

## ***The Importance of Aviation***

Aviation is a vital link in the transportation system. It provides a gateway to the world. California, as the sixth largest economy in the world, needs to be globally competitive. Air cargo, consisting mainly of high-value, time-sensitive documents and goods, plays a significant role in the vitality of the state's economy. In today's international and technology-oriented economy, businesses use the speed and reliability of air service to achieve operating efficiency. California's airports are critical for providing services such as business travel,



tourism, emergency response, fire suppression, and law enforcement. Airports, airlines, and businesses that support airports provide direct and indirect jobs and income throughout the state. Aviation provides tangible and intangible benefits, such as quality of life and enhanced mobility.



## ***Protecting Our Airports and Our Communities***

One of the greatest concerns facing airports today is the continued pressure brought about by inappropriate land use that threatens and limits the operations of an airport, referred to as "encroachment." The Caltrans, Division of Aeronautics (Division) role is to ensure that California has a sustainable airport system. Individually, many incompatible land use decisions may appear to have a negligible impact, but collectively, and over time, poor land use decisions can lead to the restriction of airport activity or to airport closure, thereby reducing or eliminating its many benefits—eroding the aviation system as a whole. This brochure is a guide to inform the general public, elected officials, and decision-makers on the importance of appropriate and responsible land use planning to prevent encroachment and preserve the state's aviation system, an integral part of the transportation network. To assist in this endeavor, the Division of Aeronautics publishes the California Airport Land Use Planning Handbook (Handbook), which establishes statewide guidelines for airport land use compatible planning based on the State Aeronautics Act.

Airports and the land around them are sensitive and valuable resources. It is the what, where and how we build that can endanger an airport; therefore, it is critical that compatible land use planning receive particular consideration. The Federal government, the State of California and local governments have put substantial public investment in California's aviation system, and we, as stewards of the system need to protect them.

DEPARTMENT OF TRANSPORTATION



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# ***Airport Land Use Compatibility Planning in California***



***Protecting Our Airports and Our Communities***

## Responsible Land Use Planning

When making land use decisions, it is important that the type and density of land use and its cumulative impacts are given careful consideration so that appropriate decisions are made for the airport, its context, and its environment. Acknowledging this need, in 1967 the California State Legislature authorized the creation of Airport Land Use Commissions (ALUC), to protect the “public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.” The law requires each County’s ALUC (or alternative process) to prepare an Airport Land Use Compatibility Plan (ALUCP) with a twenty-year planning horizon. The primary focus of an ALUCP is on broadly defined noise and safety impacts. In addition, ALUCs make compatibility determinations for compliance of all proposed development around an airport. A local government body may override an ALUC compatibility determination for any proposed incompatible land use by a two-thirds majority vote; however, they must notify the Division of Aeronautics and the ALUC of this intent 45 days prior to approving the override.



## Ground and Airspace Safety

A fundamental concern in achieving airport land use compatibility involves safety in the air and within the vicinity of the airport. Aircraft accidents happen infrequently, but the consequences can be severe. The concept of risk is central to the assessment of safety compatibility. The overall objective of safety compatibility is to minimize risks associated with potential aircraft accidents. There are two components to this strategy—safety of people and property on the ground and safety of aircraft occupants.

The primary ground strategy is to limit the intensity of use by limiting residential and non-residential densities and activities that attract people in locations most susceptible

to an off-airport aircraft accident. Certain risk-sensitive uses, such as schools and hospitals, and above ground storage of flammable or hazardous materials should be avoided regardless of the number of people involved. Open space

requirements near an airport enhance safety in cases when an aircraft is forced to make an emergency landing.

The primary strategy in the air is to prevent the intrusion of an airport’s airspace by the erection of structures that penetrate the imaginary surfaces that encircle an airport. This is a serious threat to pilot and passenger safety and may seriously limit the scope of aviation operations. It is important that natural and built objects do not penetrate this airspace. In order to protect the airspace around airports, structures should be designed to ensure that they do not intrude present or future proscribed airspace. Other hazards of concern are wildlife, and in particular, bird strikes.

For additional information on Federal regulations regarding airspace safety, refer to: Federal Aviation Regulation (FAR) Part 77, and California Public Utilities Code Sections 21658 and 21659.

## Aircraft Noise

Noise is one of the most basic airport land use compatibility concerns and can be perceived to be the most significant of the adverse impacts associated with airport activity. Noise, usually the most geographically extensive form of airport impact, is dependent on a number of attributes including the type of aircraft and frequency of flights. Addressing aircraft noise and its cumulative impacts requires continual corroboration and coordination among

pilots, airport operators, Federal Aviation Administration, Division of Aeronautics, ALUCs, local governments, and other constituents. Many people can be sensitive to aircraft noise even if it is barely audible above the quiet, natural background noise level. The basic strategy for achieving noise compatibility within an airport’s vicinity is to limit development of land uses that are particularly sensitive to noise. The most acceptable land uses for areas exposed to significant levels of aircraft noise are ones that either involve few people or generate significant noise levels themselves (such as industrial uses).



## School Site Evaluation

Education Code 17215 requires the Division to conduct a site investigation for the acquisition of every proposed public and charter school site within two nautical miles of an existing or planned runway. The Division evaluates the compatibility of the site with the Handbook, the ALUCP, along with other factors before making its recommendations to the State Department of Education for use in determining whether state funds can be expended on the school.

## Land Use Planning Documents

An Airport Master Plan is a 20-year comprehensive study of an airport that describes the short-, medium- and long-term development plans of an airport property and its facilities, recommended for update by the airport sponsor every 5-10 years. Depending on the size, function, issues, and role of the individual airport, the study will vary in complexity and detail.

An Airport Layout Plan is a set of drawings that provides a graphic representation of the current conditions and the future long-term planned development for an airport—a minimum requirement for airports to receive Federal assistance. A narrative report and pertinent layout sketches should accompany the ALP explaining and documenting proposed items of development, rationale for unusual design features and/or modifications to Federal Aviation Administration Airport Design Standards

An Airport Land Use Compatibility Plan provides for the orderly growth of an airport and the area surrounding the airport within the jurisdiction of the ALUCs, excluding existing land uses. Its primary function is to safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. To be effective, Division staff strongly encourages all of these documents be examined periodically to ensure that the documents remain current and consistent with changes in state laws, local land uses, and airport development and activity. Ideally, they would be prepared in concert with each other.

## Governmental Roles

Various levels of governments have differing roles and interests with land use planning around airports.

**Federal:** FAA approves airport noise studies, is the lead in the federal environmental processes, and manages the nation’s airspace. The FAA publishes standards for the airside of the airport and provides planning guidelines for use by airport sponsors.

**State:** The Division provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. Staff administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to prevent incompatible land use encroachment.

**Airport Land Use Commissions (ALUCs):** ALUCs prepare ALUCP and ensure county and city plans (general, specific and other) are consistent with the ALUCP. ALUCs establish the policies on land uses around the airport, ensuring they are compatible with airport operations. This is done on an advisory basis. ALUCs also evaluate the compatibility of proposed local agency land use policy actions with the relevant provisions in the ALUCP.

**Local Governments:** Cities and/or counties have a responsibility to ensure the orderly development of the airports within their local jurisdiction and make sure all applicable planning documents and building regulations are consistent with the ALUCP. They also have the final decision on local land use issues and have the ability to overrule ALUC determinations, with conditions.



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