ◊ define common interests and achieve mutual objectives (Section 1).

Developer/Landowner Perspective

Engagement and coordination with local military authorities can help you to understand in advance:

- ◊ what types of land use are and are not compatible with the military presence;
- ◊ any site-specific constraints that may reduce your chances of project approval and increase the costs of project design/development and CEQA compliance; and
- ◊ any site-specific opportunities for future development that are more cost effective to plan and more likely to be approved.

Military Perspective

Regular outreach and engagement with the local community (including planners, decision-makers, and the general public) is essential to being a good neighbor. It can also provide valuable opportunities to:

- ◊ influence planning/policy solutions that will reduce or minimize future encroachment;
- ◊ implement mitigation measures to reduce current encroachment;
- ◊ facilitate NEPA compliance for future proposed actions on base; and
- ◊ identify common interests and achieve mutual objectives (Section 1).

Identifying Who To Contact

If you're not sure who to contact to initiate engagement and coordination, or are not sure how to find out who to contact, here are some recommendations:

- *If you are a Community Member:* see the list of Military POCs in Appendix A for specific names and numbers at CA military installations. Most installations also have a public website that will contain POCs for key offices/departments. When in doubt, a good place to start is the Public Affairs Office.
- *If you are a Military Member:* check the Directory of California Planning Agencies on the OPR website for POCs at local planning departments or contact OPR directly. Depending on your specific need, most organizations will have a website that typically includes an organizational chart and contact lists. Other recommendations to reach out to community assets include:
  - ◊ For contacting other local government agencies: try the website for the local City Hall or County Administration office, Planning Department, or Economic Development Department.
  - ◊ To find contacts associated with local business and land use development activities: look for websites for the Chamber of Commerce, or various professional business/industrial/real estate organizations.
  - ◊ Local colleges and universities may have POCs that have been collecting data and doing research on local business trends, land use development trends, or environmental conditions/constraints. Try contacting academic departments such as Geography, Urban and Regional Planning, Economics, Business Administration, Environmental Studies, etc.
  - ◊ For military personnel that want to donate some of their time and expertise in the community: check websites for local charity organizations; local police, rescue, or emergency services departments; or youth organizations and sports leagues.

Ideas for Initiating Outreach and Engagement

You can get the ball rolling with outreach and engagement in a variety of ways:

Local Elected Officials and Planing Staff

- ◊ Invite the installation CO or other command representative, or a department head (e.g., Public Affairs, Public Works, etc.) to attend or speak at a board of supervisors, city council, or planning commission meeting, or for a "get to know you" visit to City Hall, the County Administration Building, etc.
- ◊ Invite local military members to participate in community events, parades, etc.
- ◊ Invite military planners or encroachment managers (or similar) to participate in planning sessions, retreats, luncheons, etc.
- ◊ Coordinate with local charity organizations or youth organizations to reach out to military personnel concerning participation in local events or volunteer opportunities.

Military Members

A great resource for ideas on public engagement is the Commander's Guide to Public Outreach.

- ◊ Consider joining local committees and attending board of supervisors, city council, or planning commission meetings and providing an introductory briefing about the installation and its mission.
- ◊ Conduct periodic installation tours for local authorities or the general public.
- ◊ Encourage personnel to coach local teams, volunteer at local charity events, etc.

Each year, OPR distributes the Annual Planning Survey to the planning department of every city and county in the state. The survey asks for basic information on the status of each jurisdiction's planning efforts, such as the year of the most recent comprehensive update to required and optional General Plan elements. The survey also explores in greater depth the policies and programs that jurisdictions are implementing, including land use planning efforts specific to the military. Information provided via the survey may help prioritize the order in which jurisdictions are engaged and inform goals and strategies.

Step 3 - Identify Challenges and Areas of Concern

Once initial engagement and coordination has occurred and a relationship has been established between appropriate local, regional, and military participants, it is important to work together to identify the specific risks and sources of encroachment. The geographical AOCs that are currently or could potentially be subject to encroachment challenges must be understood by both military and civilian planners, as well. For targeted solutions to be developed there must first be an understanding of the potential challenges, how they could manifest themselves, their likelihood and potential for resulting in encroachment impacts, and the specific locations where each type of challenge is applicable. In addition, it is important to understand the benefits of avoidance and mitigation of each issue and how to measure success. None of these characteristics of the unique challenges in a particular community or region can be sufficiently identified or understood without the close collaboration that was initiated in Step 2 of this process.

Section 2 of this handbook discusses in detail some of the potential challenges that contribute to encroachment. One of the most common challenges the military faces is incompatible development of noise-sensitive land uses in areas where military-generated noise (e.g., from aircraft, weapons firing) could impact people, animals, structures, or other land uses. For example, development of a school, nursing home, or other noise-sensitive land use in an area with high noise levels from aircraft overflights could lead to complaints, pressure to modify or suspend operations, and other impacts to the military mission. Impacts to military operations may include the creation of avoidance areas, prohibition of training events, restricted flight altitudes/airspeeds/timing, and suspensions or delays in conducting testing and training events.

Such impacts would be relevant in AOCs where noise levels are highest; therefore, planning solutions to avoid incompatible land uses can be applied to these areas. A variety of planning tools and policies have proven successful in reducing or eliminating impacts from incompatible land use development, including land acquisition, sound attenuation, and real estate disclosures. The Compatibility Planning Toolbox lists potential tools that could be used to address these types of challenges.

Another common challenge is created by vertical obstructions, meaning buildings and other structures that encroach into navigable airspace used by the military. Vertical obstructions present a safety hazard to both the public and military personnel and potentially impact military readiness. For example, a 100 foot communications tower could potentially become an encroachment issue if it is built underneath an airspace with a floor that extends to the ground surface. Pilots within this type of airspace are frequently flying at very low altitudes and very high speeds. Therefore, trying to avoid vertical obstructions increases flight safety risks. Such challenges are very site-specific depending on the nature of the military operations in a given area, so the definition of the AOC on a map is essential to the application of specific avoidance measures or other solutions. There are a variety of tools that could be implemented to reduce or eliminate impacts from vertical obstructions including land acquisition and establishing height limits.

One challenge that is becoming more prevalent is alternative energy development. Impacts to military operations may include reduced operational security, training distractions, and reduced testing and training flexibility as a result of factors such as noise, light pollution, increased human presence, frequency spectrum interference, and vertical obstructions.

Examples of conflicting energy uses include wind energy farms consisting of tall wind turbines that can obstruct the military airspace, or offshore energy platforms that can impact military testing and training on off-shore ranges and operating areas. Some types of solar facilities incorporate towers over 600 feet tall and some facilities have been planned with towers of several thousand feet. In addition, glint or glare from solar facilities could cause visual impacts to pilots. There are a variety of tools that could be implemented to reduce or eliminate impacts from alternative energy development, including land acquisition and establishing height limits.

Once again, a key part of identifying and understanding potential encroachment challenges and any potential solutions involves identifying the geographic footprint of the AOC for each challenge, which can only be identified through coordination with local military authorities.

Step 4 - Establish a Policy Framework

California statue requires that each county and city in the state of California adopt a comprehensive, long-term general plan for the physical development of their jurisdiction, and of land within the jurisdiction's sphere of influence.

Objectives, policies, goals, and proposals in the general plan provide the basis for local government decision making on the growth and development of the community. When guiding the growth and development of a jurisdiction it is important to also consider compatibility with local military operations.

By adopting a clear, succinct, and adaptable policy framework within the general plan, landowners and developers have an opportunity to better understand the ground rules that guide development in their community with regard to military operations. In turn, the military gains the assurance that their activities will be protected and their mission can continue. The policy framework provides the structure by which the local jurisdictions consider impacts of new growth on military readiness activities carried out on military bases, installations, and operating and training areas.

After evaluating your jurisdiction for military presence and further defining the challenges, opportunities and areas of concern through engagement and coordination, language should be adopted in the general plan through the general plan update process. The policy framework should be written in a way that allows for future flexibility if unknown or unanticipated concerns should appear, but would also provide legal defensibility to manage potentially incompatible development. The ideal policy framework will not only acknowledge, but help preserve military operating areas by encouraging and promoting compatible land uses. The success of the policy framework is predicated on the implementation of specific measures (e.g., planning tools) that build upon the established concerns, goals, policies, and actions.

The following lists land uses of greatest concern that should be considered when developing the policy framework.

- ✓ Uses that physically obstruct any portion of the military operating area due to relative height above ground level.
- ✓ Uses that release into the air any substance such as steam, dust, or smoke which would impair instruments or other military operations.
- ✓ Uses that produce light emissions, glare, or distracting lights which could interfere with nighttime operations.
- ✓ Uses that create electromagnetic interferences that may impact the research, development, testing, and training of instruments or other military operations.
- ✓ Uses that emit a Doppler effect that may interfere with the research, development, testing, and training of instruments or other military operations.
- ✓ Uses that create vibrations that may interfere with the research, development, testing, and training of instruments or other military operations.
- ✓ Uses that restrict access to outlying military facilities.
- ✓ Uses that may impact military operations based on location within the MIA that could pose a health or safety hazard to the public and/or military personnel.

Step 5 - Monitor & Maintain

After collaborative planning relationships have been established (Step 2) and the policy framework is in place (Step 4), the key steps to long-term sustainability of military activities are to maintain the relationships and participate in any future plan updates or amendment processes and to monitor future development for potential incompatibilities. Monitoring and maintenance would continue in perpetuity, to ensure that any future development meets the needs and constraints of both the local jurisdiction and the military installation.

Monitor

Why is it important to monitor potential development?

If a new or unanticipated type of project is proposed that could impact military operations or activities, then discovering the potential problem as early in the process as possible is essential. Once a problem or issue is discovered, the military planner may be able to work directly with the developer/landowner and local planning staff to resolve or mitigate the conflict. If this is not possible or feasible, then the military planner can utilize the public involvement opportunities provided within the CEQA process and the public planning processes (for example, when the project is heard before the planning commission) to voice concerns about incompatibilities with military operations.

Concurrently, the local and military planners can work together to evaluate the existing policy framework, in light of the new type of development or unanticipated conflicts. The policy framework may need to be modified or expanded to reduce conflicts and promote compatible development in the future. Additionally, the policy framework may be adequate, but specific planning tools may be applied that relate to the unique needs, values, and constraints of the local jurisdiction and relate to the type of incompatible development that may arise in the future.

How should future development be monitored?

The military planner can monitor potential or proposed development in several ways:

- ◊ Ensure that notifications from the local planning agencies are being received, and are reviewed in a timely manner.
- ◊ Review upcoming agendas for the planning commissions, boards of supervisors, and other local planning groups.
- ◊ Regularly review public notices in print media and public agency websites, to be aware of upcoming planning processes, CEQA public comment periods, and other potential projects or public input opportunities.

Are there any successful examples of potentially incompatible development that was discovered through project monitoring activities?

These case studies provide successful examples of monitoring activities that resulted in compatible development projects through coordination and consultation with the local jurisdictions, state and federal agencies, and landowners/developers:

Ocotillo Express Wind Energy Development

Salt Creek Cellular Tower Construction

Sunrise Powerlink Transmission Line Project

Maintain

Why is it important to maintain collaborative planning relationships?

It takes time to build trust and a sense of community cohesion, and it takes much more effort to initiate engagement and create a solid working relationship than it does to keep it going. That initial investment will be wasted if you don't take steps to maintain the relationships. So put it on your calendar to check in with your military or community counterpart every few months, or better yet make it a priority to participate regularly in meetings and other opportunities for ongoing collaboration. You never know when the next development proposal or other potential source of military encroachment will come along and require coordination and problem solving, so it is best to proactively maintain a productive working relationship.

How should relationships be maintained?

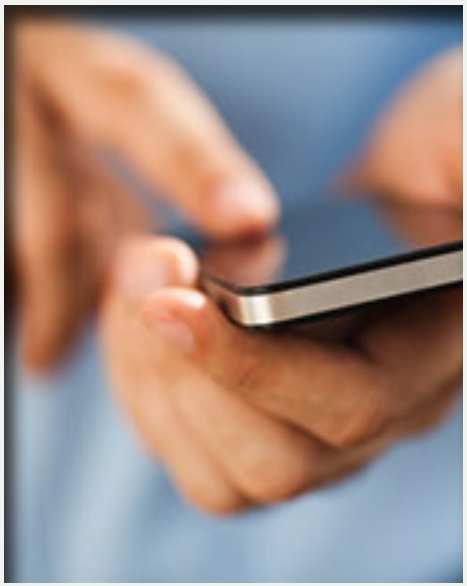
The military planner should continue to stay in touch with local planners and decision makers (planning commissioners and boards of supervisors) through public planning processes and directly with individuals. Examples and suggestions of methods include:

Public planning processes

- ◊ Attend public hearings and forums on relevant planning topics/ projects.
- ◊ Sit on technical advisory committees.

Individually/directly

- ◊ Schedule formal or informal meetings at regular intervals, to review any current or potential issues, discuss future needs, provide updated resources (for example, new GIS data, new economic survey data, etc.).
- ◊ Call or email to discuss specific development projects or plans.







Recommended Methods and Tools for Achieving Compatibility

There are numerous planning tools available to the military and communities that can be used at different stages of the process to address compatibility issues. Communities and military installations should select the tool or combination of tools that are appropriate for their situation and needs.

These planning tools are not meant to stop development from occurring, dictate a specific planning approach to be taken, or reduce the military's ability to conduct training activities and achieve its mission. The purpose of these tools is to mitigate existing and potential conflicts and facilitate land use compatibility, thereby sustaining military readiness and reducing impacts on local communities.

Each of the planning tools are presented in the Compatibility Planning Toolbox. Each tool is cross-referenced by the potential compatibility challenges that each tool may address. Further details on each of these challenges can be accessed by clicking on the challenge name within the table or by going to Section 2.

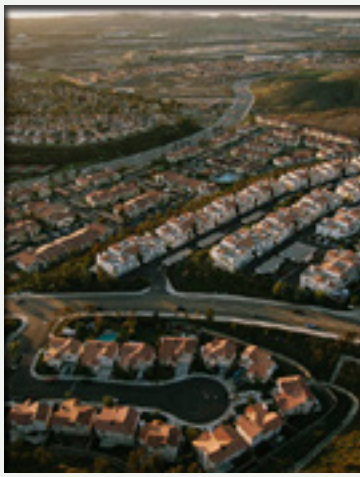
There are four main categories of planning tools: 1) Acquisition, 2) Conservation, 3) Development Restrictions, and 4) Good Practices.

Further information on each implementation tool can be accessed by clicking on the tool name within the table. Information provided for each tool includes the following:

- **Overview.** Each planning tool is defined using a widely accepted definition. The purpose of each planning tool is presented, with an emphasis on using it to mitigate conflicts between communities and military installations and operation areas.
- **Case Studies/Examples.** When available, case studies will be listed, to highlight BMP, provide lessons learned, and give other useful information from past examples. Resources and references provide additional or more detailed information on each planning tool. A link to each case study/example will be provided. Please contact the OPR if you have ideas for good case studies that may be included to assist community and military planners.
- **Challenges Addressed.** The potential encroachment issues that the tool may be most effective in managing are listed.
- **Limitations.** The practical limitations related to the planning tool are also presented, to help the reader comprehensively understand the benefits and drawbacks.
- **Tool Tips.** Ideas to help streamline the process based on experience.

Compatibility Planning Toolbox

		Compatibility Challenges											
		Sensitive Uses	Vertical Obstructions	Noise	Vibration	Dust, Smoke, or Steam	Light and Glare	Public Trespassing	Alternative Energy	Frequency Spectrum	Local Housing Availability	Infrastructure Extensions	AT/FP
Acquisition	Purchase or Lease Land	●	●	●	●	●	●	●	●	●	●	●	●
	Acquire Development Rights	●	●	●	●	●	●	●	●	●	●	●	●
Conservation	Conservation Easement	●	●	●	●	●	●	●	●	●	●	●	●
	Conservation Plans	●			●	●		●	●	●		●	●
Development Restrictions	Light & Glare Controls						●					●	●
	Sound Attenuation	●		●								●	
	Height Limits		●				●		●	●		●	●
	Subdivision Design Review	●	●	●								●	●
	Military Zoning Overlays	●	●	●					●	●			
Good Practices	Real Estate Disclosures	●		●	●	●					●		
	JLUS	●	●	●	●	●	●	●	●	●	●	●	●
	MOU/MOA	●	●	●	●	●	●	●	●	●	●	●	●
	ALUCP	●	●	●									



Purchase or Lease Land

Overview

Purchasing or leasing land eliminates land use incompatibilities through real estate transaction and the local development process. Purchasing or leasing land is particularly effective because it advances the complementary goals of shifting future growth away from military installations, and preserves community assets such as agriculture, open space, rural character, or sensitive natural habitats. Land use compatibility issues can be addressed by:

- Creating a land barrier between active military installation or training facilities and local land uses;
- Shifting future growth away from critical military lands;
- Protecting public safety by directing incompatible uses to other locations;
- Protecting the natural environment;
- Maintaining and protecting existing agriculture resources; and
- Conserving open space.

Potential land strategies for purchasing or leasing land include:

Fee Simple Purchase – This option involves purchase of property and is typically the most costly method to protect open space, sensitive, or critical areas. Cost and the need for a willing seller can be constraints.

Fee Simple Purchase with Leaseback – This is established when a government agency purchases the full title to a property, and then leases it back to the previous owner. The land's natural resource and open space values are protected through lease controls that restrict land uses.

Eminent Domain – A local government can use the power of eminent domain to appropriate private property for public use, in exchange for payment of fair market value, through the process of condemnation.

Lease – In cases where the landowner does not want to, or cannot make a permanent commitment, this may be a way to control land uses for a short timeframe. Leases can be obtained by government agencies or jurisdictions, non-profit organizations, land trust, or private entities.

Case Studies/Examples

- Travis AFB Protection Element
- Lakeside Downs Land Acquisition

Challenges Addressed

- Sensitive Uses
- Vertical Obstructions
- Noise
- Vibration
- Dust, Smoke, or Steam
- Light and Glare
- Public Trespassing
- Alternative Energy
- Frequency Spectrum
- Local Housing Availability
- Infrastructure Extensions
- AT/FP

Purchase or Lease Land
Continued

Limitations

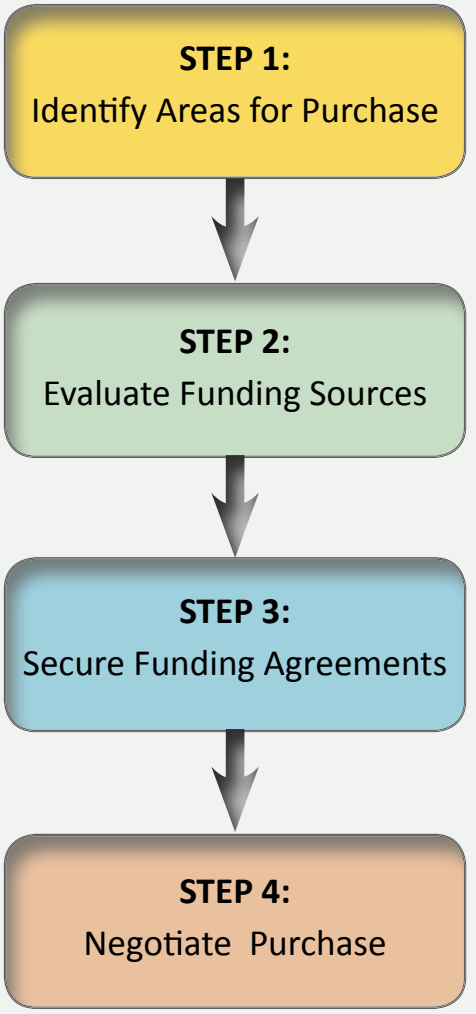
- Purchases can be expensive for local governments without the assistance of federal, state, or non-government organizations.
- The federal government cannot spend more than the appraised value to purchase or lease land.
- Certain types of purchases or leases can be complex and administratively challenging, requiring the local government to make a strong commitment to administering the program and educating residents and developers on its use.

Resources

- Potential Acquisition Funding Sources
- ACUB
- REPI
- Sentinel Landscapes
- Land Trust Alliance
- Mojave Desert Land Trust
- North American Land Trust
- California FarmLink
- The Land Conservation Act
- Uniform Appraisal Standards for Federal Land Acquisitions

Tool Tips

- Even if funds are available for the purchase of property, future maintenance costs should also be considered and factored into any acquisition decision.
- Obtain professional appraisals for the value of the rights to be purchased.
- Follow the guidelines in the Uniform Appraisal Standards for Federal Land Acquisitions (see Resources).



(Hover over an individual step box to reveal a brief explanation about that step.)

Acquire Development Rights

Overview

As an alternative to purchasing land outright, a variety of mechanisms exist to acquire development rights on privately-owned parcels and thereby establish a buffer of compatible land use near a military installation or operating area. Future incompatible development on a parcel may be restricted by the purchase, transfer, donation, or relinquishment of the owner's development rights.

PDR programs enable owners with a vested development right to sell the right to develop their property to state and local governments and nonprofit organizations. The development rights associated with a parcel of land can be individually purchased from the bundle of rights that go with the land which include the right to possess, use, develop, lease, or sell the land. This agreement is recorded on the land title and permanently limits the future use of the land as stated by the PDR agreement.

TDR programs can also be used to relocate potential development from areas where proposed land use would be incompatible with military operations (the donor site) to another area (the receiver site). The receiver site would be chosen on the basis of its ability to accommodate development with minimal encroachment potential.

Landowners may sometimes be interested in donating development rights to a non-profit organization or public agency to support habitat conservation, reduce tax liability, or to preserve the land for future generations.

Some restrictions can be obtained during property entitlements as a condition of approval or as environmental mitigation. Deed restrictions can also be voluntary dedicated or purchased by the military in cooperation with non-profit organizations. Deed restrictions are usually created and imposed on lots at the time of subdivision or during development review.

Related: Conservation Easement, Purchase or Lease Lands

Case Studies/Examples

- Monterey County Zoning - Transfer of Development Rights
- Victory Village

Challenges Addressed

- Sensitive Uses
- Vertical Obstructions
- Noise
- Vibration
- Dust, Smoke, or Steam
- Light and Glare
- Public Trespassing
- Alternative Energy
- Frequency Spectrum
- Local Housing Availability
- Infrastructure Extensions
- AT/FP

Acquire Development Rights
Continued

Limitations

- The implementation of PDR and TDR programs can be complex and administratively challenging, requiring the local government to make a strong commitment to administering the program and educating residents and developers on its use.

Resources

- Realtor Field Guide to TDRs
- Tahoe Regional Planning Agency TDR Program
- The TDR Handbook: Designing and Implementing Transfer of Development Rights Programs
- Defense Authorization Act Title 10-2684a

Tool Tips

- A related but indirect way to restrict incompatible land uses would be to acquire the water, air, or mineral rights on a particular parcel.
- Make sure that TDR programs do not have the unintended consequence of creating incompatible land uses that impact the military mission in other parts of the jurisdiction or state.

STEP 1:
Identify Areas of Interest

STEP 2:
Find a Partner

STEP 3:
Secure Funding

STEP 4:
Negotiate Terms

(Hover over an individual step box to reveal a brief explanation about that step.)

Conservation Easement

Overview

Conservation easements, also known as a restrictive use easements, are used to preserve the natural, scenic, historic, agricultural, or open space value of land by keeping it in its current state. The owner retains ownership of the property and the right to sell or deed the property to another. The owner also retains the right to use the property for economic gain or recreation as long as the use is allowed by the conditions of the easement. Donation of a conservation easement can reduce estate, income, and property taxes for the owners.

Conservation easements are implemented through a legally recorded agreement that specifies a series of restrictions on the use of the land. In the agreement, the owner transfers to a public agency or nonprofit organization certain rights that will restrict land uses on the property in the future. Since the easement is generally granted in perpetuity, it is necessary for an outside party to be responsible for monitoring and maintaining the easement. The outside party holds the easement and is required to monitor and enforce the terms of the easement. Easements are usually held by local government agencies, land trusts, or other nonprofit organizations designed for this purpose. Since personnel are needed to monitor and maintain easements in perpetuity, easement donors are often required to provide financial support for the easement if it is held by a nonprofit organization. Designating both a government agency and a nonprofit or land trust as co-holders of the easement is an alternative selected by many landowners.

While conservation easements can indirectly benefit the military by restricting incompatible development, the primary purpose of such easements is resource conservation. Military installations sometimes help establish conservation easements outside the fence line to mitigate environmental impacts of projects on base or to reduce regulatory pressures related to threatened/endangered species and habitat within military boundaries.

Case Studies/Examples

- Travis AFB Case Study
- San Diego PACE
- Lompoc Valley Farm Conservation Easement

Challenges Addressed

- Sensitive Uses
- Vertical Obstruction
- Noise
- Vibration
- Dust, Smoke, or Steam
- Light and Glare
- Public Trespassing
- Alternative Energy Development
- Frequency Spectrum
- Local Housing Availability
- Infrastructure Extensions
- AT/FP

Conservation Easement
Continued

Limitations

- Conservation easements do not offer protection from eminent domain. If land under easement is taken through eminent domain, both the landowner and the easement holder must be compensated.
- When several individuals own a property, all owners must agree to place the easement. If the property is mortgaged, the mortgage holder must also agree to place the easement.
- An easement may be granted for a specific term or in perpetuity; however, in order for a landowner to take advantage of the tax benefits of a donated easement, it must be given in perpetuity.

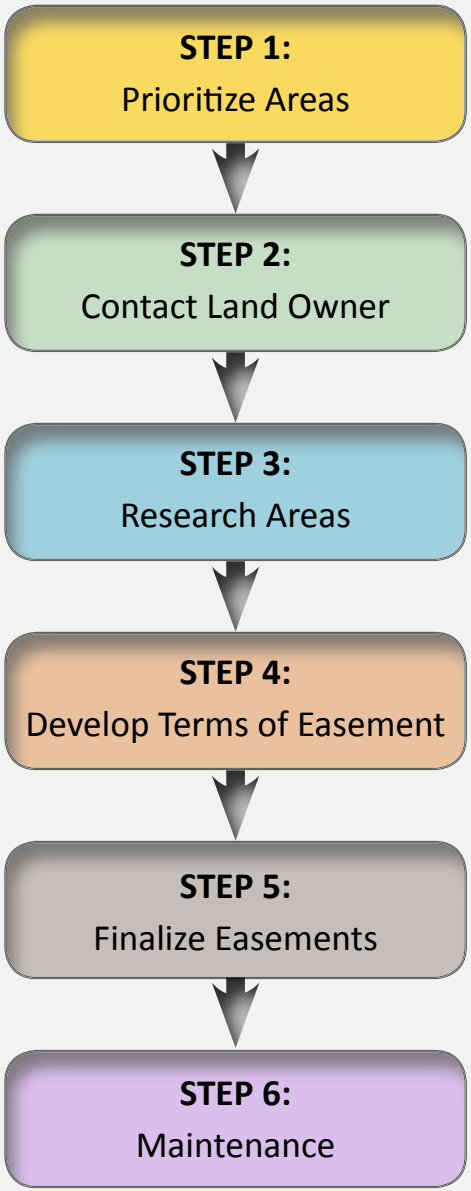
Resources

- CA Department of Conservation
- American Farmland Trust
- Land Trust Alliance
- Trust for Public Land
- National Park Service
- The Conservation Fund
- The Nature Conservancy
- The Conservation Easement Handbook
- Sierra Business Council
- League of Cities' Institute for Local Self Government

Tool Tips

Look for opportunities to partner with other organizations for multi-benefit easements. For example local tribes may be interested in protecting areas for the preservation of tribal cultural resources and sacred sites. Natural resource and habitat conservancies may be interested in partnering on easements for the protection of habitat. Both may have the benefit of protecting the mission of the military in a particular area.

- California law allows for easements for specific purposes that may assist partners or land owners to enter into easements.
- Conservation Easements are legal documents so advice from legal council is recommended when entering into easement agreements. (Civil Code Section 815-816)
- Conservation Easements are legal documents so advice from legal council is recommended when entering into easement agreements.



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Conservation Plans

Overview

The California Natural Community Conservation Planning Act and the Federal Endangered Species Act allow for the development of NCCPs and HCPs, respectively. The primary objective of the NCCP and HCP programs is to conserve natural communities at the ecosystem level while accommodating compatible land use. The programs seek to anticipate and prevent the controversies and gridlock that can be caused by species' listings. Instead, they focus on the long-term stability of wildlife and plant communities. The programs also include key stakeholders in the development process for the plan.

An NCCP is a California program that identifies and provides for the regional or area-wide protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.

An HCP, pursuant to §10(a)(1)(B) of the Federal Endangered Species Act, is a document that supports an incidental take permit application. Incidental take permits help landowners legally proceed with activities that might otherwise result in illegal impacts to a listed species.

There are many incentives for local governments to participate in the NCCP and HCP processes. They provide greater predictability and control for land development in their jurisdictions because local governments with approved plans can receive permits for the incidental take of species covered by the plans. The NCCP and HCP processes can also assist communities to assemble biodiversity reserves that provide open space, aesthetic, and recreational benefits.

Additional Habitat Conservation Tools

- Safe Harbor Agreements
- Candidate Conservation Agreements
- Conservation Banking

Case Studies/Examples

- Tijuana River National Estuarine Research Reserve

Challenges Addressed

- Sensitive Uses
- Vibration
- Dust, Smoke, or Steam
- Public Trespassing
- Alternative Energy
- Frequency Spectrum
- Infrastructure Extensions
- AT/FP

Conservation Plans
Continued

Limitations

- One of the most difficult issues for the preservation of natural habitats is funding. Habitat acquisition in fast-urbanizing areas can be expensive.

Resources

- California DFG, Natural Community Conservation Planning
- USFWS Habitat Conservation Plans Overview
- National Audubon Society: A Citizen's Guide to Habitat Conservation Plans
- Habitat Conservation Plans: A New Tool to Resolve Land Use Conflicts

Tool Tips

- NCCPs and HCPs should include measures that, when implemented, minimize and mitigate impacts to the designated species to the maximum extent possible, and the means by which these efforts will be funded.
- Most of the deliberation surrounding the development of a habitat conservation plan centers on the delineation and configuration of the proposed reserves, the funding available to finance the plan, and the determination of which entities or organizations will have management responsibilities to manage the habitat once it is obtained.

STEP 1:
Teaming & Stakeholder Coordination

STEP 2:
Define Plan Parameters

STEP 3:
Secure Funding and Management

STEP 4:
Prepare the Plan

STEP 5:
Maintenance

(Hover over an individual step box to reveal a brief explanation about that step.)

Light and Glare Controls

Overview

This tool is designed to address significant light sources that can cause unwanted spillover lighting, interference with nighttime operations, or glare. At the local level, light and glare can be reduced through design and placement requirements in a zoning code, a stand-alone ordinance, specific development conditions, or modifications to existing lighting fixtures. The intent of these controls is to establish and define permitted and prohibited lighting practices to limit the obtrusive aspects of light and glare. To be effective, control standards must be well written, fully implemented, and enforced. Effective standards can virtually eliminate glare and significantly reduce the amount of light escaping into the night sky.

From a land use compatibility standpoint, both installation and community land uses and activities can have light and glare impacts on each other that should be considered when reviewing projects. Communities should be particularly cognizant of glare impacts on air operations, which may originate from water bodies, glass on buildings, and even vehicle windows in parking areas.

Lighting should be evaluated on a case-by-case basis in areas of the community with different developed and natural conditions. Varying conditions will result in location-specific lighting needs to reduce adverse impacts associated with these conditions.

Case Studies/Examples

- City of Palm Desert Outdoor Lighting Requirements
- County of Santa Barbara Land Use & Development Code
- County of Riverside Ordinance Regulating Light Pollution

Challenges Addressed

- Sensitive Uses
- Light and Glare
- Infrastructure Extensions

Light and Glare Controls
Continued

Limitations

- Some lighting conditions can be difficult or impractical to mitigate, such as lighting for athletic fields and tennis courts. This should be considered when siting these uses. Mitigation measures such as requiring timed lights or limiting the hours of lighting may apply in these cases.
- Implementation and enforcement of a lighting code will have impacts on planning and code enforcement staff. In addition to the time required to review materials related to lighting, and on-site follow-up to verify compliance, the staff will need to develop some familiarity with lighting terms and how to reliably evaluate the effectiveness of mitigation methods.

Resources

- International Dark Sky Association, Model Lighting Ordinance
- Flagstaff, AZ Dark Skies Coalition, Dark Sky Solutions

Tool Tips

- Reduction in glare and light intrusion can be achieved through lighting codes. Lighting codes should cover overall light reduction, focused lighting, shielding, and utilizing appropriate lighting types.
- Enforcement is required to ensure conformance with the standards of the lighting code. Monitoring code compliance after the project is completed is also recommended.

STEP 1:
Identify Sources of Light & Glare

STEP 2:
Awareness & Education

STEP 3:
Draft Language

STEP 4:
Incorporate Standards into Zoning Code

(Hover over an individual step box to reveal a brief explanation about that step.)

Sound Attenuation

Overview

Sound attenuation refers to special construction techniques and materials designed to lower the amount of noise that penetrates the windows, doors, and walls of a building. Such measures can be effective to reduce noise levels emanating from military activities and associated annoyance. High noise and annoyance levels near an installation or operating area can lead to increased complaints and, eventually, encroachment on military activities. Sound attenuation measures can reduce the impact of military-related noise to nearby residents and the general public, and thereby reduce pressures to modify or eliminate military activities that produce noise.

The first choice in noise attenuation is avoidance. When possible, noise sensitive uses should not be located close to military installations or noise sources. Some land uses are more sensitive to noise, including residential development, schools, hospitals, etc.

Sound attenuation standards are generally implemented through local zoning and building codes. Local building officials, inspectors, and planners should be familiar with their use and applicability in land use compatibility situations.

Related: Real Estate Disclosure

Case Studies/Examples

- City of San Diego Noise Element

Challenges Addressed

- Sensitive Uses
- Noise
- Infrastructure Extensions

Sound Attenuation
Continued

Limitations

- Retrofitting of existing structures can be expensive and cost-prohibited in certain instances.
- Different types of sound attenuation measures have varying degrees of effectiveness in terms of sound reduction potential. Application of several different measures can yield a larger cumulative reduction in noise levels.

Resources

- Guidelines for Sound Insulation of Residences Exposed to Aircraft Operations
- Caltrans Highway Traffic Noise Abatement

Tool Tips

- At the community level, avoiding the placement of noise sensitive land use designations in high noise environments is recommended.
- Military planners can assist local entities in determining areas appropriate for sound avoidance and attenuation.
- When evaluating noise impacts on sensitive receptors, remember to look at acceptable levels for outdoor spaces as well as indoor space.

STEP 1:
Identify Areas

STEP 2:
Develop Applicable Attenuation Measures

STEP 3:
Incorporate Standards into Zoning Code

(Hover over an individual step box to reveal a brief explanation about that step.)

Height Limits

Overview

Height limits are an effective tool in areas surrounding a military installation or operating area where the height of structures, towers, utility and other infrastructure, etc., could interfere with military activities. Military planners and operators can identify key areas and requirements to help define the parameters of any height limit restrictions. Height limits should be implemented via updates to local general plans and zoning codes. Such limits can be enforced through the permit approval process for proposed developments.

The intent of these controls is to establish and define permitted and prohibited structure heights to limit impacts associated with flight safety, AT/FP, and radar or frequency spectrum interference. To be effective, height limits must be well defined, fully implemented, and enforced.

Case Studies/Examples

- Butte County Height Limit Exceptions
- Kern County Height of Structures

Challenges Addressed

- Vertical Obstruction
- Light and Glare
- Alternative Energy
- Frequency Spectrum
- Infrastructure Extensions
- AT/FP

Height Limits
Continued

Limitations

- New height limit requirements would only apply to new development proposals; therefore, some nonconforming uses may be identified.

Resources

- FAA Model Zoning Ordinance to Limit Height of Objects Around Airports

Tool Tips

- Planners need to define the geographic area where height limits should be applied as well as the maximum allowable height of potential developments.
- Height of trees or other vegetation along the perimeter of a military installation should also be limited if such vegetation would contribute to AT/FP risks.

STEP 1:
Identify Areas of Concern

STEP 2:
Awareness & Education

STEP 3:
Identify Specific Limits

STEP 4:
Incorporate Standards into Zoning Code

(Hover over an individual step box to reveal a brief explanation about that step.)

Subdivision Design Review

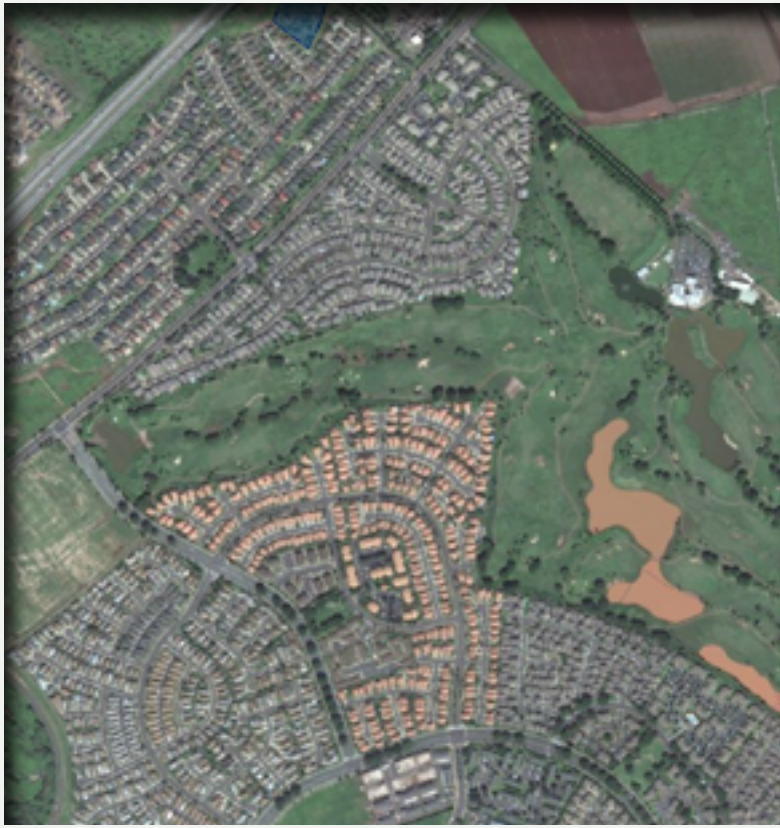
Overview

Land cannot be divided in California without local government approval. Dividing land for sale, lease or financing is regulated by local ordinances based on the State Subdivision Map Act (commencing with Government Code, §66410). The local general plan, along with zoning, subdivision, and other ordinances govern the design of the subdivision, the size of its lots, and the types of required improvements, such as street construction, sewer lines, and drainage facilities.

Subdivision ordinances set forth the minimum requirements deemed necessary to protect the health, safety, and welfare of the public. More specifically, the subdivision ordinances are designed to accomplish the following initiatives:

- ✓ Assure that effective protection is given to the natural resources of the community, especially ground water and surface waters.
- ✓ Encourage well-planned subdivisions through the establishment of adequate design standards.
- ✓ Facilitate adequate provisions for transportation and other public facilities.
- ✓ Secure the rights of the public with respect to public lands and waters.
- ✓ Improve land records by the establishment of standards for surveys and plats.
- ✓ Safeguard the interests of the public, the homeowner, the subdivider, and units of local government.
- ✓ Prevent, where possible, excessive governmental operating and maintenance costs.

To ensure that planned subdivision development will not encroach on nearby military operations, participation by a military base representative on a local development review committee could decrease potential conflicts prior to development. The military planner can assist by reviewing subdivision submittals in areas potentially affected by installation operations or where new development may impact these operations.



Case Studies/Examples

- Lompoc Valley Farm Conservation Easement

Challenges Addressed

- Sensitive Uses
- Vertical Obstructions
- Noise
- Infrastructure Extensions
- AT/FP

Subdivision Design Review
Continued

Limitations

- Lots within the subdivision cannot be sold and are not legal divisions of land until a final map has been recorded. The subdivider has at least two years (and with extensions, usually more) in which to comply with the improvement requirements, gain final administrative approval, and record the final map.

Resources

- A Citizen's Guide to Planning
- California Bureau of Real Estate

Tool Tips

- Periodic review and evaluation of subdivision ordinances should occur routinely, especially after the adoption of changes to the general plan or zoning ordinance.

STEP 1:
Developer Completes Application

STEP 2:
Review of Application

STEP 3:
Coordination with Military

STEP 4:
Approval

(Hover over an individual step box to reveal a brief explanation about that step.)

Military Zoning Overlay

Overview

Zoning is the division of a jurisdiction into zones within which permissible land uses are prescribed and use restrictions are defined.

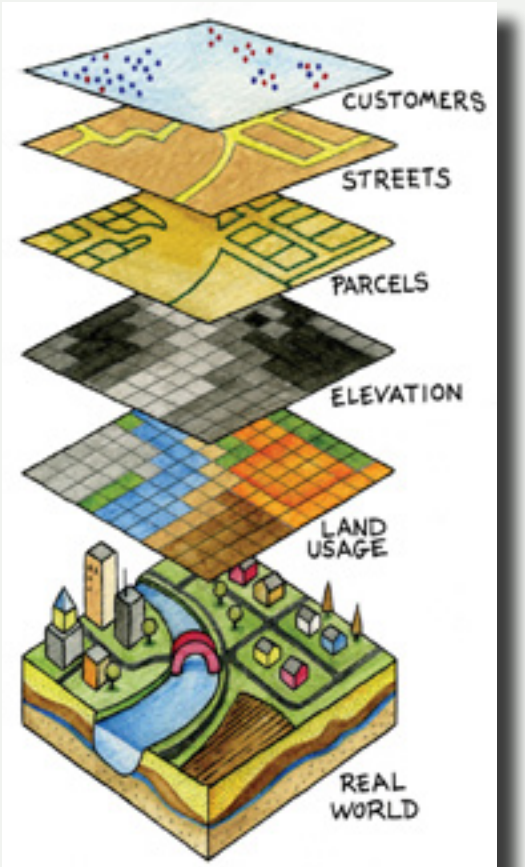
A military zoning overlay is specifically tailored to address land use compatibility issues of concern to a military installation or training range, which may include:

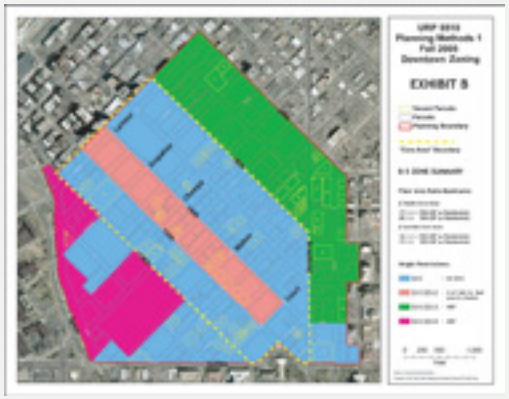
- Maintaining public safety near military ranges or within military flight areas.
- Minimizing land uses with a high likelihood of public annoyance from military activities (e.g., due to noise, vibration, air emissions, etc.)
- Avoidance of heavy traffic flows or truck routes in residential areas.
- Avoidance of aesthetic nuisances impacting military installations.
- Avoidance of "psychological nuisances", such as perceived or actual dangers associated with military operations.
- Minimizing land uses with excessive light and glare, frequency spectrum interference, air emissions, and loss of privacy.
- Provision of open space and agricultural preservation.

Other types of zoning overlays may already exist in an area (e.g., agricultural or open space zones) and may, as a coincidental or secondary benefit, provide some degree of encroachment buffer for military assets. But overlays that were established for other primary reasons besides military compatibility are more likely to be granted exemptions that may be consistent with the primary goals of the overlay but may not be compatible with local military operations. For example, a land owner may be granted a conditional use permit under an agricultural overlay to develop a use that is consistent with agricultural activities but somehow incompatible with military operations. By establishing a military zoning overlay – even in addition to or overlapping an existing overlay - a military installation can better ensure that land uses will remain compatible with local operational conditions and will avoid exacerbating site-specific encroachment concerns.

Case Studies/Examples

- Butte County Military Airspace Overlay Zone
- Kern County Review Of Projects Related To National Security
- Tehama County Military Operations Overlay
- Los Angeles County Permit Requirements
- Trinity County Military Operation Area Combining District





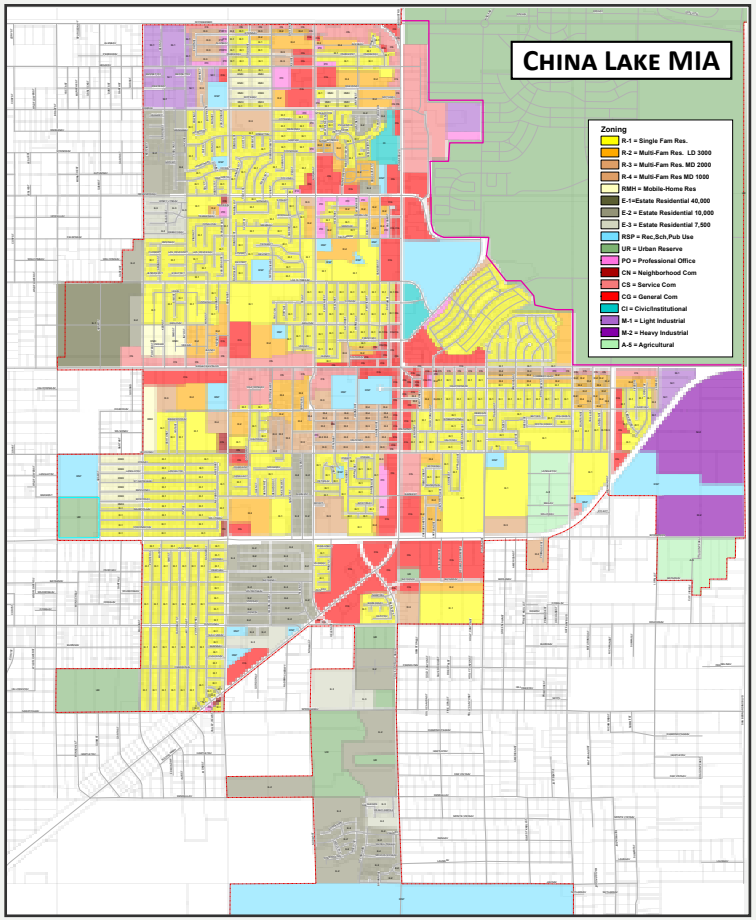
Challenges Addressed

- Sensitive Uses
- Vertical Obstructions
- Noise
- Alternative Energy
- Frequency Spectrum

Military Zoning Overlay
Continued

Limitations

- Zoning ordinances requiring rigid separation of uses or inflexible provisions can make creative solutions to land use compatibility, such as cluster development, difficult or impossible.
- When designating military zoning overlay, the local community has no regulatory control over development or activities on federal property.
- Striking a balance between private property rights and zoning changes can be a sensitive endeavor.



Resources

- California Office of Planning and Research Military Affairs
- Governor's Military Council
- CMLUCA

Tool Tips

- Zoning and the general plan are inexorably tied to each other. Policies recommended within the general plan should be reflected within the zoning ordinance or development code.

STEP 1:
Prepare the Draft Military Overlay

STEP 2:
Initiate Environmental Review

STEP 3:
Prepare for Public Hearing(s)

STEP 4:
Incorporate Military Overlay into Zoning Code

(Hover over an individual step box to reveal a brief explanation about that step.)

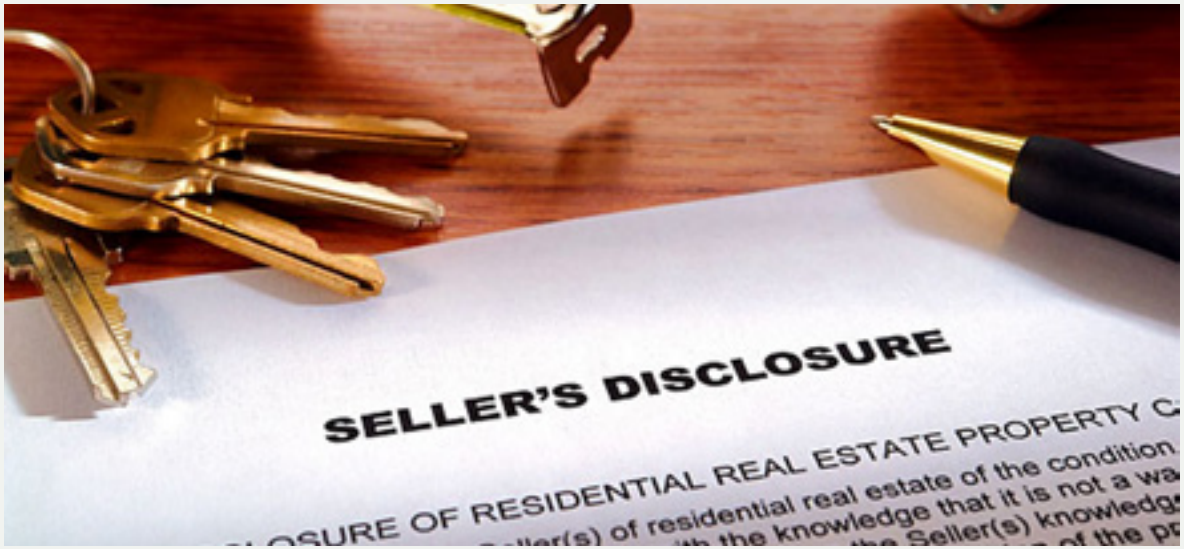
Real Estate Disclosures

Overview

Prior to the transfer of real property to a new owner, California law requires sellers and/or their agents to disclose all known facts related to the condition of the property (California Civil Code, §1102). This disclosure should include noise or other proximity impacts associated with property located near a military installation or operating area.

The purpose of a real estate disclosure is to protect the seller, buyer, and sales agent from potential litigation resulting from specified conditions (i.e., hazard areas, existing easements). Real estate disclosures can also be used to inform potential buyers and renters of possible effects (e.g., high noise levels) from nearby military installations, overflying aircraft, etc. California has enabled local governments, working in cooperation with the real estate industry, to establish noise disclosures by regulation or voluntary initiation (California Civil Code, §1102).

The key to disclosure compliance is having information on military land use compatibility factors readily available for public use. The disclosure should contain the presence and proximity of a military installation, the nature of its operations, and the potential for noise and accidents affecting adjacent properties. Cooperation with local real estate professionals and developers is essential for successful implementation.



Case Studies/Examples

- Town of Hillsborough, General Plan Noise Element
- City of San Diego, General Plan Noise Element
- Sacramento Airport

Challenges Addressed

- Sensitive Uses
- Noise
- Vibration
- Dust, Smoke, or Steam
- Local Housing Availability

Real Estate Disclosure
Continued

Limitations

- Real estate disclosures about sources of military noise may not completely prevent or dissuade the affected public from complaining about noise and eventually causing encroachment on military operations, but residents that have been forewarned are less likely to adamantly oppose military activities.

Resources

- California DRE Disclosure in Real Property Transactions

Tool Tips

- With help from local military partners, local jurisdictions should maintain an easy-to-access source of current information to identify noise impact areas to determine when and where real estate disclosures are required.

STEP 1:
Identify Parameters for Disclosure

STEP 2:
Educate the Public

STEP 3:
Implement Disclosure Policy

STEP 4:
Maintenance

(Hover over an individual step box to reveal a brief explanation about that step.)

Joint Land Use Study

Overview

The DoD initiated the JLUS program in 1985 in an effort to achieve greater implementation and application of the Air Force and Navy AICUZ programs, the Navy RAICUZ program, and the Army's ONMP. The JLUS process encourages residents, local decision makers, and installation representatives to study issues of compatibility in an open forum with the goal of balancing both military and civilian interests. The resulting recommendations are intended to guide the local governments and the military in the implementation of appropriate controls to enhance compatibility near military installations and operations areas.

The JLUS assesses both the military's capability to adjust its mission profile to reduce impacts on the surrounding community, and the community's capacity to revise or update its plans to be more responsive to the military mission.

The following objectives for communities and military installations are also important:

Community

- Protect the health, safety, and welfare of residents and maintain quality of life.
- Manage development in the vicinity of military installations that would interfere with the continued operations of these facilities.
- Provide for new growth in an economically, environmentally, and socially sustainable manner.
- Maintain the economic vitality of the community.

Military

- Promote the health, safety, and welfare of the military and civilian personnel living and working at or near the military installation.
- Ensure the ability of the installation to achieve its mission, maintain military readiness, and support national defense objectives.

Case Studies/Examples

- R-2508 JLUS
- NB Ventura JLUS
- NAS Lemoore JLUS

Challenges Addressed

- Sensitive Uses
- Vertical Obstructions
- Noise
- Vibration
- Dust, Smoke, or Steam
- Light and Glare
- Public Trespassing
- Alternative Energy
- Frequency Spectrum
- Local Housing Availability
- Infrastructure Extensions
- AT/FP

Joint Land Use Study
Continued

Limitations

- A JLUS defines a common policy framework for an area, but is not itself a regulatory document.
- Implementation depends on the adoption of recommended planning measures by participants, including local governments and the military.
- A JLUS is usually completed within 12 months, although the degree of coordination and complexity may substantially increase the time needed.

Resources

- OEA Compatible Land Use Program
- NACO Encouraging Compatible Land Use Between Local Governments and Military Installations

Tool Tips

Three factors should be present when judging suitability for a JLUS:

1. Incompatible land use or potentially incompatible land use from local development.
2. Strong support from base leadership.
3. Good relationship between base and community.

STEP 1:
Identify Sponsor

STEP 2:
Create Committees

STEP 3:
Prepare the JLUS

STEP 4:
Implementation

STEP 5:
Maintenance

(Hover over an individual step box to reveal a brief explanation about that step.)

Memorandum of Understanding/Agreement

Overview

California Government Code, §6500 et seq. allows public agencies to enter into joint agreements. Such agreements may take the form of an MOU or an MOA. The purpose of an MOU/MOA is to establish a formal framework for coordination and cooperation. These agreements may also assign roles and responsibilities for all of the agreement's signatories.

A memorandum of understanding is a legal document describing a bilateral agreement between parties. An MOU expresses a convergence of will between the parties, indicating an intended common line of action, rather than a legal commitment.

A memorandum of agreement is a document written between parties to cooperatively work together on an agreed upon project or meet an agreed upon objective. The purpose of an MOA is to have a written understanding of the agreement between parties. The MOA can also be a legal document that is binding and hold the parties responsible to their commitment or just a partnership agreement.

In the context of community and military compatibility planning, these agreements may be used to promote: coordination and collaboration by sharing information on specific community development proposals, such as rezonings and subdivisions.

Joint communication between participating jurisdictions and the military ensuring that residents, developers, businesses, and local decision makers have adequate information about military operations, possible impacts on surrounding lands, procedures to submit comments, and any additional local measures to promote land use compatibility around installations.

Formal agreement on land use planning activities, such as implementation of a JLUS.

Case Studies/ Examples

- DRECP MOU
- Camp Pendleton MOU
- Beale AFB MOU
- City of Fairfield MOU
- Fort Irwin MOU

Challenges Addressed

- Sensitive Uses
- Vertical Obstructions
- Noise
- Vibration
- Dust, Smoke, or Steam
- Light and Glare
- Public Trespassing
- Alternative Energy
- Frequency Spectrum
- Local Housing Availability
- Infrastructure Extensions
- AT/FP

Memorandum of Understanding/Agreement
Continued

Limitations

- Negotiating an MOU or MOA can take a considerable amount of resources and staff time. This is necessary, as parties signing the agreement will be bound by its terms.

Resources

- DoD Instruction 4000.19 (Sample MOA/MOU framework)

STEP 1:
Decide on Goals

STEP 2:
Negotiate and Agree on Terms

STEP 3:
Secure Formal Approvals

STEP 4:
Periodic Review

(Hover over an individual step box to reveal a brief explanation about that step.)

Airport Land Use Compatibility Plan

Overview

An ALUCP is "a plan, usually adopted by a County ALUC or other entity established to accomplish land use compatibility planning, which sets forth policies for promoting compatibility between airports and the land uses which surround them." The California law governing creation of ALUCs applies to every county in California that has a public airport. ALUCs have the option of developing a compatibility plan for any federal military airport in their jurisdiction (California Public Utilities Code, §21675(b)).

The purpose of the ALUCP is to:

- Provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the ALUC.
- Safeguard the general welfare of the people living near airports and the public in general.

Although typically developed by the County ALUC, community and military planners should take an active role and participate in the ALUCP planning process. Community planners must incorporate the policies of the ALUCP into local general plans, zoning ordinances, subdivision regulations, and any other applicable development regulations and/or plans. Military personnel can assist by developing cooperative relationships with the ALUC and actively participating in the development or periodic updating of the ALUCP. Military planners can enhance compatible land use planning in proximity to military airports by ensuring that accurate AICUZ findings are included in the ALUCP.

ALUCPs, and other land use compatibility plans such as the AICUZ study and airport master plan, are interrelated. As an example, an ALUCP shall be consistent with the safety and noise standards in the AICUZ study prepared for a military airport (Public Utilities Code, §21675(b)). When preparing an ALUCP, consideration should be given to all land use compatibility plans for inclusion and coordination.

Case Studies/Examples

- Solano County ALUC
- San Diego ALUC

Challenges Addressed

- Sensitive Uses
- Noise
- Vertical Obstructions

Airport Land Use Compatibility Plan
Continued

Limitations

- State law (§21675(a)) limits amendment of an ALUCP to no more than once per calendar year.

Resources

- California Public Utilities Code, §21670-21679.5
- The California Airport Land Use Planning Handbook
- Division of Aeronautics

Tool Tips

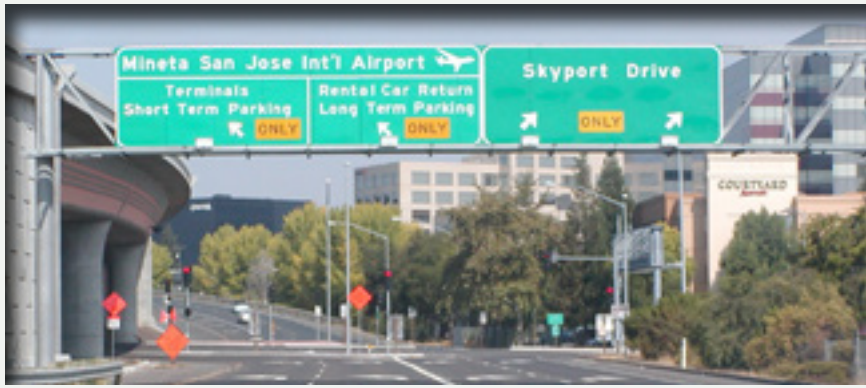
- Periodic reexamination (every 5-10 years) of the entire plan is strongly encouraged to keep it up to date with changes in state law, local land uses, airport development and activity, and current noise and safety compatibility concepts. The plan should also be updated to reflect major changes in airport operations or land use changes proposed by local jurisdictions.
- ALUCPs can be implemented in part through incorporation in local jurisdictions general plans.
- The implementation criteria for the ALUCP recommendations should be consistent with general plan policies.

STEP 1:
Coordination

STEP 2:
Monitor Changes in AICUZ

STEP 3:
Participate in ALUCP Update

(Hover over an individual step box to reveal a brief explanation about that step.)



Section 5

Case Studies

Section 5 Table of Contents

Section 5

Case Studies

This Section contains real world case studies describing compatibility planning and collaboration in action. These examples tell a story of successful partnerships and effective solutions, and offer a lessons learned perspective detailing how the process may have been implemented differently to achieve a more desirable outcome. Each case study concludes with "See Also" links containing useful information for engaging in similar partnerships/actions as referenced in the case study.

Ocotillo Express Wind Energy Development

Proposed 465-MW energy project near NAF El Centro that could have impacted aircraft and training operations by penetrating an established MTR.

The Story

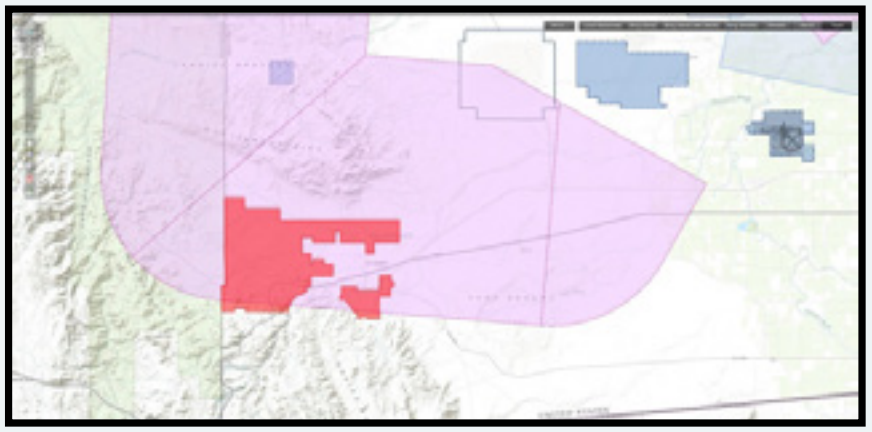
In 2011, Ocotillo Express LLC submitted a Right-of-Way application with the BLM to construct a 12,484 acre, up to 465-MW, 155 wind turbine energy development (with associated transmission lines and facilities) on BLM lands. BLM contacted NAFEC to gauge potential conflicts with military training operations. Using the MCAT tool, the NAFEC CPLO quickly identified that several of the proposed wind turbines were underneath an established MTR and within a long-range radar testing and training area associated with NAFEC operations. NAFEC expressed concerned about significant impacts to aircraft and pilot training activities due to airspace penetration, as well as safety and liability impacts.

Key Stakeholders

- Octotillo Express LLC
- NAFEC Leadership
- BLM

The Solution

Shortly following the initial engagement, a meeting was held between Ocotillo Express LLC, BLM, and NAFEC representatives to discuss the Navy's concerns regarding the proposed wind development location. The Navy explained the military's mission within the project area and the potential compatibility issues associated with the proposed wind energy development. The Navy was able to show Ocotillo Express LLC the locations (using a map created through the MCAT tool), where several wind turbines proposed would penetrate an established MTR. The Navy also utilized the Environmental Review Process (CEQA) to provide specific comments during the public comment period for the Ocotillo Express Environmental Impact Report. Following the meeting and review of the Navy's comments on the Environmental Impact Report, the Ocotillo Express LLC agreed to revise the proposed project footprint and reduce the height of several of the proposed wind turbines to avoid impacts to the NAFEC MTR, thus achieving a compatible outcome for all stakeholders involved.



Ocotillo Express Wind Energy Development
Continued

Successful Strategies

- The initial engagement, predicated by an existing agreement between the DoD and BLM, with Ocotillo Express LLC, the BLM, and NAFEC to communicate the potential concern was effective.
- NAFEC CPLO presented potential solutions when discussing the encroachment concerns.
- NAFEC CPLO and the developer worked together to seek potential compromise.
- NAFEC CPLO submitted comments during the public environmental review process which allowed for changes to be made to the project design and footprint.

See Also:

CMLUCA

Military Installation AICUZ/RAICUZ

Enduring Benefits: The Ocotillo Express Wind Energy Development was successfully constructed, providing energy benefits to the region. At the same time, military training assets were not compromised, ensuring their continued and future use for critical military missions. This example illustrates the value of continued dialogue and engagement with the land permitting authorities (BLM in this example) and military land use planners in facilitating a compatible land use, while protecting the military mission.

Lessons Learned

- Earlier consultation could have avoided additional project costs incurred as a result of design modification.

Salt Creek Cellular Tower Construction

A 150 ft communications tower was proposed near the Salton Sea that could have impacted aircraft and training operations by penetrating an established MTR.

The Story

Imperial County Planning Department notified the CPLO of NAFEC about a conditional use permit application for a 150 ft cellular tower next to a development near the Salton Sea because it fell within the previously agreed upon notification area established in Imperial County. The CPLO sent initial questions and comments to the project proponent, who pointed out that the proposed tower location was near an existing development with an existing cellular tower.

The Solution

The NAFEC CPLO contacted operators at March ARB to confirm the proponent's claims and see if the Air Force had any objections to the tower. March ARB responded that in that particular area, they do not fly low enough for the proposed cellular tower to be an issue. The military retracted their objection and the tower was built as proposed.

Key Stakeholders

- NAFEC Leadership
- March ARB
- Imperial Co Planning Department

Salt Creek Cellular Tower Construction
Continued

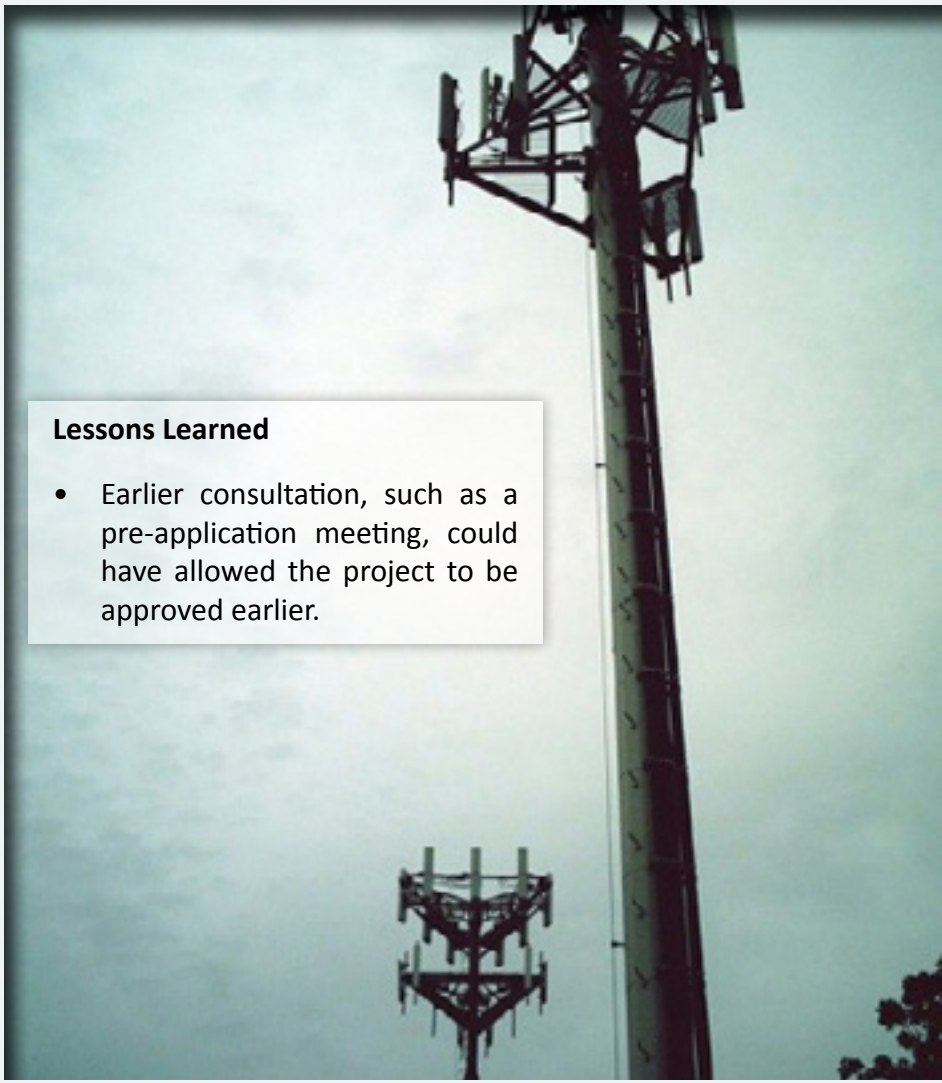
Successful Strategies

- An established notification protocol was properly implemented by Imperial County.
- Open dialogue between the military and the project proponent allowed the two to work together to see a compromise.

See Also:

CMLUCA

Enduring Benefits: With effective communication and detailed knowledge of operations, many projects are compatible with military operations. This particular project proved that the processes in place work and do their best to promote the economic vitality of the surrounding area while adequately protecting the military's mission.



Lessons Learned

- Earlier consultation, such as a pre-application meeting, could have allowed the project to be approved earlier.

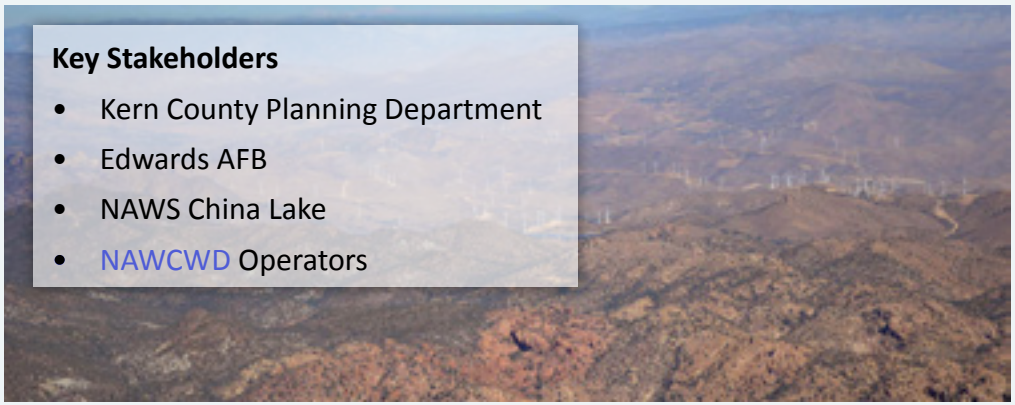
Kern County Wind Energy Ordinance

The wind energy development in the Tehachapi Mountains is one of California's largest. Full realization of this potential presents a radar interference and obstruction challenge for military testing and training operations in the area.

The Story

Beyond the boundaries of Edwards AFB and NAWS China Lake, Kern County has a number of other critical OPAREAs. There are 10 low-level MTRs, various military airspace designations, and other sensitive areas known as the R-2508 Complex.

In the late 1970s and early 1980s, there was rapid development of wind energy in California with very little regulatory review, spurred by Federal and State tax incentives and lucrative power sales contracts with the utility companies. In 1986, the County adopted a Wind Energy Combining District of the Kern County Zoning Ordinance which controls and minimizes the impacts of wind energy development. However, the ordinance, as written in 1986, did not specifically discuss or protect the aforementioned critical military operating areas. Military operating areas were left vulnerable to incompatible development that could potentially end some critical testing and training operations.



Key Stakeholders

- Kern County Planning Department
- Edwards AFB
- NAWS China Lake
- NAWCWD Operators

The Solution

In 2002, the military began discussions with Kern County regarding an update to the ordinance to include potential impacts of wind turbines on military testing and training. They jointly developed a zoning ordinance, commonly referred to as the "Red-Yellow-Green Ordinance," which was approved in January 2005 and modified in 2007. The resulting ordinance clearly indicated areas within Kern County that the military supports wind energy development as well as those areas they requested to review projects for potential impacts.

Kern County Wind Energy Ordinance
Continued

Successful Strategies

- Leveraging county precedent for innovative land management practices.
- Clear explanation of impacts on operations.

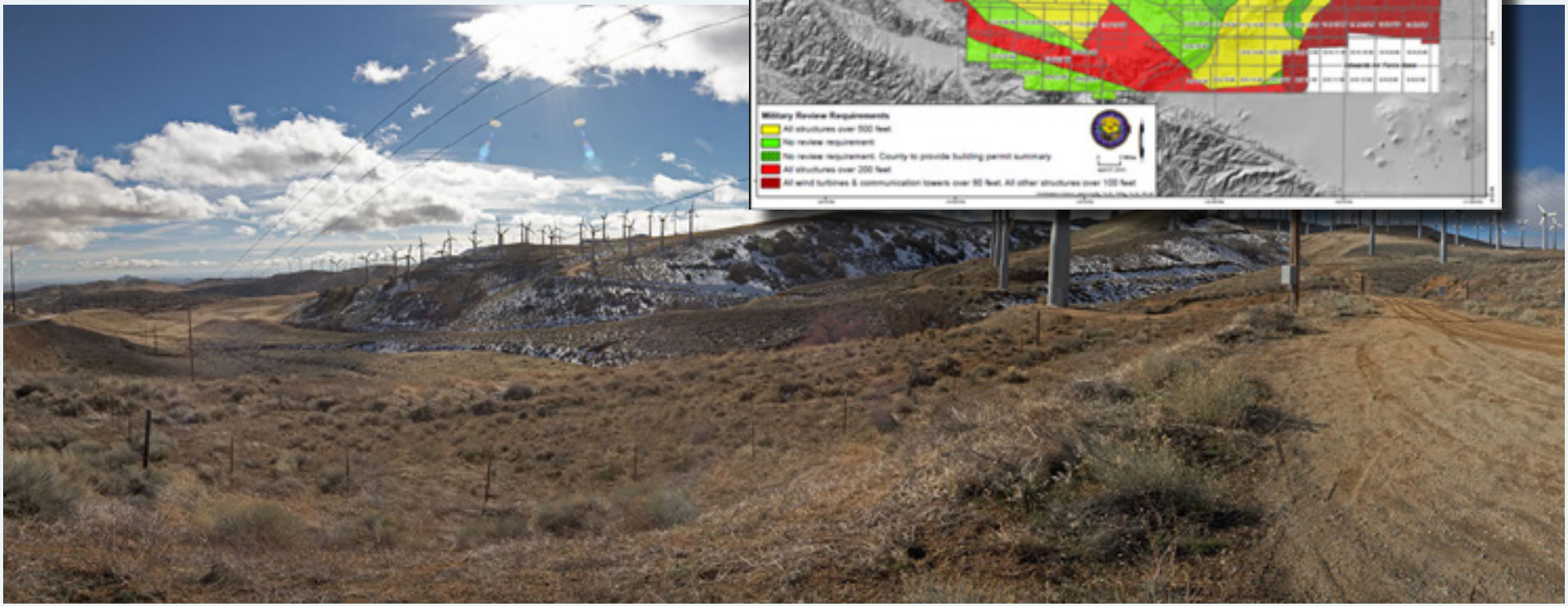
Enduring Benefits: The Kern County Wind Energy Ordinance is now a model ordinance. The combination of progressive County leaders and proactive military personnel has established a long-lasting partnership that continues to be a model for compatible land use development. In 2007, Kern County was a cooperating agency for the R-2508 JLUS.

See Also:

Kern County Wind Energy Ordinance

Military Zoning Overlay Tool

Joint Land Use Study



Travis AFB Protection Element

A pro-growth political climate surrounding Travis AFB encouraged urban development proximate to the base that could potentially impede future mission expansion.

The Story

Throughout the 1990s, the political climate around Travis AFB was pro-growth which lead to increasing development pressure adjacent to the base. In the early 2000s, the political climate began to shift to that of "protecting Travis." The installation and surrounding communities had worked together in the past on protection and mitigation efforts through a JLUS and ALUP, however neither plan considered the future potential missions of the base.

The year 2000 presented an opportune time to remedy weaknesses in past plans because the political climate was beginning to shift and the ALUP was due for an update according to state law. Travis AFB, along with the Solano County ALUC, the City of Fairfield, and other jurisdictions within the county began the process of updating the existing ALUP and other land use guiding documents.

The first step was to update the bases' AICUZ. What was unique about this update was the consideration of the "Maximum Mission Contour" in the noise footprint to ensure the Travis AFB AOI that would be derived from the AICUZ would account for future mission needs.

The Solution

In 2002, the new Solano County ALUP was adopted and local jurisdictions had 180 days to update their General Plans and Zoning Ordinances accordingly. The City of Fairfield, who manages the lands directly adjacent to the base, added the Travis AFB Protection Element in their General Plan and added supporting information throughout other elements of their General Plan.

An additional level of protection for future operations was created when Solano County purchased 1,800 acres of land from TNC contiguous with the existing base boundary. This purchase will allow the base to expand, if necessary, without impediment.

Key Stakeholders

- Travis AFB
- Solano County ALUC
- City of Fairfield
- TNC

Travis AFB Protection Element
Continued

Successful Strategies

- Prior successful collaborative projects with a JLUS and AICUZ.
- General understanding of the importance of the base to the local economy.
- Leveraging of opportunistic timing with state mandated plan updates.

See Also:

The following links contain information on how you can implement a similar strategy in your jurisdiction:

Joint Land Use Study

Airport Land Use Compatibility Plan

City of Fairfield General Plan

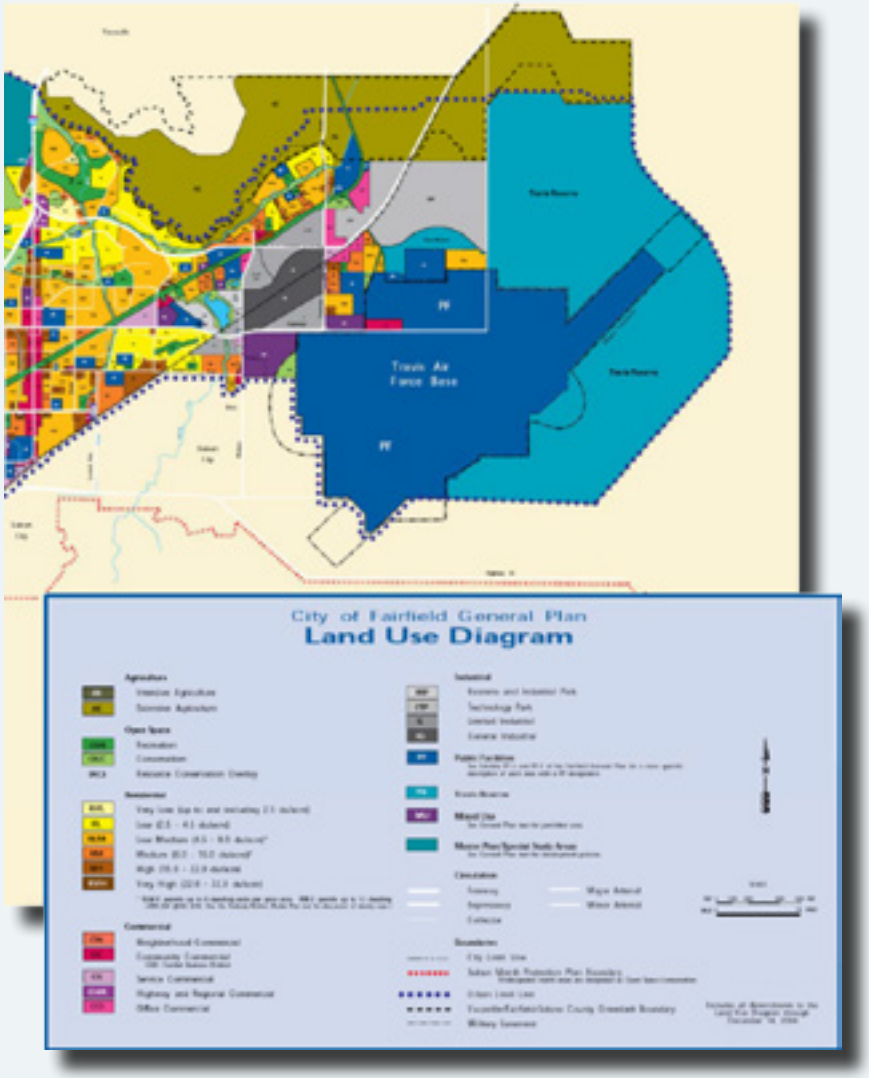
Solano County Airport Land Use Plan

Travis AFB Land Use Compatibility Plan

Lessons Learned

- The latest ALUP was not adopted without incident. There were many pro-growth landowners who insisted on the production of an EIS in an attempt to stop the adoption of the ALUP.

Enduring Benefits: Through effective collaboration with key stakeholders, the current and potential future missions of Travis AFB have been sustained and future development near the Base will be compatible with military uses. The Travis AFB Protection Element and the Land Use Compatibility Plan facilitate the review of potential development projects to ensure compatibility with the military mission, private property rights, and local jurisdiction planning efforts.



Indian Wells Valley Agricultural Development

Expansion of agricultural development in the Indian Well Valley threatens the viability of the groundwater basin which is the sole source of water for NAWSCL and surrounding communities.

The Story

Since its founding in the 1940s, NAWSCL has relied on the groundwater aquifer system of the IWV for its sole source of water. Likewise, the communities that sprung up around it and the inhabitants of the adjacent Searles Valley are completely reliant the IWV groundwater basin. For many years there has also been limited agriculture in the valley, which up until 2011 totaled approximately 1,300 acres, and accounted for about 44 percent of the annual groundwater usage. The IWV basin is considered by the Department of Water Resources to be a "Critically Over-Drafted Basin" with annual withdrawal being as much as three times the rate of recharge. In 2011, there was a notable surge in new commercial agricultural development prompting NAWSCL to engage Kern County concerning potential significant impacts to the groundwater resource.

In consultations with the Kern County Planning and Community Development Department, it was discovered that although most of the privately owned undeveloped land in the IWV was designated Rural Residential by the Kern County General Plan, the zoning for over 30,000 acres was Agriculture. The establishment of commercial agricultural operations on undeveloped land zoned Agriculture is considered a ministerial action by the County and requires no permits or oversight. The IWV groundwater basin is unadjudicated, allowing land owners to use what they consider beneficial to the betterment of their property.

The Solution

NAWSCL had been working with IWV stakeholders for many years though the IWV Cooperative Groundwater Management Group to promote conservation and wise management of the resource. When this new threat arose, groundwork had already been established for engagement.

The stakeholders leveraged their collective influence to persuade Kern County to consider addressing potential future agricultural development through rezoning. This multi-year effort eventually became known as the IWV Land Use Management Plan. The Plan, which included rezoning over 22,000 acres, was unanimously approved by the Board of Supervisors May 2015 essentially freezing commercial agricultural development in the IWV. However, in the intervening years, approximately 2,500 acres of new agricultural development occurred which will make it more difficult and costly to achieve sustainability.

Key Stakeholders

- Kern County
- City of Ridgecrest
- IWV Water District
- NAWSCL Leadership

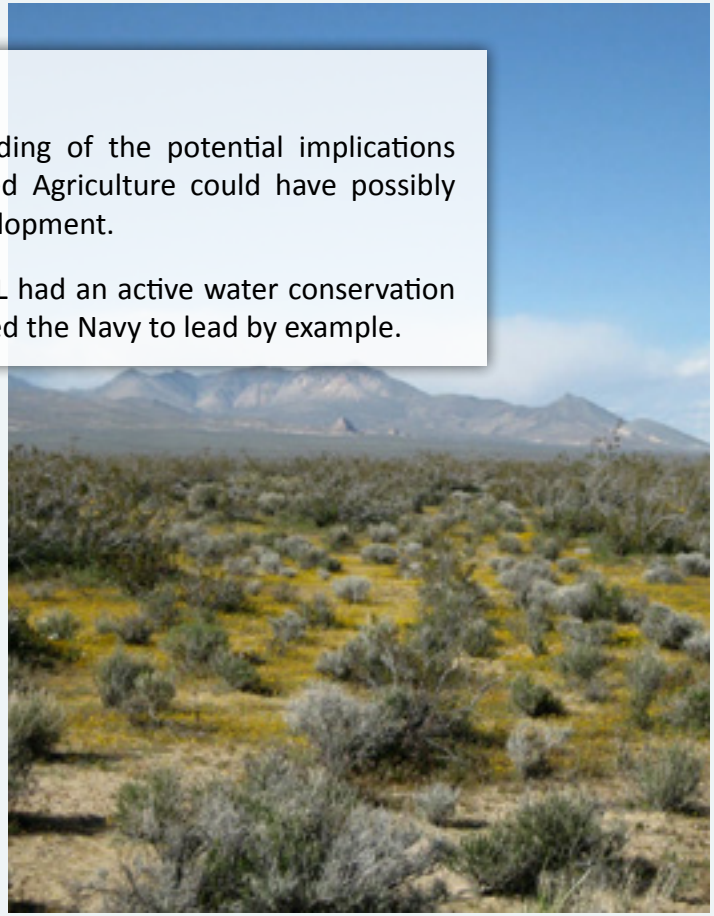
Indian Wells Valley Agricultural Development
Continued

Successful Strategies

- Maintain strategic relationships with stakeholders
- Research zoning and understand the potential implications of activating zoning on vacant or underdeveloped land.
- Be an active participant in the process to make the Navy's position known as well as supplying technical expertise.

Lessons Learned

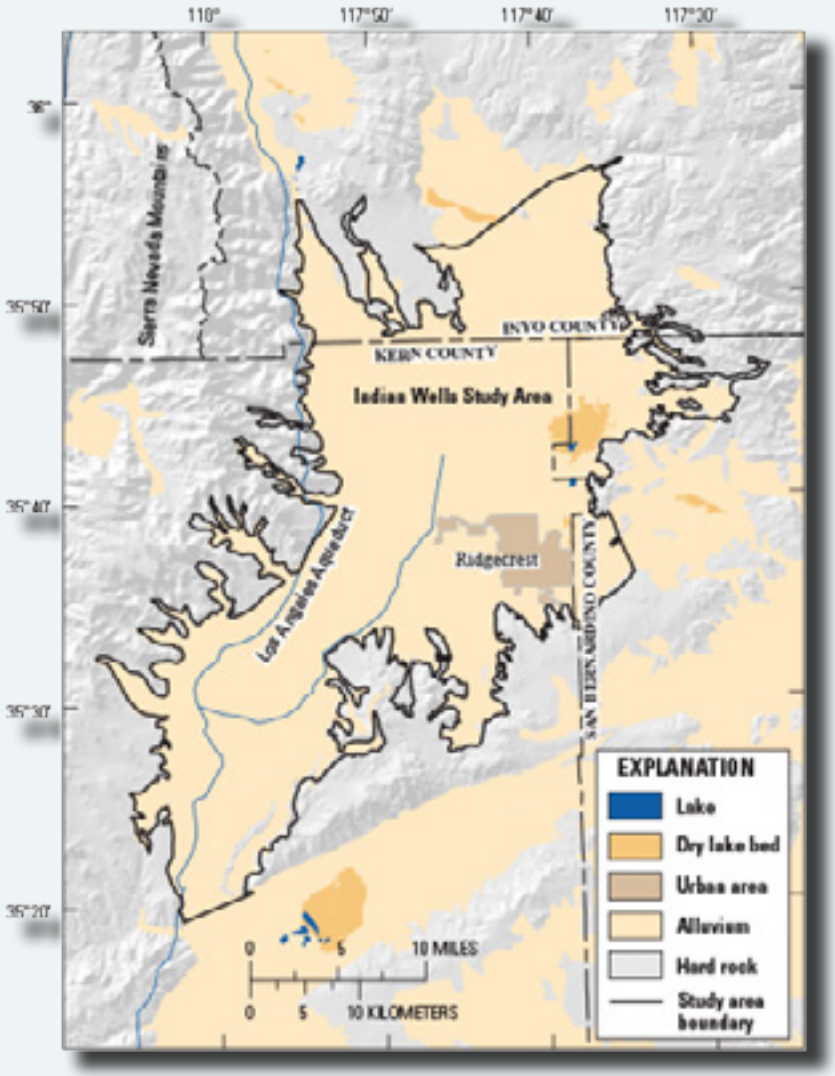
- An earlier understanding of the potential implications of 30,000 acres zoned Agriculture could have possibly averted the new development.
- Be proactive: NAWSCL had an active water conservation program which allowed the Navy to lead by example.



See Also:

Indian Wells Valley Land Use Management Plan

Enduring Benefits: The rezoning is a fundamental change for the Indian Well Valley communities; from a 'hands off' approach to strict limits on future agricultural development. Given the recent State legislation on groundwater management, Kern County's actions to balance land use with the water resource was proactive and will help to achieve sustainability mandated by the new law.



Sunrise Powerlink Transmission Line Project

Proposed Sunrise Powerlink transmission line had the potential to degrade training and general mission activities for several military installations in the San Diego region.

The Story

In 2009, the BLM issued a ROW to SDG&E approving the construction of a 117 mile transmission line from Imperial County into San Diego. As part of the policy screening process conducted by SDG&E, project managers consulted the San Diego County ALUCP and other applicable planning documents. The initially proposed routes for the development, presented the possibility of encroachment on military installations at NAF El Centro, Camp Michael Monsoor MWTC, and MCAS Miramar. More specifically, the development of the transmission line had the potential to obstruct low level helicopter flights to and from NAF El Centro and MCAS Miramar, as well as negatively impact the quality of Naval Special Warfare training at Camp Michael Monsoor MWTC.

Key Stakeholders

- San Diego Gas and Electric
- NRSW Leadership
- Camp Michael Monsoor MWTC
- MCAS Miramar
- NAF El Centro
- BLM
- CPUC

The Solution

In compliance with CEQA, SDG&E issued a series of requests for public comment on the Draft EIR/EIS of the Sunrise Powerlink project. In a detailed response, the Navy communicated its concerns about the transmission line development. By carefully considering each detail listed in these letters, SDG&E was able to draft an alternative route that accounted for each of the concerns listed in the Navy's initial response. This Southern Route bypassed most areas of concern, with the exception of a substation and transmission lines on land managed by MCAS Miramar. Through further communication between the Navy and SDG&E clarifying the technical details of the project, MCAS Miramar was assured that its rotary-wing training and pilot safety would not be compromised. As a result of the site-specific feedback provided by the Navy and the collaborative effort of SDG&E, the potential impacts of Sunrise Powerlink on San Diego's military installations were successfully mitigated. An issuance of a NTP to begin work on the Sunrise Powerlink project was granted by the military shortly thereafter.

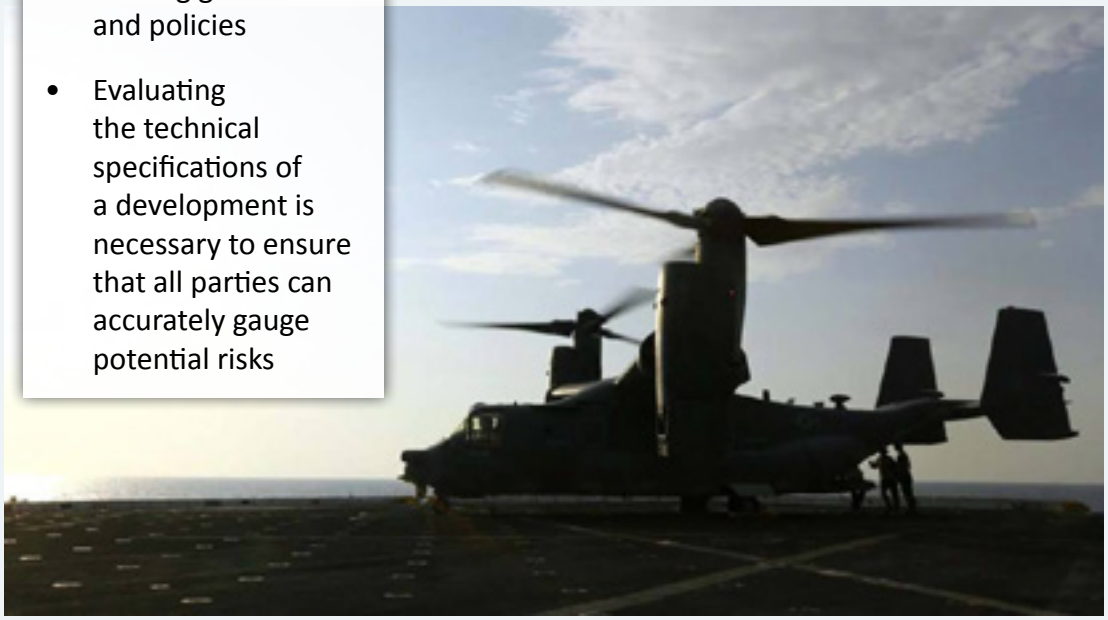
Sunrise Powerlink Transmission Line Project
Continued

Successful Strategies

- Effective communication between the CPUC, SDG&E, BLM, and the Navy improved the planning process and allowed for timely issue resolution.
- The Navy utilized detailed and specific messaging when conveying their concerns, improving the response by SDG&E.

Lessons Learned

- Direct communication with key stakeholders can help identify additional issues that may not be explicitly detailed in existing guidelines and policies
- Evaluating the technical specifications of a development is necessary to ensure that all parties can accurately gauge potential risks



Enduring Benefits: The CPUC and the BLM were able to successfully see the SDG&E's Sunrise Powerlink Development to completion, which increased the reliability of the grid and served to promote renewable power production. This example illustrates how dialogue between key stakeholders can help mitigate costly setbacks while allowing the military to protect its mission. Dialogue is most effective when comments are as specific to the issue as possible, allowing for a more directed response by the agency leading the development.

See Also:

Sunrise Powerlink Project

The Monterey Model of Community Partnerships

Community Partnerships support the DoD missions, operations, and personnel by providing quality facilities, housing, infrastructure and base support services, at the lowest cost.

The Story

As the fourth round of the BRAC process unfolded in 1993, the City of Monterey began searching for better ways to support its military neighbors. The city's fears were realized when the BRAC Commission recommended closing the Presidio of Monterey. The city immediately mobilized to develop ways to enhance mission effectiveness and reduce costs at the Presidio as well as the Naval Post-Graduate School. Monterey's reaction to this BRAC recommendation was the genesis of the concept of Community Partnerships, and is now known as the Monterey Model.

The Monterey municipal staff reexamined their approach to services, and found they could create capacity in many maintenance systems that could be sold to other cities or the military at the incremental cost of providing the service. This analysis lead the City of Monterey to propose to the BRAC Commission that the Army maintain the Presidio of Monterey and allow the military to contract for mission, maintenance, and base operating services with the local municipalities and utilities. The BRAC Commission unanimously agreed with the city's proposal and recommended the Army and Navy installations in Monterey explore the feasibility of partnerships with each other and the city to obtain base operating services.

Key Stakeholders

- City of Monterey
- Army Leadership
- Navy Leadership

The Solution

The first step toward this new partnership was a city recommendation to the Navy to combine its fire suppression capability with the Army and the city. The city worked with Congress to obtain demonstration language in the 1995 Defense Authorization Act. Using this authority, the Army was particularly aggressive in looking for opportunities to partner with Monterey. This new approach started with the lease of several parcels for a historic park and nature preserve to the city, with the city operating and maintaining the parks at no cost to the Army. The Army further leased three ball fields and a child care center to Monterey. These facilities were upgraded, operated and maintained by Monterey for the joint use of the Army and the city.

These successes were followed by the Army contracting with the city for a number of small maintenance contracts. By the year 2000, the city was doing the bulk of the base operations and public works functions for the Presidio and the Naval Postgraduate School. In 2000, the Army Audit Agency found that the city was saving the Army 41 percent compared to the cost of service from its previous providers.

The Monterey Model of Community Partnerships
Continued

Successful Strategies

- Maintain strategic relationships with stakeholders.
- Manage un-used or underutilized capacity as assets rather than as liabilities.
- Be an advocate for regional planning and infrastructure development to minimize cost and maximize effectiveness.

Lessons Learned

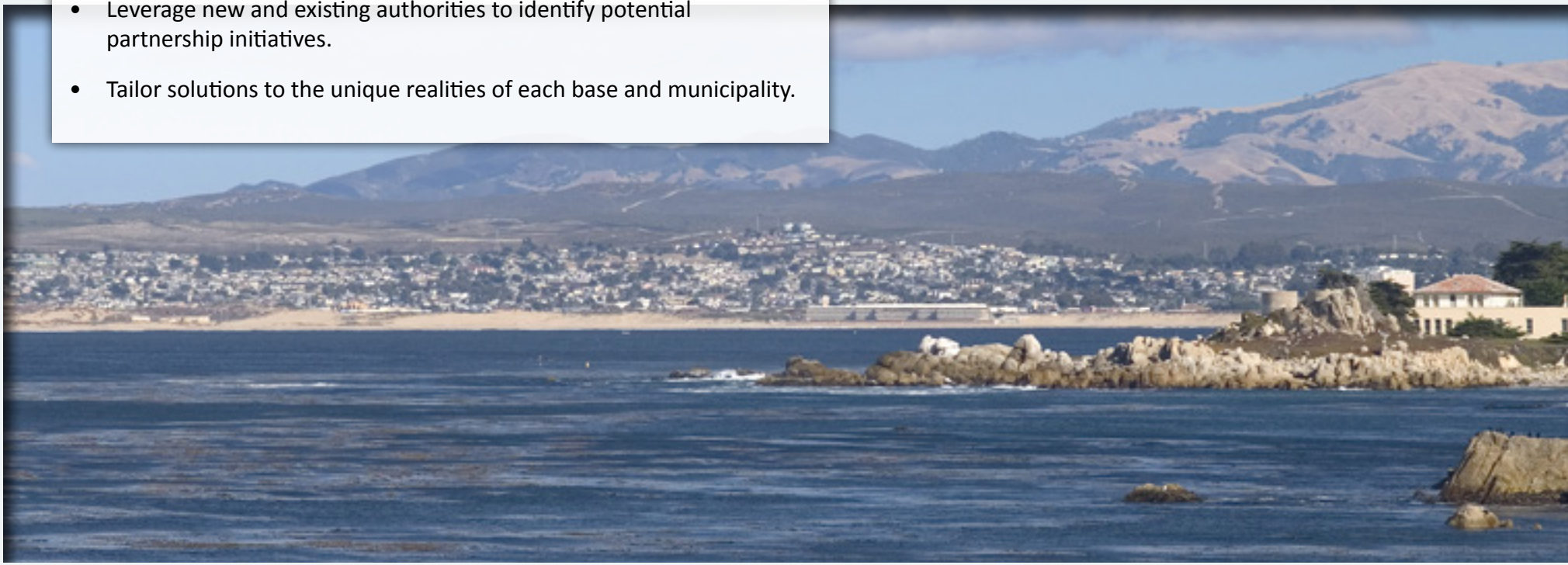
- Understand each organization's current partnerships, needs and capabilities for partnership development.
- Leverage new and existing authorities to identify potential partnership initiatives.
- Tailor solutions to the unique realities of each base and municipality.

Enduring Benefits: The Monterey Model continues to flourish and grow with the inclusion of Internet broadband support, energy conservation, recycling and transportation services that foster an environment of continuous improvement and collaboration. These partnerships result in benefits including increases in the quality and timeliness of services provided, increases in mission capability and a reduction in mission costs.

See Also:

National Defense Authorization Act FY 2015

Journal of Defense Communities



San Miguel Produce Conditional Use Permit

Approval of a Conditional Use Permit was requested near NBVC that could have impacted night training operations and local residents by increasing night time light and noise pollution.

The Story

The Ventura County Non-Coastal Zoning Ordinance describes discretionary entitlements, including CUPs, which are reviewed by the Planning Commission to provide oversight to ensure compatibility, including military inputs. Ventura County has set permit approval standards that address military compatibility. Some of these standards include, but are not limited to, language that states that the proposed development should be compatible with legally established uses that are surrounding the proposed site, and there should not be any conflicts with neighboring uses from the proposed development. By implementing the compatibility tools with properties adjacent to the installation, Ventura County NBVC mission activities will be considered when reviewing proposed projects.

In 2013, San Miguel Produce applied for a CUP in order to continue operations of an existing produce packing and processing facility and an agricultural service and storage yard which is part of local agricultural operations. San Miguel Produce is surrounded by agriculture on two sides, NBVC to the south, and a legal, non-conforming mobile home park to the east. The CUP initially proposed outside operations during night hours consisting of produce packing, forklift operations, and shipping, presenting the possibility of encroachment on NBVC operations as well as impacts to residents of the mobile home park.

The Ventura County Planning Division provided public notice regarding the Planning Director hearing on the CUP to nearby property owners and jurisdictions as well as NBVC. The Planning Division received several complaints from a resident of the mobile home park regarding noise in the evening from forklift backup warning devices. In an attempt to mitigate the noise issue, the original CUP proposed a requirement to use strobe lights on forklifts outdoors in the evening instead of sound-based warning devices.

The Solution

Following consultation with the Navy and other stakeholders, it was determined that strobe light backup warning devices presented issues to airfield safety and encroachment on NBVC night training operations. Alternatively, a tall vegetated screen was proposed to mitigate noise impacts on the mobile home park residents. This alternative was also rejected due to concerns regarding potential rodent attraction to San Miguel Produce and the mobile home park as well as potential increased opportunities for BASH related incidence at NBVC. The resulting CUP placed restrictions on outside forklift operations and required forklifts to use an alternative warning device or action as authorized in OSHA regulations.

Key Stakeholders

- San Miguel Produce
- NBVC
- Ventura County Planning Department
- Local Residents

San Miguel Produce Conditional Use Permit
Continued

Successful Strategies

- Ensure early consultation with all stakeholders and the public
- Monitor projects approved under a CUP for compliance with permit conditions

Lessons Learned

- Understand the impacts of proposed conditions on military operations, civilian operations, and nearby residents.
- Active participation in the process decreases the opportunities for unintended negative impacts.

Enduring Benefits: Through effective communication and stakeholder engagement, community and military needs and interests can coexist successfully. The San Miguel Produce case highlights planning processes that promote compatibility and relationships between the military and neighboring communities.

See Also:

California Planning Guide

Lakeside Downs Land Acquisition

No one agency has the solution or the resources to single-handedly meet the San Diego region's conservation needs. Instead, the region has evolved to achieve habitat conservation goals through partnerships between local, state and federal agencies, the military, and private conservation groups.

The Story

In August 2015, collaboration between the SANDAG, the U.S. DoD, MCAS Miramar, and the EHC led to the acquisition of a 410-acre property, known as Lakeside Downs, in eastern San Diego County.

Located approximately three miles from MCAS Miramar, Lakeside Downs is home to a robust population of the threatened coastal California gnatcatcher. It contains high-value coastal sage scrub habitat and extensive stands of spiny redberry, host plant for the rare Hermes copper butterfly. The site also is strategically located to help close gaps between lands that are conserved or proposed for conservation.

In 2003, the owner of Lakeside Downs had submitted a tentative map to subdivide the land into 140 residential lots, but the project was put on hold during the Great Recession. As the economy recovered, there was a possibility that the project could be revived and possibly create encroachment issues that threaten military operations at MCAS Miramar.

Key Stakeholders

- SANDAG
- MCAS Miramar
- EHC
- DoD

The Solution

The Lakeside Downs acquisition couldn't have happened without a foundation of planning, coordination, and partnerships that took years to build. Only a small window of opportunity existed to put together the $8 million needed to acquire the land for habit conservation. The EHC, a nonprofit land trust which had long sought to acquire Lakeside Downs, brokered the deal. EHC brought together SANDAG, the property owner, and the military to make the acquisition a reality. This ongoing collaboration is essential to the success of conservation efforts in the San Diego region, as each habitat acquisition requires multiple agencies to come together to contribute their resources and expertise.

SANDAG provided $4 million through its TransNet EMP. The EMP is funded by TransNet, the regional half-cent sales tax for transportation approved by local taxpayers in 2004. TransNet EMP is a key cornerstone as it sets aside $850 million to fund environmental conservation efforts, as well as coordination among local, state, and federal agencies and nonprofit groups. The EMP provides competitive grants to groups, such as the EHC, to acquire critical habitat. These grants allow groups to leverage federal, state and other local funding to complete land acquisitions.

The U.S. Department of Defense, through its REPI Program, provided another $4 million to cover the remaining cost. Through the REPI Program, DoD supports cost-sharing agreements between the military and private conservation organizations or state and local governments to acquire interests in land from willing sellers near installations and ranges.

SANDAG and the Department of the Navy, on behalf of the U.S. Marine Corps, hold conservation easements over the property, ensuring long-term preservation. By doing so, the acquisition reduces on-station conservation pressures and restrictions on military readiness training.

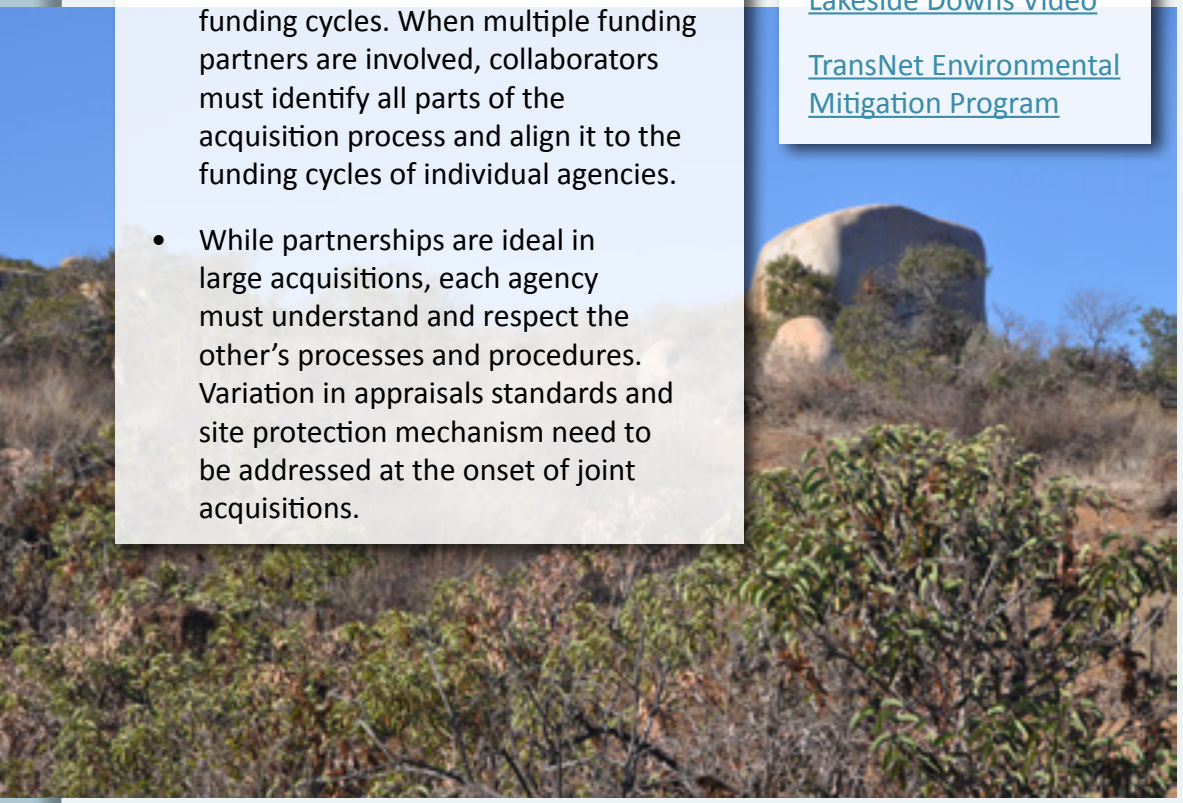
Lakeside Downs Land Acquisition
Continued

Successful Strategies

- The Lakeside Downs acquisition would have been a financial challenge for any one agency; the combination of local and federal dollars made it possible to overcome the financial challenge.
- A strong driver is critical to keeping the process moving. A nonprofit can serve this function by facilitating the process between the land owner and the funding agencies.

Lessons Learned

- Each agency must adhere to its own funding cycles. When multiple funding partners are involved, collaborators must identify all parts of the acquisition process and align it to the funding cycles of individual agencies.
- While partnerships are ideal in large acquisitions, each agency must understand and respect the other's processes and procedures. Variation in appraisals standards and site protection mechanism need to be addressed at the onset of joint acquisitions.



See Also:

Lakeside Downs Video

TransNet Environmental Mitigation Program

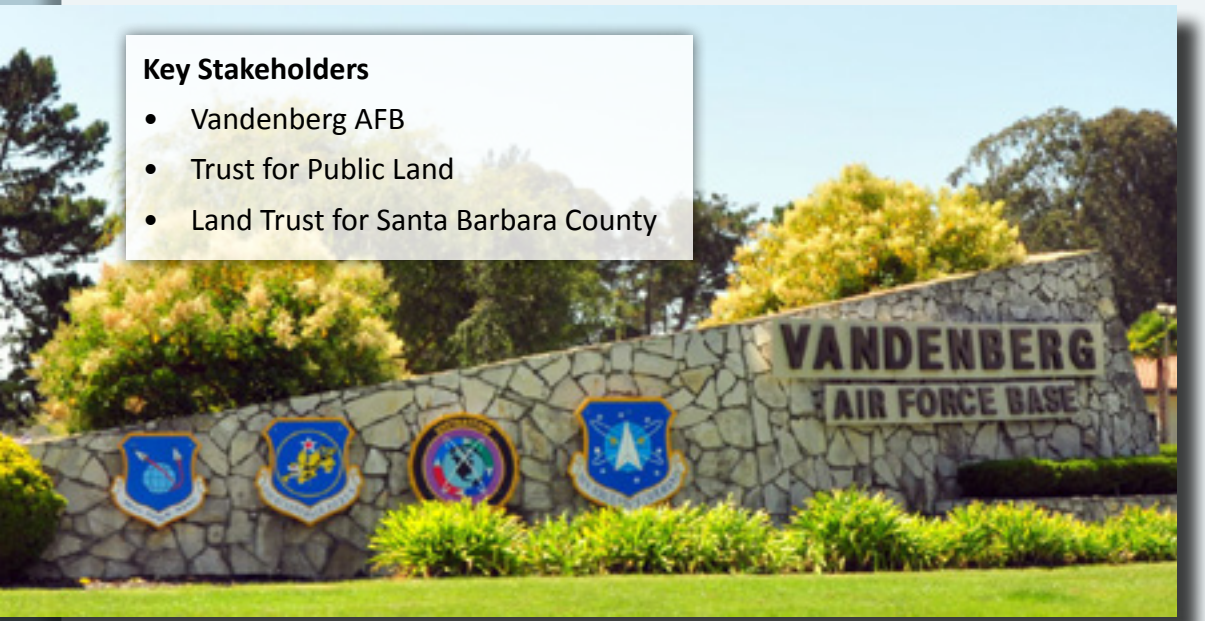
Enduring Benefits: The preservation of Lakeside Downs protects in perpetuity a key corridor for the coastal California gnatcatchers to move between conserved areas and land proposed for future conservation. Each open space acquisition helps the region protect its biodiversity and meet the objectives of its multiple species conservation program. Lakeside Downs also is a major stepping stone toward achieving the San Diego region's overall conservation goal.

Lompoc Valley Farm Conservation Easement

The Lompoc Valley project property has been farmed since 1861 and through matching funding from REPI and NRCS, will buffer Vandenberg AFB launch complex impact limits from urban development.

The Story

The Jordan family farm in Lompoc Valley has been farmed since 1861 and is surrounded on three sides by government land. The Jordan family had long contemplated placing an agricultural easement on the property with the long term goal of keeping the property in agriculture in perpetuity. The farm is the last privately held property adjacent to the base, and is located less than a half mile away from the impact line for Space Launch Complex-3, used to launch the Atlas V rocket. Preserving this prime farm land prevents development that would be incompatible with Vandenberg's space launch and vehicle recovery mission, and provide more flexibility to the installation's Western Range and Launch Operations when considering new technologies and project development.



Key Stakeholders

- Vandenberg AFB
- Trust for Public Land
- Land Trust for Santa Barbara County

The Solution

In 2014, Vandenberg AFB submitted a REPI proposal requesting $750,000 in REPI funding to place a conservation easement valued at $1.5 million on 780 acres of prime farmland adjacent to the installation in Santa Barbara County. In June 2014, The Trust for Public Land submitted an application for $750,000 in USDA NRCS ACEP-ALE funding for the project. The ACEP helps conserve agricultural lands and wetlands and their related benefits. The application indicated that matching funds in the amount of $750,000 would come from the DoD's REPI Program and that the Air Force would be a co-grantee to the easement.

Vandenberg AFB will allocate the REPI funding under an agreement with The Trust for Public Land, who will execute a separate cooperative agreement with NRCS for the ACEP-ALE funding. When the NRCS grant is confirmed, the team will use the ACEP-ALE funds to match the REPI funds. The Trust for Public Land will then use the combined funding to acquire the easement from the Lompoc Valley project property owners, granting the Air Force co-grantee status on the easement.

Lompoc Valley Farm Conservation Easement
Continued

Successful Strategies

- Maintain strategic relationships with stakeholders and landowners.
- Seek and pursue possible federal, state and local funding sources.
- Align stakeholder goals to optimize funding and target priorities.
- Partnering with NGO's to facilitate shared goals.

See Also:

DoD REPI Program

NRCS ACEP Program

Enduring Benefits: The Jordan Farms property will be permanently protected from any residential development by an agricultural conservation easement, the first of its kind in the agriculturally rich Lompoc Valley. Protection of the property is entirely compatible with the mission of Vandenberg AFB and prevents future encroachment on military missions by removing the potential for land use conflicts. This project will provide an incentive to other landowners in the area to similarly protect their agricultural lands.

Lessons Learned

- Develop agreements with all parties contributing funds so that all agree to the grantees selected and the guidelines.
- Choose a project that is a priority for all stakeholders involved in an effort to increase motivation.
- Develop land protection strategies that provide the maximum flexibility to stakeholders and leverage the greatest amount of resources.

Appendix A: Tools for Locating DoD Installations and Activities in California

While major military installations are easy to locate on a standard map, other military facilities and operating areas (i.e., ranges, special use air space, etc.) tend to be less obvious.

This appendix describes and links to useful resources to help local planners, decision makers, landowners, and developers determine if and where military installations and operating areas may be located in your area.

Digital Mapping Resources

These electronic mapping resources can be of great use when evaluating compatibility issues related to a proposed project, or land use near military activities.

- State of California Geoportal
- California Military Land Use Compatibility Analyst (CMLUCA)

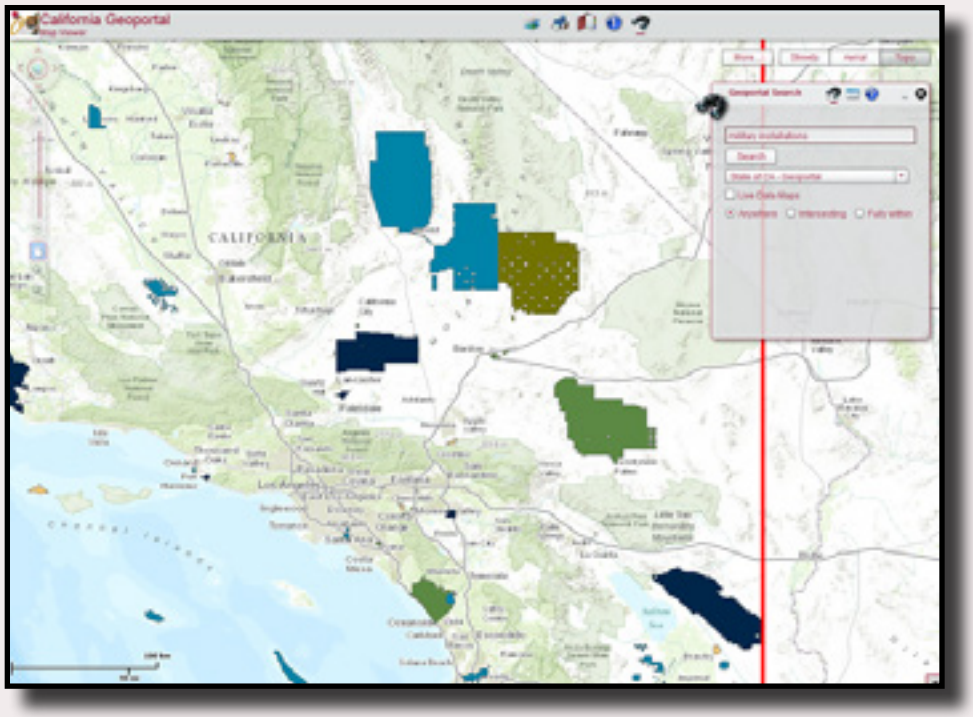
Inventory of DoD Installations and Activities in California

This is a set of detailed maps that highlight installations, facilities, and operating areas in the state, and this comprehensive inventory lists the Air Force, Army, Marine Corps, and Navy installations located in California, including points of contact for each.

State of California Geoportal

The State of California Geoportal provides a large range of geospatial data resources for the State of California and includes an integrated online Map Viewer where a user can view each data source online.

The Geoportal provides geospatial data for multiple categories including public safety (e.g. fire threat, natural hazards, tsunami hazards, water quality, wildfires, etc.), natural resources (e.g. farmland, CDFW BIOS, CDFW lands, parks and recreation, and protected marine areas, etc.), education (e.g. demographics, charter schools, etc.), health (e.g. medical services, etc.), and government (populations, military installations, Caltrans, nautical chart, etc.). Please review the series of video tutorials on how to best use this resource.



CMLUCA

California Military Land Use Compatibility Analyst

The CMLUCA site is designed to provide an automated method to determine what military resources are near a proposed project site. On this site, once a project site is entered, the CMLUCA application will provide a summary form that identifies the military resources that are on, over, or adjacent to a proposed project site based on the criteria established in Government Code §65940. This form can be printed and provided to a local jurisdiction for evaluation with a proposed project or plan.

CMLUCA allows you to determine if your project has the potential to affect areas important to military readiness. Government Code §65352, §65404, §65940, and §65944, amended by Senate Bill 1462 (Kuehl 2004) requires local planning agencies to notify the military whenever a proposed development project or general plan amendment meets one or more of the following conditions:

- Is located within 1,000 feet of a military installation,
- Is located within special use airspace, or
- Is located beneath a low-level flight path

When using the application, browse to your development project, or use the "Find Address" to locate an address, city, or other feature. County staff can zoom to their county on the map by selecting the name of the county from the drop down menu at the top of the screen. To obtain a printed text report for your county, select your county from the list at the top of the screen and then click on the "Print Report" box at the top of the screen. The application will then prepare a report highlighting the military installations or operating areas near the site selected.

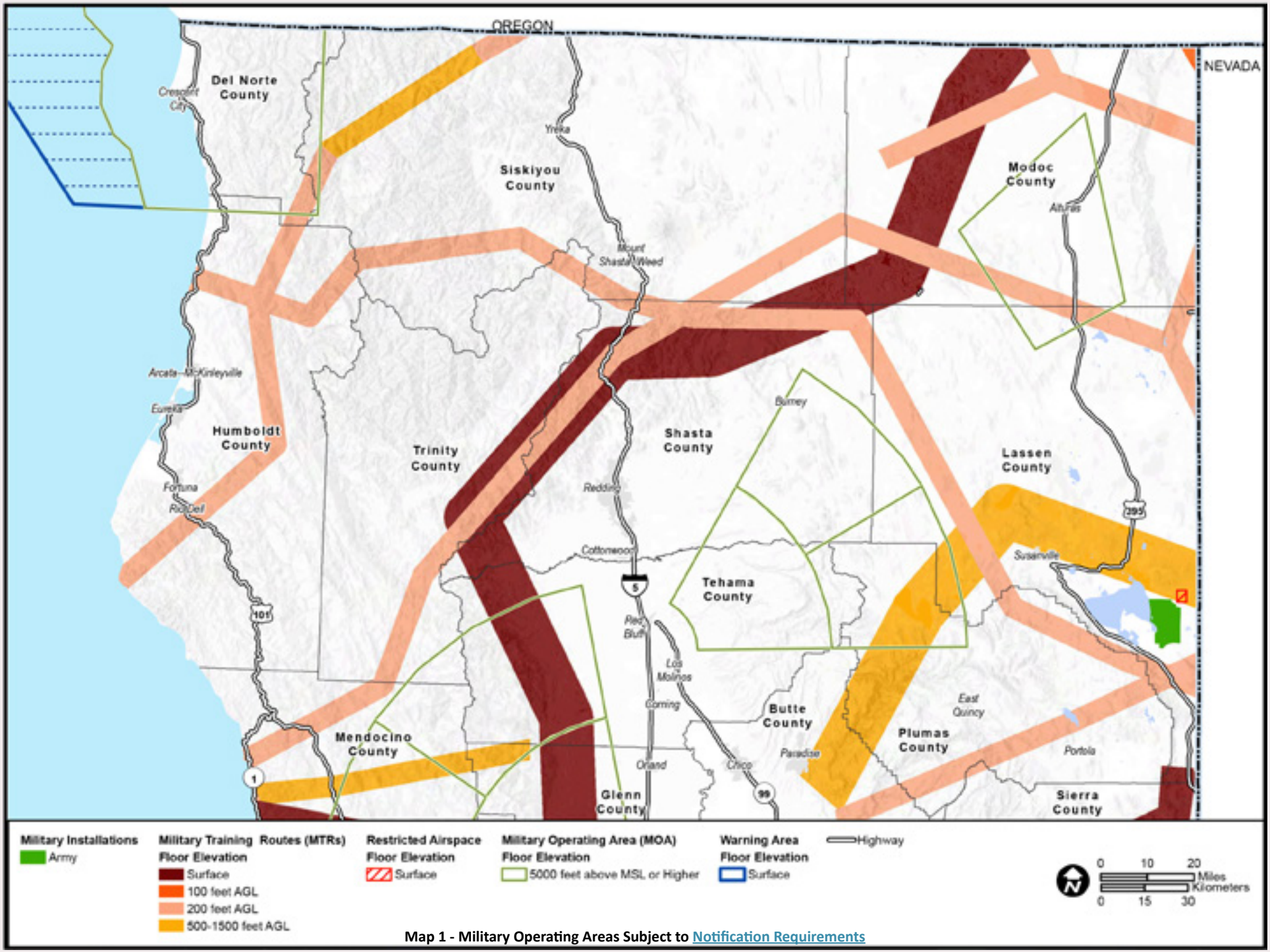
Map of DoD Installations and Operating Areas in California

This map of California identifies county boundaries and major DoD installations and operating areas. Each Military Service is color coded for easier identification.

Click on each map segment to identify the location of military installations and training areas at a regional level. These figures identify Military Special Use Areas including MOAs, Restricted Areas, Warning Areas, and the locations of all MTRs as well as counties, cities, and key communities in the region.

These maps are supplemented by a comprehensive inventory of the Air Force, Army, Marine Corps, and Navy installations located in California. These tables include the installation's type and name, the military service supported, service component (active, reserve, or National Guard), the nearest city, the county where the installation is primarily located (some operation areas and installations are located in multiple counties), and the installation's point of contact information.

Interactive map with major installations in California



Map 1 - Military Operating Areas Subject to Notification Requirements

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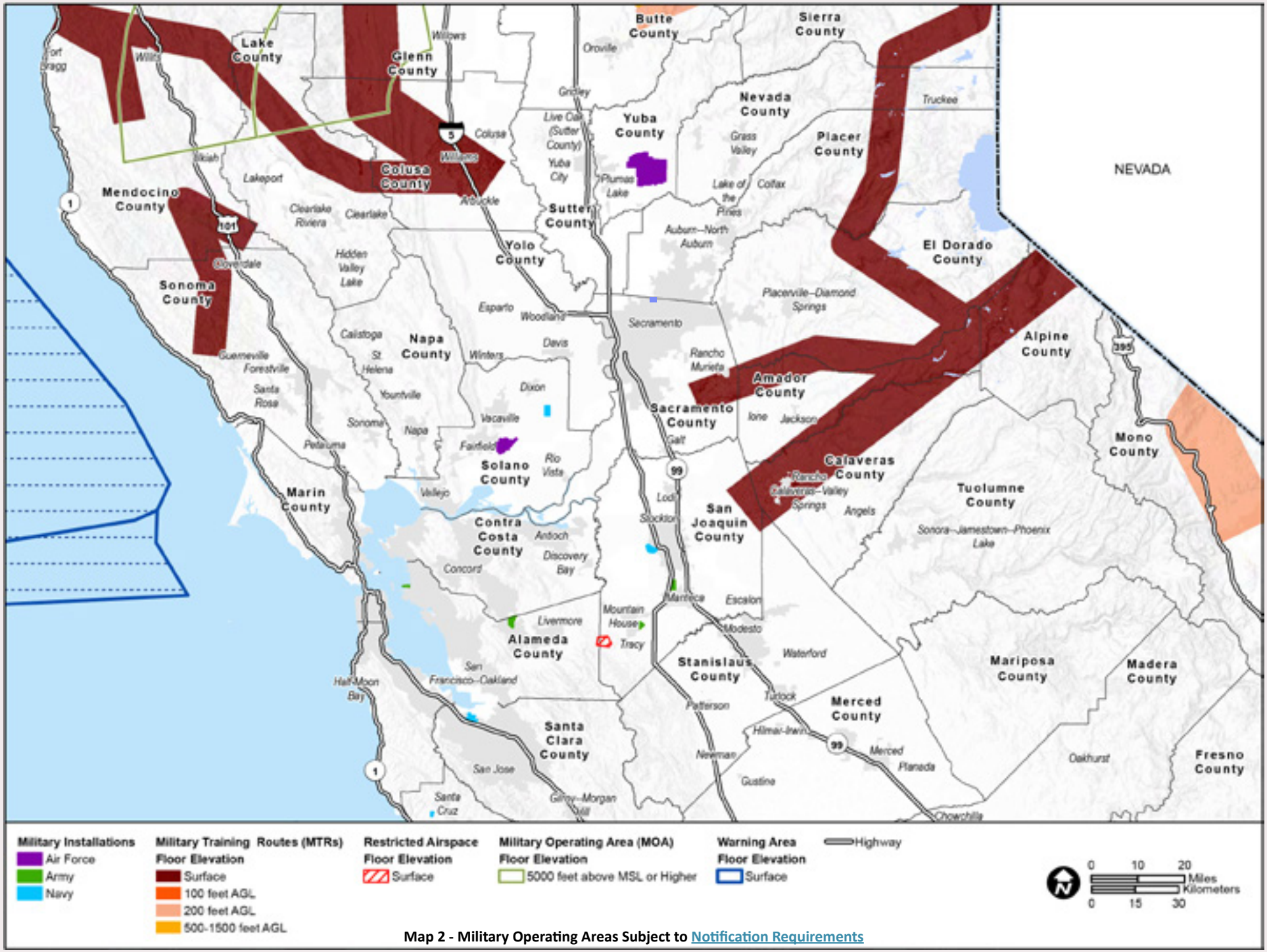

Map 2 - Military Operating Areas Subject to Notification Requirements

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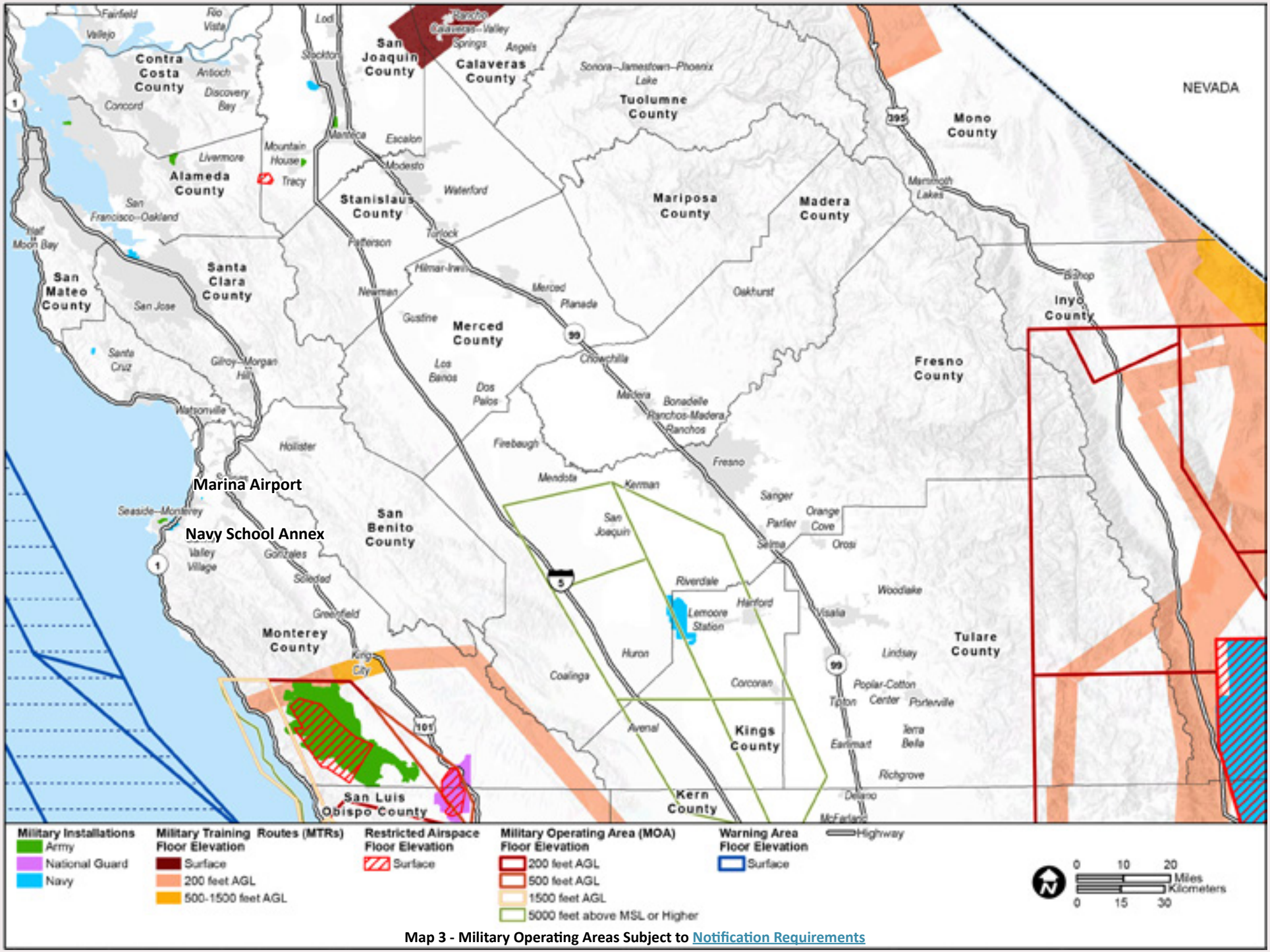

Map 3 - Military Operating Areas Subject to Notification Requirements

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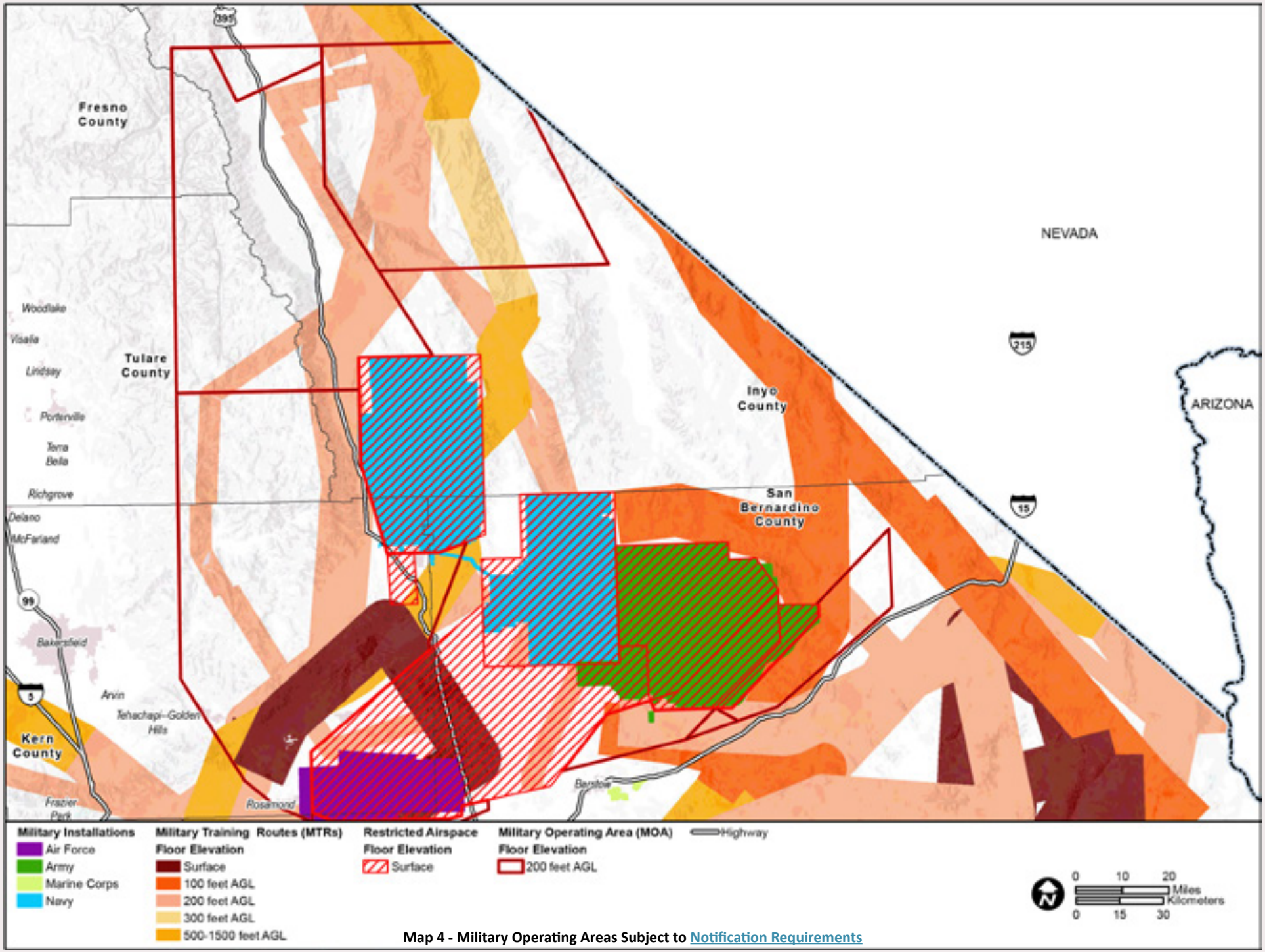
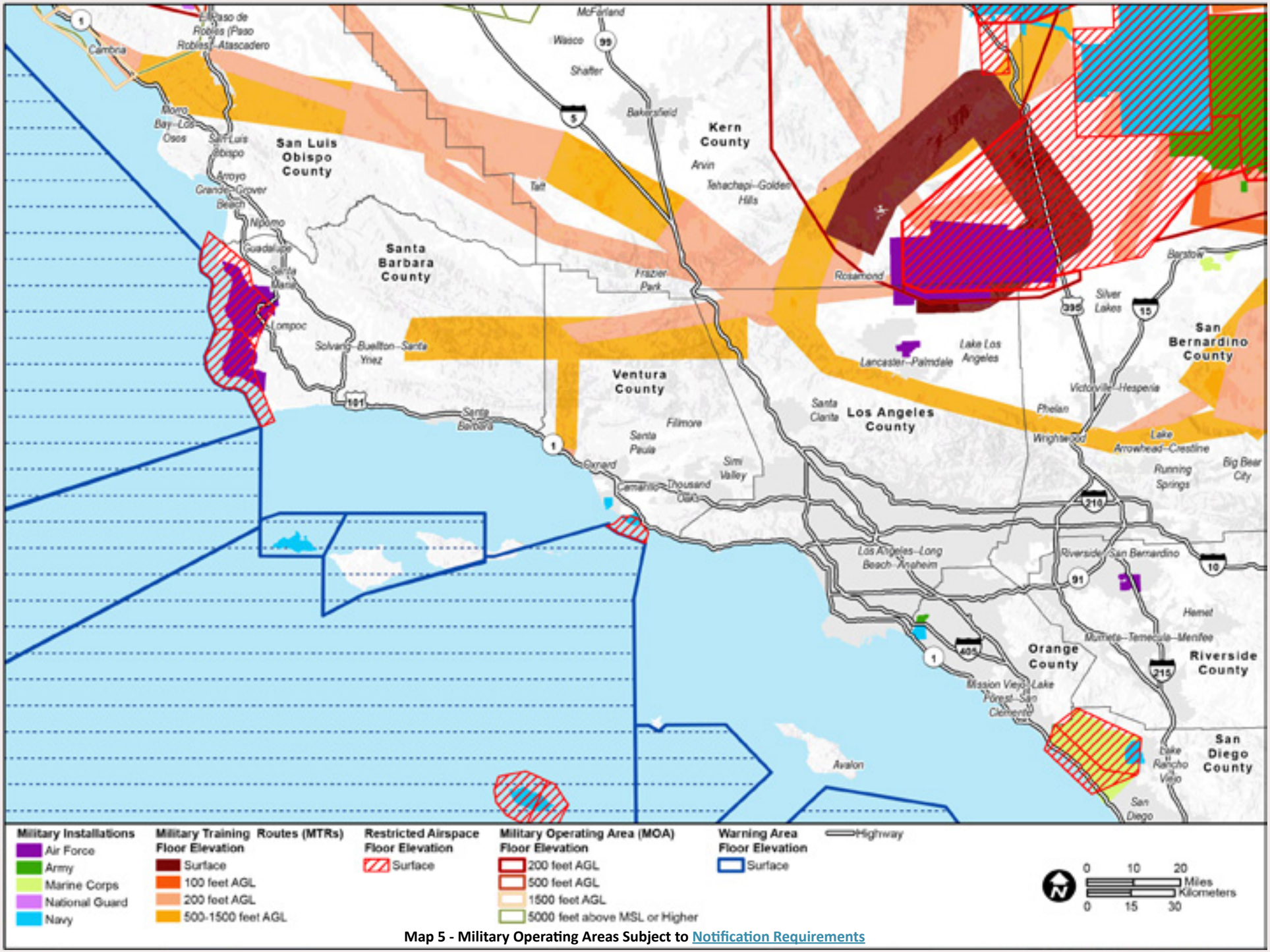


Map 4 - Military Operating Areas Subject to Notification Requirements



Map 5 - Military Operating Areas Subject to Notification Requirements

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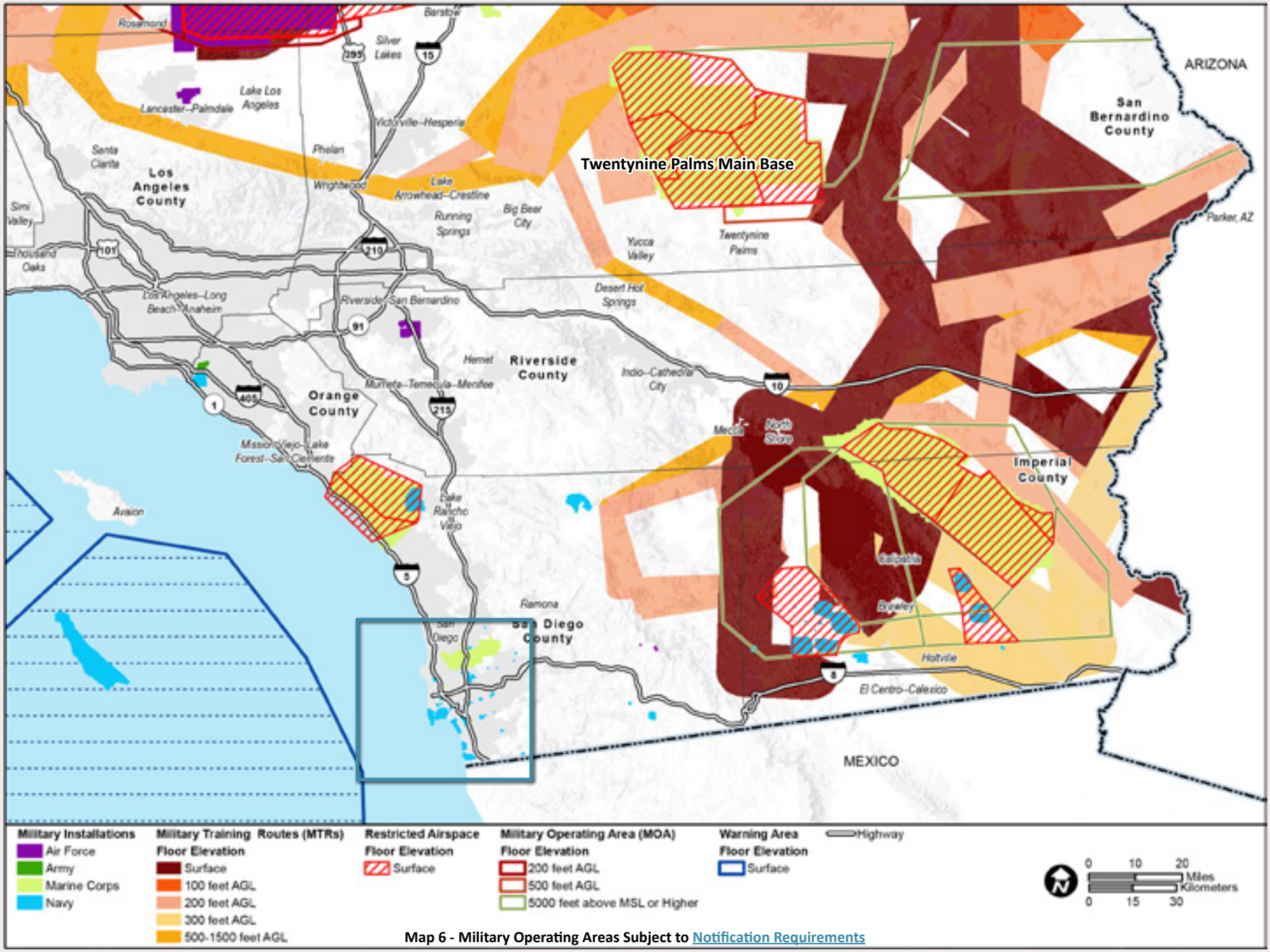

Map 6 - Military Operating Areas Subject to Notification Requirements

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Appendix B - Policy Examples

Policy Examples

SB 1468 (Knight, Chapter 971, Statutes of 2002) requires cities and counties to consider military readiness challenges (defined in Section 2) in their general plans and to ensure early and systematic awareness of potential land use conflicts. The purpose of SB 1468 was to address the need for better collaborative planning between local jurisdictions and military installations and operational areas.

The goal of SB 1468 is to "integrate balanced and compatible land use development in areas where military readiness activities occur. This would include military installations, ranges, and associated airspace." The following sample general plan goals and policies are provided to assist local governments (cities and counties) to achieve this goal.

The general plan expresses the development policies of the jurisdiction using text (in the form of goals, policies, standards, and implementation measures), maps, and diagrams. Together, these components guide the jurisdiction's future development. A definition of goals, policies, standards, and implementation measures follows.

Goal. A goal is a direction setter. For each topic, a goal provides a statement describing a desired future condition.

Policy. A policy is a specific statement designed to guide decision-making. It is a statement that provides a specific course of action to reach a goal.

Standard. A standard is a rule or measure establishing a level of quality or quantity that must be complied with or satisfied. Standards define the abstract terms of objectives and policies with concrete specifications. Standards are not used by all jurisdictions but can provide a good method for evaluating success.

Implementation Measure. An implementation measure is a specific measure, program, procedure, or technique that will be used to carry out plan policies. To increase effectiveness, an implementation measure should include a description of the action to be taken, describe who is responsible for implementing this action, and provide a time frame for when this action should be completed.

The Sample Policy Framework Language provides examples of general plan goals and policies that can be used by local governments in addressing military readiness in their general plans. These examples can be used and/or modified to fit the needs of each local jurisdiction.

In addition, specific examples of adopted policies throughout California are available in the DRECP Appendix J.

Sample Policy Framework Language

The following is an example of some of the language that could be used in the formation of the policy framework.

General Plan

Military Element:

California Government Code Section §65302 (a)(2), states that the land use element: "shall consider the impact of new growth on military readiness activities carried out on military bases, installations, and operation and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace."

In guiding growth and development in XX County, it is important to consider the critical role of military operating areas in support of national defense. Within XX County there are several military operating areas.

In addition, there are military operating areas that function as "highways in the sky" used by military aircraft to practice high- and low altitude training exercises and routes used to traverse between military installations. Any development or new construction that seriously impacts or hinders the military operating areas' function and viability is considered an incompatible land use. Planning to ensure that all future land uses are compatible must be an overarching goal of the XX County General Plan.

This overlay pertains to areas that are located within the military operating areas, as depicted in Figure YY. The military operating areas are comprised of a three-dimensional airspace designated for military training and transport activities that have a defined floor (minimum altitude) and ceiling (maximum altitude).

GOAL

Within the military influence area, all new development that could penetrate the defined floor elevation of the military operating areas, and uses that could encroach upon military operations within the MIAs, shall require issuance of an administrative or use permit.

Policies

Z.1 Uses that may be incompatible with the Military Review Area – Military Operating Areas (Figure XX) and will require issuance of an administrative or use permit include but not limited to:

1. Uses that release into the air any substance such as steam, dust, or smoke which would impair pilot visibility;
2. Uses that produce light emissions, glare, or distracting lights which could interfere with pilot vision, or be mistaken for airfield lighting;
3. Uses that physically obstruct any portion of the MOA due to relative height above ground level.
   a. For the purposes of determining whether a project penetrates the defined floor elevation of the MOA, a penetration shall mean physical obstructions from a structure or object, and/or a visual obstruction such as steam, dust, or smoke.
   b. For the purposes of calculating height of new proposed structures within the MOA, the height of all structures (including wind turbines) shall mean the distance from ground to the top of the highest point of the structure. For wind turbines this shall mean the highest point of the turbine blade in vertical position.
   c. For all proposed projects subject to review by the planning director, structures or uses within the military review areas that could penetrate the defined floor elevation shown in Figure XX, including but not limited

to wind energy system permit applications, notice with the project description including location and height, shall be mailed or delivered to the military expert for the Navy Region Southwest who is responsible for operations in the MOA upon receipt of the application to the planning director for review.

Z.2 Uses that may be incompatible with the Military Review Areas – Military Influence Areas (MIAs) (Figure XX) and will require issuance of an administrative or use permit include but not limited to:

1. Uses that release into the air any substance such as steam, dust, or smoke which would impair instruments or other ground-based military operations;
2. Uses that produce light emissions, glare, or distracting lights which could interfere with nighttime operations;
3. Uses that allow visibility to critical areas within the MIA due to relative height above ground level.
4. Uses that create electromagnetic interferences that may impact the research, development, testing, and training of instruments or other ground-based military operations;
5. Uses that emit a Doppler effect that may interfere with the research, development, testing, and training of instruments or other ground-based military operations;
6. Uses that create vibrations that may interfere with the research, development, testing, and training of instruments or other ground-based military operations;
7. Uses that restrict access to outlying military facilities; or
8. Uses that may impact military operations based on location within the MIA that could pose a health or safety hazard to the public and/or military personnel.

Safety Element:

When planning for new development within XX County, it is important to consider the critical role of the Military Influence Area (MIA) in support of national defense. Within XX County there are several operating areas, installations, and outlying facilities. Any development or new construction that impacts military operations within the Military Influence Area is considered an incompatible land use.

Legislative Drivers for Community and Military Compatibility Planning

In 1999, **SB 1099** (Knight, Chapter 425, Statutes of 1999) established the California Defense Retention and Conversion Council, effective until January 1, 2007. The council included representatives of all major executive branch agencies of the state, public appointees, and a non-voting liaison from each branch of the military. Council duties included identification of major installations in California; determination of how best to defend existing bases and base employment in the state; and preparation of a study focused on the long-term protection of lands adjacent to military bases.

In 2002, the California Legislature passed **SB 1468** (Knight, Chapter 971, Statutes of 2002) and AB 1108 (Pavley, Chapter 638, Statutes of 2002). SB 1468 requires cities and counties to consider the impact of new growth on military readiness activities when proposing zoning ordinances or when preparing or updating their general plan for lands adjacent to military facilities or underlying designated military aviation routes and airspace. The law also directed the OPR to include information in its general plan guidelines on how to reduce land use conflicts between civilian development and military readiness activities, and to develop this advisory handbook for local officials, planners, and builders.

AB 1108, passed in 2002, amended the CEQA to ensure military agencies are provided notice of proposed projects within two miles of installations or beneath training routes and SUA. To obtain this notification, military installations must provide the local planning agencies in their area with the installation's contact person and the relevant information and boundaries of the installation's low-level flight path, military impact zones, or SUA. The local lead agency is required to notify the military contact about any project within those boundaries if: (1) the project includes a general plan amendment; (2) the project is of statewide, regional, or area wide significance; or (3) the project is required to be referred to the airport land use commission or appropriately designated body (Public Resources Code 21098). This notification gives the military with an opportunity to provide early input, so that potential conflicts can be evaluated and addressed proactively.

In 2004, **SB 1462** (Kuehl, Chapter 907, Statutes of 2004) expanded the requirements for military notifications regarding proposed development and planning activities. This law requires that before a legislative body adopts or substantially amends a general plan, the planning agency shall notify a designated point of contact at the applicable military branch when a proposed project is located: (1) within 1,000 feet of a military installation, (2) beneath a low-level flight path, or (3) within SUA (Government Code 65352(a)(6)). The military is responsible for providing OPR with electronic maps of SUA, low-level flight paths, and military installations. OPR is then responsible for notifying cities and counties about how to access the information via the Internet. The law also requires local jurisdictions to revise their application checklists to require the applicant to identify when a proposed project is located within one of the three areas identified above (Government Code 65940(b)). In turn, the local jurisdiction is required to provide a copy of the completed application to affected branches of the United States Armed Forces (Government Code 65944(d)).

Appendix C: Technical Assistance and Planning Resources

Introduction

This section of the Handbook provides an overview of the key planning resources available to help local and military planners with compatibility planning efforts. This section highlights key planning and technical resources (designated with the reference symbol 🗝) and the agencies and organizations involved in land and resource planning in California (designated by an information symbol ◊).

State of California

🗝 California Adaptation Planning Guide

The Adaptation Planning Guide provides guidance to support regional and local communities in proactively addressing the unavoidable consequences of climate change. It was developed cooperatively by the California Natural Resources Agency, California Emergency Management Agency, with support from California Polytechnic State University–San Luis Obispo, and with funding through the Federal Emergency Management Agency and the California Energy Commission. The APG was developed under the guidance of an interagency steering committee and a technical advisory panel, and underwent an extensive review process following its release to the public as part of a conference held in April 2012 by the Governor's Office of Planning and Research, Confronting Climate Change: A Focus on Local Government Impacts, Actions and Resources. The APG provides a step-by-step process for local and regional climate vulnerability assessment and adaptation strategy development. Usage of the APG is meant to allow for flexibility in the commitment of time, money, and effort to suit the needs of the community.

🗝 California Airport Land Use Planning Handbook

An ALUCP is "a plan, usually adopted by a County ALUC, which sets forth policies for promoting compatibility between airports and the land uses which surround them." The California Airport Land Use Planning Handbook is published by the Caltrans Division of Aeronautics. Its purpose is to support and amplify the article of the State Aeronautics Act (California Public Utilities Code, §21670 et seq.), which established statewide requirements for the conduct of airport land use compatibility planning. In addition, it serves as the primary source of information regarding airport compatibility plans.

◊ California Air Resources Board

This agency provides policy, guidance, coordination, management, and enforcement of California air quality issues. It also provides technical support related to air quality policy. To mission of the Air Resources Board is to promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state.

◊ California Climate Change Portal

The California Climate Change Portal is a virtual research and information website for climate change mitigation and adaptation resources and information pertinent to the state of California. Information from the California Energy Commission's Climate Change Program Office, the PIER Program's climate change research unit, and other state agencies is combined and represented through the portal, including the impacts of climate change on California and the state's policies relating to global warming.

◊ California Coastal Commission

The Coastal Commission regulates development within portions of the coastal zone and oversees coastal planning efforts along the entire coast. A central feature of this joint action is the LCP. With certain exceptions, development within the coastal zone is subject to a Coastal Development Permit issued either by a local government pursuant to a certified LCP or, where no certified LCP exists, by the Coastal Commission. The Coastal Commission is a good source of information on coastal resources, coastal zone boundaries, and regulations concerning coastal development.

◊ California Department of Transportation

Caltrans manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans carries out its mission of providing a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

◊ California Department of Water Resources

The Department of Water Resources is responsible for managing and protecting California's water. It works with other agencies to benefit the state's people, and to protect, restore and enhance the natural and human environments.

◊ California Energy Commission

The California Energy Commission is the state's primary energy policy and planning agency. Established by the Legislature in 1974 and located in Sacramento, seven core responsibilities guide the Energy Commission as it sets California energy policy:

1. Forecasting future energy needs;
2. Promoting energy efficiency and conservation by setting the state's appliance and building energy efficiency standards;
3. Supporting energy research that advances energy science and technology through research, development and demonstration projects;
4. Developing renewable energy resources;
5. Advancing alternative and renewable transportation fuels and technologies;
6. Certifying thermal power plants 50 megawatts and larger;
7. Planning for and directing state response to energy emergencies.

◊ California Environmental Protection Agency

CALEPA provides policy, guidance, coordination, management, and enforcement of California environmental issues, and provides technical support related to environmental policy.

🗝 California Environmental Quality Act

CEQA was enacted in 1970 to protect the environment by requiring public agencies to analyze and disclose the potential environmental impacts of proposed land use decisions (Public Resources Code §21000, et. Seq). CEQA is modeled after the federal NEPA.

To provide guidance on the implementation of the CEQA statute, OPR prepares the CEQA Guidelines for adoption by the Secretary for Resources in accordance with §21083.

🗝 California Environmental Resources Evaluation System

CERES is an information system developed by the California Resources Agency to facilitate access to a variety of electronic data describing California's rich and diverse environments. The goal of CERES is to improve environmental analysis and planning by integrating natural and cultural resource information from multiple contributors and then making it available and useful to a wide variety of users.

🗝 California General Plan Guidelines

Every city and county in California is required by state law to prepare and maintain a planning document called a general plan. A general plan is designed to serve as the jurisdiction's "constitution" or "blueprint" for future decisions concerning land use, infrastructure, public services, and resource conservation. To assist local governments in meeting this responsibility, OPR is required to adopt and periodically revise guidelines for the preparation and content of local general plans (GC §65040.2).

🗝 California Military Land Use Compatibility Analyst

CMLUCA lets you determine if your project has the potential to affect areas important to military readiness. SB 1462 (Kuehl, Chapter 907, Statutes of 2004) requires local planning agencies to notify the military whenever a proposed development project or general plan amendment meets one or more of the following conditions:

- Is located within 1,000 feet of a military installation,
- Is located within special use airspace, or
- Is located beneath a low-level flight path.

◊ California Office of Environmental Health Hazard Assessment

The overall mission of OEHHA is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.

◊ California Strategic Growth Council

In September 2008, SB 732 was signed into law, creating the Strategic Growth Council. The SGC is a cabinet level committee that is tasked with coordinating the activities of state agencies to:

- Improve air and water quality
- Protect natural resources and agriculture lands
- Increase the availability of affordable housing
- Promote public health
- Improve transportation
- Encourage greater infill and compact development
- Revitalize community and urban centers
- Assist state and local entities in the planning of sustainable communities and meeting AB 32 goals

🗝 Climate Change Handbook for Regional Water Planning

Developed cooperatively by California DWR, The U.S. EPA, Resources Legacy Fund, and USACE, the Climate Change Handbook for Regional Water Planning provides a framework for considering climate change in water management planning. Key decision considerations, resources, tools, and decision options are presented that will guide resource managers and planners as they develop means of adapting their programs to a changing climate.

🗝 Energy Aware Planning Guide

The Energy Aware Planning Guide, developed by the California Energy Commission in 1993 and updated in 2011, is a comprehensive resource for local governments seeking to reduce energy use, improve energy efficiency, and increase usage of renewable energy across all sectors. Wiser use of energy resources can lead to cost savings for local governments, residents, and businesses; reinvestment in the local economy; improved quality of life and public health; increased compliance with state and federal goals; and a more secure future. Additionally, strategies to reduce energy consumption promote progress towards aggressive greenhouse gas reduction goals laid out in Assembly Bill 32 (Núñez Chapter 488, Statutes of 2006), California's Global Warming Solutions Act.

◊ California Governor's Office of Planning and Research

OPR was created by statute in 1970 (Chapter 1534) as the comprehensive statewide planning agency and the research staff to the Governor. The roles of the OPR include intergovernmental relations (including the state clearinghouse function), local government planning liaison, environmental policy coordination; and research assistance for the Governor. Some of OPR's duties include a responsibility to develop this planning handbook for communities and military installations.

- The major activities of the office include:
- Recommending and implementing state policies with regard to land use and growth planning;
- Carrying out policy research for the Governor and Cabinet;
- Providing technical planning advice to local governments, and state agencies and departments;
- Advising local governments, the public, and government agencies and departments on provisions of CEQA;
- Operating the State Clearinghouse to distribute environmental documents for state review and process federal grant documents; and
- Conducting other activities at the Governor's direction.

🗝 Planning, Zoning, and Development Laws

The PZDL is an important tool provided by OPR to help land use professionals keep abreast of ever changing land use laws and regulations. It is a compendium of state statutes related to land use planning, supplemented with legislative bill summaries and Attorney General opinions. The PZDL is divided into three parts: planning and zoning law (California Government Code §65000-66037), the Subdivision Map Act (California Government Code §66410-66499.58), and miscellaneous planning related laws.

◊ State Water Resources Control Board

This agency provides policy, guidance, coordination, management, and enforcement of California water issues. It also provides technical support on related water policy.

🗝 Strategies for Sustainable Communities: A Guidebook

Strategies to Sustainable Communities: A Guidebook Based on California Community Types was developed by the Office of Planning and Research and provides strategies, progress indicators, and resources for planners and decision-makers organized around ten defined community types that reflect the diversity of California communities and the challenges they face in their efforts to maintain quality of life for their residents.

Local Governments

◊ California Association of Local Agency Formation Commissions

CALAFCO was founded in 1971 to serve as an organization dedicated to assisting member LAFCos with educational and technical resources that otherwise would not be available. The Association provides statewide coordination of LAFCo activities, serves as a resource to the Legislature and other bodies, and offers a structure for sharing information among the various LAFCos and other governmental agencies.

◊ California State Association of Counties

According to the Association's web site, "the primary purpose of CSAC is to represent county government before the California Legislature, administrative agencies and the federal government. CSAC places a strong emphasis on educating the public about the value and need for county programs and services."

◊ Council of Governments

California's 25 COGs are regional planning agencies comprised of member counties and cities in a defined region. These entities work together to

address regional issues such as land use, housing, environmental quality, and economic development. COGs do not directly regulate land use. Elected officials from each of the cities and counties belonging to the COG make up its governing board. The following is a list of the COGs within California:

- Association of Bay Area Governments (ABAG)
- Butte County Association of Governments (BCAG)
- Council of Fresno County Governments (COFCG)
- Council of San Benito County Governments
- Coachella Valley Association of Governments (CVAG)
- Merced County Association of Governments (MCAG)
- Kern Council of Governments (KernCOG)
- Kings County Association of Governments (KCAG)
- Mendocino Council of Governments (MCOG)
- Association of Monterey Bay Area Governments (AMBAG)
- Orange County Council of Governments (OCCOG)
- Sacramento Area Council of Governments (SACOG)
- San Bernardino Associated Governments (SANBAG)
- San Diego Association of Governments (SANDAG)
- Santa Barbara County Association of Governments (SBCAG)
- Southern California Association of Governments (SCAG)
- Shasta Regional Transportation Agency (SRTA)
- San Gabriel Valley Council of Governments (SGVCOG)
- San Joaquin Council of Governments (SJCOG)
- San Luis Obispo Council of Governments (SLOCOG)
- Stanislaus Council of Governments (StanCOG)
- Western Riverside Council of Governments (WRCOG)
- Tulare County Association of Governments (TCAG)

◊ Institute for Local Government

The Institute for Local Government promotes good government at the local level with practical, impartial and easy-to-use resources for California communities. Founded in 1955, the Institute has been serving local officials' information needs for 60 years. The Institute's goal is to be the leading provider of information that enables local officials and their communities to make good decisions.

◊ League of California Cities

This organization is the leading advocacy organization for California cities. Its mission is, "To restore and protect local control for cities through education and advocacy in order to enhance the quality of life for all Californians." For planners, the organization's web site provides a wealth of information on cities within the state. From the web site, users can obtain a list of cities in the state, links to city web sites, and a searchable database of city officials.

Department of Defense

◊ Office of the Secretary of Defense: Office of the Assistant Secretary of Defense for Energy, Installations, & Environment

The OSD provides policy guidance, coordination, and management direction for the Department of Defense, as well as management oversight of the Military Services. More specifically, the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment provides budgetary, policy, and management oversight of the DoD acquisition and use of operational and installation energy to support warfighting and base operations.

◊ Office of Economic Adjustment

The OEA is the primary office of the DoD with responsibility for providing adjustment assistance to communities, regions, and states adversely impacted by significant Defense program changes. The OEA provides policy guidance, coordination, and management support to communities affected by DoD installations and operations. It also provides technical support related to BRAC and encroachment issues.

◊ DoD Regional Environmental Coordinators

The REC provides guidance and coordination support to installations and regulatory agencies affected by DoD installations and operations. California is in the Region IX with the Navy leading the component responsibility. The REC program exists:

- To protect the military's ability to prepare U.S. Service men and women to defend our country by working cooperatively with state governments and federal agencies on environmentally-related issues to ensure continued access and use of the necessary land sea and air space.
- To monitor new environmental requirements and communicate these to commands and installations that must comply with these laws and rules.
- To educate lawmakers and regulators on military impacts, concerns and needs so informed decisions can be made.
- To coordinate issues that impact more than one Service within a geographic region.
- To monitor application of enforcement in each jurisdiction to ensure equitable treatment of the DoD

🗝 Unified Facilities Criteria for Installation Master Planning Manual

The UFC 2-100-01 (May 15, 2012) provides guidance on preparing the Master Plan Report. The Master Plan Report provides a concise, comprehensive definition of planning proposals to solve current problems and meet future needs, as well as a record of the analytical process and rationale by which these proposals were developed.

🗝 Minimum Antiterrorism Standards for Buildings

The UFC 4-010-01 (February 9, 2012) provides planning, design, construction, sustainment, restoration, and modernization criteria. It applies to the US Military Departments, the Defense Agencies, and the DoD Field Activities. This publication provides technical criteria for military facilities construction by presenting minimum AT/FP standards for DoD facilities (e.g., standoff distances, building hardening, proper site planning). Each DoD Service may set more stringent AT/FP building standards to meet the specific threats in its area of responsibility. The overall goal of this UFC is to minimize the likelihood of mass casualties from terrorist attacks against DoD personnel in the buildings in which they work and live. The standards presented in this publication, and in its four appendices, apply to new and existing inhabited facilities.

Army

◊ U.S. Army Corps of Engineers

The USACE serves the Armed Forces and the Nation by providing vital engineering services and capabilities, as a public service, across the full spectrum of operations—from peace to war—in support of national interests. Corps missions include five broad areas:

1. Water Resources
2. Environment
3. Infrastructure
4. Homeland Security
5. Warfighting

Navy/Marine Corps

◊ Marine Corps Regional Commands

This agency provides policy, guidance, coordination, and management of Marine installations and operations. The Marine Corps regional command, MCIWEST serves as the primary point of contact for managing civil military relations that extend beyond single installations. The regional command coordinates compatible land use, environmental concerns, and government relations.

◊ Naval Facilities Engineering Command

This agency provides policy, guidance, coordination, and management of support to Navy and Marine Corps installation and operations, as well as provides technical and contracting support within area of responsibility. California is within NAVFAC Southwest.

Air Force

◊ Air Force Civil Engineer Center

The Air Force Civil Engineer Center is located at Joint Base San Antonio-Lackland, Texas. Its missions include facility investment planning, design and construction, operations support, real property management, readiness, energy support, environmental compliance and restoration, and audit assertions, acquisition and program management. The unit conducts its operations at more than 75 locations worldwide.

Other Federal Agencies

◊ Bureau of Land Management

The BLM is an agency within the U.S. DOI that administers public lands in the United States. The agency manages the federal government's nearly 700 million acres of subsurface mineral estate located beneath federal, state and private lands severed from their surface rights by the Homestead Act of 1862. The mission of the BLM is "to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations." The agency manages 221 wilderness areas, 23 national monuments and some 636 other protected areas as part of the National Landscape Conservation System. The State of California BLM Office divides the stated into three districts:

1. Northern California District
2. Central California District
3. California Desert District

◊ Bureau of Reclamation

The Bureau of Reclamation is a contemporary water management agency with a Strategic Plan outlining numerous programs, initiatives and activities that will help the Western States, Native American Tribes and others meet new water needs and balance the multitude of competing uses of water in the West. Their mission is to assist in meeting the increasing water demands of the West while protecting the environment and the public's investment in these structures. They place great emphasis on fulfilling our water delivery obligations, water conservation, water recycling and reuse, and developing partnerships with our customers, states, and Native American Tribes, and in finding ways to bring together the variety of interests to address the competing needs for our limited water resources. California is within the Mid-Pacific Region.

◊ Department of Energy

The mission of the Energy Department is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

◊ Department of the Interior

This agency provides policy, guidance, coordination, and management of federal lands. The department also oversees several key land management agencies, such as the BLM.

◊ Federal Aviation Administration

This agency provides policy, guidance, and coordination in matters dealing with civilian and military airspace, air traffic, and airports.

The FAA publishes a range of reporting documents (FLIP) that contain details on the military's use of airspace. These FLIPs contain DoD planning documents, enroute supplements, and terminal instrument procedures in PDF format. One of the FLIP reports, referred to as AP1 Bravo (AP1/B), is the area planning document for military training routes in North and South America. A link to the current version of this document is provided below.

◊ National Park Service

This agency provides policy, guidance, coordination, and management of the National Park System and the lands and facilities therein. California has a total of 27 national parks within the state.

◊ U.S. Fish and Wildlife Service

This agency provides policy, guidance, coordination, and management of federal reserves, as well as provides technical support related to fish and wildlife management. California is within the Pacific Southwest Region.

◊ U.S. Forest Service

This agency provides policy, guidance, coordination, and management of Federal Land, and National Forests. Region 5 of the USFS includes all of California.

◊ U.S. Geological Survey

The USGS is a science organization that provides impartial information on the health of our ecosystems and environment, the natural hazards that threaten us, the natural resources we rely on, the impacts of climate and land-use change, and the core science systems that help us provide timely, relevant, and useable information.

Potential Acquisition Funding Sources to Use for Purchase of Lease Land:

- Donations
- Bequests
- Project Campaigning
- Land Trades
- Loans
- Revolving Funds
- Charitable Creditors
- Federal Land and Water Conservation Fund
- General Funds and Bonds
- State Department of Parks and Recreation
- Habitat Conservation Fund
- Wildlife Conservation Board
- State Grants and Low Interest Loans
- Payment in Lieu of Dedication
- Special Assessment District
- Tax Return Funding
- Tobacco Tax
- Environmental License Plate Fund
- Gas Tax
- Wildlife Restoration Fund

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