Nevada County Airport
LAND USE COMPATIBILITY PLAN

Nevada County Airport Land Use Commission

July 6, 2011 Public Review Draft

Nevada County Airport Land Use Compatibility Plan

July 6, 2011 Public Review Draft

Prepared for

Nevada County Airport Land Use Commission

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Chapter 1

Introduction

1

Introduction

AIRPORT LAND USE COMPATIBILITY PLANNING

Function and Applicability of the Plan

The basic function of this *Nevada County Airport Land Use Compatibility Plan* (*Compatibility Plan*) is to promote compatibility between the airport and surrounding land uses. As adopted by the Nevada County Airport Land Use Commission (NCALUC), the plan serves as a tool for use by the commission in fulfilling its duty to review airport and adjacent land use development proposals. Additionally, the plan sets compatibility criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances and to land owners in their design of new development.

The Nevada County Airport lies in the western portion of Nevada County. The influence area for the Nevada County Airport, as defined herein, extends 1.3 miles from the airport's runway. This influence area encompasses lands within two local government jurisdictions:

- County of Nevada
- City of Grass Valley

Additionally, any city, special district, community college district, or school district that exists or may be established or expanded into the Nevada County Airport Influence Area defined by this *Compatibility Plan* are also subject to the provisions of the plan. The authority of the NCALUC does not extend to state, federal, or tribal lands. Details regarding the purpose, scope, and applicability of the *Compatibility Plan* are set forth in the policy chapter that follows.

Statutory Requirements

Powers and Duties

Requirements for creation of Airport Land Use Commissions (ALUCs) were first established under the California State Aeronautics Act (Public Utility Code Sections 21670 et seq.) in 1967. Although the law has been amended numerous times since then, the fundamental purpose of ALUCs to promote land use compatibility around airports has remained unchanged. As expressed in the present statutes, this purpose is:

> "...to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's 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 statutes give ALUCs two principal powers by which to accomplish this objective:

1. ALUCs must prepare and adopt an airport land use plan; and
2. ALUCs must review the plans, regulations, and other actions of local agencies and airport operators for consistency with that plan.

Limitations

Also explicit in the statutes are two limitations on the powers of ALUCs. Specifically, ALUCs have no authority over existing land uses (Section 21674(a)) or over the operation of airports (Section 21674(e)). Neither of these terms is defined within the statutes, although the interpretation of their meaning is fairly standard throughout the state.

- **Existing Land Uses**—The precise wording of the Aeronautics Act is that the authority of ALUCs extends only to land in the vicinity of airports that is "not already devoted to incompatible uses." The working interpretation of this language is that ALUCs have no state-empowered authority over existing land uses. The question then becomes one of determining what conditions qualify a land use as existing.

  For airport land use planning purposes, a land use can generally be considered existing once the local agency has completed all discretionary actions on the project and only ministerial approvals remain. A vacant property thus can be considered "devoted to" a particular use, even if the activity has not begun, once local government commitments along with substantial construction investments by the property owner make it infeasible for the property to be used for anything other than its proposed use. Local government commitment to a proposal can usually be considered firm once a vesting tentative map, development agreement, or other land use entitlement has been approved.

- **Operation of Airports**—Any actions pertaining to how and where aircraft operate on the ground or in the air around an airport are clearly not within the jurisdiction of ALUCs to regulate. ALUC involvement with aircraft operations is limited to taking the operational characteristics into account in the development of land use compatibility plans. This limitation on the jurisdiction of ALUCs cannot, however, be taken to mean that they have no authority with respect to new development on airport property. For example, the law specifically requires ALUCs to review proposed airport master plans for consistency with the commission's plans. ALUCs also are generally conceded to have authority to review proposals for nonaviation development on airport property.

A third, less absolute, limitation concerns the types of land use actions that are subject to ALUC review. The law emphasizes local general plans as the primary mechanism for implementing the compatibility policies set forth in an ALUC's plan. Thus, each of the land use jurisdictions affected by this *Compatibility Plan* is required to make its general plan consistent with the ALUC plan (or to overrule the commission). Once a local agency has taken this action to the satisfaction of the Airport Land Use Commission, the ALUC's authority to review projects within that jurisdiction is narrowly limited. The only actions for which review remains mandatory are proposed adoption or amendment of general plans, specific plans, zoning ordinances, and building regulations affecting land within an airport influence area. For an ALUC to review individual projects, the local agency must agree to submit them.

Nevada County Airport Land Use Commission

State law provides two basic options regarding the structure of airport land use commissions: a standard format or designation of an existing body to serve as the ALUC. Among California's 58 counties, these two formats are used in roughly equal proportions.

Membership on ALUCs structured in the standard manner is specified to be as follows:

- Two members appointed by the county board of supervisors;
- Two members appointed by a selection committee of mayors of the county's cities;
- Two members appointed by airport managers; and
- A seventh member, representing the general public, appointed by the other six members.

The designated body format has several possibilities. Most common is for a single- or multi-county council of governments or similar entity to be designated as the ALUC. Other types of bodies that serve as ALUCs in some counties include the county planning commission, the county airport commission, or the county board of supervisors.

Historically, the role of ALUC for Nevada County Airport (or "Air Park" as it was known) rested with the Foothill Airport Land Use Commission (FALUC) which operated under the auspices of the Sierra Planning Organization (SPO). On May 19, 2010, the Nevada County Transportation Commission was designated by the Nevada County Board of Supervisors and the City Selection Committee as the ALUC for the Nevada County Airport in accordance with the designated body provisions of Public Utilities Code Section 21670.1. The Nevada County Transportation Commission (NCTC) Executive Director serves as the NCALUC Executive Director with support from the NCTC staff.

Relationship of the ALUC to County and City Governments

The fundamental relationship between the NCALUC and the governments of Nevada County and the City of Grass Valley is set by the State Aeronautics Act. The NCALUC is not simply an advisory body for the board of supervisors or city council in the manner that their respective planning commissions are. Rather, it is more equivalent to a Local Agency Formation Commission (LAFCo). Within the bounds defined by state law, the decisions of the NCALUC are final and are independent of the board of supervisors or city council. The NCALUC does not need county or city approval in order to adopt this *Compatibility Plan* or to carry out NCALUC land use project review responsibilities. However, the NCALUC must consult with the involved agencies regarding establishment of the airport influence area boundary (Public Utilities Code Section 21675(c).

Another aspect of the relationship between the NCALUC and county and city governments concerns implementation of the *Compatibility Plan*. The NCALUC has the sole authority to adopt this plan and to conduct compatibility reviews, but, as noted earlier, the authority and responsibility for implementing the compatibility policies rests with the local governments.

Government Code Section 65302.3 establishes that each county and city affected by an airport land use compatibility plan must make its general plan and any applicable specific plans consistent with the ALUC's plan. Alternatively, local agencies can take the series of steps listed in the Public Utilities Code Section 21676 to overrule the ALUC. Actions that Nevada County and the City of Grass Valley can take to implement the *Compatibility Plan* or overrule the NCALUC are outlined later in this chapter.

PLAN PREPARATION AND REVIEW

State Guidelines

Although state law spells out the powers and duties of airport land use commissions and many of the procedural aspects of airport land use compatibility planning, it does not contain explicit compatibility guidelines. Rather, the law refers to another document, the *Airport Land Use Planning Handbook* published by the California Division of Aeronautics. Specifically, the statutes say that, when preparing compatibility plans for individual airports, ALUCs shall "be guided by" the information contained in the *Handbook*. The most recent edition of the *Handbook* was completed in January 2002 and is available for downloading from the Division of Aeronautics web site (http://www.dot.ca.gov/hq/planning/aeronaut/).

The *Airport Land Use Planning Handbook* is comprised of two major parts. The first part deals with the formation and operation of ALUCs, the preparation of compatibility plans, procedures for review of local actions, and the responsibilities of local agencies. Part II contains background information regarding noise and safety compatibility concepts and sets forth basic guidelines for land use compatibility criteria. This guidance is intended to serve as the starting point for compatibility planning around individual airports. The *Handbook* is not regulatory in nature and does not constitute formal state policy.

An additional function of the *Airport Land Use Planning Handbook* is established elsewhere in California state law. The Public Resources Code creates a tie between the *Handbook* and California Environmental Quality Act (CEQA) documents. Specifically, Section 21096 requires that lead agencies must use the *Handbook* as "a technical resource" when assessing airport-related noise and safety impacts of projects located in the vicinity of airports.

The policies and maps in this *Compatibility Plan* take into account the guidance provided by the current edition of the *Handbook*, dated January 2002. A new version of the *Handbook* is now circulating in draft form and is expected to be finalized in mid-2011. The new edition refines, clarifies, and reorganizes the content of the 2002 edition, but does not appreciably change the state guidance.

Relationship to Airport Master Plan

Airport land use compatibility plans are distinct from airport master plans in function and content. In simple terms, the issues addressed by airport master plans are primarily on-airport whereas those of concern in a compatibility plan are off-airport. The purpose of airport master plans is to assess the demand for airport facilities and to guide the development necessary to meet those demands. An airport master plan is prepared for and adopted by the agency that owns and/or operates the airport. In contrast, the purpose of a compatibility plan is to assure that incompatible development does not occur on lands surrounding the airport. The responsibility for preparation and adoption of compatibility plans lies with each county's airport land use commission.

This distinction notwithstanding, the relationship between the two types of plans is close. Specifically, Public Utilities Code Section 21675(a) requires that ALUC plans be based upon a long-range airport master plan adopted by the airport owner/proprietor. If such a plan does not exist for a particular airport, an airport layout plan may be used subject to approval by the California Division of Aeronautics. Furthermore, ALUC plans must reflect "the anticipated growth of the airport during at least the next 20 years."

The connection works in both directions, however. While a compatibility plan must be based upon an airport master plan, Public Utilities Code Section 21676(c) requires that any proposed modification to an

airport master plan be submitted to the ALUC to determine if the proposal is consistent with the compatibility plan. Provided that the off-airport compatibility implications of the proposed modifications are adequately addressed in the master plan, the outcome of this process usually is that the compatibility plan will need to be updated to mirror the new master plan.

Nevada County Airport Plans

The responsibility for master planning of the Nevada County Airport rests with the airport's proprietor, Nevada County. The current master plan for the Nevada County Airport was adopted by the Nevada County Board of Supervisors in 1981 and amended in 1992. The Airport Layout Plan drawing was approved by the Federal Aviation Administration (FAA) in February 2010 and illustrates proposed alterations to the airfield system. The principal development proposal shown on the Airport Layout Plan is relocating the Runway 25 threshold 300 feet east to the existing end of pavement, resulting in a future runway length of 4,650 feet.

With respect to aircraft activity projections, a 20-year activity forecast of 60,000 annual operations was developed for the purposes of this *Compatibility Plan*. This forecast is double the current (2010) activity level of 30,000 annual operations and is representative of the airport's current condition and potential growth.

In accordance with state law, the features of the Nevada County Airport development proposals having implications for off-airport land use have been taken into account in the preparation of this *Compatibility Plan*. In particular, the role of the airport and the planned long-term development of the runway system as identified in the Nevada County Airport Layout Plan were major inputs to the compatibility policies set forth herein.

Previous Compatibility Planning for Nevada County Airport

The Foothill Airport Land Use Commission adopted the original compatibility plan for Nevada County Airport—entitled *Nevada County Airport Comprehensive Land Use Plan*—in June 1987. The plan is based upon the development proposals provided in the 1981 Airport Master Plan. No changes have been made to the comprehensive land use plan.

2011 Compatibility Plan Review and Adoption Process

The Foothill ALUC was dissolved in May 2010 and the Nevada County Transportation Commission (NCTC) was designated as the ALUC for Nevada County Airport. The data contained in the June 1987 *Nevada County Airport Comprehensive Land Use Plan* was found to be outdated, so the NCTC took on the task to hire a consultant to update the text and exhibits as needed to reflect current airport and land use information.

A Technical Advisory Committee was established specifically for the *Compatibility Plan* project. The group's primary membership consisted of the NCTC/NCALUC Executive Director, Airport Manager and planning staff from the Nevada County Planning Department, City of Grass Valley Planning Division and City of Nevada City Planning. The Technical Advisory Committee assisted with providing airport and land use data, reviewing discussion papers and draft materials, and provided comments for consideration in the draft *Compatibility Plan*.

Adoption of the *Nevada County Airport Land Use Compatibility Plan* and associated Negative Declaration by the NCALUC is anticipated in late-2011. Following NCALUC adoption, this *Compatibility Plan* will replace the earlier *Nevada County Airport Comprehensive Land Use Plan (1987)*.

PLAN IMPLEMENTATION

General Plan Consistency

As noted above, state law requires each local agency having jurisdiction over land uses within an ALUC's planning area to modify its general plan and any affected specific plans to be consistent with the compatibility plan. The law says that the local agency must take this action within 180 days of when the ALUC adopts or amends its plan. The only other course of action available to local agencies is to overrule the ALUC by a two-thirds vote after first holding a public hearing and making findings that the agency's plans are consistent with the intent of state airport land use planning statutes.

A general plan does not need to be identical with the ALUC plan in order to be consistent with it. To meet the consistency test, a general plan must do two things:

- It must specifically address compatibility planning issues, either directly or through reference to a zoning ordinance or other policy document; and
- It must avoid direct conflicts with compatibility planning criteria.

Many community general plans pay little attention to the noise and safety factors associated with airport land use compatibility. Also, some of the designated land uses of property near an airport frequently are contrary to good compatibility planning. It is anticipated that each of the land use jurisdictions affected by this *Compatibility Plan* will need to make some modification to its general plan and/or other land use policy documents in order to meet the plan consistency requirements. (Note: An initial assessment of the consistency between the current local general plans and the policies set forth in this *Compatibility Plan* is contained in Appendix E).

Compatibility planning issues can be reflected in a general plan in several ways:

- **Incorporate Policies into Existing General Plan Elements**—One method of achieving the necessary planning consistency is to modify existing general plan elements. For example, airport land use noise policies could be inserted into the noise element, safety policies could be placed into a safety element, and the primary compatibility criteria and associated maps plus the procedural policies might fit into the land use element. With this approach, direct conflicts would be eliminated and the majority of the mechanisms and procedures to ensure compliance with compatibility criteria could be fully incorporated into a local jurisdiction's general plan.

- **Adopt a General Plan Airport Element**—Another approach is to prepare a separate airport element of the general plan. Such a format may be advantageous when a community's general plan also needs to address on-airport development and operational issues. Modification of other plan elements to provide cross referencing and eliminate conflicts would still be necessary.

- **Adopt Compatibility Plan as Stand-Alone Document**—Jurisdictions selecting this option would simply adopt as a local policy document the relevant portions of the *Compatibility Plan*—specifically, Chapter 2 plus any background information they wish to include. Changes to the community's existing general plan would be minimal. Policy reference to the separate *Compatibility Plan* document would need to be added and any direct land use or other conflicts with compatibility planning criteria would

have to be removed. Limited discussion of compatibility planning issues could be included in the general plan, but the substance of most compatibility policies would appear only in the stand-alone document.

- **Adopt Airport Combining District or Overlay Zoning Ordinance**—This approach is similar to the stand-alone document except that the local jurisdiction would not explicitly adopt the *Compatibility Plan* as policy. Instead, the compatibility policies would be restructured as an airport combining or overlay zoning ordinance. A combining zone serves as an overlay of standard community-wide land use zones and modifies or limits the uses permitted by the underlying zone. Flood hazard combining zoning is a common example. An airport combining zone ordinance can serve as a convenient means of bringing various airport compatibility criteria into one place. The airport-related height-limit zoning that many jurisdictions have adopted as a means of protecting airport airspace is a form of combining district zoning. Noise and safety compatibility criteria, together with procedural policies, would need to be added to create a complete airport compatibility zoning ordinance. Other than where direct conflicts need to be eliminated from the local plans, implementation of the compatibility policies would be accomplished solely through the zoning ordinance. Policy reference to airport compatibility in the general plan could be as simple as mentioning support for the airport land use commission and stating that policy implementation is by means of the combining zone. (An outline of topics which could be addressed in an airport combining zone is included in Appendix F.)

Overrule Process

The only other course of action available to local agencies is to overrule the ALUC by a two-thirds vote of its governing body after making findings that the agency's plans are consistent with the intent of state airport land use planning statutes. Additionally, the local agency must provide both the ALUC and Caltrans Division of Aeronautics, with a copy of the local agency's proposed decision and findings at least 45 days in advance of its decision to overrule and must hold a public hearing on the proposed overruling (Public Utilities Code Section 21676(a) and (b)). The ALUC and the Division of Aeronautics may provide comments to the local agency within 30 days of receiving the proposed decision and findings. If comments are submitted, the local agency must include them in the public record of the final decision to overrule the ALUC (Sections 21676, 21676.5 and 21677.) Note that similar requirements apply to local agency overruling of ALUC actions concerning individual development proposals for which ALUC review is mandatory (Section 21676.5(a)) and airport master plans (Section 21676(c)).

Project Referrals

In addition to the types of land use actions for which referral to the NCALUC is mandatory in accordance with state law, the *Compatibility Plan* specifies other land use projects that either must or should be submitted for review. These *major land use actions* are defined in Chapter 2. Beginning with when this plan is adopted by the NCALUC and continuing until such time as local jurisdictions have made the necessary modifications to their general plans, all of these major land use actions are to be submitted to the commission for review. After local agencies have made their general plans consistent with the *Compatibility Plan*, the NCALUC requests that these major actions continue to be submitted on a voluntary basis. These procedures must be indicated in the local jurisdiction's general plan or other implementing policy document in order for the general plan to be considered fully consistent with the *Compatibility Plan*.

PLAN CONTENTS

The *Compatibility Plan* is organized into three chapters and a set of appendices. The intent of this introductory chapter is to set the overall context of airport land use compatibility planning in general and for the Nevada County Airport and Nevada County Airport Land Use Commission in particular.

The policies and maps in Chapter 2 constitute the most important components of the plan. The policies establish procedures by which the NCALUC operates and conducts compatibility reviews of land use and airport development proposals. It also specifies compatibility criteria for future land use development in the airport environs. The policies also define the types of actions to be submitted for NCALUC review and the procedures that the NCALUC will follow in making compatibility determinations.

Chapter 3 presents various background data regarding features, impacts, and environs of Nevada County Airport. Chapter 3 also serves to document the data and assumptions upon which the compatibility policy maps for the airport are based.

Also included in this document are a set of appendices containing a copy of state statutes concerning airport land use commissions and other general information pertaining to airport land use compatibility planning. This material is mostly taken from other sources and does not represent NCALUC policy except where cited as such in Chapter 2—specifically the state ALUC statutes and certain other laws (Appendix A) and Federal Aviation Regulations Part 77 (Appendix B).

An Initial Study of environmental impacts has been prepared pursuant to the requirements of the California Environmental Quality Act (CEQA). Issues addressed include those identified in the 2007 California Supreme Court decision in *Muzzy Ranch Company v. Solano Airport Land Use Commission*. These issues include assessment of the potential future displacement of residential and nonresidential land use development as a result of implementation of this *Compatibility Plan*. A copy of the Initial Study and associated Negative Declaration was circulated for public review and comment on July 5, 2011.

Chapter 2

Policies

2

Policies

1. General Applicability

1.1. Purpose and Use

1.1.1. *Basic Purpose:* The basic purpose of this *Nevada County Airport Land Use Compatibility Plan (Compatibility Plan)* is to articulate procedures and criteria, established in accordance with the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.), applicable to airport land use compatibility planning in the vicinity of Nevada County Airport, a public-use general aviation airport owned by the County of Nevada.

1.1.2. *Effective Date:* The policies in this *Compatibility Plan* are effective as of the date that the Nevada County Airport Land Use Commission (NCALUC) adopts the plan for the Nevada County Airport. The effective date of this *Compatibility Plan* is [date to be inserted].

(a) The previous *Compatibility Plan* for Nevada County Airport was prepared in 1987 and originally adopted by the Foothill ALUC when it had the role of the ALUC for multiple counties including Nevada County. The 1987 plan was re-adopted by the Nevada County ALUC on May 9, 2010, when that entity assumed the ALUC function for the county. The earlier plan is in effect until NCALUC adoption of this *Compatibility Plan* and shall again become effective if the entirety or portions of the *Compatibility Plan* were to be invalidated by court action.

(b) Any project or phase of a project that has received local agency approvals sufficient to qualify it as an existing land use (see definition in Policy 1.2.12) prior to the date of the NCALUC's adoption of this *Compatibility Plan* shall not be required to comply with the policies herein. Rather, the policies of the 1987 compatibility plan shall apply.

1.1.3. *Use by Local Governmental Agencies:* The policies in this *Compatibility Plan* shall be used by the following local government agencies in the manner indicated below.

(a) Nevada County Airport Land Use Commission (NCALUC) shall*:*

(1) Adopt this *Compatibility Plan* in accordance with Public Utilities Code (PUC) Section 21674(c).

(2) Utilize the policies of the *Compatibility Plan* when reviewing certain proposed land use actions (see Section 1.4) in the influence area of the Nevada County Airport for compatibility with airport activity.

(3) Utilize the policies of the *Compatibility Plan* when evaluating proposed updates to the Nevada County Airport Master Plan as well as certain types of airport development proposals that also are subject to NCALUC review and are addressed by this plan.

(4) Utilize the policies of the *Compatibility Plan* when evaluating any proposal for a new airport or heliport whether for public use or private use (Public Utilities Code Section 21661.5), to determine whether such action is consistent with the criteria set forth herein.

(b) The County of Nevada and the City of Grass Valley shall:

(1) As required by state law (PUC Section 21676(a)), modify their respective general plan, specific plan, and zoning ordinance to be consistent with the policies in this *Compatibility Plan,* or take certain steps to overrule the NCALUC (see Section 2.5).

(2) Utilize the *Compatibility Plan*, either directly or as reflected in the appropriately modified general plan, specific plan, and zoning ordinance, when making planning decisions regarding proposed development of lands within the Nevada County Airport influence area.

(3) Refer proposed land use and airport actions for review by the NCALUC as specified by Section 1.4 herein.

(c) Special districts, school districts (including charter schools) and community college districts shall:

(1) Apply the policies of this *Compatibility Plan* when creating plans and making other planning decisions regarding the proposed development of lands under their control with an airport influence area.

(2) Refer land use proposals to the NCALUC for review.

1.2. Definitions

The following definitions apply for the purposes of the policies set forth in this document (additional terms are defined in the *Glossary*):

1.2.1. *Aeronautics Act:* Except as indicated otherwise, the article of the California PUC Section 21670 et seq., pertaining to airport land use commissions.

1.2.2. *Airport:* The Nevada County Airport, a public-use general aviation airport owned and operated by the County of Nevada.

1.2.3. *Airport Influence Area:* An area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The *airport influence area* constitutes the area within which certain land use actions are subject to NCALUC review to determine consistency with the policies herein.

1.2.4. *Airport Land Use Commission (ALUC):* The Nevada County Transportation Commission acting in its capacity as the Nevada County Airport Land Use Commission.

1.2.5. *Airport Land Use Commission Executive Director:* The Executive Director of the Nevada County Transportation Commission.

1.2.6. *Airspace Protection Surfaces:* Imaginary surfaces in the airspace surrounding the Airport defined in accordance with criteria set forth in Federal Aviation Regulations Part 77. These surfaces establish the maximum height that objects on the ground can reach without potentially creating constraints or hazards to the use of the airspace by aircraft approaching, departing, or maneuvering in the vicinity of the airport. The Airspace Protection Surfaces for the airport are presented in Map 2B in this chapter.

1.2.7. *Aviation-Related Use:* Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. Such uses specifically include runways, taxiways, and their associated protection areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations facilities, terminal buildings, etc.

1.2.8. *Avigation Easement:* An easement that conveys rights associated with aircraft overflight of a property, including creation of noise, limits on the height of structures and trees, etc. (see Appendix G).

1.2.9. *Community Noise Equivalent Level (CNEL):* The noise metric adopted by the State of California for describing airport noise impacts. The noise impacts are typically depicted by a set of contours, each of which represents points having the same CNEL value.

1.2.10. *Compatibility Plan:* This document, the *Nevada County Airport Land Use Compatibility Plan*.

1.2.11. *Compatibility Zone:* Any of the zones set forth herein for the purposes of assessing land use compatibility within the airport influence area.

1.2.12. *Existing Land Use:* A land use that either physically exists or for which certain local government commitments to the proposal have been obtained; that is, no further discretionary approvals are necessary.

(a) Local government commitment to a proposal can usually be considered firm once one or more of the following have occurred:

(1) A tentative parcel or subdivision map has been approved and not expired;

(2) A vesting tentative parcel or subdivision map has been approved;

(3) A development agreement has been approved and remains in effect;

(4) A final subdivision map has been recorded;

(5) A use permit or other discretionary entitlement has been approved and not yet expired; or

(6) A valid building permit has been issued.

(b) If a local agency's commitment to a development proposal expires, the proposal will no longer qualify as an "existing" land use. As such, the proposal shall be subject to the criteria of this *Compatibility Plan*.

(c) For a planned development to qualify as an existing land use in accordance with the provisions of this policy, the local agency must provide evidence to that effect to the NCALUC for the NCALUC's concurrence.

1.2.13. *Federal Aviation Regulations (FAR) Part 77:* The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects which exceed the Part 77 height limits constitute airspace obstructions.

1.2.14. *Height Review Overlay Zone:* Areas of land in the vicinity of an airport where the ground lies above an FAR Part 77 surface or is within 100 feet of the airspace surfaces in wooded areas.

1.2.15. *Infill:* Development of vacant or underutilized land within areas that are already largely developed or used more intensively. See Policy 5.5.1 for criteria used to identify infill areas for compatibility planning purposes.

1.2.16. *Local Agency:* The County of Nevada, the City of Grass Valley, or any other government agency (except state or federal government agencies or Indian tribes) having jurisdiction over land uses within their respective boundaries.

1.2.17. *Major Land Use Action:* Actions related to proposed land uses for which compatibility with airport activity is a particular concern, but for which NCALUC review is not always mandatory under state law. These types of actions are listed in Policy 1.4.3.

1.2.18. *Noise Impact Area:* The area within which the noise impacts, measured in terms of CNEL, generated by the airport may represent a land use compatibility concern. The noise impact area for the airport is presented in Chapter 3, Exhibit 3-5.

1.2.19. *Noise-Sensitive Land Uses:* Land uses for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. The most common types of noise sensitive land uses include, but are not limited to, the following: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child-care facilities, and certain types of passive recreational parks and open space.

1.2.20. *Nonconforming Use:* An existing land use that does not comply with the compatibility criteria set forth in this *Compatibility Plan*. See Policy 5.5.2 for criteria applicable to land use actions involving nonconforming uses.

1.2.21. *Overrule:* An action that a local agency can take in accordance with provisions of state law if it wishes to proceed with a proposed project affecting lands within the airport influence area in spite of an NCALUC finding that the action is inconsistent with this *Compatibility Plan*. See Section 2.5 for required steps that a local agency must take when overruling the NCALUC.

1.2.22. *Project; Land Use Action; Development Proposal:* Terms similar in meaning and all referring to the types of land use matters, either publicly or privately sponsored, which are subject to the provisions of this *Compatibility Plan*.

1.2.23. *Rare Special Events:* Events (such as an air show at an airport) for which a facility is not designed and normally used (See Policy 3.1.3).

1.2.24. *Real Estate Transaction Disclosure:* A form of buyer awareness documentation required by California state law and applicable to many transactions involving residential real estate including previously occupied dwellings. The disclosure notifies a prospective purchaser that the property is located in proximity to an airport and may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around the airport. See Policy 5.4.5 for applicability. Also see Policy 5.4.3 for a related buyer awareness tool, *recorded overflight notification*.

1.2.25. *Reconstruction*: The rebuilding of an existing nonconforming structure that has been fully or partially destroyed as a result of a calamity (not planned reconstruction or redevelopment). See Policy 5.5.3.

1.2.26. *Recorded Overflight Notification:* A form of buyer awareness documentation recorded in the chain of title of a property stating that the property may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around a nearby airport. Unlike an *avigation easement* (see Policy 3.1.9), a *recorded overflight notification* does not convey property rights from the property owner to the airport and does not restrict the height of objects. See Policy 5.4.3 for applicability. Also see Policy 5.4.5 for a related buyer awareness tool, *real estate transaction disclosure*.

1.2.27. *Redevelopment:* Development of a new use (not necessarily a new type of use) to replace an existing use at a density or intensity that may vary from the existing use. Redevelopment projects are subject to the provisions of this *Compatibility Plan* to the same extent as other forms of proposed development.

1.3. Geographic Scope

1.3.1. *Airport Influence Area:* As established and adopted by the NCALUC, the geographic scope of the *Nevada County Airport Land Use Compatibility Plan* encompasses all lands on which the uses could be negatively affected by present or future aircraft operations at the Nevada County Airport, as well as lands on which the uses could negatively affect airport usage. The specific limits of the Nevada County Airport influence area are depicted in Map 2A herein.

1.3.2. *Types of Airport Impacts:* In delineating the airport influence area for the airport, the geographic extent of four types of compatibility concerns are taken into account:

(a) Noise. Locations exposed to potentially disruptive levels of aircraft noise.

(b) Safety. Areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground.

(c) Airspace Protection. Places where height and certain other land use characteristics, particularly uses that attract birds, need to be restricted in order to protect the airspace required for operation of aircraft to and from the airport.

(d) Overflight. Locations where aircraft overflights can be intrusive and annoying to many people.

(e) Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are not addressed herein and are not factors that the NCALUC shall consider in reviewing land use actions or airport projects.

1.3.3. *Principal Compatibility Concerns:* The NCALUC is concerned only with the potential impacts related to:

(a) Exposure to aircraft noise;

(b) Land use safety with respect both to people on the ground and the occupants of aircraft;

(c) Protection of airport airspace from tall objects and certain other land use characteristics (e.g., bird attractions, sources of smoke, glare, etc.); and

(d) General concerns related to aircraft overflights.

1.3.4. *Airport Impacts Not Considered:* Other impacts sometimes created by airports (e.g. air pollution, automobile traffic, etc.) are not addressed by these compatibility policies and are not subject to review by the NCALUC. Also, in accordance with state law PUC Section 21674(e), neither this plan nor the NCALUC have authority over the operation of any airport (including where and when aircraft fly, airport security, and other such matters).

1.4. Types of Actions Subject to NCALUC Review

1.4.1. *Actions Which Always Require NCALUC Review:* As required by state law, the following types of actions shall be referred to the NCALUC for determination of consistency with the NCALUC's plan prior to their approval by the local agency:

(a) The adoption or approval of any amendment to a general or specific plan affecting the property within an airport influence area (PUC Section 21676(b)).

(b) The adoption or approval of a zoning ordinance or building regulation that (1) affects property within an airport influence area, and (2) involves the types of airport impact concerns listed in Policy 1.3.2 (PUC Section 21676(b)).

(c) Adoption or modification of the master plan for an existing public-use airport (PUC Section 21676(c)).

(d) Any proposal for expansion of an existing airport or heliport if such expansion will require an amended airport permit from the State of California PUC Section 21664.5.

(e) Any proposal for a new airport or heliport whether for public use or private use (PUC Section 21661.5) if the facility requires a state airport permit.

1.4.2. *Other Land Use Actions Potentially Subject to NCALUC Review:* In addition to the above types of land use actions for which NCALUC review is mandatory, other types of land use actions are subject to review under the following circumstances:

(a) Interim Review of Major Land Use Actions: Until such time as (1) the NCALUC finds that a local agency's general plan or specific plan is consistent with the *Compatibility Plan*, or (2) the local agency has overruled the NCALUC's determination of inconsistency, state law provides that the NCALUC may require the local agency to refer all actions, regulations, and permits involving land within an airport influence area to the NCALUC for review (PUC Section 21676.5(a)). Only those actions that the NCALUC elects not to review are exempt from this requirement. NCALUC policy is that only the *major land use actions* listed in Policy 1.4.3 shall be submitted for review.

(b) Voluntary Review of Major Land Use Actions: After a local agency has revised its general plan or specific plan or has overruled the NCALUC, the NCALUC no longer has authority under state law to require that all actions, regulations, and permits be referred for review. However, the NCALUC and the local agency can agree that the NCALUC should continue to review individual projects in an advisory capacity.

(1) The NCALUC requests local agencies to continue to submit *major land use actions* as listed in Policy 1.4.3. NCALUC review of these types of projects can serve to enhance their compatibility with airport activity.

(2) Review of these actions is requested only if a review has not previously been conducted as part of a general plan, specific plan, or zoning ordinance action or

if sufficient project-level detail to enable a full assessment of compatibility was not available at the time of a previous review.

(3) Because the NCALUC acts in an advisory capacity when reviewing projects under these circumstances, local agencies are not required to adhere to the overruling process if they elect to approve a project without incorporating design changes or conditions suggested by the NCALUC.

(c) Proposed redevelopment of a property for which the existing use is consistent with the general plan and/or specific plan, but nonconforming with the compatibility criteria set forth in this plan, shall be subject to NCALUC review. This policy is intended to address circumstances that arise when a general or specific plan land use designation does not conform to NCALUC compatibility criteria, but is deemed consistent with the Compatibility Plan because the designation reflects an existing land use. Proposed redevelopment of such lands voids the consistency status and is to be treated as new development subject to NCALUC review even if the proposed use is consistent with the local general plan or specific plan. (Also see Policies 5.5.2 and 5.5.3.)

(d) Proposed land use actions covered by Paragraphs (a), (b), and (c) above shall initially be reviewed by the NCALUC Executive Director. If the Executive Director determines that significant compatibility issues are evident, the submitting agency or project applicant shall be informed that the proposal will be forwarded to the NCALUC for review and decision. The NCALUC authorizes the Executive Director to approve proposed actions having no apparent compatibility issues of significance. Development within the Urban Overlay Zone is anticipated to be generally compatible with the Compatibility Plan.

(e) The California Environmental Quality Act (CEQA) requires environmental documents for projects situated within an airport influence area to evaluate whether the project would expose people residing or working in the project area to excessive levels of airport-related noise or to airport-related safety hazards (Public Resources Code Section 21096).

(1) In the preparation of such environmental documents, the law specifically requires that the *Airport Land Use Planning Handbook* published by the California Division of Aeronautic be utilized as a technical resource. For any project within an airport influence area, the compatibility criteria contained in this *Compatibility Plan* should also be addressed in the environmental document.

(2) Submittal of environmental documents for NCALUC review is not mandatory. However, if an environmental document has been prepared for a land use action submitted to the NCALUC for review, a copy should be provided as part of the submittal.

1.4.3. *Major Land Use Actions:* The scope or character of certain *major land use actions,* as listed below, is such that their compatibility with airport activity is a potential concern. Even though these actions may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better assessment of compliance with the compatibility criteria set forth herein, NCALUC review of these actions may be warranted. Policy 1.4.2 above indicates the circumstances under which NCALUC interim or voluntary review of these major land use actions is to be conducted.

(a) Actions affecting land uses within compatibility zones A through D.

(1) Any proposed expansion of the sphere of influence of a city or special district.

(2) Proposed pre-zoning associated with future annexation of land to a city.

(3) Proposed development agreements or amendments to such agreements.

(4) Proposed residential development, including land divisions, consisting of five or more dwelling units or parcels.

(5) Any discretionary development proposal for projects having a building floor area of 20,000 square feet or greater unless only ministerial approval (e.g. a building permit) is required.

(6) Any proposal requiring discretionary local agency approval for projects regularly attracting more than 100 people (including employees, customers/visitors) to outdoor activities on the project site (e.g., flea markets).

(7) Major capital improvements (e.g. water, sewer, or roads) which would promote urban uses in undeveloped or agricultural areas to the extent that such uses are not reflected in a previously reviewed general plan or specific plan.

(8) Proposed land acquisition by a government entity for any facility accommodating a congregation of people (for example, a school or hospital).

(9) Any off-airport, nonaviation use of land within Compatibility Zone A of any airport.

(10) All proposals for new development, including vegetation, within Compatibility Plan A.

(11) Proposals for new development (including buildings, antennas, and other structures) having a height of more than:
- 10 feet within Compatibility Zones B1, or B2;
- 35 feet within Compatibility Zone C or a Height Review Overlay Zone; or
- 100 feet within *Compatibility Zone D* or *E*.

(12) Any obstruction reviewed by the Federal Aviation Administration in accordance with Part 77 of the Federal Aviation Regulations that receives a finding of anything other than "not a hazard to air navigation."

(13) Any project having the potential to create electrical or visual hazards to aircraft in flight, including:
- Electrical interference with radio communications or navigational signals;
- Lighting which could be mistaken for airport lighting;
- Glare in the eyes of pilots of aircraft using the airport; and
- Impaired visibility near the airport.

(14) Projects having the potential to cause increased attraction of birds or other wildlife that can be hazardous to aircraft operations within the vicinity of an airport.

(b) Actions affecting land uses within compatibility zones D* (Urban Overlay Zone), E, and the Height Review Overlay zone.

(1) Any proposal for development projects having an average density of 21 or more residential dwelling units per acre.

(2) Any proposal requiring discretionary local agency approval for development projects regularly attracting more than 200 people to outdoor activities on the project site.

(3) Any obstruction reviewed by the Federal Aviation Administration in accordance with Part 77 of the Federal Aviation Regulations that receives a finding of anything other than "not a hazard to air navigation."

(4) Any project having the potential to create electrical or visual hazards to aircraft in flight, including:
- Electrical interference with radio communications or navigational signals;
- Lighting which could be mistaken for airport lighting;
- Glare in the eyes of pilots of aircraft using the airport; and
- Impaired visibility near the airport.

(5) Projects having the potential to cause increased attraction of birds or other wildlife that can be hazardous to aircraft operations within the vicinity of an airport.

(c) Proposed nonaviation development of airport property if such development has not previously been included in an airport master plan or community general plan reviewed by the NCALUC. (See Policy 1.2.7 for definition of aviation-related use.)

(d) Any other proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities.

1.4.4. *Airport Planning and Development Actions Subject to NCALUC Review:* Under state law, planning and development actions involving airport property are subject to NCALUC review as follows:

(a) Prior to approving either of the following types of airport planning and development actions, the airport owner must refer the action to the NCALUC for determination of consistency with the *Compatibility Plan*.

(1) Adoption or modification of an airport master plan (Public Utilities Code Section 21676(c)).

(2) Any proposal for "expansion" of an existing airport or heliport if such expansion will require an amended Airport Permit from the state of California (Public Utilities Code Section 21664.5). As used in the statutes, "expansion" means construction of a new runway, extension or realignment of an existing runway, or related acquisition of land.

(3) Any proposal for a new airport or heliport whether for public use or private use (Public Utilities Code Section 21661.5) if the facility requires a state airport permit.

(b) Nonaviation development of airport property is not deemed to be a form of airport operations. Consequently, such development is subject to NCALUC review just as is required for NCALUC review of nonaviation development actions off airport property. The review may take place as part of an airport master plan or on an individual development project basis.

1.5. Limitations of the NCALUC and Compatibility Plan

1.5.1. *Government Agencies and Native American Tribes*: Lands within an airport influence area controlled by federal or state agencies or by Native American tribes are not subject to the provision of this *Compatibility Plan*.

1.5.2. *Airport Operations:* In accordance with state law, neither the NCALUC nor this *Compatibility Plan* have authority over airport operations including where and when aircraft fly, the

types of aircraft flown, and other such matters (Public Utilities Code Section 21674(e)). Furthermore, the NCALUC and this *Compatibility Plan* have no authority over the planning or design of aviation-related uses except as described below (see Policy 1.2.7 for definition of an *aviation-related use*). NCALUC authority applies only as indicated in Policy 1.4.4.

1.5.3. *Existing Land Uses:* In accordance with Public Utilities Code Section 21674(a), the policies of this *Compatibility Plan* do not apply to existing land uses, whether or not they are consistent with the *Compatibility Plan*. See Policy 1.2.12 for a list of qualifying criteria for determining what constitutes an existing land use.

2. Review Process

2.1. General

2.1.1. *Timing of Project Submittal:* The precise timing of the NCALUC's or NCALUC Executive Director's review of a proposed land use action may vary depending upon the nature of the specific project.

(a) In general, plans and projects should be referred to the NCALUC at the earliest reasonable point in time so that the NCALUC's review can be duly considered by the local agency prior to when the agency formalizes its actions. Depending upon the type of plan or project and the normal scheduling of meetings, NCALUC review can be completed before, after, or concurrently with review by the local planning commission and other advisory bodies, but must be accomplished before final action by the local agency.

(b) Although the most appropriate timing for a proposed land use action to be referred to the NCALUC for review is soon after a formal application has been submitted to the local agency, the completion of a formal application with the local agency is not required prior to a local agency's referral of a proposed land use action to the NCALUC. Rather, a project applicant may request, and the local agency may refer, a proposed land use action to the NCALUC for review, so long as the local agency is able to provide the NCALUC with the project submittal information for the proposal, as specified in herein.

2.1.2. *Public Input:* Where applicable, the NCALUC shall provide public notice and obtain public input in accordance with Public Utilities Code Section 21675.2(d) before acting on any plan, regulation, or other land use proposal under consideration.

2.1.3. *Fees:* Any applicable review fees as established by the NCALUC shall accompany the submittal of actions for formal NCALUC or NCALUC Executive Director review.

2.2. Review Process for Community Land Use Plans and Ordinances

2.2.1. *Initial NCALUC Review of General Plan Consistency:* In conjunction with adoption or amendment of this *Compatibility Plan*, the NCALUC shall review the general plans and specific plans, of affected local agencies to determine their consistency with the NCALUC's policies.

(a) Following NCALUC's adoption or amendment of the *Compatibility Plan*, each local agency must amend its general plan and any applicable specific plan to be consistent with the NCALUC's plan or, alternatively, adopt findings and overrule the NCALUC in accordance with PUC Section 21676(b) (Government Code Section 65302.3).

(b) Prior to taking action on a proposed amendment of a general plan or specific plan as necessitated by Paragraph (a) of this policy, the local agency must submit a draft of the proposal to the NCALUC for review and determination of consistency.

(c) In conjunction with its submittal of a general plan or specific plan amendment to the NCALUC, a local agency may request that the NCALUC modify the areas defined as "infill" in accordance with Policy 5.5.1. The NCALUC will include a determination on the infill as part of its action on the consistency of the general plan and specific plans.

2.2.2. *Subsequent Reviews of Related Land Use Development Proposals:* As indicated in Policies 1.4.1(a) and 1.4.1(b), prior to taking action on an amendment of a general plan or specific plan or the addition or approval of a zoning ordinance or building regulation affecting an airport influence area as defined herein, local agencies must submit the proposed plan, ordinance, or regulation to the NCALUC for review. Subsequent land use development actions that are consistent with applicable, previously reviewed, local plans, ordinances, and regulations are subject to NCALUC review only under the conditions indicated in Policies 1.4.2 and 2.3.6.

2.2.3. *Required Submittal Information:* Copies of the complete text and maps of the plan, ordinance, or regulation proposed for adoption or amendment must be submitted. Any supporting material documenting that the proposal is consistent with the *Compatibility Plan* should be included. If the amendment is required as part of a proposed development project, then the information listed in Policy 2.2.3 shall also be included to the extent applicable.

2.2.4. *NCALUC Action Choices:* When reviewing a general plan, specific plan, zoning ordinance, or building regulation for consistency with the *Compatibility Plan*, the Airport Land Use NCALUC has three choices of action:

(a) Find the plan, ordinance, or regulation consistent with the *Compatibility Plan*. To make such a finding with regard to a general plan, the conditions identified in Section 3.2 must be met.

(b) Find the plan, ordinance, or regulation consistent with the *Compatibility Plan*, subject to conditions and/or modifications that the NCALUC may require. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed.

(c) Find the plan, ordinance, or regulation inconsistent with the *Compatibility Plan*. In making a finding of inconsistency, the NCALUC shall note the specific conflicts or shortcomings upon which its determination is based.

2.2.5. *Response Time:* The NCALUC must respond to a local agency's request for a consistency determination on a general plan, specific plan, zoning ordinance, or building regulation within 60 days from the date of referral (PUC Section 21676(d)).

(a) The date of submittal is deemed to be the date on which all applicable project information as specified in Policy 2.2.3 is received by the NCALUC Executive Director and the NCALUC Executive Director determines that the application for a consistency determination is complete.

(b) If the NCALUC fails to make a determination within that period, the proposed action shall be deemed consistent with the *Compatibility Plan*.

(c) The 60-day review period may be extended if the submitting agency or project applicant and the NCALUC Executive Director agree in writing or so state at an NCALUC public hearing on the action.

(d) Regardless of NCALUC action or failure to act, the proposed action must comply with other applicable local, state, and federal regulations and laws.

(e) The referring agency shall be notified of the NCALUC's action in writing.

2.3. Review Process for Major Land Use Actions

2.3.1. *Project Submittal Information:* A proposed major land use action submitted to the NCALUC (or to the NCALUC Executive Director) for review shall include sufficient detail to enable the NCALUC to adequately assess consistency with the compatibility criteria. Essential project-specific information may include all of the following:

(a) Property location data (assessor's parcel number, street address, subdivision lot number).

(b) An accurately scaled map showing the relationship of the project site to the airport boundary and runways.

(c) A description of the existing and proposed uses of the land in question.

(d) The type of land use action being sought from the local agency (e.g. zoning change, building permit, etc.).

(e) For residential uses, an indication of the potential or proposed number of dwelling units per acre (excluding any secondary units on a parcel).

(f) For nonresidential uses, the total floor area for each type of proposed use, the number of auto parking spaces, and, if known, the number of people potentially occupying the total site or portions thereof at any one time.

(g) If applicable, a detailed site plan and supporting data showing: site boundaries and size; existing uses that will remain; the location of structures, open spaces, and water bodies; ground elevations and elevations of tops of structures and trees (above mean sea level).

(h) Identification of any characteristics that could create electrical interference, confusing lights, glare, smoke, or other electrical or visual hazards to aircraft flight.

(i) Identification of any features, during or following construction, that would increase the attraction of birds or cause other wildlife hazards to aircraft operations on the airport or in its environs (see Section 5.3). Such features include, but are not limited to the following:

(1) Open water areas.

(2) Sediment ponds, retention basins.

(3) Detention basins that hold water for more than 48 hours.

(4) Artificial wetlands.

(j) Any environmental document (initial study, draft environmental impact report, etc.) that may have been prepared for the project.

(k) Any staff reports regarding the project that may have been presented to local agency decision makers.

(l) Other relevant information which the NCALUC or its staff determine to be necessary to enable a comprehensive review of the proposal.

2.3.2. *NCALUC Executive Director's Choices:* When reviewing major land use actions in accordance with Policy 1.4.3, the NCALUC Executive Director has two choices of action:

(a) Find that the proposed project does not contain characteristics likely to result in inconsistencies with the compatibility criteria set forth in this plan. Upon said finding, the Executive Director is authorized to approve such projects on behalf of the NCALUC.

(b) Find that the proposed project may be inconsistent with the *Compatibility Plan*. The Executive Director shall forward any such project to the NCALUC for a consistency determination.

2.3.3. *Appeal of NCALUC Executive Director's Action:* The affected local agency, project applicant, the airport proprietor, or other directly interested party may appeal to the NCALUC a consistency determination made by the NCALUC Executive Director on a major land use action reviewed in accordance with Policy 1.4.2. The NCALUC shall then review the proposed action, the Executive Director's determination, and information supporting the appeal and make a final determination regarding the proposed action's consistency with the *Compatibility Plan*. Any appeal of the NCALUC Executive Director's determination must be submitted within 30 days of the date the determination was issued.

2.3.4. *NCALUC Action Choices:* When reviewing a major land use project proposal, the NCALUC has three choices of action:

(a) Find the project consistent with the *Compatibility Plan*.

(b) Find the project consistent with the *Compatibility Plan*, subject to compliance with such conditions as the NCALUC may specify. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed (e.g. the height of a structure).

(c) Find the project inconsistent with the *Compatibility Plan*. In making a finding of inconsistency, the NCALUC shall note the specific conflicts upon which the determination is based.

2.3.5. *Response Time:* In responding to major land use actions submitted for review, the policy of the NCALUC is that:

(a) When a major land use action is submitted for review on a mandatory basis as required by Policy 1.4.2(a):

(1) Reviews by the NCALUC Executive Director shall be completed within 30 days of when a complete application is submitted.

(2) Reviews of projects forwarded to the NCALUC for a consistency determination shall be completed within 60 days of the date of project referral.

(3) Reviews of projects appealed to the NCALUC for a consistency determination shall be completed within 60 days of the date of the appeal.

(4) The date of referral is deemed to be the date on which all applicable project submittal information as listed in Policy 2.3.1 is received by the NCALUC Executive Director. The NCALUC Executive Director shall provide a written determination to the local agency within 14-days from the date of the receipt of a project application, stating whether or not sufficient information has been submitted for the NCALUC review.

(5) If the NCALUC Executive Director or the NCALUC fail to make a determination within the above time periods, the proposed action shall be deemed consistent with the *Compatibility Plan*.

(b) When a major land use action is submitted on an optional basis in accordance with Policy 1.4.2(b), review by the NCALUC Executive Director and/or the NCALUC should be completed in a timely manner enabling the comments to be considered by decision-making bodies of the submitting agency.

(c) Regardless of action or failure to act on the part of the NCALUC Executive Director or the NCALUC, the proposed action still must comply with other applicable local, state, and federal laws and regulations.

(d) The referring agency shall be notified of the NCALUC Executive Director's and/or the NCALUC's action in writing.

2.3.6. *Subsequent Review of Related Land Use Development Proposals:* Once a project has been found consistent with the *Compatibility Plan*, it need not be referred for review at subsequent stages of the planning process (e.g. for a use permit after a zoning change has been reviewed) unless:

(a) Insufficient information was available at the time of the NCALUC's original review of the project to assess whether the proposal would be fully in compliance with compatibility criteria (e.g. the site layout and structure height might not be known at the time a general plan change or zoning amendment is requested).

(b) The design of the project subsequently changes in a manner that reopens previously considered compatibility issues and could raise questions as to the validity of the earlier finding of compatibility. Proposed changes warranting a new review include, but are not limited to, the following:

(1) For residential uses, an increase in the number of dwelling units;

(2) For nonresidential uses, a change in the types of proposed uses, an increase in the total floor area, and/or a change in the allocation of floor area among different types of uses in a manner that could result in an increase in the usage intensity (more people on the site) to a level exceeding the criteria set forth in this Compatibility Plan;

(3) An increase in the height of structures or other design features such that the height limits established herein would be exceeded or exceeded by a greater amount;

(4) Major site design changes (such as incorporation of clustering or modifications to the configuration of open land areas proposed for the site) to the extent that site design was an issue in the initial project review; and/or

(5) Any significant change to a proposed project for which a special exception was granted in accordance with Policy 5.5.5.

(c) At the time of original NCALUC review, conditions were placed on the project that requires subsequent NCALUC review.

(d) The local agency concludes that further review is warranted.

2.4. Review Process for Airport Master Plans and Development Plans

2.4.1. *Required Submittal Information:* A Nevada County Airport Master Plan or development plan submitted to the NCALUC for review shall contain sufficient information to enable the NCALUC to adequately assess the noise, safety, airspace protection, and overflight impacts of airport activity upon surrounding land uses.

(a) When a new or amended master plan is the subject of the NCALUC review, the noise, safety, airspace protection, and overflight impacts should be addressed in the plan report and/or in an accompanying environmental document. Proposed changes in airport facilities and usage that could have land use compatibility implications should be noted. Although the NCALUC does not have a formal responsibility to review the environmental document, a copy should be included with the submittal.

(b) For airport development plans, the relationship to a previously adopted master plan or other approved plan for the airport should be indicated—specifically, whether the proposed development implements an adopted/approved plan or represents an addition or change to any such previous plan. Any environmental document prepared for the project should be included in the submittal.

(c) For either airport master plans or development plans, the following specific information shall be included to the extent applicable:

(1) A layout plan drawing of the proposed facility or improvements showing the location of:
- Property boundaries;
- Runways or helicopter takeoff and landing areas;
- Runway or helipad protection zones; and
- Aircraft or helicopter approach/departure flight routes.

(2) A revised map of the airspace surfaces as defined by Federal Aviation Regulations Part 77 if the proposal would result in changes to these surfaces. The current configuration of the airport airspace surfaces is provided in Map 2B herein.

(3) Updated activity forecasts, including the number of operations by each type of aircraft proposed to use the facility, the percentage of day versus night operations, and the distribution of takeoffs and landings for each runway direction. The effects of the proposed development on the forecast airport usage indicated in Chapter 3 of this *Compatibility Plan* should be described.

(4) Proposed flight track locations and projected noise contours. Differences from the flight track data and noise contours presented in Chapter 3 of this *Compatibility Plan* should be described.

(5) A map showing existing and planned land uses in the areas affected by aircraft activity associated with implementation of the proposed master plan or development plan.

(6) Identification and proposed mitigation of impacts on surrounding land uses to the extent that those impacts would be greater than indicated by the compatibility factors summarized in Chapter 3.

2.4.2. *NCALUC Action Choices for Nevada County Airport Plans:* When reviewing a proposed new or revised airport master plan or new development plans for the Nevada County Airport, the NCALUC has three action choices:

(a) Find the airport plan consistent with the Compatibility Plan.

(b) Find the airport plan inconsistent with the Compatibility Plan.

(c) Find the airport plan consistent with the Compatibility Plan with the condition that the Compatibility Plan be modified to reflect the assumptions and proposals of the airport plan.

2.4.3. *NCALUC Action Choices for Plans of New Airports or Heliports:* When reviewing proposals for new airports or heliports, the NCALUC has two action choices:

(a) Approve the proposal as being consistent with the specific review criteria listed in Section 4.1 and adopt a Compatibility Plan for that facility. State law requires adoption of such a plan if the airport or heliport will be a public-use facility (State Aeronautics Act Section 21675(a)).

(b) Approve the proposal on the condition that a Compatibility Plan is adopted for that facility.

(c) Disapprove the proposal on the basis that the noise, safety, airspace protection, and overflight impacts it would have on surrounding land uses are not adequately mitigated.

2.4.4. *Response Time:* The NCALUC must respond to the submittal of an airport master plan or development plan within 60 days from the date of referral (PUC Section 21676(d)).

(a) If the NCALUC fails to make a determination within that period, the proposed action shall be deemed consistent with the Compatibility Plan.

(b) Regardless of NCALUC action or failure to act, the proposed action must comply with other applicable local, state, and federal regulations and laws.

(c) The County of Nevada, as owner and operator of the airport, shall be notified of the NCALUC's action in writing. Correspondence shall be addressed to the Nevada County Airport Manager.

2.5. Overruling the NCALUC

2.5.1. *NCALUC Determination of "Incompatible":* In accordance with (Public Utilities Code Sections 21676(a), (b), and (c)), if the NCALUC determines that a proposed project is inconsistent with the *Compatibility Plan*, the local agency shall be notified and the governing body of that agency has the option under state law to overrule the NCALUC decision.

2.5.2. *Specific Findings by Local Agency*: A local agency can proceed with adoption or amendment of a general plan or specific plan, adoption or approval of a zoning ordinance or building regulation, or modification of an airport master plan (Public Utilities Code Sections 21676(a), (b), and (c)) or, under conditions specified in Section 2.5, a major land use action (Public Utilities Code Section 21676.5(a)) affecting the airport influence area in spite

of an NCALUC finding that the action is inconsistent with this *Compatibility Plan*. However, the local agency must make specific findings that the proposed local action is consistent with the purposes of Article 3.5 of the California Public Utilities Code, as stated in Section 21670. Such findings may not be adopted as a matter of opinion, but must be supported by substantial evidence. Specifically, the governing body of the local agency must make specific findings that the proposed project will not:

(a) Impair the orderly, planned expansion of the airport;

(b) Adversely affect the utility or capacity of the airport (such as by reducing instrument approach procedure minimums); or

(c) Expose the public to excessive noise and safety hazards.

2.5.3. *Notification and Voting Requirements*: In accordance with California law, the local agency must do all of the following:

(a) Provide to the NCALUC and the California Division of Aeronautics a copy of the proposed decision and findings to overrule the NCALUC at least 45 days prior to the hearing date.

(b) Hold a public hearing on the matter. The public hearing shall be publicly noticed consistent with the agency's established procedures.

(c) Include in the public record of any final decision to overrule the NCALUC comments received from the NCALUC, California Division of Aeronautics, Federal Aviation Administration (FAA) or public.

(d) Make a decision to overrule the NCALUC by a two-thirds vote of its governing body.

2.5.4. *Liability*: If a local agency other than the airport owner overrules the NCALUC, the local agency owning and operating the airport "shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to overrule the NCALUC's action or recommendation" (Public Utilities Code Sections 21678 and, with slightly different wording, 21675.1(f))

3. Compatibility Criteria For Land Use Actions

3.1. Basic Criteria

3.1.1. *Evaluating Compatibility of New Development*: The compatibility of a land use proposal within an airport influence area shall be evaluated in accordance with:

(a) The criteria listed in Table 2A, Basic Compatibility Criteria;

(b) The specific noise, safety, airspace protection, overflight policies, and special compatibility policies set forth in Section 5; and

(c) The Compatibility Policy Map (Map 2A) and Airspace Protection Plan (Map 2B) for Nevada County Airport. The factors considered in delineating the Compatibility Policy Map are summarized in Table 2B. The compatibility factors maps are provided in Chapter 3, Exhibits 3-5 and 3-6.

3.1.2. *Residential Development:* The following criteria shall be applied to evaluation of the compatibility of proposed residential development.

(a) In no case shall a proposed development be designed to accommodate more than the total number of dwelling units per acre (for residential uses) indicated in Table 2A times the acreage of the project site. A project site may include multiple parcels.

(b) Clustering of development shall be limited in accordance with Policy 5.2.8.

(c) Secondary units, as defined by state law, shall be excluded from density calculations.

(d) Other development conditions as also listed in Table 2A apply to sites within certain compatibility zones.

3.1.3. *Nonresidential Development:* The usage intensity (people per acre) limits indicated in Table 2A for each compatibility zone are the fundamental criteria against which the safety compatibility of most nonresidential land uses shall be measured. Table 2A sets usage intensity (people/acre) limits measured with respect to both a project site as a whole and any single acre within the site. The total number of people permitted on a project site at any time, except for rare special events, must not exceed the indicated average- and single-acre usage intensity in Table 2A. Proposed development must comply with both limits. See Policy 5.2.7 for guidance on calculating usage intensities. Additional criteria listed in Table 2A shall also apply.

(a) Rare special events are ones (such as an air show at an airport) for which a facility is not designed and is normally not used and for which extra safety precautions can be taken as appropriate.

(b) The interior noise level criteria cited in Policy 5.1.5 shall be the basis for assessing the acceptability of proposed nonresidential land uses relative to noise impacts.

3.1.4. *Mixed-Use Development:* Projects involving a mixture of residential and nonresidential uses shall be evaluated as follows:

(a) Where the residential and nonresidential uses are proposed to be situated on separate parts of the project site, the project shall be evaluated as separate developments. Each component of the project must meet the criteria for the respective land use category in Table 2A. Specifically, the residential density shall be calculated with respect to the area(s) to be devoted to residential development and the nonresidential intensity calculated with respect to the area(s) proposed for nonresidential uses. This provision means that the residential density cannot be averaged over the entire project site when nonresidential uses will occupy some of the area. The same limitation applies in reverse—that is, the nonresidential intensity cannot be averaged over an area that includes residential uses.

(b) Development in which residential uses are proposed to be located in conjunction with nonresidential uses in the same or nearby buildings on the same site also must meet the criteria for each land use category to be included in the development. Additionally, for the purposes of compliance with usage intensity criteria in Table 2A, the normal occupancy of the residential component shall be added to that of the nonresidential portion and the total occupancy shall be evaluated with respect to the nonresidential usage intensity criteria cited in Table 2A.

3.1.5. *Parcels Lying within Two or More Compatibility Zones:* For the purposes of evaluating consistency with the compatibility criteria set forth herein, any parcel that is split by compati-

bility zone boundaries shall be considered as if it were multiple parcels divided at the compatibility zone boundary line. However, the density or intensity of development allowed within the more restricted portion of the parcel can (and is encouraged to) be transferred to the less restricted portion. This transfer of development is permitted even if the resulting density or intensity in the less restricted area would then exceed the limits which would otherwise apply within that compatibility zone.

3.1.6. *Prohibited Uses:* Regardless of usage intensity, certain types of uses are deemed unacceptable within portions of an airport influence area. See Table 2A. In addition to these explicitly prohibited uses, other uses will normally not be permitted in the respective compatibility zones because they do not meet the usage intensity criteria.

3.1.7. *Discouraged* Uses: Uses listed under Policy 4.2.3(a) and in Table 2A as "discouraged" should generally not be permitted unless no feasible alternative is available. Expansion of a discouraged use is generally regarded as acceptable to the extent that previous acquisition and partial development of the site for that specific use make alternatives for expansion infeasible. Usage intensity limits and/or other criteria applicable to the site shall remain in effect.

3.1.8. *Other Development Conditions:* All types of proposed development shall be required to meet the additional conditions listed in Table 2A for the respective compatibility zone where the development is to be located. Among these conditions are the following:

(a) Avigation Easement Dedication: See Policy 3.1.9.

(b) Recorded Overflight Notification: See Policy 5.4.3.

(c) Real Estate Disclosure: See Policy 5.4.5.

(d) Noise Level Reduction: See Policy 5.1.5.

(e) NCALUC Airspace Review: See Policy 5.3.4.

3.1.9. *Avigation Easement Dedication:* As a condition for development approval, the owner of any property proposed for development within *Compatibility Zones A*, *B1*, or *B2* or a *Height Review Overlay Zone* shall be required to dedicate an avigation easement to the entity owning the affected airport. This requirement does not apply to ministerial actions associated with modification of existing single-family residences. The avigation easement shall:

(a) Provide the right of flight in the airspace above the property;

(b) Allow the generation of noise and other impacts associated with aircraft overflight;

(c) Restrict the height of structures, trees and other objects;

(d) Permit access to the property for the removal or aeronautical marking of objects exceeding the established height limit; and

(e) Prohibit electrical interference, glare, and other potential hazards to flight from being created on the property. An example of an avigation easement is provided in Appendix G.

Zone	Locations	Maximum Densities / Intensities: Residential (du/ac) [1]	Other Uses (people/ac) [2]: Average [6]	Other Uses (people/ac) [2]: Single Acre [7]	Req'd Open Land [3]	Additional Criteria: Prohibited Uses [4]	Additional Criteria: Other Development Conditions [5]
A	Runway Clear Zone	0	0	0	All Remaining	› All structures except ones with location set by aeronautical function › Assemblages of people › Objects exceeding FAR Part 77 height limits › Storage of hazardous materials › Hazards to flight [8]	› Mostly on existing or future airport property or other public lands › Avigation easement dedication on remainder › NCALUC airspace review required for all objects
B1	Inner Approach Zone	0.10 (average parcel size ≥10.0 ac.)	50	100	30%	› Children's schools, day care centers (>15 children), libraries › Hospitals, nursing homes › Buildings with >2 habitable floors above ground › Highly noise-sensitive uses (e.g., outdoor theaters) › Aboveground bulk storage of hazardous materials [9] › Critical community infrastructure facilities [10] › Hazards to flight [8]	› Locate structures maximum distance from extended runway centerline › Minimum NLR of 25 dB in residences (including mobile homes) [11] › NCALUC airspace review required for objects >3,106 feet MSL west of Airport and 3,192 feet MSL east of Airport [12] › Avigation easement dedication
B2	Sideline Zone	0.33 (average parcel size ≥3.0 ac.)	100	300	No Req't	Same as Zone B1	› Locate structures maximum distance from runway › Minimum NLR of 25 dB in residences (including mobile homes) [11] › NCALUC airspace review required for objects >3,106 feet MSL [12] › Avigation easement dedication
C	Inner Turning Zone and Extended Approach Zone	0.5 (average parcel size ≥2.0 ac.)	100	300	20%	› Children's schools, day care centers (>15 children), libraries › Hospitals, nursing homes › Buildings with >3 habitable floors above ground › Highly noise-sensitive uses (e.g., outdoor theaters) › Hazards to flight [8]	› Minimum NLR of 20 dB in residences (including mobile homes) [11] › NCALUC airspace review required for objects >3,106 feet MSL west of Airport and 3,192 feet MSL east of Airport [12] › Recorded overflight notice required
D	Traffic Pattern Zone	4.0 and 20.0 in Urban Overlay Zone D*	200	600 and No Limit in Urban Overlay Zone D*	10%	› Highly noise-sensitive uses › Hazards to flight [8]	› NCALUC airspace review required for objects >3,207 feet MSL › Recorded overflight notice required › Children's schools, hospitals, nursing homes discouraged [14]
E	Other Airport Environs	No Limit [15]			No Req't	› Hazards to flight [8]	› Airspace review required for objects >3,257 feet MSL › Real estate disclosure required › Major spectator-oriented sports stadiums, amphitheaters, concert halls discouraged beneath principal flight tracks [15]
	Height Review Overlay	Same as Underlying Compatibility Zone			Not Applicable	Same as Underlying Compatibility Zone	› Airspace review required for objects >35 feet tall [12] › Avigation easement dedication

Table 2A

Basic Compatibility Criteria

NOTES:

[1] Residential development must not contain more than the indicated number of dwelling units (excluding secondary units) per acre. Clustering of units is encouraged (see Policy 5.2.8 for limitations). Project site may include multiple parcels. Mixed-use development in which residential uses are proposed to be located in conjunction with nonresidential uses in the same or adjoining buildings on the same site shall be treated as nonresidential development. See Policy 3.1.4.

[2] Proposed development must comply with both forms of intensity limits (See Policy 3.1.3). Usage intensity calculations shall include all people (e.g., employees, customers/visitors, etc.) who may be on the property at a single point in time, whether indoors or outside. See Policy 5.2.7 for guidance on calculating usage intensities.

[3] Open land requirements are intended to be applied with respect to an entire zone. This is typically accomplished as part of a community general plan or a specific plan, but may also apply to large (10 acres or more) development projects. See Policy 5.2.6 for additional criteria.

[4] The uses listed here are ones which are explicitly prohibited regardless of whether they meet the intensity criteria. In addition to these explicitly prohibited uses, other uses will normally not be permitted in the respective compatibility zones because they do not meet the usage intensity criteria.

[5] As part of certain real estate transactions involving residential property within any compatibility zone (that is, anywhere within an airport influence area), information regarding airport proximity and the existence of aircraft overflights must be disclosed (see Policy 5.4.5). This requirement is set by state law. Avigation Easement dedication and Recorded Overflight Notification requirements indicated for specific compatibility zones apply only to new development (see Policies 3.1.9 and 5.4.3).

[6] The total number of people permitted on a project site at any time, except rare special events, must not exceed the indicated usage intensity times the acreage of the site. Rare special events are ones (such as an air show at the airport) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

[7] Clustering of nonresidential development is permitted. However, no single acre of a project site shall exceed the indicated number of people per acre. See Policy 5.2.8(b) for details.

[8] Hazards to flight include physical (e.g., tall objects), visual, and electronic forms of interference with the safety of aircraft operations. Land use development that may cause the attraction of birds to increase is also prohibited. See Policy 5.3.7 for details.

[9] Storage of aviation fuel and other aviation-related flammable materials on the airport is exempted from this criterion. Storage of up to 6,000 gallons of nonaviation flammable materials is also exempted. See Policy 5.2.5(c) for details.

[10] Critical community facilities include power plants, electrical substations, and public communications facilities. See Policy 5.2.5(d) for details.

[11] NLR = Noise Level Reduction, the outside-to-inside sound level attenuation that the structure provides. See Policy 5.1.5 for NLR requirements for other noise-sensitive uses.

[12] Objects up to 35 feet in height are permitted. However, the Federal Aviation Administration may require marking and lighting of certain objects. See Policy 5.3.5 for details.

[13] See Policy 3.1.7 for explanation of term “discouraged.”

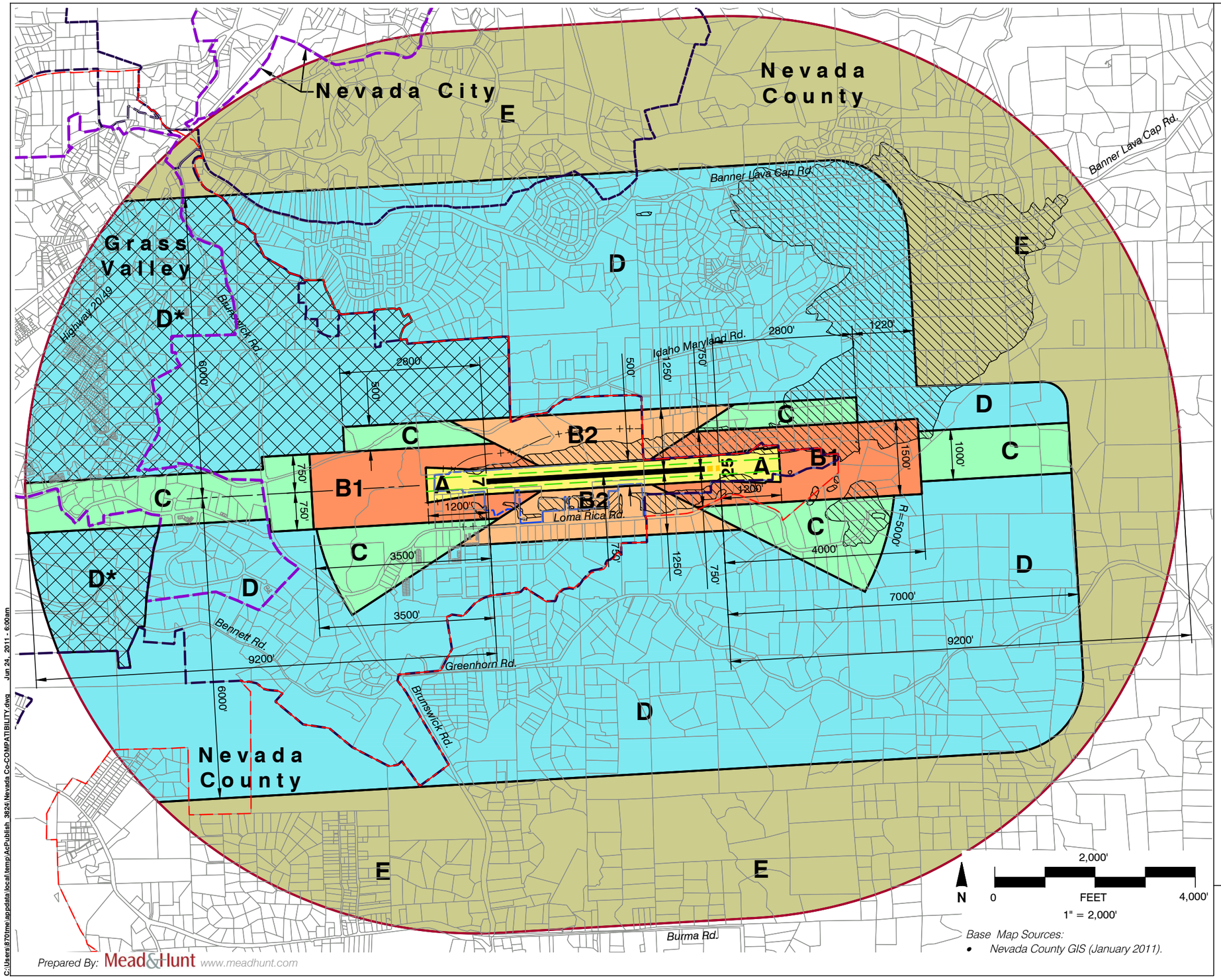
[14] Although no explicit upper limit on usage intensity is defined for *Zone E*, land uses of the types listed—uses that attract very high concentrations of people in confined areas—are discouraged in locations below or near the principal arrival and departure flight tracks. See Policy 3.1.7 for explanation of term “discouraged.” This limitation notwithstanding, no use shall be prohibited in *Zone E* if its usage intensity is such that it would be permitted in *Zone D*.

Table 2A, continued

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
A *Runway Clear Zone*	*Noise Impact: Very High* ➤ Mostly above CNEL 65 dB	*Risk Level: Very High* ➤ Includes Runway Protection Zones and Building Restriction Line as indicated on Airport Layout Plan (ALP) drawing ➤ Nearly 40% of off-runway general aviation accidents near airports occur in this zone ➤ Object heights restricted to <35 feet in some areas
B1 *Inner Approach Zone*	*Noise Impact: High* ➤ Typically above CNEL 60 dB ➤ Single-event noise sufficient to disrupt wide range of land use activities including indoors if windows open	*Risk Level: High* ➤ Encompasses areas overflown by aircraft at low altitudes—typically only 200 to 400 feet above the runway elevation. ➤ Some 10% to 20% of off-runway general aviation accidents near airports take place here ➤ Object heights restricted to <35 feet in some areas
B2 *Sideline Zone*	*Noise Impact: Moderate to High* ➤ Mostly above CNEL 60 dB ➤ Exposed to loud single-event noise from takeoffs and jet thrust-reverse on landing; also from pre-flight run-ups	*Risk Level: Low to Moderate* ➤ Area not normally overflown by aircraft; primary risk is with aircraft (especially twins) losing directional control on takeoff ➤ About 3% of off-runway general aviation accidents near airports happen in this zone ➤ Object heights restricted to <35 feet in some areas
C *Inner Turning Zone and Extended Approach Zone*	*Noise Impact: Moderate* ➤ May exceed CNEL 55 dB ➤ Aircraft typically at or below 1,000-foot traffic pattern altitude; individual events occasionally loud enough to intrude upon indoor activities	*Risk Level: Moderate* ➤ Includes areas where aircraft turn from base to final approach legs of standard traffic pattern and descend from traffic pattern altitude ➤ Zone also includes areas where departing aircraft normally complete transition from takeoff power and flap settings to climb mode and have begun to turn to their en route heading ➤ Some 10% to 15% of off-runway general aviation accidents near airports occur here ➤ Object heights restricted to as little as 35 feet
D *Traffic Pattern Zone*	*Noise Impact: Moderate* ➤ Noise more of a concern with respect to individual loud events than with cumulative noise contours ➤ Portions of the 55-CNEL contour extend into this zone ➤ Urban Overlay Zone D* reflects relatively high ambient noise level of urbanized area	*Risk Level: Low* ➤ About 20% to 30% of general aviation accidents take place in this zone, but the large area encompassed means a low likelihood of accident occurrence in any given location ➤ Risk concern is primarily with uses for which potential consequences are severe (e.g. very-high-intensity activities in a confined area) ➤ Airspace concern is generally with object heights >100 feet above runway elevation except to northeast
E *Other Airport Environs*	*Noise Impact: Low* ➤ Beyond the 55-CNEL contour ➤ Occasional overflights intrusive to some outdoor activities	*Risk Level: Low* ➤ Risk concern only with uses for which potential consequences are severe (e.g. very-high-intensity activities in a confined area)
Height Review Overlay	*Noise Impact: Low* ➤ Individual noise events slightly louder because high terrain reduces altitude of overflights	*Risk Level: Moderate* ➤ Modest risk because high terrain constitutes airspace obstruction ➤ Key concern is tall single objects (e.g., antennas)

Table 2B

Compatibility Zone Delineation



Legend

Boundary Lines

- Airport Property Line
- Proposed Airport Property Acquisition
- City Limits
- Grass Valley Planning Area
- Grass Valley Sphere of Influence
- Nevada City Sphere of Influence
- Existing Runway (4,350')
- Future Runway (4,650')
- Object Free Area
- Airport Influence Area

Compatibility Zones[1]

- Zone A - Runway Clear Zone
- Zone B1 - Inner Approach Zone
- Zone B2 - Sideline Zone
- Zone C - Inner Turning Zone & Extended Approach Zone
- Zone D - Traffic Pattern Zone
- Zone D* - Urban Overlay Zone
- Zone E - Other Airport Environs
- Height Review Overlay

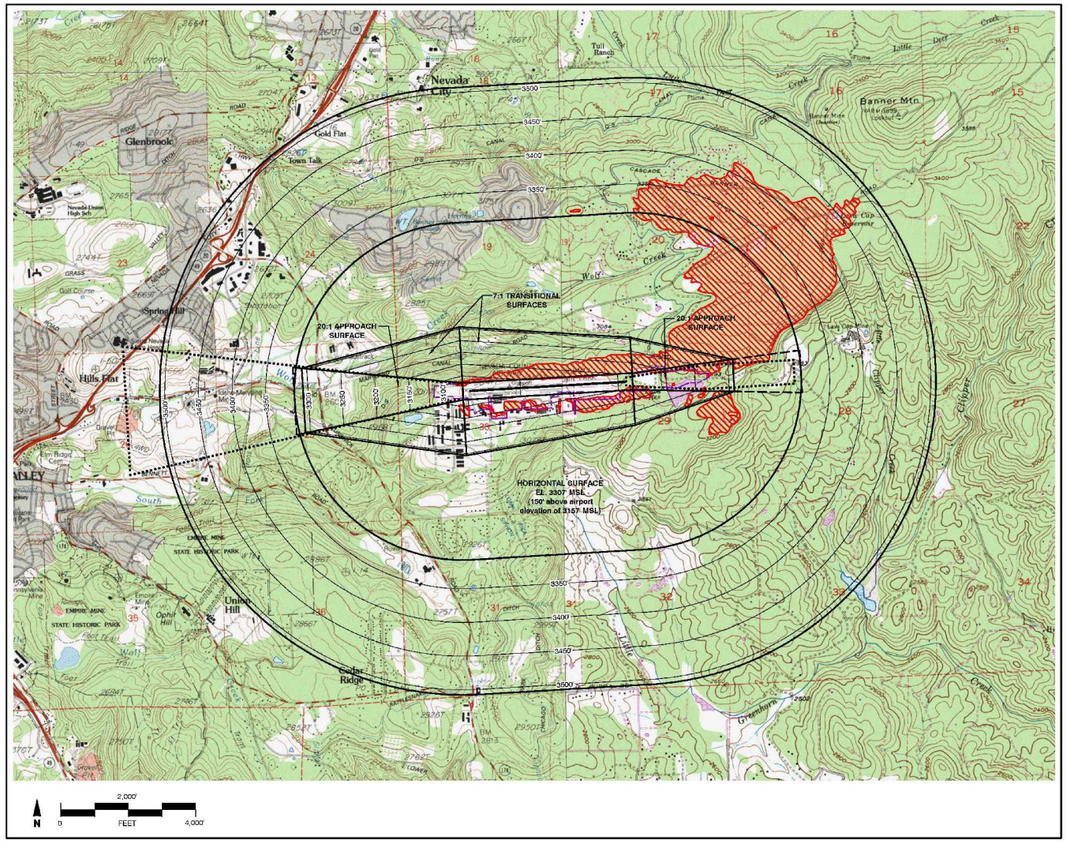
Notes

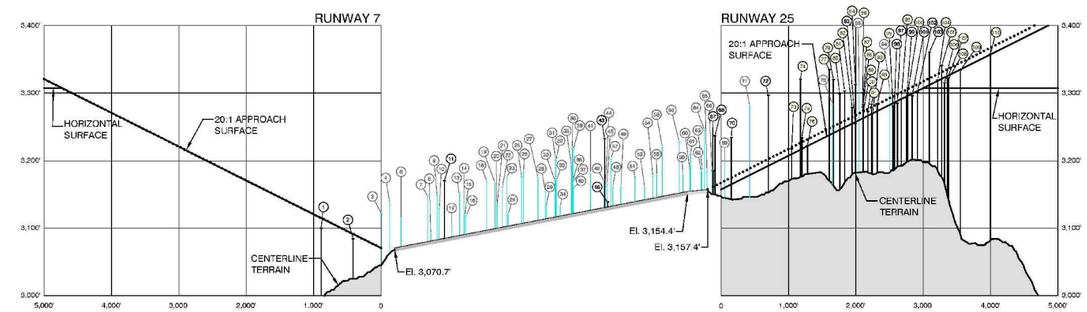
1. See Chapter 2, Table 2A, Basic Compatibility Criteria.

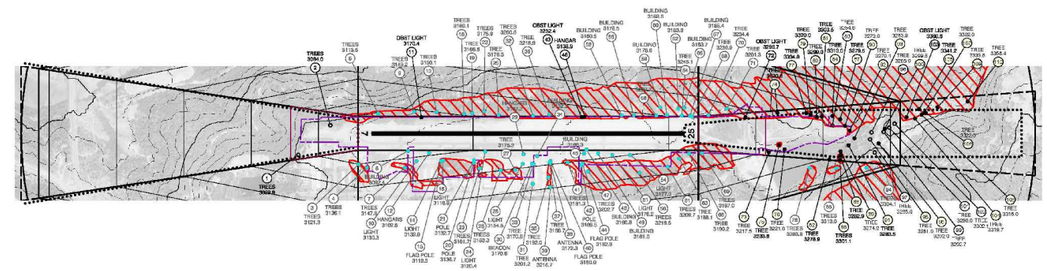
Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Map 2A

Compatibility Policy Map







LEGEND

- FAR Part 77 Surfaces
- Threshold Siting Surface (TSS)
- Runway Protection Zone (RPZ)
- Airport Property Boundary
- Object Penetrates Approach/Primary Surface
- Object Does Not Penetrate Approach/Primary Surface
- Object Penetrates Transitional Surface
- Object Does Not Penetrate Transitional Surface
- Action Needed
- Terrain Contours
- Part 77 Surface Penetration (100' added to ground level in wooded area)
- * 15' vertical clearance added to road elevations
- (e) Estimated

MAP SOURCE:

USGS Topographic Survey Maps (Chicago Park 1979, Grass Valley 1995, Nevada City 1995, North Bloomfield 1979)
coordinates: NAD27. Terrain contours: NGVD29

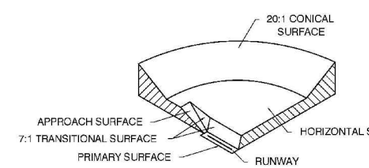
NOTES:

- Part 77 surface contours and obstruction elevations are shown in NAD83 and NAVD88.
- Obstruction lights along north side of airport are in lieu of clearance of the Transitional Surface.

SOURCES:

Mead & Hunt Field Surveys (February 2007 and July 2005)
Aerial Photo (February 2006)

N 0 1,000' 2,000' FEET



TYPICAL FAR PART 77 SURFACES

OBSTRUCTION DATA

POINT #	DESCRIPTION	TOP ELEVATION IN FEET (MSL)	AFFECTED PART 77 SURFACE	PART 77 SURFACE ELEVATION	PART 77 SURFACE PENETRATION	THRESHOLD SITING SURFACE ELEVATION	THRESHOLD SITING SURFACE PENETRATION	DISPOSITION
1	TREES	3099.9	APPROACH	3115.1	-15.2	3115.1	-15.2	MONITOR
2	TREES	3084.0	APPROACH	3091.3	-7.3	3091.3	-7.3	MONITOR
3	TREES	3121.9	TRANSITIONAL	3100.7	20.6	N/A	N/A	TO REMAIN
4	TREES	3136.1	TRANSITIONAL	3109.9	26.1	N/A	N/A	TO REMAIN
5	PREVIOUSLY REMOVED							
6	TREES	3113.5	TRANSITIONAL	3082.4	31.1	N/A	N/A	TO REMAIN
7	TREES	3147.6	TRANSITIONAL	3119.9	27.7	N/A	N/A	TO REMAIN
8	BUILDING	3092.4	TRANSITIONAL	3084.8	7.6	N/A	N/A	TO REMAIN
9	TREES	3143.2	TRANSITIONAL	3089.3	53.9	N/A	N/A	TO REMAIN
10	FLOOD LIGHT	3130.3	TRANSITIONAL	3108.4	21.9	N/A	N/A	TO REMAIN
11	CIRST LIGHT	3170.4	PRIMARY	3086.8	83.6	N/A	N/A	TO REMAIN
12	HANGARS	3102.8	TRANSITIONAL	3094.5	8.2	N/A	N/A	TO REMAIN
13	TREES	3150.1	TRANSITIONAL	3100.3	49.9	N/A	N/A	TO REMAIN
14	FLOOD LIGHT	3139.9	TRANSITIONAL	3114.7	25.3	N/A	N/A	TO REMAIN
15	FLAG POLE	3118.9	TRANSITIONAL	3114.6	3.8	N/A	N/A	TO REMAIN
16	FLOOD LIGHT	3118.9	TRANSITIONAL	3113.7	5.1	N/A	N/A	TO REMAIN
17	PREVIOUSLY REMOVED							
18	TREES	3169.1	TRANSITIONAL	3103.4	65.8	N/A	N/A	TO REMAIN
19	TREE	3166.6	TRANSITIONAL	3106.6	60.0	N/A	N/A	TO REMAIN
20	POWER POLE	3136.7	TRANSITIONAL	3127.2	9.5	N/A	N/A	TO REMAIN
21	POWER POLE	3132.7	TRANSITIONAL	3121.4	11.3	N/A	N/A	TO REMAIN
22	TREES	3161.7	TRANSITIONAL	3140.1	21.6	N/A	N/A	TO REMAIN
23	TREES	3175.9	TRANSITIONAL	3113.9	62.0	N/A	N/A	TO REMAIN
24	FLOOD LIGHT	3120.4	TRANSITIONAL	3106.1	14.2	N/A	N/A	TO REMAIN
25	TREE	3176.5	TRANSITIONAL	3109.9	66.5	N/A	N/A	TO REMAIN
26	TREES	3183.5	TRANSITIONAL	3149.6	33.5	N/A	N/A	TO REMAIN
27	TREE	3175.2	TRANSITIONAL	3152.5	22.6	N/A	N/A	TO REMAIN
28	FLOOD LIGHT	3154.5	TRANSITIONAL	3141.4	13.1	N/A	N/A	TO REMAIN
29	HANGARS	3132.2	TRANSITIONAL	3121.3	10.9	N/A	N/A	TO REMAIN
30	BEACON	3170.6	TRANSITIONAL	3143.4	27.2	N/A	N/A	TO REMAIN
31	TREE	3201.2	TRANSITIONAL	3186.5	14.7	N/A	N/A	TO REMAIN
32	TREES	3200.0	TRANSITIONAL	3116.5	83.4	N/A	N/A	TO REMAIN
33	TREE	3170.6	TRANSITIONAL	3144.9	25.7	N/A	N/A	TO REMAIN
34	BUILDING	3132.2	TRANSITIONAL	3128.7	3.5	N/A	N/A	TO REMAIN
35	TREE	3192.0	TRANSITIONAL	3177.0	15.1	N/A	N/A	TO REMAIN
36	TREE	3218.9	TRANSITIONAL	3123.7	95.2	N/A	N/A	TO REMAIN
37	TREE	3168.7	TRANSITIONAL	3145.4	23.3	N/A	N/A	TO REMAIN

OBSTRUCTION DATA, CONT.

POINT #	DESCRIPTION	TOP ELEVATION IN FEET (MSL)	AFFECTED PART 77 SURFACE	PART 77 SURFACE ELEVATION	PART 77 SURFACE PENETRATION	THRESHOLD SITING SURFACE ELEVATION	THRESHOLD SITING SURFACE PENETRATION	DISPOSITION
38	ANTENNA	3172.3	TRANSITIONAL	3147.2	25.1	N/A	N/A	TO REMAIN
39	ANTENNA	3216.7	TRANSITIONAL	3197.8	18.9	N/A	N/A	TO REMAIN
40	FLAG POLE	3160.0	TRANSITIONAL	3142.7	17.3	N/A	N/A	TO REMAIN
41	TREES	3181.3	TRANSITIONAL	3149.7	31.7	N/A	N/A	TO REMAIN
42	POWER POLE	3189.5	TRANSITIONAL	3159.7	9.8	N/A	N/A	TO REMAIN
43	CIRST LIGHT	3232.4	PRIMARY	3127.7	104.7	N/A	N/A	TO REMAIN
44	FLAG POLE	3162.9	TRANSITIONAL	3155.9	7.0	N/A	N/A	TO REMAIN
45	BUILDING	3165.3	TRANSITIONAL	3155.5	9.0	N/A	N/A	TO REMAIN
46	HANGAR	3139.9	PRIMARY	3129.5	10.4	N/A	N/A	TO REMAIN
47	TREES	3202.7	TRANSITIONAL	3173.8	28.9	N/A	N/A	TO REMAIN
48	BUILDING	3160.8	TRANSITIONAL	3136.8	24.0	N/A	N/A	TO REMAIN
49	BUILDING	3161.0	TRANSITIONAL	3138.8	22.2	N/A	N/A	TO REMAIN
50	PREVIOUSLY REMOVED							
51	FLOOD LIGHT	3176.2	TRANSITIONAL	3145.7	30.5	N/A	N/A	TO REMAIN
52	BUILDING	3160.5	TRANSITIONAL	3140.8	19.7	N/A	N/A	TO REMAIN
53	PREVIOUSLY REMOVED							
54	FLOOD LIGHT	3177.3	TRANSITIONAL	3150.2	27.1	N/A	N/A	TO REMAIN
55	BUILDING	3178.5	TRANSITIONAL	3143.8	34.6	N/A	N/A	TO REMAIN
56	TREES	3219.5	TRANSITIONAL	3190.4	29.1	N/A	N/A	TO REMAIN
57	PREVIOUSLY REMOVED							
58	TREE	3227.7	TRANSITIONAL	3148.8	79.1	N/A	N/A	TO REMAIN
59	BUILDING	3178.6	TRANSITIONAL	3167.0	11.6	N/A	N/A	TO REMAIN
60	BUILDING	3189.6	TRANSITIONAL	3152.9	36.6	N/A	N/A	TO REMAIN
61	TREES	3209.7	TRANSITIONAL	3184.8	24.8	N/A	N/A	TO REMAIN
62	BUILDING	3163.8	TRANSITIONAL	3149.2	14.6	N/A	N/A	TO REMAIN
63	TREE	3168.1	TRANSITIONAL	3170.4	-17.7	N/A	N/A	TO REMAIN
64	TREE	3245.1	TRANSITIONAL	3154.8	90.2	N/A	N/A	TO REMAIN
65	BUILDING	3183.7	TRANSITIONAL	3172.2	11.5	N/A	N/A	TO REMAIN
66	TREE	3190.2	TRANSITIONAL	3162.3	27.9	N/A	N/A	TO REMAIN
67	BUILDING	3185.4	TRANSITIONAL	3156.7	28.7	N/A	N/A	TO REMAIN
68	TREE	3236.8	TRANSITIONAL	3155.9	81.0	N/A	N/A	TO REMAIN
69	TREES	3197.0	TRANSITIONAL	3165.7	31.3	N/A	N/A	TO REMAIN
70	TREE	3234.4	TRANSITIONAL	3166.2	68.2	N/A	N/A	TO REMAIN
71	TREE	3281.2	TRANSITIONAL	3190.7	90.6	N/A	N/A	TO REMAIN
72	CIRST LIGHT	3296.7	APPROACH	3192.4	104.3	N/A	N/A	TO REMAIN
73	TREE	3217.5	APPROACH	3209.7	7.8	N/A	N/A	TOP OR REMOVE
74	TREE	3320.8	APPROACH	3216.2	104.6	N/A	N/A	TOP OR REMOVE

OBSTRUCTION DATA, CONT.

POINT #	DESCRIPTION	TOP ELEVATION IN FEET (MSL)	AFFECTED PART 77 SURFACE	PART 77 SURFACE ELEVATION	PART 77 SURFACE PENETRATION	THRESHOLD SITING SURFACE ELEVATION	THRESHOLD SITING SURFACE PENETRATION	DISPOSITION
75	TREE	3229.8	APPROACH	3217.9	19.5	3227.3	6.5	TOP OR REMOVE
76	TREE	3221.6	APPROACH	3221.5	0.2	3231.5	-9.8	TOP OR REMOVE
77	TREE	3334.8	APPROACH	3237.7	97.2	3247.7	87.2	TOP OR REMOVE
78	TREES	3263.7	TRANSITIONAL	3239.5	24.3	N/A	N/A	TO REMAIN
79	TREE	3320.0	APPROACH	3240.7	79.3	3250.7	69.3	TOP OR REMOVE
80	TREE	3299.0	APPROACH	3245.5	53.5	3255.5	43.5	TOP OR REMOVE
81	TREE	3303.5	APPROACH	3249.1	54.4	3259.1	44.4	TOP OR REMOVE
82	TREE	3278.9	APPROACH	3254.7	24.2	N/A	N/A	TOP OR REMOVE
83	TREE	3254.6	APPROACH	3257.0	-2.4	3267.0	-12.4	MONITOR
84	TREE	3312.9	APPROACH	3267.1	55.8	3267.1	45.8	TOP OR REMOVE
85	TREES	3313.0	TRANSITIONAL	3276.0	37.0	N/A	N/A	TO REMAIN
86	TREES	3301.1	APPROACH	3262.6	38.5	N/A	N/A	TOP OR REMOVE
87	TREE	3279.5	APPROACH	3262.8	16.7	3272.8	6.7	TOP OR REMOVE
88	TREE	3282.6	APPROACH	3262.6	20.1	3272.6	10.1	TOP OR REMOVE
89	TREE	3274.2	APPROACH	3263.1	11.1	3273.1	1.1	TOP OR REMOVE
90	TREE	3273.0	APPROACH	3266.3	6.7	3276.3	-3.3	TOP OR REMOVE
91	TREE	3283.4	APPROACH	3269.0	14.4	3279.0	4.4	TOP OR REMOVE
92	TREE	3270.4	APPROACH	3269.7	0.6	3279.7	-9.4	TOP OR REMOVE
93	TREE	3283.9	APPROACH	3273.3	10.6	3283.3	0.6	TOP OR REMOVE
94	TREE	3304.1	TRANSITIONAL	3292.7	11.4	N/A	N/A	TOP OR REMOVE
95	TREES	3281.0	APPROACH	3284.9	-3.9	3294.9	-13.9	MONITOR
96	TREE	3285.0	APPROACH	3286.0	-1.0	3296.0	-11.0	MONITOR
97	TREE	3285.0	APPROACH	3288.3	-3.3	3298.3	-13.3	MONITOR
98	TREE	3292.0	APPROACH	3291.2	0.8	3301.2	-9.2	TOP OR REMOVE
99	TREE	3292.7	APPROACH	3295.0	-2.3	3305.0	-12.3	MONITOR
100	TREE	3299.5	APPROACH	3295.8	3.7	3305.8	-6.3	TOP OR REMOVE
101	TREE	3296.1	APPROACH	3299.2	-3.1	3309.2	-13.1	MONITOR
102	TREE	3302.1	APPROACH	3303.1	-1.0	3313.1	-11.0	MONITOR
103	CIRST LIGHT	3360.6	HORIZONTAL	3307.4	53.3	3322.0	38.6	TO REMAIN
104	TREE	3319.7	HORIZONTAL	3307.4	12.3	3322.2	-2.5	TOP OR REMOVE
105	TREE	3341.2	HORIZONTAL	3307.4	33.8	N/A	N/A	TOP OR REMOVE
106	TREE	3315.0	HORIZONTAL	3307.4	7.5	3333.2	-18.2	TOP OR REMOVE
107	TREE	3322.0	HORIZONTAL	3307.4	14.5	3335.3	-13.3	TOP OR REMOVE
108	TREE	3322.3	HORIZONTAL	3307.4	14.9	3336.3	-14.0	TOP OR REMOVE
109	TREE	3333.6	HORIZONTAL	3307.4	26.4	N/A	N/A	TOP OR REMOVE
110	TREE	3358.4	HORIZONTAL	3307.4	50.9	N/A	N/A	TOP OR REMOVE

Note: A Negative Penetration Number Indicates Distance Object is Below Indicated Surface.

NO.	REVISION	SPONSOR	DATE
2	Runway 25 End Relocation	Mead & Hunt	April 2009
1	Property Acquisition/Taxiway E /AWOS/ ALP Checklist	Mead & Hunt	May 2008

NEVADA COUNTY AIRPORT
NEVADA COUNTY, CALIFORNIA

AIRSPACE PLAN

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DESIGN: DD | DRAWN: GJ | DATE: September 2005 | SHEET 3 OF 4

The preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration as provided under Sect on 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

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C:\Users\870tme\appdata\local\temp\AcPublish_10246\NVC-ASP09-Approved2010.dwg Jan 26, 2011 - 10:03am

3.2. General Plan Consistency with Compatibility Plan

3.2.1. *General Plan Consistency:* In order for a general plan (or applicable specific plans) to be considered consistent with the *Compatibility Plan*, the local agency must satisfy the requirements specified in Policies 3.2.2 and 3.2.3.

3.2.2. *Elimination of Conflicts:* No direct conflicts can exist between the two plans.

(a) Direct conflicts primarily involve general plan land use designations that do not meet the density or intensity criteria specified in the *Compatibility Plan* although conflicts with regard to other policies also may exist.

(b) A general plan cannot be found inconsistent with the *Compatibility Plan* because of land use designations that reflect existing land uses even if those designations conflict with the compatibility criteria of this *Compatibility Plan*. General plan land use designations that merely reflect the existing uses are exempt from requirements for general plan consistency with the *Compatibility Plan*. This exemption derives from state law which proscribes NCALUC authority over existing land uses. However, proposed redevelopment or other changes to existing land uses are not exempt from compliance with compatibility policies and are subject to NCALUC review in accordance with Policy 1.4.2(c). To ensure that nonconforming uses do not become more nonconforming, general plans therefore must include policies setting limitations on expansion and reconstruction of nonconforming uses located within an airport influence area consistent with Policies 5.5.3 and 5.5.2.

(c) To be consistent with the *Compatibility Plan*, a general plan and/or implementing ordinance also must include provisions ensuring long-term compliance with the compatibility criteria. For example, future reuse of a building must not result in a usage intensity that exceeds the applicable standard or other limit approved by the NCALUC.

3.2.3. *Establishment of Review Process:* Local agencies must define the process they will follow when reviewing proposed land use development within an airport influence area to ensure that the development will be consistent with the policies set forth in this *Compatibility Plan*.

(a) Specifically, the process established must ensure that the proposed development is consistent with the land use or zoning designation indicated in the local agency's general plan, specific plan, zoning ordinance, and/or other development regulations that the NCALUC has previously found consistent with this *Compatibility Plan* and that the development's subsequent use or reuse will remain consistent with the policies herein over time. Additionally, consistency with other applicable compatibility criteria—e.g., usage intensity, height limitations, avigation easement dedication—must be assessed.

(b) Even if the land use designations in a general plan have been deemed consistent with the *Compatibility Plan*, evaluation of the proposed development relative to the land use designations alone is usually insufficient. General plans typically do not contain the detailed airport land use compatibility criteria necessary for a complete compatibility evaluation of proposed development.

(c) This review process may be described either within land use plans themselves or in implementing ordinances. Local agencies have the following choices for satisfying this evaluation requirement:

(1) Sufficient detail can be included in the general plan and/or referenced implementing ordinances and regulations to enable the local agency to assess whether

a proposed development fully meets the compatibility criteria specified in the applicable *Compatibility Plan* (this requires both that the compatibility criteria be identified and that project review procedures be described);

(2) The NCALUC's *Compatibility Plan* can be adopted by reference (in this case, the project review procedure must be described in a separate policy document or memorandum of understanding presented to and approved by the NCALUC); and/or

(3) The general plan can indicate that all major land use actions, as listed in Policy 1.4.3 or otherwise agreed to by the NCALUC, shall be referred to the NCALUC for review in accordance with the policies of Section 1.4.

4. COMPATIBILITY CRITERIA FOR AIRPORT PLANS

4.1. Review Criteria for Airport Plans of Existing Airports

4.1.1. *Substance of Review:* When reviewing a new master plan or development plan for the Nevada County Airport, the NCALUC shall determine whether activity forecasts or proposed facility development identified in the plan differ from the forecasts and development assumed for that airport in this *Compatibility Plan*. Attention should specifically focus on:

(a) Proposals for facilities or procedures not assumed herein, specifically:

(1) Construction of a new runway or helicopter takeoff and landing area.

(2) Change in the length, width, or landing threshold location of an existing runway.

(3) Establishment of an instrument approach procedure that changes the approach capabilities at a particular runway end.

(4) Modification of the flight tracks associated with existing visual or instrument operations procedures.

(b) New activity forecasts that are: (1) significantly higher than those used in developing the noise contour map in Chapter 3; or (2) assume a higher proportion of larger or noisier aircraft. However, normal growth in airport activity—that is, growth that is not induced by proposed new facilities or procedures—projected to occur over a more extended time period than is the basis for this *Compatibility Plan* shall not be considered an inconsistency even if larger noise contours result.

4.1.2. *Noise Impacts of Airport Expansion:* Any proposed expansion of airport facilities that would result in a significant increase in cumulative noise exposure (measured in terms of Community Noise Equivalent Level (CNEL)) shall include measures to reduce the exposure to a less-than-significant level. For the purposes of this plan, a noise increase shall be considered significant if:

(a) In locations having an existing ambient noise level of less than 55 dB CNEL, the project would increase the noise level as reflected in Exhibit 3-5 in Chapter 3 by 3.0 dB or more.

(b) In locations having an existing ambient noise level of more than 55 dB CNEL, the project would increase the noise level as reflected in Exhibit 3-5 in Chapter 3 by 1.5 dB or more.

4.1.3. *Consistency Determination:* The NCALUC shall determine whether the proposed airport plan or development plan is consistent with the *Airport Land Use Compatibility Plan*. The NCALUC shall base its determination of consistency on;

(a) Findings that the forecasts and development identified in the airport plan would not result in greater noise, overflight, and safety impacts or height restrictions on surrounding land uses than are assumed in the *Compatibility Plan*.

(b) Consideration of:

(1) Mitigation measures incorporated into the plan or project to reduce any increases in the noise, safety, airspace protection, and overflight impacts to a less-than-significant level in accordance with provisions of CEQA; or

(2) In instances where the impacts cannot be reduced to a less-than-significant level, a statement of overriding considerations approved by the project proponent in accordance with provisions of CEQA.

(c) A determination that any nonaviation development proposed for locations within the airport boundary (excluding federal- or state-owned property) will be consistent with the compatibility criteria and policies indicated in this *Compatibility Plan* with respect to that airport (see Policy 1.2.5 for definition of aviation-related use).

4.2. Review Criteria for Proposed New Airports and Heliports

4.2.1. *Substance of Review:* In reviewing proposals for new airports and heliports, the NCALUC shall focus on the noise, safety, airspace protection, and overflight impacts upon surrounding land uses.

(a) Other types of environmental impacts (e.g., air quality, water quality, natural habitats, vehicle traffic, etc.) are not within the scope of NCALUC review.

(b) The NCALUC shall evaluate the adequacy of the proposed facility design (in terms of federal and state standards) only to the extent that the design affects surrounding land use.

(c) The NCALUC must base its review on the proposed airfield design. The NCALUC does not have the authority to require alterations to the airfield design.

4.2.2. *Airport/Land Use Relationship*: The review shall examine the relationships between existing and planned land uses in the vicinity of the proposed airport or heliport and the impacts that the proposed facility would have upon these land uses. Questions to be considered should include:

(a) Would the existing or planned land uses be considered incompatible with the airport or heliport if the later were already in existence?

(b) What measures are included in the airport or heliport proposal to mitigate the noise, safety, airspace protection, and overflight impacts on surrounding land uses? Such measures might include: (1) location of flight tracks so as to minimize the impacts; (2) other operational procedures to minimize impacts; (3) installation of noise barriers or structural noise insulation; (4) acquisition of property interests (fee title or easements) on the impacted land.

5. SPECIFIC COMPATIBILITY CRITERIA

The noise, safety, airspace protection, and overflight policies set forth in this section shall be used to supplement the criteria listed in Table 2A and the policies contained in Sections 3 and 4. Policies for special conditions may also apply (see Section 5.5).

5.1. Noise Criteria

5.1.1. *Policy Objective:* The purpose of noise compatibility policies is to avoid establishment of noise-sensitive land uses in the portions of airport environs that are exposed to significant levels of aircraft noise.

5.1.2. *Measures of Noise Exposure:* The magnitude of the exposure of lands around the airport to airport-related noise shall primarily be described in terms of Community Noise Equivalent Level (CNEL). In accordance with Policy 5.1.6, single-event noise levels may also be considered in assessing the compatibility of highly noise-sensitive land uses (see Policy 1.2.19 for definition).

(a) The noise contours shall depict the greatest annualized noise impact, measured in terms of CNEL, anticipated to be generated by the airport over the planning time frame. In accordance with state law, the planning time frame utilized in this Compatibility Plan extends at least 20 years into the future.

(b) The future CNEL noise contours that are considered in this Compatibility Plan are based upon data supplied by the airport operator. The CNEL contour map and associated data are provided Exhibits 3-4 and 3-5 in Chapter 3. The NCALUC should periodically review the projected CNEL contours and update them if appropriate.

(c) The locations of CNEL contours are among the factors used to define the compatibility zone boundaries (Map 2A) and associated criteria (Table 2A). Because of the inherent variability of flight paths and other factors that influence noise emissions, the depicted contour boundaries are not intended to serve as absolute determinants of the compatibility or incompatibility of a given land use on a specific site or portion thereof. Noise contours can only quantify noise impacts in a general manner. Except on large parcels or blocks of land (sites large enough to have 3 dB or more of variation in CNELs), they should not be used as site design criteria. (Note, though, that the airport noise contours depicted in Exhibit 3-5 in Chapter 3 are to be used as the basis for determining compliance with interior noise level criteria as listed in Policy 4.1.6.)

5.1.3. *Factors Considered in Setting Noise Compatibility Criteria:* Factors considered in setting the criteria include the following:

(a) Established federal and state regulations and guidelines.

(b) The ambient noise levels in the community. Ambient noise levels influence the potential intrusiveness of aircraft noise upon a particular land use and vary greatly between rural, suburban, and urban communities.

(c) The extent to which noise would intrude upon and interrupt the activity associated with a particular use.

(d) The extent to which the activity itself generates noise.

(e) The extent of outdoor activity associated with a particular land use.

(f) The extent to which indoor uses associated with a particular land use may be made compatible with application of sound attenuation in accordance with Policy 5.1.5.

5.1.4. *Maximum Acceptable Exterior Noise Exposure:* To minimize noise-sensitive development in noisy areas around an airport, new land use development shall be restricted in accordance with the following.

(a) The maximum CNEL considered normally acceptable for residential uses in the vicinity of Nevada County Airport is 60 dB.

(1) For the purposes of implementing this policy, no new dwelling shall be permitted within *Compatibility Zone A*. The maximum density of residential uses in the other compatibility zones is as indicated in Table 2A.

(2) A parcel on which residential uses are permitted by the local agency within *Compatibility Zones B1 or B2* should locate the dwelling outside of the zones when feasible.

(b) New nonresidential development shall be deemed incompatible in locations where the airport-related noise exposure would be highly disruptive to the specific land use. The specific limitations are listed in Table 2A.

5.1.5. *Maximum Acceptable Interior Noise Levels:* To the extent that the criteria in Table 2A or other policies herein permit any of the following land uses within the *Compatibility Zones B1 and B2,* land uses for which interior activities may be easily disrupted shall be required to provide acoustical data documenting that the structure will be designed to comply with at least the indicated amount of exterior-to-interior noise level reduction (NLR).

(a) To ensure that the aircraft-related interior noise level is no greater than CNEL 40 dB, a NLR of 25 dB shall be required in *Compatibility Zones B1* and *B2* for:

(1) Any habitable room of single- or multi-family residences;

(2) Long-term lodging;

(3) Family day care homes (≤14 children); and

(4) Nursing homes or other congregate care facilities.

(b) To ensure that the aircraft-related interior noise level is no greater than CNEL 45 dB, a NLR of 20 dB shall be required in *Compatibility Zones B1* and *B2* for:

(1) Hotels, motels, and other short-term lodging;

(2) Places of worship, meeting halls, theaters, and mortuaries;

(3) Schools, libraries, and museums;

(4) Offices and office areas of retail and industrial facilities;

(c) The projected noise contours depicted in Chapter 3, Exhibit 3-5 of this plan shall be used in calculating compliance with these interior noise level criteria. The calculations should assume that windows are closed. All future structures outside of *Compatibility Zones B1* and *B2* are presumed to meet the above requirements with no special added construction techniques.

(d) When structures are part of a proposed land use action, evidence that proposed structures will be designed to comply with the criteria in Paragraph (a) of this policy shall be submitted to the NCALUC or responsible jurisdiction.

(e) Exceptions to the interior noise level criteria in Paragraph (a) of this policy may be allowed where evidence is provided that the indoor noise generated by the use itself exceeds the listed criteria.

5.1.6. *Single-Event Noise Levels*: Single-event noise levels should be considered when evaluating the compatibility of highly noise-sensitive land uses such as residences, schools, libraries, and outdoor theaters. Susceptibility to speech interference and sleep disturbance are among the factors that make certain land uses noise sensitive. Acoustical studies or on-site noise measurements may be required to assist in determining the compatibility of sensitive uses. Single-event noise levels are especially important in areas that are regularly overflown by aircraft, but that do not produce significant CNEL contours (helicopter overflight areas are a particular example). Flight patterns for an airport should be considered in the review process including in locations beyond the mapped noise contours. The compatibility evaluations in Table 2A reflect single-event noise concerns.

5.1.7. *Engine Run-Up and Testing Noise:* NCALUC consideration of noise from aircraft engine run-ups and testing activities shall be limited as follows:

(a) Aircraft noise associated with pre-flight engine run-ups, taxiing of aircraft to and from runways, and other operations of aircraft on the ground is considered part of airport operations and therefore is not subject to NCALUC regulatory authority.

(1) Noise from these sources can be, but normally is not, represented in airport noise contours. It is not included in the noise contours prepared for this *Compatibility Plan*. Nevertheless, when reviewing the compatibility of proposed land uses in locations near the airport where such noise may be significant, the NCALUC may seek additional data and may take into account noise from these ground-based sources.

(2) Noise from aircraft ground operations should be considered by the NCALUC when reviewing future airport master plans or development plans in accordance with Section 2.4 herein.

(b) Noise from the testing of aircraft engines on airport property is not deemed an activity inherent in the operation of an airport and thus it is not an airport-related impact addressed by this *Compatibility Plan*. Noise from these sources should be addressed by the noise policies of local agencies in the same manner as noise from other industrial sources. (Engine testing noise is not included in the noise contours prepared for this plan.)

5.2. Safety Criteria

5.2.1. *Policy Objective:* The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing. The policies focus on reducing the potential consequences of such events when they occur. (Note that land use features that can be the cause of an aircraft accident are addressed under Airspace Protection, Section 5.3.)

5.2.2. *Measures of Risk Exposure:* For the purposes of this *Compatibility Plan*, the risk that potential aircraft accidents pose to lands around each airport shall be defined in terms of the geographic distribution of where accidents are most likely to occur. Because aircraft accidents are infrequent occurrences, the pattern of accidents at any one airport cannot be used to predict where future accidents are most likely to happen around that airport. Reliance

must be placed on data about aircraft accident locations at similar airports nationally, refined with respect to information about the types and patterns of aircraft usage at the individual airport. This methodology, as further described in Appendix C, is a factor in delineation of the compatibility zones for the airport.

5.2.3. *Factors Considered in Setting Safety Compatibility Criteria:* The principal factors considered in setting criteria applicable within each compatibility zone are:

(a) Risks both to people and property in the vicinity of the airport and to people on board the aircraft.

(b) The most stringent land use controls shall be applied to the areas with the greatest potential risks.

(c) The safety component of the compatibility zones for the airport is based upon general aviation accident data and analyses provided in the California Airport Land Use Planning Handbook (January 2002).

(d) The locations, delineated with respect to the airport runway, where aircraft accidents near general aviation airports typically occur and the relative concentration of accidents within these locations.

(e) The runway length, approach categories, normal flight patterns, and aircraft fleet mix at the airport. These factors are reflected in the compatibility zone shapes and sizes.

5.2.4. *Risks to People on the Ground:* The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people who might gather in areas most susceptible to aircraft accidents. The usage intensity criteria cited in Table 2A reflect the risks associated with various locations in the airport environs.

5.2.5. *Land Uses of Special Concern:* Certain types of land uses represent special safety concerns irrespective of the number of people associated with those uses. Land uses of particular concern and the nature of the concern are listed below. In some cases, these uses are not allowed in portions of the airport environs regardless of the number of occupants associated with the use. In other instances these uses should be avoided, i.e., allowed only if an alternative site outside the zone would not serve the intended function. When the use is allowed, special measures should be taken to minimize hazards to the facility and occupants if the facility were to be struck by an aircraft.

(a) Uses Having Vulnerable Occupants: Uses in which the occupants have reduced effective mobility or are unable to respond to emergency situations shall be prohibited within *Compatibility Zones A*, *B1*, *B2*, and *C* and are discouraged in *Zone D*. These uses include:

(1) Children's schools(grades K-12) and day care centers (with 15 or more children, as defined in the California Health and Safety Code 1596.78), hospitals, nursing homes, health care centers and other uses in which the majority of occupants are children, elderly, and/or disabled.

(2) Hospitals are medical facilities which include provision for overnight stays by patients.

(3) Medical clinics are permitted in Compatibility Zone C provided that these facilities meet the maximum intensity standards listed in the Basic Compatibility Criteria matrix, Table 2A.

(4) Inmate facilities, in which emergency evacuation of the occupants may be difficult.

(b) Multi-Story Buildings: In the event of an emergency resulting from an aircraft accident, low-rise buildings can be more readily evacuated than those with more floors. On this basis, the following limitations are established:

(1) Within *Compatibility Zone A,* new occupied structures are not permitted.

(2) Within *Compatibility Zones B1* and *B2*, new buildings shall be limited to no more than two occupied floors above ground.

(3) Within *Compatibility Zone C*, new buildings shall be limited to no more than three occupied floors above ground.

(c) Hazardous Materials Storage: Construction of facilities for the manufacture or storage of materials that are flammable, explosive, corrosive, or toxic constitute special safety compatibility concerns to the extent that an aircraft accident could cause release of the materials and thereby pose dangers to people and property in the vicinity. Therefore, the manufacture or storage of hazardous materials within the airport environs is restricted as follows:

(1) Within *Compatibility Zone A,* manufacture or storage of any such substance is prohibited.

(2) Within *Compatibility Zones B1* and *B2*, only the following is permitted:

- Fuel or hazardous substances stored in underground tanks.
- On-airport storage of aviation fuel and other aviation-related flammable materials.
- Aboveground storage of less than 6,000 gallons of nonaviation flammable materials (this limit coincides with a break-point used in the Uniform Fire Code to distinguish between different classes of tanks).

(3) Within *Compatibility Zone C*, manufacture or storage of hazardous materials other than the types listed in paragraph (2) above is prohibited unless no other feasible alternative site exists and the facility is designed in a manner that minimizes its susceptibility to damage from an aircraft accident.

(d) Critical Community Infrastructure:

(1) Construction of critical community infrastructure shall be restricted as follows:

- Within *Compatibility Zone A,* all such uses are prohibited.
- Within *Compatibility Zones B1* and *B2*, such uses are prohibited unless no other feasible alternative site exists and the facility is designed in a manner that minimizes its susceptibility to damage from an aircraft accident.

(2) Critical community infrastructure includes power plants, electrical substations, public communications facilities, emergency services facilities (police and fire stations), and other facilities, the damage or destruction of which would cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Susceptibility of the facility to damage by an aircraft accident, the availability of redundant or replacement facilities, the rapidity with which the facility could be repaired, and other such factors should all be considered in the determination of whether such a facility should be placed in a risky location.

5.2.6. *Open Land:* In the event that a light aircraft is forced to land away from an airport, the risks to the people on board can best be minimized by providing as much open land area as possible within the airport vicinity. This concept is based upon the fact that the majority of light aircraft accidents and incidents occurring away from an airport runway are controlled emergency landings in which the pilot has reasonable opportunity to select the landing site.

(a) To qualify as open land, an area should be:

(1) Free of most structures and other major obstacles such as walls, large trees or poles (greater than 4 inches in diameter, measured 4 feet above the ground), and overhead wires.

(2) Have minimum dimensions of approximately 75 feet by 300 feet.

(b) Roads and automobile parking lots are acceptable as open land areas if they meet the above criteria.

(c) Open land requirements for each compatibility zone are to be applied with respect to the entire zone. Individual parcels may be too small to accommodate the minimum-size open area requirement. Consequently, the identification of open land areas must initially be accomplished at the general plan or specific plan level or as part of large (10 acres or more) development projects.

(d) Clustering of development, subject to the limitations noted below, and providing contiguous landscaped and parking areas is encouraged as a means of increasing the size of open land areas.

(e) Building envelopes and the airport compatibility zones should be indicated on all development plans and tentative maps for projects located within the Nevada County Airport influence area. Portraying this information is intended to assure that individual development projects provide the open land areas identified in the applicable general plan, specific plan, or other large-scale plan.

5.2.7. *Calculating Nonresidential Intensity:* The total number of people permitted on a project site at any time, except for rare special events, must not exceed the indicated average and single-acre usage intensity in Table 2A. Usage intensity calculations shall include all people (e.g., employees, customers/visitors) who may be on the property at any single point in time, whether indoors or outdoors. The project site can include multiple parcels. Methods for determining the concentration of people for various land uses are provided in Appendix D and briefly discussed below.

(a) Calculation of Average-Acre Intensity: The number of occupants for a particular proposal or component thereof may be estimated by any of several methods:

(1) The square footage of the building divided by the typical square footage occupied by each person (usually the latter number will be greater than used in building and fire codes to represent the maximum occupancy; the usage intensity criteria of this *Compatibility Plan* are based upon a normal peak period occupancy, not on the highest attainable occupancy).

(2) For uses with fixed seats—restaurants, theaters, for example—the occupancy should be based upon the number of customer seats plus the number of employees.

(3) For many commercial and industrial uses, the occupancy can be estimated by considering the number of parking spaces required by the local agency and multiplying by the average occupancy per vehicle (this method would not be suitable for land uses where many users arrive by transit, bicycle, or other means of transportation).

(b) Calculation of Single-Acre Intensity. The single-acre intensity limits indicated in Table 2A apply to the most intensively used portions of a development site. Calculation of the single-acre intensity depends upon the building footprint and site sizes and the distribution of activities on the site.

(1) For sites less than 1.0 acre, the single-acre intensity equals the total number of people on the site divided by the site size.

(2) For sites more than 1.0 acre and a building footprint less than 1.0 acre, the single-acre intensity equals the total number of building occupants divided by the site size unless the project includes substantial outdoor occupancy in which case such usage should be taken into account.

(3) For sites having both site size and building footprint of more than 1.0 acre, the single-acre intensity shall normally be calculated as 1.0 divided by the building footprint in acres times the total number of building occupants. However, if the occupancy of the building is concentrated in one area—the office area of a large warehouse, for example—then the occupants of that area shall be included in the single-acre calculation.

(4) The 1.0-acre areas to be evaluated shall normally match the building footprints provided that the buildings are generally rectangular (reasonably close to square) and not elongated in shape and, for buildings larger than 1.0 acre, may represent a portion of the building.

(c) Local Agency Use of Alternative Calculation Methods. In conjunction with modifying its general plan for consistency with this *Compatibility Plan* or as part of a separate ordinance or other adopted policy, a local agency may propose an alternative method for measuring compliance with the usage intensity limits. The NCALUC shall evaluate the proposed method to determine whether it would provide an equivalent intensity outcome to that of the floor area ratio method. If no alternative method has been agreed upon, the NCALUC shall use the floor area ratio method in evaluating individual development proposals.

(d) In no case shall a proposed development be designed to accommodate more than the total number of dwelling units per acre (for residential uses) or people per acre (for nonresidential uses) indicated in Table 2A times the acreage of the project site. A project site may include multiple parcels.

5.2.8. *Limitations on Clustering:* Policy 5.2.6(d) notwithstanding, limitations shall be set on the maximum degree of clustering or usage intensity acceptable within a portion of a large project site. These criteria are intended to limit the number of people at risk in a concentrated area.

(a) Clustering of new residential development shall be limited as follows:

(1) Within *Compatibility Zone A*, clustering is not applicable.

(2) Within Compatibility Zones B1, B2, and C, no more than 4 dwelling units shall be allowed in any individual acre. Buildings shall be located as far as practical from the extended runway centerline and normal aircraft flight paths.

(3) Within Compatibility Zone D, no more than 20 dwelling units shall be allowed in any individual acre.

(4) Within Compatibility Zone D* (Urban Overlay Zone), no more than 50 dwelling units shall be allowed in any individual acre.

(b) Usage intensity of new nonresidential development shall be limited as follows:

(1) Within *Compatibility Zone A*, clustering is not applicable.

(2) Within *Compatibility Zone B1*, uses shall be limited to a maximum of 100 people per any individual acre (i.e., a maximum of double the average intensity criterion set in Table 2A). Theaters, restaurants, most shopping centers, motels, intensive manufacturing or office uses, and other similar uses typically do not comply with this criterion.

(3) Within *Compatibility Zone B2*, uses shall be limited to a maximum of 300 people per any individual acre (i.e., a maximum of double the average intensity criterion set in Table 2A). Theaters, major shopping centers (500,000 or more square feet), large motels and hotels with conference facilities, and similar uses typically do not comply with this criterion.

(4) Within *Compatibility Zone C*, uses shall be limited to a maximum of 300 people per any individual acre (i.e., a maximum of double the average intensity criterion set in Table 2A). Theaters, fast-food establishments, high-intensity retail stores or shopping centers, motels and hotels with conference facilities, and similar uses typically do not comply with this criterion.

(5) Within *Compatibility Zone D*, uses shall be limited to a maximum of 600 people per any individual acre (i.e., a maximum of triple the average intensity criterion set in Table 2A).

(6) Within *Compatibility Zone D* (Urban Overlay Zone),* the intensity of nonresidential uses shall not be limited.

5.3. Airspace Protection

5.3.1. *Policy Objective:* Airspace protection compatibility policies seek to prevent creation of land use features that can be hazards to the airspace required by aircraft in flight and have the potential for causing an aircraft accident to occur. Tall structures, trees, and other objects, particularly when located near airports or on high terrain, may constitute hazards to aircraft in flight. Federal regulations establish the criteria for evaluating potential obstructions. These regulations also require that the Federal Aviation Administration be notified of proposals for creation of certain such objects. The FAA conducts "aeronautical studies" of these objects and determines whether they would be hazards, but it does not have the authority to prevent their creation. The purpose of NCALUC airspace protection policies, together with regulations established by local land use jurisdictions and the state government, is to ensure that hazardous obstructions to the navigable airspace do not occur.

5.3.2. *Measures of Hazards to Airspace:* In evaluating the airspace protection compatibility of proposed development near an airport, three categories of hazards to airspace shall be taken into account: physical, visual, and electronic.

(a) Three types of physical hazards are a concern to aviation.

(1) The height of structures and other objects situated near the airport are a primary determinant of physical hazards to the airport airspace.

(2) Land use features that have the potential to attract birds and certain other wildlife to the airport area are also to be evaluated as a form of physical hazards.

(3) Thermal plumes, such as from power plants, can constitute invisible hazards to flight.

(b) Visual hazards of concern include certain types of lights, sources of glare, and sources of dust, steam, or smoke.

(c) Electronic hazards are ones that may cause interference with aircraft communications or navigation.

5.3.3. *Factors Considered in Setting Airspace Protection Compatibility Criteria:* In establishing airspace protection policies, the NCALUC relies upon regulations enacted by the Federal Aviation Administration (FAA) and the state of California. The NCALUC policies are intended to help implement the federal and state regulations. Specific regulations are referenced in subsequent policies of this section.

(a) The FAA has well-defined standards by which potential hazards to flight, especially airspace obstructions, can be assessed. However, the agency has no authority to prevent creation of such hazards. That authority rests with state and local government.

(b) State airspace protection standards mostly mirror those of the FAA. A key difference is that state law gives the California Department of Transportation, Division of Aeronautics and local agencies the authority to enforce the standards.

5.3.4. *NCALUC Review of Height of Proposed Objects:* The requirement for notification to the FAA shall not by itself trigger an airport compatibility review of an individual project by the NCALUC. If the general plan of the local agency in which the project is to be located has been determined by the NCALUC to be consistent with this *Compatibility Plan*, then no NCALUC review is required. If the general plan has not been made consistent, then proposed objects that would exceed the heights indicated below for the respective compatibility zones shall be referred to the NCALUC for airspace review in accordance with Policy 1.4.3(a). Development proposals that include any such objects represent potential airspace obstructions issues. Objects of lesser height normally would not have a potential for being airspace obstructions and therefore do not require NCALUC review with respect to airspace protection criteria (noise, safety, and overflight concerns may still be present). Caution should be exercised, however, with regard to any object more than 50 feet high proposed to be located on a site that is substantially higher than surrounding terrain.

(a) Within *Compatibility Zone A,* the height of any proposed development, including vegetation, requires review.

(b) Within Compatibility Zones B1 and C west of the Airport and B2 north and south of the Airport, NCALUC review is required for any proposed object having a height greater than 3,106 feet MSL (35 feet above the Runway 7 elevation of 3,071 feet MSL).

(c) Within Compatibility Zones B1 and C east of the Airport, NCALUC review is required for any proposed object having a height greater than 3,192 feet MSL (35 feet above the Runway 25/airport elevation of 3,157 feet MSL).

(d) Within Compatibility Zone D, NCALUC review is required for any proposed object having a height greater than 3,207 feet MSL (50 feet above the airport elevation of 3,157 feet MSL).

(e) Within Compatibility Zone E, NCALUC review is required for any proposed object having a height greater than 3,257 feet MSL (100 feet above the airport elevation of 3,157 feet MSL).

(f) Within the Height Review Overlay Zone, NCALUC review is required for any proposed object taller than 35 feet above the ground. The approximate extent of the Height Review Overlay Zone is indicated on the Nevada County Airport Compatibility Policy Map (Map 2A).

5.3.5. *Height Restriction Criteria:* The criteria for determining the acceptability of a project with respect to height shall be based upon the standards set forth in Federal Aviation Regulations (FAR) Part 77, Subpart C, *Objects Affecting Navigable Airspace*, and applicable airport design standards published by the FAA. Additionally, where an FAA aeronautical study of a proposed object has been required as described in Policy 5.3.6, the results of that study shall be taken into account by the NCALUC and the local agency.

(a) Except as provided in Paragraphs (b) and (c) of this policy, no object, including a mobile object such as a vehicle or temporary object such as construction crane, shall have a height that would result in penetration of the airspace protection surface depicted in Map 2B. Any object that penetrates one of these surfaces is, by FAA definition, deemed an *obstruction*.

(b) Within the primary surface and beneath the approach or transitional surfaces, objects shall be limited in height consistent with the airspace protection surfaces defined by FAR Part 77 criteria. Elsewhere within the airspace protection area, no object shall be limited to a height of less than 35 feet above the ground even if the object would penetrate an FAR Part 77 surface and thus constitute an obstruction.

(c) Except as allowed under Paragraph (b), no proposed object having a height greater than 35 feet above the ground and that exceeds the airport's airspace protection surface shall be allowed unless *all* of the following apply:

(1) As the result of an aeronautical study, the FAA determines that the object would not be a hazard to air navigation.

(2) FAA or other expert analysis conducted under the auspices of the NCALUC or the airport operator concludes that, despite being an airspace obstruction (not necessarily a hazard), the object that would not cause any of the following:

- An increase in the ceiling or visibility minimums of the airport for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA);
- A diminution of the established operational efficiency and capacity of the airport, such as by causing the usable length of the runway to be reduced; or
- Conflict with the visual flight rules (VFR) airspace used for the airport traffic pattern or en route navigation to and from the airport.

(3) Marking and lighting of the object will be installed as directed by the FAA aeronautical study or the California Division of Aeronautics and in a manner consistent with FAA standards in effect at the time the construction is proposed (Advisory Circular 70/7460-1J, *Obstruction Marking and Lighting*, or any later guidance).

(4) An avigation easement is dedicated to the jurisdiction owning the airport in accordance with Policy 3.1.9.

(5) The proposed project/plan complies with all other policies of this *Compatibility Plan*.

5.3.6. *FAA Height Notification:* Proponents of a project involving objects that may exceed a Part 77 surface must notify the FAA as required by FAR Part 77, Subpart B, and by the PUC Sections 21658 and 21659. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Refer to Appendix B for the specific FAA notification requirements.)

(a) Local agencies shall inform project proponents of the requirements for notification to the FAA.

(b) The requirement for notification to the FAA shall not necessarily trigger an airport compatibility review of an individual project by the NCALUC if the project is otherwise in conformance with the compatibility criteria established herein.

(c) FAA review is required for any proposed structure more than 200 feet above the surface level of its site. All such proposals also shall be submitted to the NCALUC for review regardless of where within the jurisdiction of the NCALUC they would be located.

(d) Any project submitted to the NCALUC for airport land use compatibility review for reason of height-limit issues shall include a copy of FAR Part 77 notification to the FAA and the FAA findings if available.

5.3.7. *Other Flight Hazards:* New land uses that may cause visual, electronic, or increased bird strike hazards to aircraft in flight shall not be permitted within the Nevada County Airport influence area. Specific characteristics to be avoided include:

(a) Glare or distracting lights which could be mistaken for airport lights;

(b) Sources of dust, steam, or smoke which may impair pilot visibility;

(c) Sources of steam or other emissions that cause thermal plumes or other forms of unstable air;

(d) Sources of electrical interference with aircraft communications or navigation; and

(e) Any proposed use, especially landfills and certain agricultural uses, that creates an increased attraction for large flocks of birds. (Refer to FAA Order 5200.5A, Waste Disposal Sites on or Near Airports and Advisory Circular 150/5200-33, Hazardous Wildlife Attractants On or Near Airports.)

5.4. Overflight

5.4.1. *Policy Objective:* Noise from individual operations, especially by comparatively loud aircraft, can be intrusive and annoying in locations beyond the limits of the mapped noise con-

tours. Sensitivity to aircraft overflights varies from one person to another. The purpose of overflight compatibility policies is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas. Overflight compatibility is particularly important with regard to residential land uses.

5.4.2. *Factors Considered in Setting Overflight Compatibility Criteria:* These factors include:

(a) Limitations of NCALUC authority over existing land uses. To be most effective, overflight policies should apply to transactions involving existing land uses, not just future development. However, the NCALUC only has authority to set requirements for new development and to define the boundaries within which real estate transfer disclosure under state law is appropriate.

(b) Limitations of state real estate transfer disclosure law. State law applies to existing development, but not to all transactions (see Policy 5.4.4).

(c) Need for continuity of notification to future property owners and tenants. To the extent that the NCALUC sets notification requirements for new development, the policy should ensure that the notification runs with the land and is provided to prospective future owners and tenants.

(d) Inappropriateness of avigation easement dedication solely for buyer awareness purposes. Avigation easements involve conveyance of property rights from the property owner to the party owning the easement and are thus best suited to locations where land use restrictions for noise, safety, or airspace protection purposes are necessary. Property rights conveyance is not needed for buyer awareness purposes.

5.4.3. *Recorded Overflight Notification:* As a condition for local agency approval of residential land use development within an airport influence area, an overflight notification shall be recorded within *Zones C and D*.

(a) The notification shall contain the language dictated by state law with regard to real estate transfer disclosure (see Policy 5.4.4(c)) and shall adhere to a format similar to that indicated in Appendix G.

(b) The notification shall be evident to prospective purchasers of the property and shall appear on the property deed.

(c) A separate recorded overflight notification is not required where an avigation easement (see Policy 5.4.4(c)) is provided.

(d) Recording of an overflight notification is not required for nonresidential development.

5.4.4. *State Law Requirements Regarding Real Estate Transfer Disclosure:* Effective January 1, 2004, California State statutes (Business and Professional Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353) require as part of certain residential real estate transactions that information be disclosed regarding whether the property is situated within an airport influence area.

(a) The state requirements apply to the sale or lease of all newly subdivided lands and creation of certain new common interest development. For the sale or transfer of existing residential property, airport proximity disclosure is required only when specified natural conditions (earthquake, fire, or flood hazards) warrant disclosure.

(b) The statutes define an *airport influence area* as "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission." The influence area for Nevada County Airport is indicated on the Compatibility Policy Map, Map 2A herein.

(c) Where disclosure is required, the following statement shall be provided:

> NOTICE OF AIRPORT IN VICINITY: This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

5.4.5. *NCALUC Policy Regarding Real Estate Transfer Disclosure:* For the purposes of this *Compatibility Plan*:

(a) The disclosure provisions of state law as described in Policy 5.4.4 are deemed mandatory for *new* residential development and shall continue in effect as a policy of this *Compatibility Plan* even if the state law is made less stringent or rescinded.

(b) The disclosure language to be used shall be as indicated in state law.

(c) Although not required by state law, the policy of this Compatibility Plan is that airport proximity disclosure should be provided as part of all real estate transactions (sale, lease, or rental) involving residential property within the an airport influence area.

(d) Each land use jurisdiction affected by this Compatibility Plan should adopt a policy designating the airport influence area as the area wherein disclosure of airport influences is required in conjunction with the transfer of residential real estate. Such local agency policies also should be applied to lease or rental agreements for existing residential property.

(e) Signs providing airport proximity notice should be prominently posted in the appropriate county/city offices as well as in the real estate sales office and/or other key locations at any new development within the airport influence area.

5.4.6. *Land Use Conversion:* The compatibility of uses in the airport influence areas shall be preserved to the maximum feasible extent. Particular emphasis should be placed on preservation of existing agricultural and open space uses.

(a) The conversion of land from existing or planned agricultural, open space, industrial, or commercial use to residential uses within *Compatibility Zones A*, *B1*, *B2*, and *C* is strongly discouraged.

(b) In *Compatibility Zone D*, general plan amendments (as well as other discretionary actions such as rezoning, subdivision approvals, use permits, etc.) that would convert land to residential use or increase the density of residential uses should be subject to careful consideration of overflight impacts.

5.5. Special Conditions

5.5.1. *Infill:* Where development not in conformance with the criteria set forth in this *Compatibility Plan* already exists, additional infill development of similar land uses may be allowed to occur even if such land uses are to be prohibited elsewhere in the zone. This exception does not apply within *Compatibility Zones A* or *B1*.

(a) A parcel can be considered for *infill* development if it meets *all* of the following criteria plus the applicable provisions of either paragraph (b) or (c) below:

(1) The parcel size is no larger than 20.0 acres.

(2) At least 65% of the site's perimeter is bounded (disregarding roads) by existing uses similar to, or more intensive than, those proposed.

(3) The proposed project would not extend the perimeter of the area defined by the surrounding, already developed, incompatible uses.

(4) Further increases in the residential density, nonresidential usage intensity, and/or other incompatible design or usage characteristics (e.g. through use permits, density transfers, addition of second units on the same parcel, height variances, or other strategy) are prohibited.

(5) The area to be developed cannot previously have been set aside as open land in accordance with policies contained in this plan unless replacement open land is provided within the same compatibility zone.

(b) For residential development, the average development density (dwelling units per acre) of the site shall not exceed the lesser of:

(1) The average density represented by all existing lots that lie fully or partially within a distance of 300 feet from the boundary of the parcel to be divided; or

(2) Double the density permitted in accordance with the criteria for that location as indicated in the Basic Compatibility Criteria matrix, Table 2A.

(c) For nonresidential development, the average usage intensity (the number of people per acre) of the site's proposed use shall not exceed the lesser of:

(1) The average intensity of all existing uses that lie fully or partially within a distance of 300 feet from the boundary of the proposed development; or

(2) Double the intensity permitted in accordance with the criteria for that location as indicated in the Basic Compatibility Criteria matrix, Table 2A.

(d) The single-acre density and intensity multipliers described in Policy 5.2.8 and listed in Table 2A are applicable to infill development.

(e) Infill development on some parcels should not enable additional parcels to then meet the qualifications for infill. The NCALUC's intent is that parcels eligible for infill be determined just once. Thus, in order for the NCALUC to consider proposed development under these infill criteria, the entity having land use authority (Nevada County or the City of Grass Valley) must first identify the qualifying locations in its general plan or other adopted planning document approved by the NCALUC. This action may take place in conjunction with the process of amending a general plan for consistency with the NCALUC plan or may be submitted by the local agency for consideration by the NCALUC at the time of initial adoption of this *Compatibility Plan*. In either case, the burden for demonstrating that a proposed development qualifies as infill rests with the affected land use jurisdiction and/or project proponent.

5.5.2. *Nonconforming Uses:* Existing uses (including a parcel or building) not in conformance with this *Compatibility Plan* may only be expanded as follows:

(a) Nonconforming residential uses may be expanded in building size provided that the expansion does not result in more dwelling units than currently exist on the parcel (a bedroom could be added, for example, but a separate dwelling unit could not be built). No NCALUC review of such improvements is required.

(b) A nonconforming nonresidential development may be continued, leased, or sold and the facilities may be maintained or altered (including potentially enlarged), provided that the portion of the site devoted to the nonconforming use is not expanded and the usage intensity (the number of people per acre) is not increased above the levels existing at the time of adoption of this *Compatibility Plan*. No NCALUC review of such changes is required.

(c) Children's schools (including grades K-12, day care centers with more than 15 children and school libraries).

(1) Land acquisition for new schools or expansion of existing schools is not permitted in *Compatibility Zones A, B1, B2,* and *C*.

(2) Replacement or expansion of buildings at existing schools is also not allowed in *Compatibility Zones A, B1, B2,* and *C*, except that one-time expansion accommodating no more than 50 students is permitted in *Compatibility Zone C*. This limitation does not preclude work required for normal maintenance or repair.

(d) The sound attenuation and avigation easement dedication requirements set by Policies 5.1.5 and 3.1.9 shall apply.

(e) NCALUC review is required for any proposed expansion of a nonconforming use (in terms of the site size or the number of dwelling units or people on the site). Factors to be considered in such reviews include whether the development qualifies as infill (Policy 5.5.1) or warrants approval because of other special conditions (Policy 5.5.5).

5.5.3. *Reconstruction:* An existing nonconforming development that has been fully or partially destroyed as the result of a calamity may be rebuilt only under the following conditions:

(a) Nonconforming residential uses may be rebuilt provided that the expansion does not result in more dwelling units than existed on the parcel at the time of the damage. Addition of a secondary dwelling unit to a single-family residence is permitted if in accordance with state law and local regulations.

(b) A nonconforming nonresidential development may be rebuilt provided that it has been only partially destroyed and that the reconstruction does not increase the floor area of the previous structure or result in an increased intensity of use (i.e., more people per acre). Any nonresidential use that has been more than 75% destroyed must comply with all applicable standards herein when reconstructed.

(c) Reconstruction under Paragraphs (1) or (2) above must begin within 24 months of the date the damage occurred.

(d) The above exceptions do not apply within Zone A or where such reconstruction would be in conflict with the general plan or zoning ordinance of Nevada County or the City of Grass Valley.

(e) Nothing in the above policies is intended to preclude work required for normal maintenance and repair.

5.5.4. *Development by Right:* Nothing in these policies prohibits:

(a) Construction of a single-family home, including a second unit as defined by state law, on a legal lot of record if such use is permitted by local land use regulations.

(b) Construction of other types of uses if local government approvals qualify the development as effectively existing (see Policy 1.2.12 for definition).

(c) Lot line adjustments provided that new developable parcels would not be created and the resulting density or intensity of the affected property would not exceed the applicable criteria indicated in the Basic Compatibility Criteria matrix, Table 2A.

5.5.5. *Special Conditions Exception:* The compatibility criteria set forth in this plan are intended to be applicable to all locations within the Nevada County Airport influence area. However, it is recognized that there may be specific situations where a normally incompatible use can be considered compatible because of terrain, specific location, or other extraordinary factors or circumstances related to the site.

(a) After due consideration of all the factors involved in such situations, the NCALUC may find a normally incompatible use to be acceptable.

(b) In considering any such exceptions, the NCALUC shall also take into account the potential for the use of a building to change over time. A building could have planned low-intensity use initially, but later be converted to a higher-intensity use. Local agency permit language or other mechanisms to ensure continued compliance with the usage intensity criteria must be put in place.

(c) In reaching such a decision, the NCALUC shall make specific findings as to why the exception is being made and that the land use will not create a safety hazard to people on the ground or aircraft in flight nor result in excessive noise exposure for the proposed use. Findings also shall be made as to the nature of the extraordinary circumstances that warrant the policy exception.

(d) The burden for demonstrating that special conditions apply to a particular development proposal rests with the project proponent and/or the referring agency, not with the NCALUC.

(e) The granting of a special conditions exception shall be considered site specific and shall not be generalized to include other sites.

(f) Approval of a special conditions exception for a proposed project shall require a two-thirds majority approval of the NCALUC members present and voting on the matter.

Chapter 3

Background Data: Nevada County Airport and Environs

3

Background Data: Nevada County Airport and Environs

INTRODUCTION

Chapter 3 documents information regarding Nevada County Airport and its environs to provide the setting upon which this *Nevada County Airport Land Use Compatibility Plan* is based. The physical configuration of the runway system and the volume and characteristics of the aircraft operations are critical determinants of the impacts that aircraft activity has on surrounding land uses. As described in this chapter, changes to the runway configuration are expected at Nevada County Airport. These changes, coupled with projected growth of aircraft operations at the airport, have been taken into account in the plan preparation.

The character of current and planned land uses in the area surrounding the airport is also considered in the development of the compatibility policies. Planned Loma Rica land uses are detailed later in this chapter. A significant land use proposal in the airport environs is the Loma Rica Ranch Specific Plan (Loma Rica). It is important that any new development, whether in Loma Rica or elsewhere in the airport influence area, take place in a manner that is compatible with the airport.

AIRPORT HISTORY AND DEVELOPMENT

Located in western Nevada County and 1 mile east of the City of Grass Valley, Nevada County airport is a general aviation facility serving Grass Valley, Nevada City, and the nearby Sierra Foothills region. It functions as a transportation facility for local business aircraft, a point of access for visitors to the community, a base for aerial fire attack aircraft, a site for emergency access to the community, and a base for local personal and recreational flyers. The airport is owned and operated by the County of Nevada.

The airport was constructed in 1933 by the Idaho-Maryland Mine Company to serve nearby mines. Other important events in the airport's history include:

- In 1941, the Army Air Corps utilizes the airport as a squadron training site.
- In 1959, the 3,200-foot-long and 50-foot-wide runway is paved.
- Circa 1960, the Forest Service establishes an air tanker base at the east end of the airport.

- Circa 1966, the runway pavement is extended 1,200 feet eastward and the western 500 feet is designated as an overrun, resulting in a runway length of 3,900 feet. The midfield apron area also is constructed.
- In 1970, the runway length is established as 4,400 feet with a 500-foot displaced threshold at the west end.
- In 1978, the runway length is redefined as 3,920 feet with the western 500 feet designated as an overrun. The 20 feet is obtained by including the 10-foot long, painted runway threshold stripe at each end of the runway into the calculation.
- In 1981, an Airport Master Plan was adopted.
- In 1987, the Foothill Airport Land Use Commission adopts the Comprehensive Land Use Plan for the airport based on the 1981 Master Plan.
- In 1992, a new Airport Master Plan was adopted.
- In 1996, the runway is extended from 3,920 to 4,350 feet.

Existing Airfield System

Nevada County Airport has a single runway that is aligned east to west. The runway is 4,350-feet long and 75 feet wide, and designated as Runway 7-25. The Airport Reference Code (ARC) classification for the airport is ARC B-I (Small). This means the airport is used primarily by aircraft with approach speeds lower than 121 knots, wingspans less than 49 feet, and weighs less than 12,500 pounds. However, the airport is capable of accommodating larger and heavier aircraft at the pilot's discretion. The designated design aircraft is the twin-engine Cessna 421. Other major features at Nevada County Airport are detailed further in **Exhibit 3-1,** The Airport Features Summary.

Airport Reference Code (ARC). A coding system defined by the Federal Aviation Administration (FAA) to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport.

AIRPORT PLANS

Airport land use compatibility plans and airport master plans are closely interrelated. Section 21675(a) of the California Public Utilities Code requires that an airport land use compatibility plan be based upon a long-range airport master plan adopted by the airport owner/proprietor. If such a plan does not exist for a particular airport, an airport layout plan may be used with the approval of the California Division of Aeronautics. Furthermore, the compatibility plan must reflect "the anticipated growth of the airport during at least the next 20 years."

Airport Master Plan Status

In 1992, Nevada County prepared an Airport Master Plan for the airport. This study evaluated the airport's capabilities and role, forecast future aviation demand for 2010, and identified development of new or expanded facilities that would be required to accommodate anticipated increases in aircraft activity. On January 28, 1992, the Master Plan was adopted by the Nevada County Board of Supervisors and has not been updated since then. The significant development proposed in the Master Plan was extending the runway from 3,920 to 4,350 feet, which was completed in 1996.

Airport Layout Plan Status

Modifications to the configuration of the airfield must be considered in the Compatibility Plan, as noise and safety impacts may shift and affect surrounding land uses previously excluded from the airport influence area. Proposed alterations to the airfield system are illustrated on the latest Nevada County Airport Layout Plan (ALP) drawing.

Exhibit 3-2 illustrates the most recent ALP drawing, dated April 2009, and conditionally approved by the Federal Aviation Administration (FAA) in February 2010. The conditional approval requires that an environmental determination be completed by the airport proprietor prior to project construction of projects shown on the plan. The principal development proposal shown on the ALP is to relocate the Runway 25 threshold 300 feet east to the existing end of pavement, resulting in a runway length of 4,650 feet, and the acquisition of property and avigation easements.

As the 2009 ALP represents the airport proprietor's ultimate vision for the airport, the 2009 ALP is used as the basis of this *Compatibility Plan*. In accordance with state law (Section 21675(a)), the FAA-approved 2009 ALP was submitted to and accepted by the California Department of Transportation (Caltrans), Division of Aeronautics on April 27, 2011, for the purposes of this *Compatibility Plan*.

Airspace Plan

The Airspace Plan included in the 2009 ALP drawing set is presented in **Exhibit 3-3**. The drawing depicts the Federal Aviation Regulations (FAR) Part 77 airspace surfaces for the airport, reflecting the future runway length and straight-in instrument approaches. The size and shape of imaginary surfaces are a function of the type of aircraft using a runway and the lowest visibility minimums allowed for that runway.

The Airspace Plan is based upon a nonprecision approach to Runway 7 and a visual approach to Runway 25. No additional instrument approaches or lower visual minimums are proposed for the airport.

FAR Part 77 Surfaces. Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: primary, approach, transitional, horizontal, and conical. FAR Part 77 establishes standards and notification requirements for objects affecting navigable airspace. Notification allows the FAA to evaluate the potential hazardous effect of proposed construction on air navigation and to identify mitigation measures to prevent or minimize the adverse impacts to the safe use of navigable airspace.

AIRCRAFT ACTIVITY DATA AND FORECASTS

As noted above, state law (Section 21675(a)) requires that the *Compatibility Plan* reflect the anticipated growth of the airport during at least the next 20 years. Nothing in the law precludes ALUCs from extending the planning horizon beyond 20 years. In fact, some ALUCs will base a *Compatibility Plan* on an arbitrary forecast year or on the ultimate growth of the airport (e.g., build-out).

The purpose of extending the forecast period beyond the required 20-year timeframe, if prudent, is to take a more conservative approach by assessing the greatest extents of off-airport impacts based on a higher level of future aircraft activity. The decision to extend the forecast horizon is based on the airport proprietor's goals and objectives for expansion at the airport and the initiatives in place to fulfill those objectives.

Existing Activity

The airport is a non-towered general aviation facility. Therefore, precise operational statistics are not available. Instead, current activity levels, fleet mix and flight patterns must be deciphered through conversations with airport management and users of the airport.

Discussions with airport management indicate that operations can vary greatly from day to day and depend heavily on the season. On clear days with low winds, over 100 operations (landings and takeoffs) may take place. Throughout the fire season (typically between May and November), Cal Fire attack aircraft will use the airport to assist in battling wild and forest fires in the region. During the winter months, visibility can drop below minimums and operations are curtailed for days at a time. After analysis, it was determined that approximately 30,000 annual operations (an average of 82 operations daily) occurred at the airport in 2010**. Exhibit 3-4** summarizes base year (2010) aircraft activity data at the airport.

Cal Fire maintains three fire attack aircraft (2 Grumman S-2 Trackers and 1 OV-10 Bronco) at the base during fire season. These aircraft, along with a Bell Super Huey helicopter will stage fire attack operations at the airport and refill with retardant, water, or fuel. When regional fires are large enough, additional fire attack aircraft will operate from the airport.

Operations by fire attack aircraft are dependent on the size and frequency of fires in a season. Historical data was acquired from which details operations by fire attack aircraft over the last 5 years. An average of 1,575 annual operations (landings and takeoffs) has taken place over the past five years (2006-2010), with a high of 2,000 annual operations occurring in 2007.

During visual conditions, the direction of landings and takeoffs by small aircraft are usually dictated by the prevailing winds, which are from the west. Operations will occur on Runway 25 about 90% of the time. This creates a traffic flow from east to west, with aircraft departing towards Grass Valley and overflying portions of the City.

An unusual characteristic of the airport that affects aircraft operations is the severity of the runway gradient. The slope of the runway rises steeply by 1.9% to the east. When winds are out of the east, aircraft may still depart to the west on Runway 25 and head downslope, even with a moderate tailwind. For departures on Runway 7, winds from the east need to be fairly strong to overcome the effect of the uphill slope.

Notices are in place discouraging nighttime takeoffs on Runway 7 and landings on Runway 25 for all aircraft. This is due to the runway slope, rising terrain to the east of the Airport, and residential lots just to the east of the Airport. Larger and heavier aircraft, such as fire attack aircraft, will always land on Runway 7 and takeoff on Runway 25. The slope of the runway is utilized by larger aircraft to aid in slowing down the aircraft on arrival and improving lift on departures.

Forecast for this Compatibility Plan

General aviation airports throughout the country have seen a decline in aircraft activity in the past few years in response to the downturn in the economy, rising fuel prices, and airport-specific circumstances. Although operations have decreased, the FAA continues to forecast long term aviation growth despite global economic conditions. As noted above, a conservative approach in operations is generally favored for compatibility planning purposes.

The forecast presented in the 1992 Master Plan (116,000 annual operations) is based on an activity level that is more than twice the activity level currently estimated for 2010 (30,000 annual operations). The new data suggests that the forecast presented in the Master Plan is overly aggressive given current aircraft activity levels and is no longer suitable as the basis for policy in this *Compatibility Plan*.

Using current operational data described above, a forecast of 60,000 annual operations was developed for the purposes of this *Compatibility Plan*. This forecast is double the current (2010) activity level of 30,000 annual operations and is more representative of the airport's current condition and potential growth, yet is less than the activity level historically achieved.

The forecast is derived by applying the average annual growth rate of 2.2% from the 1992 Master Plan to current (2010) operations of 30,000 annual operations and extending it out to cover a 30-year timeframe. This methodology yields 60,000 annual operations by 2040. This forecast level is also achieved if the airport reaches its basing capacity for aircraft, as reflected in the 2009 ALP. The 2009 ALP indicates that the future parking capacity is 270 spaces (hangars and tiedowns). According to management, the existing based aircraft count is 135 and the total operations per based aircraft is 222 (30,000 divided by 135). If the total basing capacity of the airport is reached and operations per based aircraft remains constant, aircraft activity would total about 60,000 annual operations (270 spaces times 222 operations per based aircraft).

The 2009 ALP also identifies lands north and southwest of the airfield slated for future airport acquisition. Although not specified on the ALP, the airport's basing capacity could be higher if additional aircraft storage facilities or a Cal Fire base able to accommodate more aircraft were developed on these lands. Note that no official planning or design work has been done for these areas. As such, the forecast for this *Compatibility Plan* is 60,000 annual operations. The anticipated share of the forecast activity by specific types of aircraft is also summarized in Exhibit 3-4. The future fleet mix for the airport is expected to match national trends. The FAA anticipates that the growth in business and corporate general aviation aircraft will outpace growth of aircraft used for sport or personal use. Business/corporate aircraft typically include turboprops and business jets, while personal/sport aircraft include single- and multi-engine piston powered aircraft.

OTHER COMPATIBILITY FACTORS FOR THIS COMPATIBILITY PLAN

Noise Contours and Overflight Areas

The future noise contours for the airport are shown in **Exhibit 3-5**. The mapped noise contours represent a forecast of 60,000 annual operations on the future runway configuration as presented in the 2009 ALP. Also depicted are the flight tracks that were modeled to create the noise contours. These flight tracks reflect the common traffic patterns at the airport. The estimated distribution of aircraft activity on each track is detailed in Exhibit 3-4. The extended arrival tracks to Runway 7 are used by the large fire attack aircraft when landing.

Safety Zones

Generic safety zones based upon runway length and operation patterns are depicted in Exhibit 3-6, using the generic safety zones from the California Airport Land Use Planning Handbook published

by the Caltrans Division of Aeronautics in January 2002. These safety zones translate nationwide aircraft accident distribution pattern data into a set of distinct zones with regular geometric shapes and sizes. The generic safety zones shown are for medium general aviation runways (4,000 to 5,999 feet). On the east side of the airport, two set of safety zones are shown reflecting the existing and future ends of Runway 25. The safety zones reflecting the proposed runway extension are shown as dashed lines. The general risk factors prevalent in each zone are noted below.

- Zone 1: Runway Protection Zone encompasses lands immediately beyond the runways. This area is exposed to the highest degree of risk.
- Zone 2: Inner Approach/Departure Zone encompasses areas overflown at low altitudes typically only 200 to 400 feet above runway elevation.
- Zone 3: Inner Turning Zone encompasses locations where aircraft are typically turning from the base to final approach legs of the standard traffic pattern and are descending from traffic pattern altitude.
- Zone 4: Outer Approach/Departure Zone is situated along the extended runway centerline beyond Zone 2 and is especially significant at airports that have straight-in instrument approach procedures or a high volume of operations that result in an extended traffic pattern.
- Zone 5: Sideline Zone encompasses close-in areas lateral to runways and, for most airports, lies on airport property.
- Zone 6: Traffic Pattern Zone contains the aircraft traffic pattern. Risk concern primarily is with uses for which potential consequences are severe (e.g., children's schools, hospitals, power plants).

AIRPORT ENVIRONS

The airport lies in the Sierra Nevada Foothills at an elevation of 3,154 feet above mean sea level (MSL). The topography around the airport is very hilly. Terrain falls to the west and rises to the east. Lands within unincorporated Nevada County and the cities of Grass Valley and Nevada City are all affected by airport activity and located within the airport's influence area.

Of particular interest is the Loma Rica Ranch Specific Plan, located immediately west of the approach end for Runway 7. Although currently unincorporated, this is a proposed Special Development Area within the Planning Area of Grass Valley. The plan proposes: 314 acres of Open Space, 27 acres of Business and Light Industrial uses (Special District), 10 acres of mixed residential/commercial/retail uses (Neighborhood Center), 78 acres of Neighborhood General (6-20 dwelling units/acre), and 19 acres of Neighborhood Edge (1-8 dwelling units/acre).

Specific land uses within the airport environs are listed in **Exhibit 3-7**, which identifies existing and planned land uses and summarizes the status of local plans and policies and for the jurisdictions of Nevada County, Grass Valley, and Nevada City. **Exhibit 3-8** displays land uses as designated in the Nevada County's General Plan (1995), **Exhibit 3-9** shows assigned land uses in the Grass Valley 2020 General Plan, and **Exhibit 3-10** shows the specific plan land uses for the City of Grass Valley. Note that land use data is not available in GIS format for Nevada City. An aerial photo of the airport environs along with the composite safety zones is provided in **Exhibit 3-11**.

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GENERAL INFORMATION

- *Airport Ownership*:
  - County of Nevada
  - Operated by Department of Facilities Management and Maintenance
- *Airport Location:*
  - Lies in west-central Nevada County
- *Property Size:* 120 acres [a]
- *Airport Classification:* General Aviation (GA) Airport
- *Airport Elevation*: 3,154 ft. MSL (surveyed) [a]

AIRPORT PLANNING DOCUMENTS

- *Airport Layout Plan Drawing*
  - Dated April 2009; approved by FAA February 2010; accepted by Caltrans Division of Aeronautic as basis of this *Compatibility Plan* on April 27, 2011
- *Airport Master Plan:*
  - Adopted by Board of Supervisors, January 28, 1992

RUNWAY/TAXIWAY DESIGN [a]

Runway 7-25

- *Airport Reference Code*: B-I (Small)
- *Critical Aircraft:* Cessna 421
- *Dimensions:* 4,350 ft. long, 75 ft. wide
- *Pavement Strength (main landing gear configuration)*
  - 30,000 lbs. (single wheel)
- *Average Gradient:* 1.9% (rising to east)
- *Runway Lighting:* Medium Intensity Runway Lights (MIRL), Runway End Identifier Lights (REILs)
- *Primary Taxiways*: Taxiway A: full-length on south

APPROACH PROTECTION

- *Airspace Category:* Utility runway (≤12,500 lbs); non-precision instrument runway; [A (NP)]
- *Existing Runway Protection Zones (RPZ)* [a]
  - Runway 7: 54% on airport; proposed fee simple acquisition for remaining 46%
  - Runway 25: 93% on airport; 1% off-airport on existing avigation easement, 6% off-airport on proposed avigation easement
- *Approach Obstacles* [b]
  - Runway 7: 20 ft. tall trees, 612 ft. from runway, 190 ft. left of centerline, clear 20:1 slope
  - Runway 25: 100 ft. tall pole (marked and lighted), 2,600 ft. from runway, 235 ft. right of centerline, clear 24:1 slope

BUILDING AREA

- Aircraft Parking Location
  - Building area south side of airfield
- Aircraft Parking Capacity [a]
  - Hangar spaces: 106
  - Tie-downs: 173
- Other Facilities and Services [b]
  - CalFire air attack base
  - Fuel: 100LL, Jet A
  - Airframe and powerplant service

TRAFFIC PATTERNS AND APPROACH PROCEDURES [a,b]

- *Airplane Traffic Patterns*
  - Runway 7-25: Left traffic
  - Pattern Altitude: 1,000 ft. AGL, departing aircraft advised to climb to 3,800 ft. MSL before turning
- *Instrument Approach Procedures*
  - Runway 7 GPS
  - Straight-in: 1 statute mile visibility, decision height 412 ft. above touch down zone (3,540 ft. MSL)
  - VOR/GPS-A
  - Circle to Land: 1¼ statute miles visibility, decision height 1,128 ft. above airport elevation (4,280 ft. MSL)
- *Approach Aids*
  - Airport: Beacon, wind indicator, and segmented circle
  - Runway 7: VASI (4 box), on left, 3.00° glide path
  - Runway 25: VASI (2 box), on left, 3.50° glide path
- *Traffic Advisories*
  - Runway slopes downhill to west, recommended takeoffs on Runway 25
  - Night takeoffs on Runway 7 and landings on Runway 25 not recommended
  - Fire attack aircraft operate in summer and fall months; land on Runway 7 and depart on 25

PLANNED FACILITY IMPROVEMENTS [a]

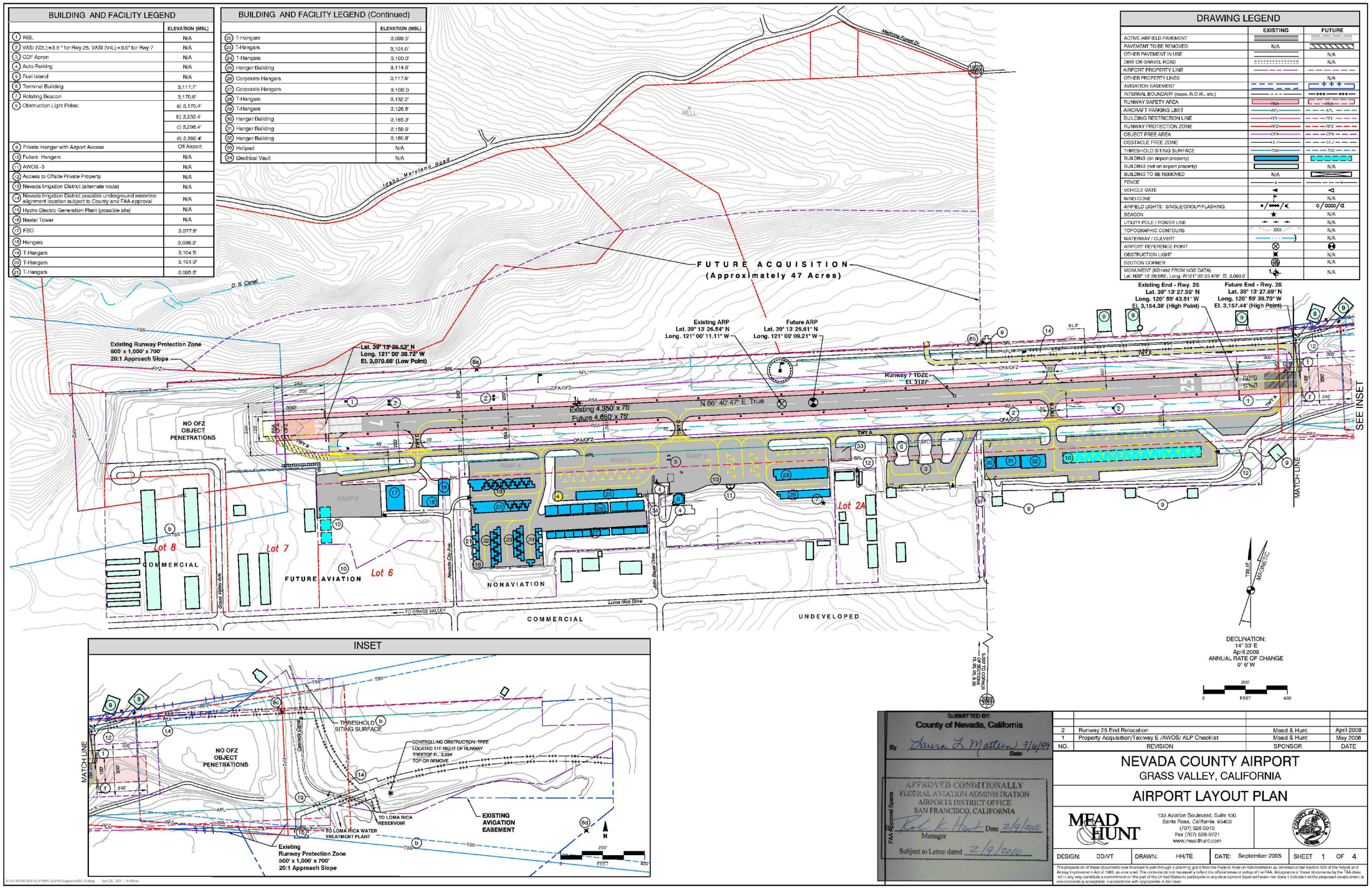
- Runway 7-25
  - Increase length to 4,650 feet by relocating Runway 25 threshold 300 feet east to existing end of pavement
- Land Acquisition
  - Property acquisition of 50 acres north, west, and southwest of existing airport for RPZ control (to west) and aviation related expansion
- *Runway 25 RPZ*
  - Shifts 300 feet east; 94% will be located on airport; 3% on existing avigation easement, 2% on future avigation easement, 1% located off-airport
- Building Area Development
  - Hangars to replace 29 tiedowns on southeast apron

Sources:
[a] Airport Layout Plan (2009)
[b] FAA Master Record Form 5010 (2011)

Exhibit 3-1

Airport Features Summary

Nevada County Airport



Prepared By: Mead&Hunt www.meadhunt.com

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Exhibit 3-2A

AIRPORT DATA

		EXISTING	FUTURE
AIRPORT SERVICE LEVEL (NPIAS)		General Aviation	No Change
		B-I (Small)	No Change
AIRPORT REFERENCE POINT	Latitude	39° 13' 26.54" N	39° 13' 26.61" N
	Longitude	121° 00' 11.11" W	121° 00' 09.21" W
AIRPORT ELEVATION (Above Mean Sea Level)		3,154'	3,157'
MEAN MAX. TEMP. (Hottest Month)		87° F (July)	No Change
AIRPORT AND TERMINAL NAVIGATIONAL AIDS		GPS/VOR/BEACON	No Change
GPS APPROACH ESTABLISHED		Yes	No Change
AIRPORT ACREAGE	Fee Simple	120	190
	Easement	23	24
AIRCRAFT PARKING SPACES	Tiedowns	178	126
	Individual Hangar Units	106	144
	Helicopter Spaces	1	No Change

RUNWAY DATA

		RUNWAY 7-25			
		EXISTING		FUTURE	
AIRPORT REFERENCE CODE		B-I (Small)		No Change	
CRITICAL AIRCRAFT	AIRCRAFT	Cessna 421		No Change	
	WINGSPAN	47.1'		No Change	
	UNDERCARRIAGE WIDTH	12.07'		No Change	
	APPROACH SPEED	96 kts		No Change	
	MAX. TAKEOFF WT. (lbs.)	7,420 lbs		No Change	
EFFECTIVE GRADIENT (%)		1.93%		No Change	
MAXIMUM GRADIENT (%)		2.0%		No Change	
PAVEMENT DESIGN STRENGTH (1,000#) - S/D/DT		30/-/-		No Change	
APPROACH VISIBILITY (Minimums)	7	1 SM	7	No Change	
	25	1 1/4 SM	25	No Change	
RUNWAY SAFETY AREA (Length Beyond Runway End)	7	240'	7	No Change	
	25	240'	25	No Change	
RUNWAY SAFETY AREA WIDTH		120'		No Change	
OBJECT FREE AREA (Length Beyond Runway End)	7	240'	7	No Change	
	25	240'	25	No Change	
OBJECT FREE AREA WIDTH		250'		No Change	
OBSTACLE FREE ZONE (Length Beyond Runway End)	7	200'	7	No Change	
	25	200'	25	No Change	
OBSTACLE FREE ZONE WIDTH		250'		No Change	
DISTANCE FROM RWY. ℄ to HOLD BARS	7	125'	7	No Change	
	25	125'	25	No Change	
RUNWAY MARKING	7	Basic	7	No Change	
	25	Basic	25	No Change	
APPROACH TYPE (FAR Part 77 Category)	7	[A(V)]	7	No Change	
	25	[A(V)]	25	No Change	
DISTANCE from RWY. ℄ to PARALLEL TWY. ℄		125'		No Change	
DISTANCE from TWY. ℄ to FIXED or MOVABLE OBJECT		45'		No Change	
TAXIWAY OBJECT FREE AREA WIDTH		45'		No Change	
TAXIWAY SAFETY AREA WIDTH		45'		No Change	
TAXIWAY WINGTIP CLEARANCE		45'		No Change	
RUNWAY END ELEVATIONS (a)	7	3,070.68'	7	No Change	
	25	3,154.38'	25	3,157.44'	
RUNWAY END COORDINATES (e) Latitude	7	39° 13' 25.53"N	7	No Change	
	25	39° 13' 27.55"N	25	39° 13' 27.69"N	
Longitude	7	121° 00' 38.72"W	7	No Change	
	25	120° 59' 49.51"W	25	20° 59' 39.70"W	
RUNWAY TOUCHDOWN ZONE ELEVATIONS (TDZ)	7	N/A	7	No Change	
	25	N/A	25	No Change	
RUNWAY HIGH POINT		3,154.38'		3,157.44'	
RUNWAY LOW POINT		3,070.68'		No Change	
VERTICAL LINE OF SIGHT PROVIDED		Yes		No Change	
RUNWAY LENGTH		4,350'		No Change	
RUNWAY WIDTH		75'		No Change	
RUNWAY SURFACE TYPE		Asphalt		No Change	
TAXIWAY SURFACE TYPE		Asphalt		No Change	
APPROACH SLOPE (Required/Clear)	7	20:1/20:1 (a)	7	No Change	
	25	20:1/16:1 (g)	25	No Change	
RUNWAY EDGE LIGHTING		MIRL		No Change	
NAVIGATION AIDS	7	GPS/VOR	7	No Change	
	25	GPS/VOR	25	No Change	
VISUAL AIDS	7	VASI/REIL	7	No Change	
	25	VASI/REIL	25	No Change	

ALP NOTES

(a) Elevations source: Mead & Hunt survey 2005 and 2007. Horizontal datum NAD83. Vertical datum NAVD88.

(b) Threshold Siting Surface (TSS)- Runway 25: trees and two lighted obstruction poles penetrate the TSS. Proposed disposition: lighted poles to remain. Trees are maintained on a regular basis to provide 20:1 slope clearance. Trees to be topped/removed as required to provide and maintain clear TSS to future runway end.

(c) Wind data specific to Nevada County Airport not available. Wind coverage is from Auburn Municipal Airport.

(d) FAR Part 77 Approach Surface- Runway 25: an obstruction light pole exists 3,586' from existing runway end (outside of ALP view), slope clearance is 16:1. Proposed Disposition: light pole to remain. Trees South of runway centerline to be topped/removed as required to provide and maintain clear transitional surface to future runway end; trees North of centerline are obstruction lighted and will remain.

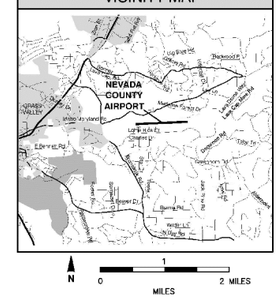
(e) Runway end coordinates source: Nevada County, Department of Transportation and Sanitation (John Steger, County Surveyor). Horizontal datum: NAD83.

(f) Building Restriction Line (BRL) is located based upon the historical pattern of development. Many existing buildings penetrate the transitional airspace surface. Future buildings should obtain airspace review (7460 review) prior to construction.

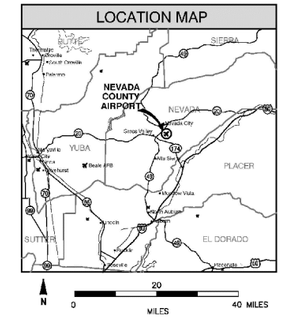
(g) Aircraft Parking Line (APL) delineated to provide clearance to better accommodate operations by fire attack aircraft (Grumman S-2); 61' from the eastern-most portion of Taxiway A.

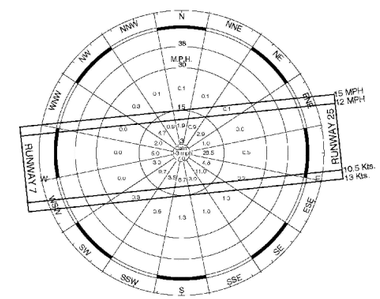
(h) Title to this parcel to be determined by the County.

VICINITY MAP



LOCATION MAP





WIND ROSE

WIND COVERAGE		
Runway	12 M.P.H. (10.5 Knots)	15 M.P.H. (13 Knots)
7-25	92.0%	96.7%

Source: U.S. WEATHER BUREAU RECORDED AT AUBURN MUNICIPAL AIRPORT
Period: SURFACE WIND VELOCITY OVER A PERIOD OF FIVE YEARS. (c)

NO.	REVISION	SPONSOR	DATE
2	Runway 25 End Relocation	Mead & Hunt	April 2009
1	Property Acquisition/Taxiway E /AWOS/ ALP Checklist	Mead & Hunt	May 2008

NEVADA COUNTY AIRPORT
GRASS VALLEY, CALIFORNIA

DATA SHEET

MEAD & HUNT
133 Aviation Boulevard, Suite 100
Santa Rosa, California 95403
(707) 526-5010
Fax (707) 526-9721
www.meadhunt.com

DESIGN: DD/VT | DRAWN: HH/TE | DATE: September 2005 | SHEET 2 OF 4

This preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

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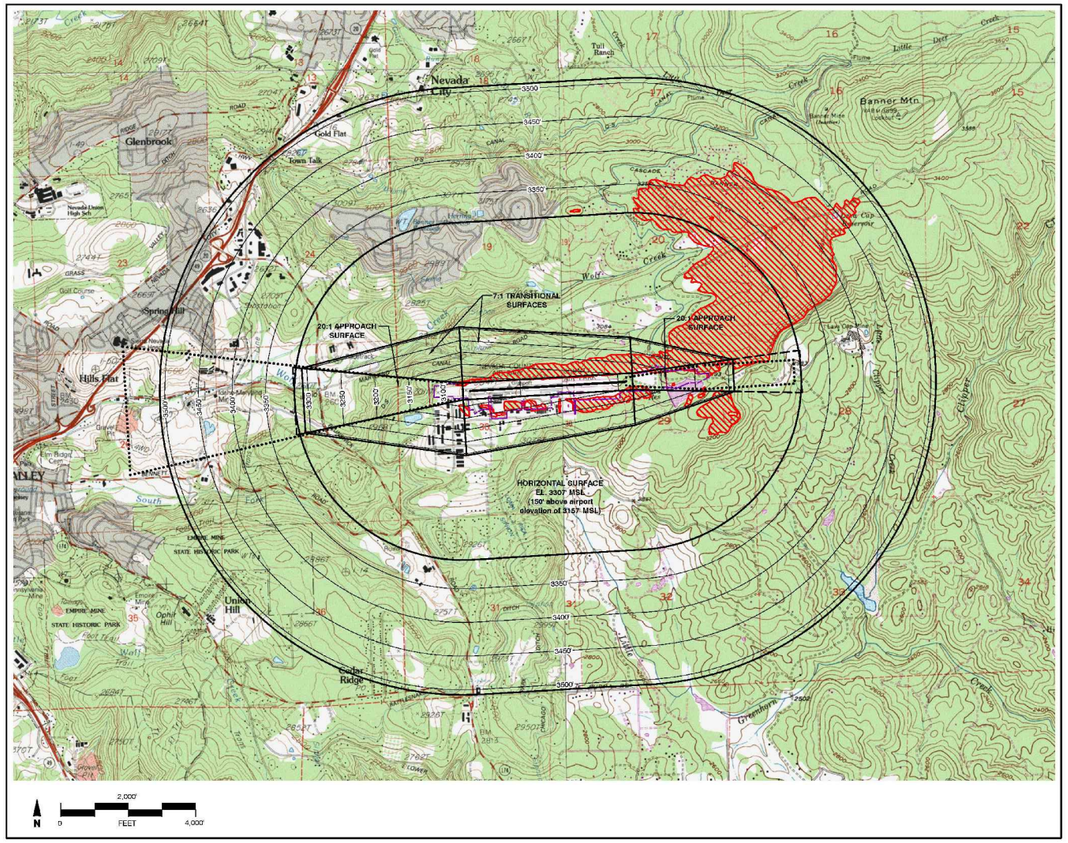
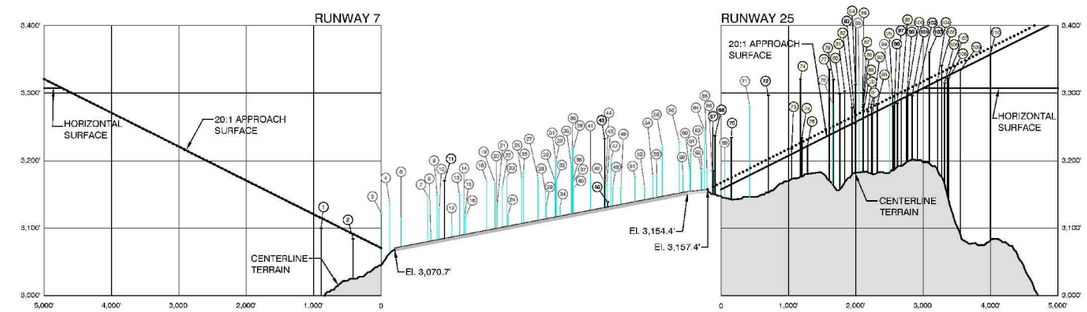
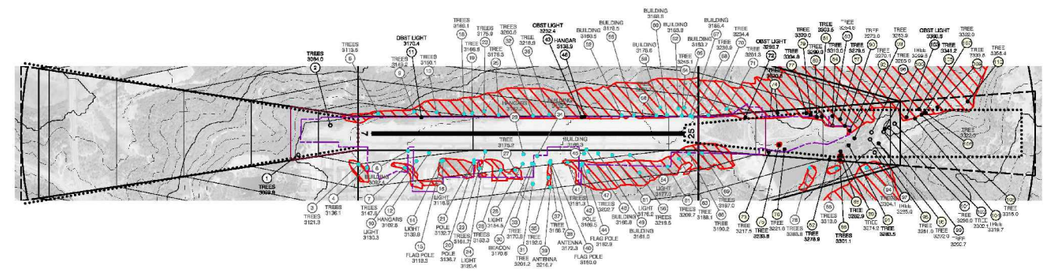






LEGEND

- FAR Part 77 Surfaces
- Threshold Siting Surface (TSS)
- Runway Protection Zone (RPZ)
- Airport Property Boundary
- Object Penetrates Approach/Primary Surface
- Object Does Not Penetrate Approach/Primary Surface
- Object Penetrates Transitional Surface
- Object Does Not Penetrate Transitional Surface
- Action Needed
- Terrain Contours
- Part 77 Surface Penetration (100' added to ground level in wooded area)
- * 15' vertical clearance added to road elevations
- (e) Estimated

MAP SOURCE:

USGS Topographic Survey Maps (Chicago Park 1979, Grass Valley 1995, Nevada City 1995, North Bloomfield 1979)
coordinates: NAD27. Terrain contours: NGVD29

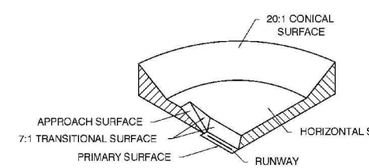
NOTES:

- Part 77 surface contours and obstruction elevations are shown in NAD83 and NAVD88.
- Obstruction lights along north side of airport are in lieu of clearance of the Transitional Surface.

SOURCES:

Mead & Hunt Field Surveys (February 2007 and July 2005)
Aerial Photo (February 2006)

N 0 1,000' 2,000' FEET



TYPICAL FAR PART 77 SURFACES

OBSTRUCTION DATA

POINT #	DESCRIPTION	TOP ELEVATION IN FEET (MSL)	AFFECTED PART 77 SURFACE	PART 77 SURFACE ELEVATION	PART 77 SURFACE PENETRATION	THRESHOLD SITING SURFACE ELEVATION	THRESHOLD SITING SURFACE PENETRATION	DISPOSITION
1	TREES	3099.9	APPROACH	3115.1	-15.2	3115.1	-15.2	MONITOR
2	TREES	3084.0	APPROACH	3091.3	-7.3	3091.3	-7.3	MONITOR
3	TREES	3121.9	TRANSITIONAL	3100.7	20.6	N/A	N/A	TO REMAIN
4	TREES	3136.1	TRANSITIONAL	3109.9	26.1	N/A	N/A	TO REMAIN
5	PREVIOUSLY REMOVED							
6	TREES	3113.5	TRANSITIONAL	3082.4	31.1	N/A	N/A	TO REMAIN
7	TREES	3147.6	TRANSITIONAL	3119.9	27.7	N/A	N/A	TO REMAIN
8	BUILDING	3092.4	TRANSITIONAL	3084.8	7.6	N/A	N/A	TO REMAIN
9	TREES	3143.2	TRANSITIONAL	3089.3	53.9	N/A	N/A	TO REMAIN
10	FLOOD LIGHT	3130.3	TRANSITIONAL	3108.4	21.9	N/A	N/A	TO REMAIN
11	CIRST LIGHT	3170.4	PRIMARY	3086.8	83.6	N/A	N/A	TO REMAIN
12	HANGARS	3102.8	TRANSITIONAL	3094.5	8.2	N/A	N/A	TO REMAIN
13	TREES	3150.1	TRANSITIONAL	3100.3	49.9	N/A	N/A	TO REMAIN
14	FLOOD LIGHT	3139.9	TRANSITIONAL	3114.7	25.3	N/A	N/A	TO REMAIN
15	FLAG POLE	3118.9	TRANSITIONAL	3114.6	3.8	N/A	N/A	TO REMAIN
16	FLOOD LIGHT	3118.9	TRANSITIONAL	3113.7	5.1	N/A	N/A	TO REMAIN
17	PREVIOUSLY REMOVED							
18	TREES	3169.1	TRANSITIONAL	3103.4	65.8	N/A	N/A	TO REMAIN
19	TREE	3166.6	TRANSITIONAL	3106.6	60.0	N/A	N/A	TO REMAIN
20	POWER POLE	3136.7	TRANSITIONAL	3127.2	9.5	N/A	N/A	TO REMAIN
21	POWER POLE	3132.7	TRANSITIONAL	3121.4	11.3	N/A	N/A	TO REMAIN
22	TREES	3161.7	TRANSITIONAL	3140.1	21.6	N/A	N/A	TO REMAIN
23	TREES	3175.9	TRANSITIONAL	3113.9	62.0	N/A	N/A	TO REMAIN
24	FLOOD LIGHT	3120.4	TRANSITIONAL	3106.1	14.2	N/A	N/A	TO REMAIN
25	TREE	3176.3	TRANSITIONAL	3109.9	66.5	N/A	N/A	TO REMAIN
26	TREES	3183.3	TRANSITIONAL	3149.8	33.5	N/A	N/A	TO REMAIN
27	TREE	3175.2	TRANSITIONAL	3152.5	22.6	N/A	N/A	TO REMAIN
28	FLOOD LIGHT	3154.5	TRANSITIONAL	3141.4	13.1	N/A	N/A	TO REMAIN
29	HANGARS	3132.2	TRANSITIONAL	3121.3	10.9	N/A	N/A	TO REMAIN
30	BEACON	3170.8	TRANSITIONAL	3143.4	27.2	N/A	N/A	TO REMAIN
31	TREE	3201.2	TRANSITIONAL	3186.5	14.7	N/A	N/A	TO REMAIN
32	TREES	3200.0	TRANSITIONAL	3116.5	83.4	N/A	N/A	TO REMAIN
33	TREE	3170.6	TRANSITIONAL	3144.9	25.7	N/A	N/A	TO REMAIN
34	BUILDING	3132.2	TRANSITIONAL	3128.7	3.5	N/A	N/A	TO REMAIN
35	TREE	3192.0	TRANSITIONAL	3177.0	15.1	N/A	N/A	TO REMAIN
36	TREE	3218.9	TRANSITIONAL	3123.7	95.2	N/A	N/A	TO REMAIN
37	TREE	3168.7	TRANSITIONAL	3145.4	23.3	N/A	N/A	TO REMAIN

OBSTRUCTION DATA, CONT.

POINT #	DESCRIPTION	TOP ELEVATION IN FEET (MSL)	AFFECTED PART 77 SURFACE	PART 77 SURFACE ELEVATION	PART 77 SURFACE PENETRATION	THRESHOLD SITING SURFACE ELEVATION	THRESHOLD SITING SURFACE PENETRATION	DISPOSITION
38	ANTENNA	3172.3	TRANSITIONAL	3147.2	25.1	N/A	N/A	TO REMAIN
39	ANTENNA	3216.7	TRANSITIONAL	3197.8	18.9	N/A	N/A	TO REMAIN
40	FLAG POLE	3160.0	TRANSITIONAL	3142.7	17.3	N/A	N/A	TO REMAIN
41	TREES	3181.3	TRANSITIONAL	3149.7	31.7	N/A	N/A	TO REMAIN
42	POWER POLE	3189.5	TRANSITIONAL	3159.7	9.8	N/A	N/A	TO REMAIN
43	CIRST LIGHT	3232.4	PRIMARY	3127.7	104.7	N/A	N/A	TO REMAIN
44	FLAG POLE	3182.9	TRANSITIONAL	3165.9	7.0	N/A	N/A	TO REMAIN
45	BUILDING	3165.3	TRANSITIONAL	3135.5	30.0	N/A	N/A	TO REMAIN
46	HANGAR	3139.9	PRIMARY	3126.5	10.4	N/A	N/A	TO REMAIN
47	TREES	3202.7	TRANSITIONAL	3173.8	28.9	N/A	N/A	TO REMAIN
48	BUILDING	3160.8	TRANSITIONAL	3136.8	24.0	N/A	N/A	TO REMAIN
49	BUILDING	3161.0	TRANSITIONAL	3138.8	22.2	N/A	N/A	TO REMAIN
50	PREVIOUSLY REMOVED							
51	FLOOD LIGHT	3176.2	TRANSITIONAL	3145.7	30.5	N/A	N/A	TO REMAIN
52	BUILDING	3160.5	TRANSITIONAL	3140.8	19.7	N/A	N/A	TO REMAIN
53	PREVIOUSLY REMOVED							
54	FLOOD LIGHT	3177.3	TRANSITIONAL	3150.2	27.1	N/A	N/A	TO REMAIN
55	BUILDING	3178.5	TRANSITIONAL	3143.8	34.6	N/A	N/A	TO REMAIN
56	TREES	3219.5	TRANSITIONAL	3190.4	29.1	N/A	N/A	TO REMAIN
57	PREVIOUSLY REMOVED							
58	TREE	3227.7	TRANSITIONAL	3148.6	79.1	N/A	N/A	TO REMAIN
59	BUILDING	3178.6	TRANSITIONAL	3167.0	11.6	N/A	N/A	TO REMAIN
60	BUILDING	3189.6	TRANSITIONAL	3152.9	36.6	N/A	N/A	TO REMAIN
61	TREES	3209.7	TRANSITIONAL	3184.8	24.8	N/A	N/A	TO REMAIN
62	BUILDING	3163.8	TRANSITIONAL	3149.2	14.6	N/A	N/A	TO REMAIN
63	TREE	3168.1	TRANSITIONAL	3170.4	-17.7	N/A	N/A	TO REMAIN
64	TREE	3245.1	TRANSITIONAL	3154.8	90.2	N/A	N/A	TO REMAIN
65	BUILDING	3183.7	TRANSITIONAL	3172.2	11.5	N/A	N/A	TO REMAIN
66	TREE	3190.2	TRANSITIONAL	3162.3	27.9	N/A	N/A	TO REMAIN
67	BUILDING	3185.4	TRANSITIONAL	3156.7	28.7	N/A	N/A	TO REMAIN
68	TREE	3236.8	TRANSITIONAL	3155.9	81.0	N/A	N/A	TO REMAIN
69	TREES	3197.0	TRANSITIONAL	3165.7	31.3	N/A	N/A	TO REMAIN
70	TREE	3234.4	TRANSITIONAL	3166.2	68.2	N/A	N/A	TO REMAIN
71	TREE	3281.2	TRANSITIONAL	3190.7	90.6	N/A	N/A	TO REMAIN
72	CIRST LIGHT	3296.7	APPROACH	3192.4	104.3	N/A	N/A	TO REMAIN
73	TREE	3217.5	APPROACH	3209.7	7.8	N/A	N/A	TOP OR REMOVE
74	TREE	3320.8	APPROACH	3216.2	104.6	N/A	N/A	TOP OR REMOVE

OBSTRUCTION DATA, CONT.

POINT #	DESCRIPTION	TOP ELEVATION IN FEET (MSL)	AFFECTED PART 77 SURFACE	PART 77 SURFACE ELEVATION	PART 77 SURFACE PENETRATION	THRESHOLD SITING SURFACE ELEVATION	THRESHOLD SITING SURFACE PENETRATION	DISPOSITION
75	TREE	3230.8	APPROACH	3217.9	19.5	3227.3	6.5	TOP OR REMOVE
76	TREE	3221.6	APPROACH	3221.5	0.2	3231.5	-9.8	TOP OR REMOVE
77	TREE	3334.8	APPROACH	3237.7	97.2	3247.7	87.2	TOP OR REMOVE
78	TREES	3263.7	TRANSITIONAL	3239.5	24.3	N/A	N/A	TO REMAIN
79	TREE	3320.0	APPROACH	3240.7	79.3	3250.7	69.3	TOP OR REMOVE
80	TREE	3299.0	APPROACH	3245.5	53.5	3255.5	43.5	TOP OR REMOVE
81	TREE	3303.5	APPROACH	3249.1	54.4	3259.1	44.4	TOP OR REMOVE
82	TREE	3278.9	APPROACH	3254.7	24.2	N/A	N/A	TOP OR REMOVE
83	TREE	3254.6	APPROACH	3257.0	-2.4	3267.0	-12.4	MONITOR
84	TREE	3312.9	APPROACH	3257.1	55.8	3267.1	45.8	TOP OR REMOVE
85	TREES	3313.0	TRANSITIONAL	3276.0	37.0	N/A	N/A	TO REMAIN
86	TREES	3301.1	APPROACH	3262.6	38.5	N/A	N/A	TOP OR REMOVE
87	TREE	3279.5	APPROACH	3262.8	16.7	3272.8	6.7	TOP OR REMOVE
88	TREE	3282.6	APPROACH	3262.8	20.1	3272.8	10.1	TOP OR REMOVE
89	TREE	3274.2	APPROACH	3263.1	11.1	3273.1	1.1	TOP OR REMOVE
90	TREE	3273.0	APPROACH	3266.3	6.7	3276.3	-3.3	TOP OR REMOVE
91	TREE	3283.4	APPROACH	3269.0	14.4	3279.0	4.4	TOP OR REMOVE
92	TREE	3270.4	APPROACH	3269.7	0.6	3279.7	-9.4	TOP OR REMOVE
93	TREE	3283.9	APPROACH	3273.3	10.6	3283.3	0.6	TOP OR REMOVE
94	TREE	3304.1	TRANSITIONAL	3292.7	11.4	N/A	N/A	TOP OR REMOVE
95	TREES	3281.6	APPROACH	3254.9	-3.8	3264.9	-13.3	MONITOR
96	TREE	3285.0	APPROACH	3286.0	-1.0	3296.0	-11.0	MONITOR
97	TREE	3285.0	APPROACH	3288.3	-3.3	3298.3	-13.3	MONITOR
98	TREE	3292.0	APPROACH	3291.2	0.8	3301.2	-9.2	TOP OR REMOVE
99	TREE	3292.7	APPROACH	3295.0	-2.3	3305.0	-12.3	MONITOR
100	TREE	3299.5	APPROACH	3295.8	3.7	3305.8	-6.3	TOP OR REMOVE
101	TREE	3296.1	APPROACH	3299.2	-3.1	3309.2	-13.1	MONITOR
102	TREE	3302.1	APPROACH	3303.1	-1.0	3313.1	-11.0	MONITOR
103	CIRST LIGHT	3360.6	HORIZONTAL	3307.4	53.3	3322.0	38.6	TO REMAIN
104	TREE	3319.7	HORIZONTAL	3307.4	12.3	3328.2	-8.5	TOP OR REMOVE
105	TREE	3341.2	HORIZONTAL	3307.4	33.8	N/A	N/A	TOP OR REMOVE
106	TREE	3315.0	HORIZONTAL	3307.4	7.5	3333.2	-18.2	TOP OR REMOVE
107	TREE	3322.0	HORIZONTAL	3307.4	14.5	3335.3	-13.3	TOP OR REMOVE
108	TREE	3322.3	HORIZONTAL	3307.4	14.9	3336.3	-14.0	TOP OR REMOVE
109	TREE	3333.6	HORIZONTAL	3307.4	26.4	N/A	N/A	TOP OR REMOVE
110	TREE	3356.4	HORIZONTAL	3307.4	50.9	N/A	N/A	TOP OR REMOVE

Note: A Negative Penetration Number Indicates Distance Object is Below Indicated Surface.

NO.	REVISION	SPONSOR	DATE
2	Runway 25 End Relocation	Mead & Hunt	April 2009
1	Property Acquisition/Taxiway E /AWOS/ ALP Checklist	Mead & Hunt	May 2008

NEVADA COUNTY AIRPORT
NEVADA COUNTY, CALIFORNIA

AIRSPACE PLAN

MEAD & HUNT
133 Aviation Boulevard, Suite 100
Santa Rosa, California 95403
(707) 526-5010
Fax (707) 526-9721
www.meadhunt.com

DESIGN: DD | DRAWN: GJ | DATE: September 2005 | SHEET 3 OF 4

The preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

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Prepared By: Mead&Hunt www.meadhunt.com

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Based Aircraft

	Base Year [a] 2010	Forecast [b] 2030
Aircraft Type		
Single-Engine Piston	128	230
Twin-Engine Piston	6	25
Turboprop	0	5
Business Jet	0	5
Helicopter	1	5
Total Aircraft	*135*	*270*

AIRCRAFT OPERATIONS

	Base Year [a] 2010	Forecast [b] 2030
Total		
Annual	30,000	60,000
Average Day	82	164
Distribution by Aircraft Type		
Single-Engine Piston	72.8%	72.4%
Twin-Engine Piston	18.2%	18.1%
Turboprop	1.7%	1.7%
Business Jet	0.3%	0.8%
Helicopter	1.7%	1.7%
CalFire	5.3%	5.3%
Distribution by Type of Operation [c]		
Local (touch-and goes)	15%	14%
Itinerant	85%	86%

RUNWAY USE DISTRIBUTION [a]

	Base Year 2010	Forecast 2030
All Aircraft – Daytime Arrivals/Departures (except CalFire)		
Runway 7	10%	no
Runway 25	90%	change
Nighttime and CalFire – Arrivals		
Runway 7	100%	no
Runway 25	0%	change
Nighttime and CalFire – Departures		
Runway 7	0%	no
Runway 25	100%	change
Touch-and-Go Operations (single-engine piston only)		
Runway 7	10%	no
Runway 25	90%	change

TIME OF DAY DISTRIBUTION [a]

	Base Year 2010	Forecast 2030
Propeller Aircraft [e]		
Day (7am to 7pm)	92%	no
Evening (7pm to 10pm)	6%	change
Night (10pm to 7am)	2%	
Jets/CalFire		
Day (7am to 7pm)	94%	no
Evening (7pm to 10pm)	6%	change
Night (10pm to 7am)	0%	

FLIGHT TRACK USAGE [a]

	Base Year 2010	Forecast 2030
Runway 7:		
All Aircraft – Arrivals (except CalFire)		
Straight-in	50%	no
45° turn to downwind pattern	40%	change
Overfly airport to downwind	10%	
CalFire - Arrivals		
Straight-in	33.3%	no
45° turn to downwind pattern	33.3%	change
Overfly airport to downwind	33.3%	
All Aircraft - Departures (except CalFire)		
Straight-out	10%	no
Left turn	45%	change
Right turn	45%	
Runway 25:		
All Aircraft – Arrivals (except CalFire)		
Straight-in	0%	no
45° turn to downwind pattern	90%	change
Overfly airport to downwind	10%	
All Aircraft including CalFire- Departures		
Straight-out	25%	no
Left turn	50%	change
Right turn	25%	

Sources:

[a] Estimates provided by airport management, January 2011. No changes to time of day, runway use, and flight track percentages are anticipated for the life of this plan.

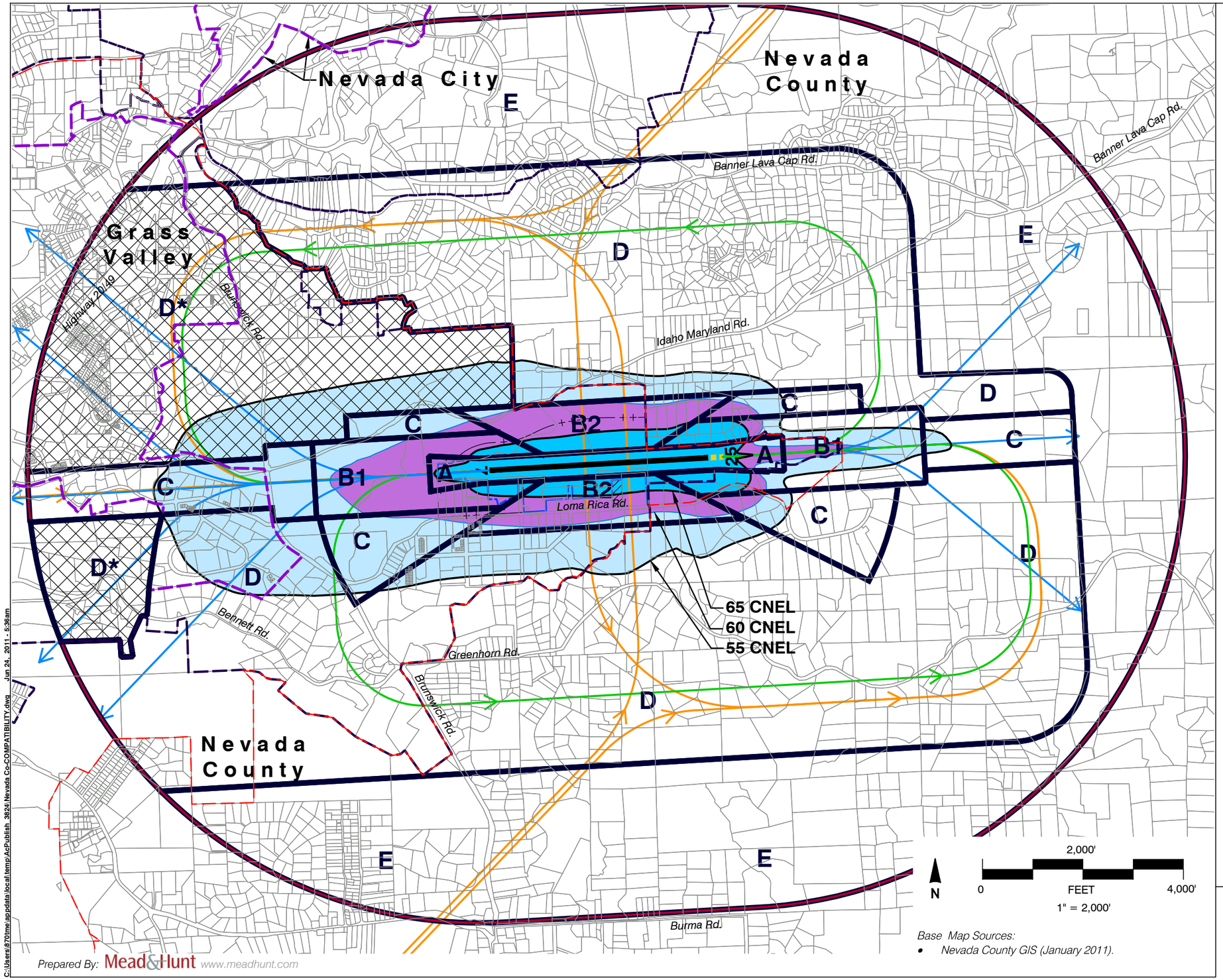
[b] Operation and fleet mix forecasts projected by Mead & Hunt, February 2011.

[c] Local training exercises, known as touch-and-go operations, comprise 15% of total activity (source: Airport management). This percentage is significantly lower than similar general aviation airports in the region, primarily due to a steeper than normal gradient of the runway. A flight school exists on Airport, but will usually perform training activities at other airports in region.

Exhibit 3-4

Airport Activity Data Summary

Nevada County Airport



Legend

Boundary Lines

- Airport Property Line
- Proposed Airport Property Acquisition
- City Limits
- Grass Valley Planning Area
- Grass Valley Sphere of Influence
- Nevada City Sphere of Influence
- Existing Runway (4,350')
- Future Runway (4,650')
- Airport Influence Area

Compatibility Zones[1]

- Zone A - Runway Clear Zone
- Zone B1 - Inner Approach Zone
- Zone B2 - Sideline Zone
- Zone C - Inner Turning Zone & Extended Approach Zone
- Zone D - Traffic Pattern Zone
- Zone D* - Urban Overlay Zone
- Zone E - Other Airport Environs

Calculated Noise Contours

- 55 dB CNEL
- 60 dB CNEL
- 65 dB CNEL

} 60,000 Annual Operations (164 Average Annual Day)

Calculated Flight Tracks[3]

- Arrival
- Departure
- Touch-n-Go

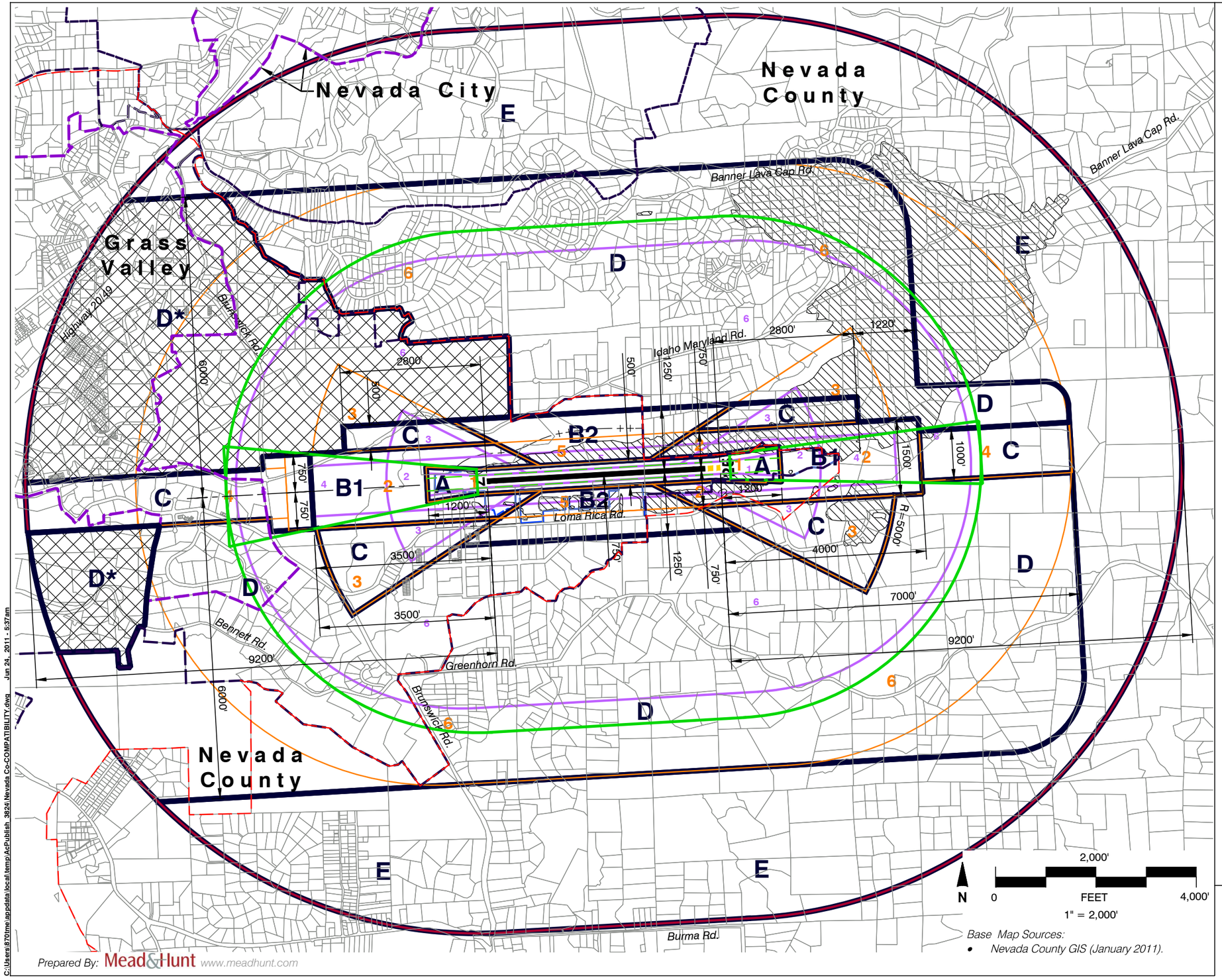
Notes

1. See Chapter 2, Table 2B, Compatibility Zone Delineation.
2. Source: Mead & Hunt, Inc., using Integrated Noise Model (INM) 7.0b (April 2011). Contours represent average daily noise exposure for 60,000 annual operations on future runway. Contours modeled using USGS terrain data. Terrain results in shorter contours to west and wider contours near center of airport.
3. Flight tracks represent general arrival and departure routes.
4. Prevailing winds out of the west. Runway 25 is designated calm wind runway.
5. Departures on Runway 7 and arrivals on Runway 25 not recommended at night due to severe runway gradient (rising from west to east). Fire attack aircraft typically land on Runway 7.
6. Aircraft departing Runway 25 advised to climb to 3,800' MSL (648' above airport elevation) before turning (source: Airport management).

Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Exhibit 3-5

Compatibility Factors Map: Noise and Overflight



Legend

Boundary Lines

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- Proposed Airport Property Acquisition
- City Limits
- Grass Valley Planning Area
- Grass Valley Sphere of Influence
- Nevada City Sphere of Influence
- Existing Runway (4,350')
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Compatibility Zones[1]

- Zone A - Runway Clear Zone
- Zone B1 - Inner Approach Zone
- Zone B2 - Sideline Zone
- Zone C - Inner Turning Zone & Extended Approach Zone
- Zone D - Traffic Pattern Zone
- Zone D* - Urban Overlay Zone
- Zone E - Other Airport Environs

Compatibility Factors

- Safety Zones (short general aviation runway)[2]
- Safety Zones (medium general aviation runway)[2]
- Part 77 Surface (approach and horizontal)
- Part 77 Surface Penetration[3]

Notes

1. See Chapter 2, Table 2B, Compatibility Zone Delineation.
2. Source: California Airport Land Use Planning Handbook (January 2002).
3. Source: Part 77 Surface penetration (100' added to ground level in wooded area), Nevada County Airport Airspace Plan (April 2009).

Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Exhibit 3-6

Compatibility Factors Map: Safety and Airspace Protection

AIRPORT SITE

- *Location*
  - Located in unincorporated western Nevada County
  - 3 miles east of central Grass Valley
  - 3 miles south-southeast of central Nevada City
  - 51 miles northeast of Sacramento
  - 67 miles west-southwest of Reno
  - 2 miles east of State Highway 20 and 49
  - 10 miles north of Interstate 80
- *Nearby Terrain*
  - Airport situated in Sierra Nevada foothills.
  - Topography is very hilly, terrain gradually rises to the east and gradually falls to the west.
  - The runway slopes up from west to east.

EXISTING AIRPORT AREA LAND USES

- *General Character*
  - Rural and wooded lands with large residential (estate) lots surround Airport.
  - Light industrial, commercial and airport-support development immediately border the airport to the southwest.
  - Grass Valley's downtown area located approximately 2.5 miles west of Airport.
- *Runway Approaches*
  - West (Runway 7): Undeveloped rural, wooded land
  - East (Runway 25): Large residential estate lots in woodland area

AIRPORT ENVIRONS LAND USE JURISDICTIONS

- *County of Nevada*
  - Airport and environs within unincorporated County
- *City of Grass Valley*
  - City limits 0.8 miles west of Runway 7
  - Airport and environs within the city's Sphere of Influence (SOI) and Planning Area
- *City of Nevada City*
  - City limits 1.6 miles north-northwest of Runway 7; Sphere of Influence 1 mile north of Runway 7

STATUS OF COMMUNITY PLANS

- *Nevada County*
  - Nevada County General Plan (1995), approved by Board of Supervisors in 1996. Safety Element amended in 2008, Circulation and Housing Elements updated in 2010
  - General Plan (1995) map updated December 2010
- *Grass Valley*
  - 2020 General Plan adopted December 1999
  - 2020 General Plan map updated January 2007
  - Loma Rica Ranch Specific Plan adopted April 2011
- *Nevada City*
  - General Plan (1980-2000) adopted March 1986; Housing Element amended June 1992
  - General Plan (1980-2000) map updated 2008

PLANNED AIRPORT AREA LAND USES

- *Nevada County*
  - North: Estate, Open Space, Industrial
  - East: Estate, Rural Residential
  - South: Estate, Industrial
  - West: Special Development Area (Business Park, Recreation, Open Space)
- *City of Grass Valley*
  - North (Planning Area): Manufacturing-Industrial
  - South (Planning Area): Urban Estate, Manufacturing-Industrial
  - West (Planning Area, SOI): Loma Rica Specific Plan
  - West (City Limits): Business Park
- *Nevada City*
  - North (within City Limits): Mix of rural residential and commercial
  - North (SOI): Estate, Residential, Rural Commercial, Open Space [1]

1. Land use data from Nevada County General Plan (1995)

Exhibit 3-7

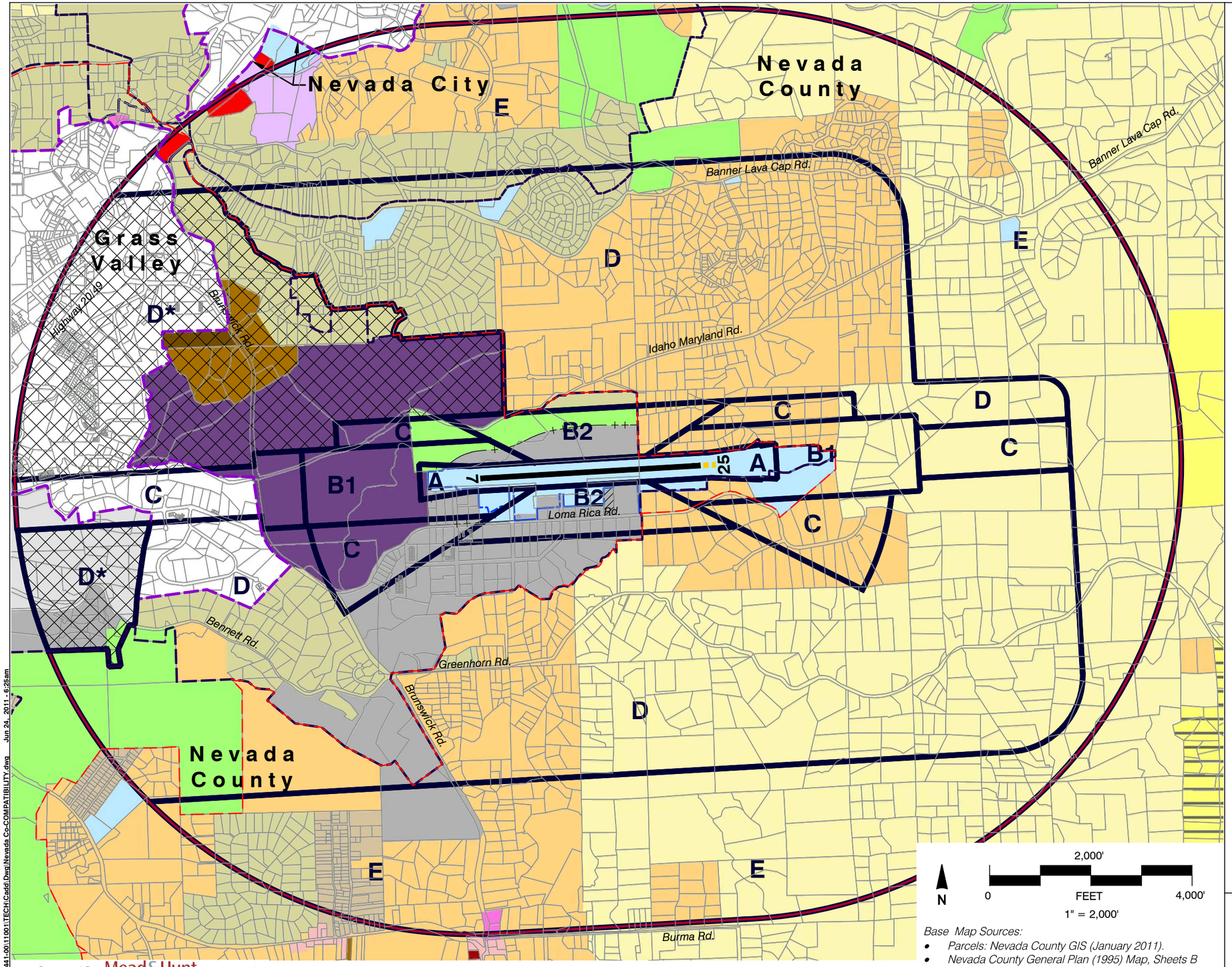
Airport Environs Information

Nevada County Airport

ESTABLISHED AIRPORT COMPATIBILITY MEASURES

- *Nevada County*
  - *Noise:* Protect the safety and general welfare of people in the vicinity of the … Nevada County Airpark by promoting the overall goals and objectives of the California Airport Noise Standards (California Administrative Code, Title 21, Section 5000 et seq.) and the California Noise Insulation Standards (California Administrative Code, Title 25, Section 28), to prevent the creation of new noise-generated complaints around the airport, and to minimize the public's exposure to excessive aircraft-generated noise. (9.4)
  - *Noise:* Ensure the development of compatible land uses adjacent to the Nevada County Airpark-Airport through the approval of development consistent with the land use maps of the General Plan, recommendations of the Airport Land Use Commission, and the continued enforcement of the Airport Land Use Noise Compatibility Criteria as found in the Nevada County Airpark Master Plan. (9.17)
  - *Noise:* The County shall enforce noise standards consistent with the airport noise policies included in the Comprehensive Land Use Plans for the… Nevada County Airpark, adopted on June 3, 1987, as those standards are in effect and may hereafter be amended. (9.19)
  - *Safety:* Through appropriate zoning regulations, the County shall enforce airport ground and height safety areas, and land use compatibility standards, consistent with the Comprehensive Land Use Plan for the…Nevada County Air Park. Changes in the Comprehensive Land Use Plan shall be reflected in the General Plan and/or Zoning Regulations, where appropriate. (AH-10.4.1.1)
- *Grass Valley*
  - *Noise*: 5-NI Prohibit new development of noise-sensitive land uses in areas exposed to existing or projected future levels of noise from transportation noise sources.
  - *Safety*: 13-SP Continue to implement provisions of the Nevada County Airpark Comprehensive Land Use Plan, and to coordinate as appropriate with Nevada County, Airpark management, and the Airport Land Use Commission regarding airport plans and safety considerations.
  - *Safety*: 2-SI Utilize open space/conservation reserves and easements to restrict development in high-risk areas, such as … airport safety zones.
- *Nevada City*
  - *Public Safety:* Maintain noise levels compatible with the rural and small-town setting of Nevada City. Adopt the Land Use Compatibility Chart "normally acceptable" range as a standard to be used in environmental evaluation of proposed uses.

Exhibit 3-7, continued



Base Map Sources:
- Parcels: Nevada County GIS (January 2011).
- Nevada County General Plan (1995) Map, Sheets B and D, Updated December 2010

Prepared By: Mead&Hunt www.meadhunt.com

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Legend

Boundary Lines

- Airport Property Line
- Proposed Airport Property Acquisition
- City Limits
- Grass Valley Planning Area
- Grass Valley Sphere of Influence
- Nevada City Sphere of Influence
- Existing Runway (4,350')
- Future Runway (4,650')
- Airport Influence Area

Compatibility Zones

- Zone A - Runway Clear Zone
- Zone B1 - Inner Approach Zone
- Zone B2 - Sideline Zone
- Zone C - Inner Turning Zone & Extended Approach Zone
- Zone D - Traffic Pattern Zone
- Zone D* - Urban Overlay Zone
- Zone E - Other Airport Environs

Nevada County General Plan (1995)[1]

- Urban High Density Res. (max 15/20 du/ac)
- Urban Med. Density Res. (UMD) (max 6 du/ac)
- Urban Single-Fam. Density Res. (USF) (max 4 du/ac)
- Residential (RES) (max 0.667 du/ac)
- Estate (EST) (max 0.333 du/ac)
- Rural 5 Acre (RUR-5) (max 0.20 du/ac)
- Rural 10 Acre (RUR-10) (max 0.10 du/ac)
- Rural 20 Acre (RUR-20) (max 0.05 du/ac)
- Business Park (BP)
- Neighborhood Commercial (NC)
- Community Commercial (CC)
- Highway Commercial (HC)
- Office Professional (OP)
- Industrial (IND)
- Planned Development (PD)
- Special Development Area (SDA)
- Public (PUB)
- Open Space (OS)

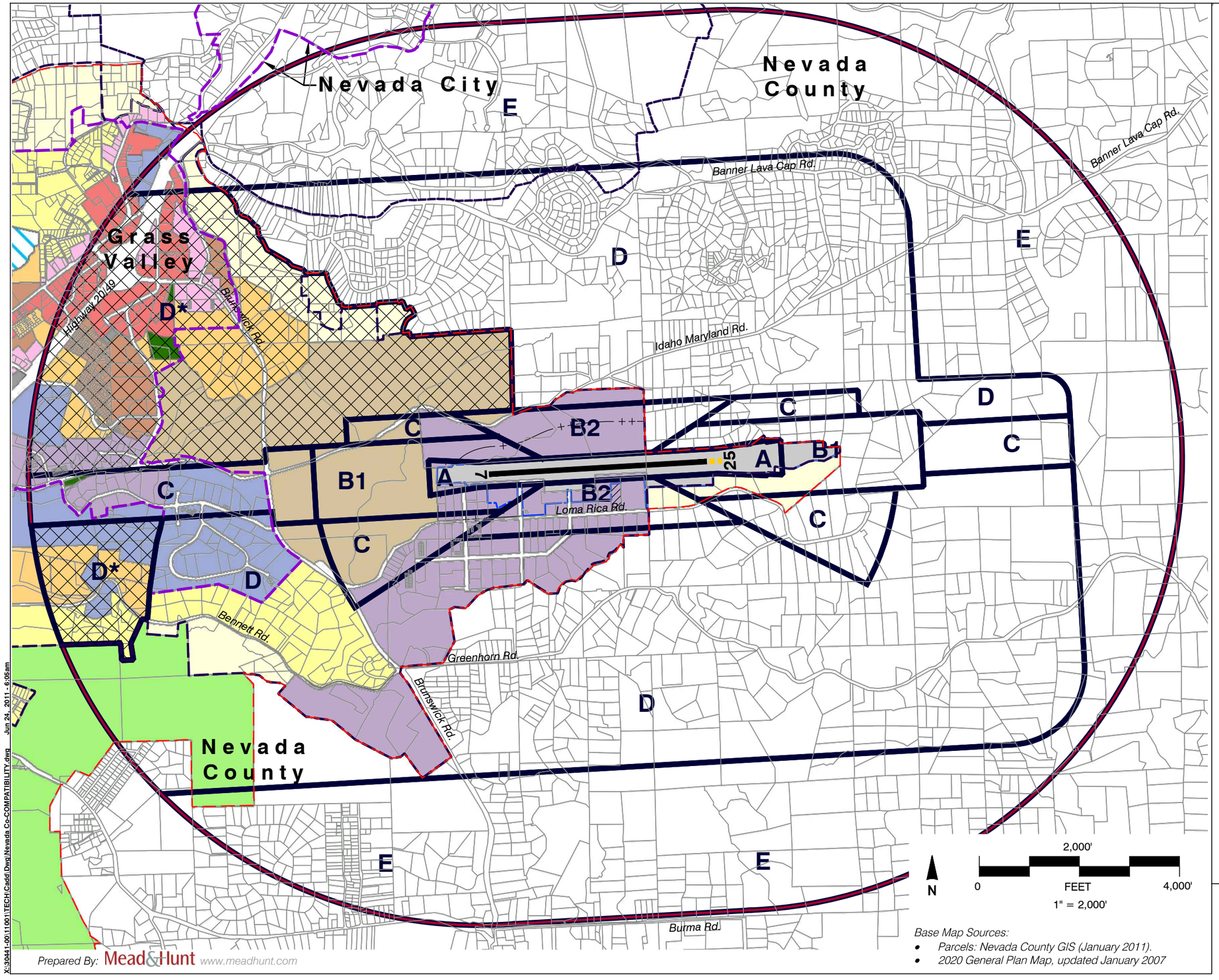
Notes

1. Only county land uses that appear in the map are illustrated in the legend.

Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Exhibit 3-8

General Plan Land Uses: Nevada County



Legend

Boundary Lines

- Airport Property Line
- Proposed Airport Property Acquisition
- City Limits
- Grass Valley Planning Area
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- Zone C - Inner Turning Zone & Extended Approach Zone
- Zone D - Traffic Pattern Zone
- Zone D* - Urban overlay Zone
- Zone E - Other Airport Environs

Grass Valley 2020 General Plan[1]

- Urban High Density (8.01-20 du/ac)
- Urban Medium Density (4.01-8.0 du/ac)
- Urban Low Density (1.01-4.0 du/ac)
- Urban Estate Density (≤1.0 du/ac)
- Commercial
- Office - Professional
- Manufacturing - Industrial
- Business Park
- Special Development Area
- Open Space
- Public
- Institutional Non-Governmental
- Schools
- Utilities
- Parks and Recreation

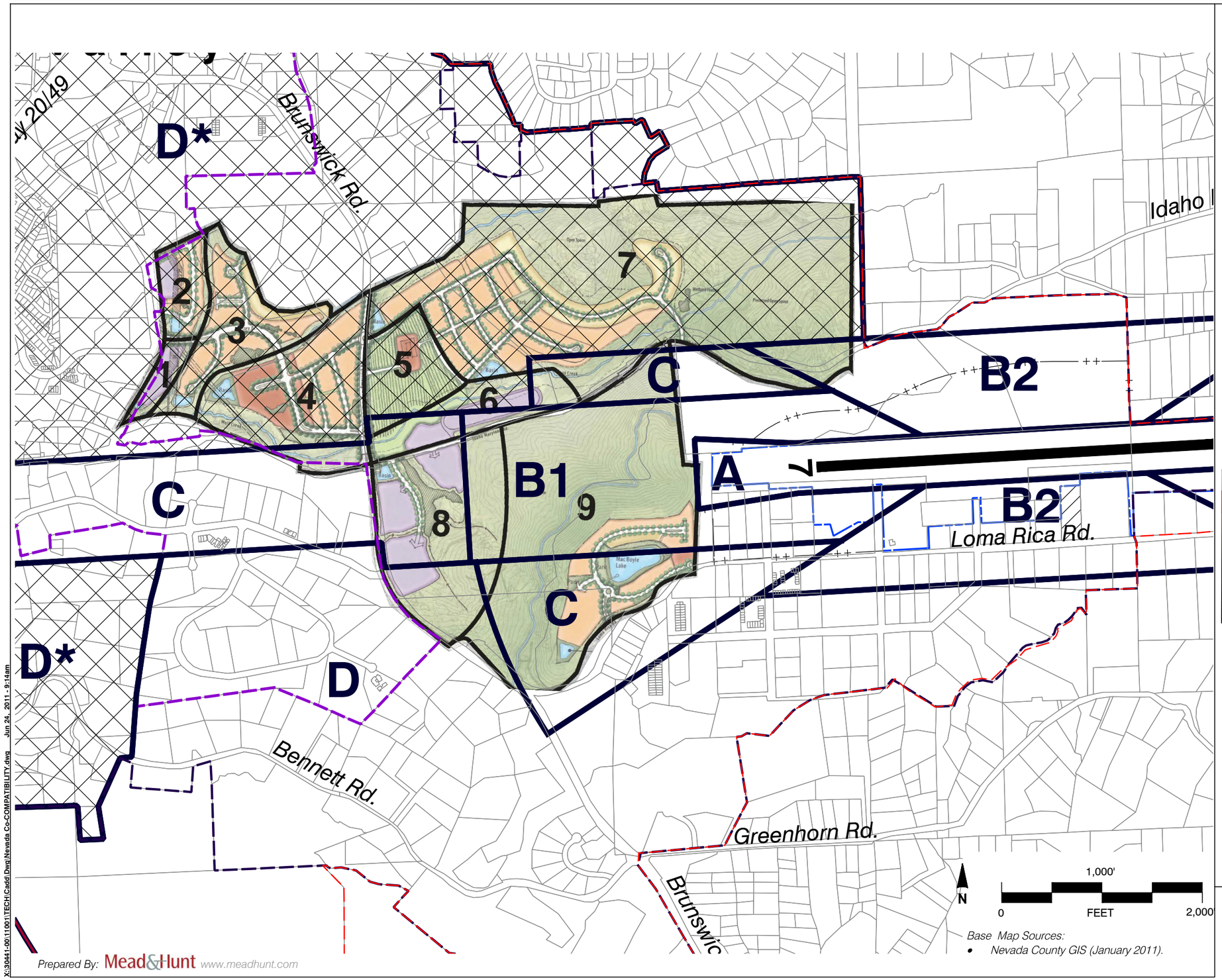
Notes

1. Only city land uses that appear in the map are illustrated in the legend.

Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Exhibit 3-9

General Plan Land Uses: City of Grass Valley



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Legend

Boundary Lines

- Airport Property Line
- Proposed Airport Property Acquisition
- City Limits
- Grass Valley Planning Area
- Grass Valley Sphere of Influence
- Parcel
- Existing Runway (4,350')
- Future Runway (4,650')

Compatibility Zones

- Zone A - Runway Clear Area
- Zone B1 - Inner Approach Zone
- Zone B2 - Sideline Zone
- Zone C - Inner Turning & Extended Approach Zone
- Zone D - Traffic Pattern Zone
- Zone D* - Urban Overlay Zone
- Zone E - Other Airport Environs

Notes

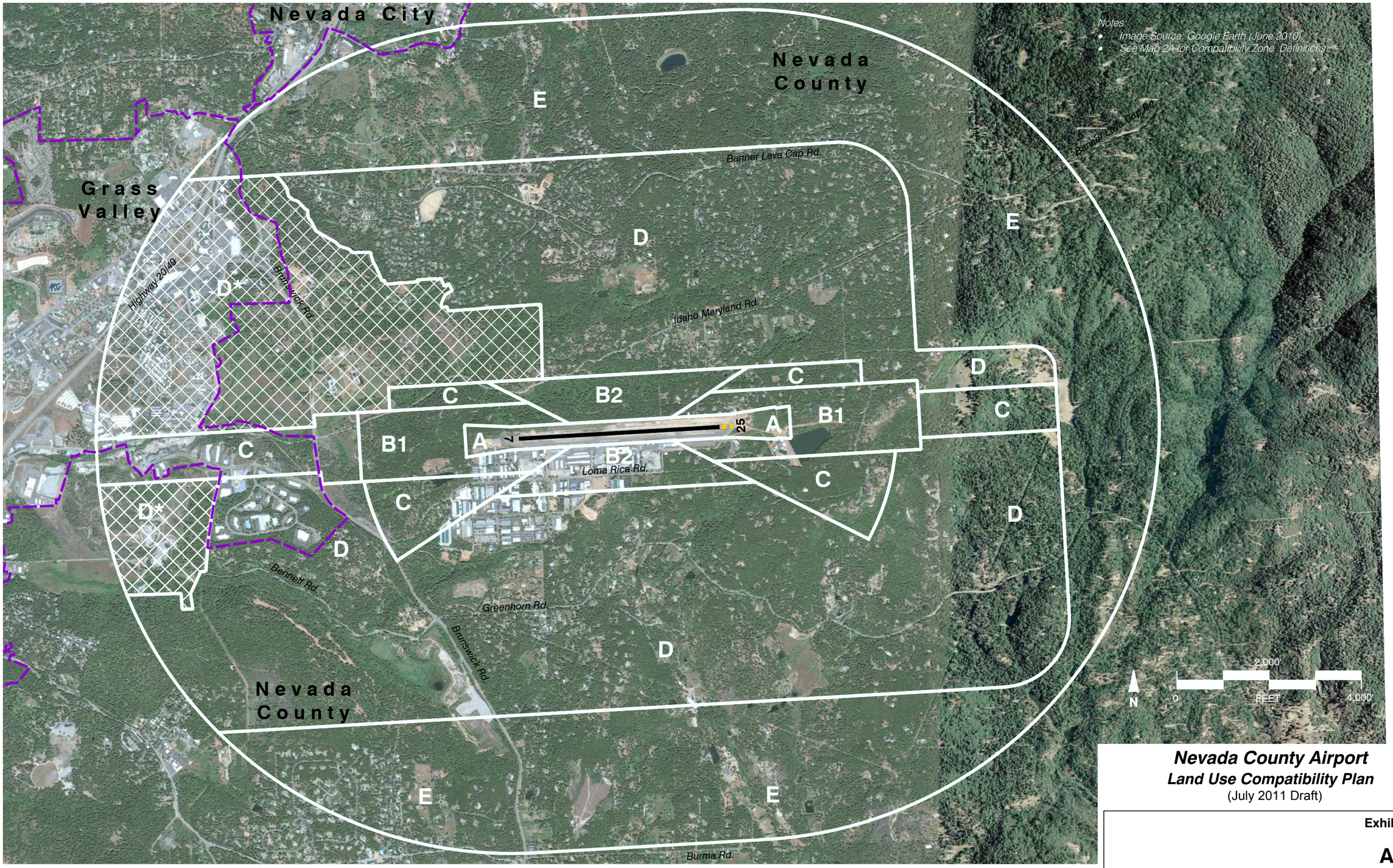
1. See Exhibit A1 for housing displacement results.
2. Source: Loma Rica Specific Plan Land Use designations (April 2011).

Loma Rica Ranch Specific Plan Legend	Acres
Neighborhood Center (Mixed Residential/Commercial/Retail)	10.3
Neighborhood General (6-20 du/ac)	78.2
Neighborhood Edge (1-8 du/ac)	19.1
Special District	26.6
Open Space and Parks	313.9
Parking Allowed within Power Line Easement	

Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Exhibit 3-10

Specific Plan Land Uses: City of Grass Valley



Nevada County Airport
Land Use Compatibility Plan
(July 2011 Draft)

Exhibit 3-11

Aerial

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Appendices

APPENDIX **A**

State Laws Related to Airport Land Use Planning

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Government Code

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65302.3 Authority for and Scope of General Plans A–20
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AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9—Aviation
Part 1—State Aeronautics Act
Chapter 4—Airports and Air Navigation Facilities
Article 3.5—Airport Land Use Commission

21670. Creation; Membership; Selection

(a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's 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.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors of the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by paragraphs (2) and (3) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all of the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent him or her in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation" means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport.

(f) It is the intent of the Legislature to clarify that, for the purposes of this article that special districts, school districts and community college districts are included among the local agencies that are subject to airport land use laws and other requirements of this article.

21670.1. Action by Designated Body Instead of Commission

(a) Notwithstanding any other provision of this article, if the board of supervisors and the city selection committee of mayors in the county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriately designated body, then the body so designated shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) that does not include among its membership at least two members having expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988.

(c) (1) Notwithstanding subdivisions (a) and (b), and subdivision (b) of Section 21670, if the board of supervisors of a county and each affected city in that county each makes a determination that proper land use planning pursuant to this article can be accomplished pursuant to this subdivision, then a commission need not be formed in that county.

(2) If the board of supervisors of a county and each affected city makes a determination that proper land use planning may be accomplished and a commission is not formed pursuant to paragraph (1), that county and the appropriate affected cities having jurisdiction over an airport, subject to the review and approval by the Division of Aeronautics of the department, shall do all of the following:

(A) Adopt processes for the preparation, adoption, and amendment of the airport land use compatibility plan for each airport that is served by a scheduled airline or operated for the benefit of the general public.

(B) Adopt processes for the notification of the general public, landowners, interested groups, and other public agencies regarding the preparation, adoption, and amendment of the airport land use compatibility plans.

(C) Adopt processes for the mediation of disputes arising from the preparation, adoption, and amendment of the airport land use compatibility plans.

(D) Adopt processes for the amendment of general and specific plans to be consistent with the airport land use compatibility plans.

(E) Designate the agency that shall be responsible for the preparation, adoption, and amendment of each airport land use compatibility plan.

(3) The Division of Aeronautics of the department shall review the processes adopted pursuant to paragraph (2), and shall approve the processes if the division determines that the processes are consistent with the procedure required by this article and will do all of the following:

(A) Result in the preparation, adoption, and implementation of plans within a reasonable amount of time.

(B) Rely on the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations.

(C) Provide adequate opportunities for notice to, review of, and comment by the general public, landowners, interested groups, and other public agencies.

(4) If the county does not comply with the requirements of paragraph (2) within 120 days, then the airport land use compatibility plan and amendments shall not be considered adopted pursuant to this article and a commission shall be established within 90 days of the determination of noncompliance by the division and an airport land use compatibility plan shall be adopted pursuant to this article within 90 days of the establishment of the commission.

(d) A commission need not be formed in a county that has contracted for the preparation of airport land use compatibility plans with the Division of Aeronautics under the California Aid to Airports Program (Chapter 4 (commencing with Section 4050) of Title 21 of the California Code of Regulations), Project Ker-VAR 90-1, and that submits all of the following information to the Division of Aeronautics for review and comment that the county and the cities affected by the airports within the county, as defined by the airport land use compatibility plans:

(1) Agree to adopt and implement the airport land use compatibility plans that have been developed under contract.

(2) Incorporated the height, use, noise, safety, and density criteria that are compatible with airport operations as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations as part of the general and specific plans for the county and for each affected city.

(3) If the county does not comply with this subdivision on or before May 1, 1995, then a commission shall be established in accordance with this article.

(e) (1) A commission need not be formed in a county if all of the following conditions are met:

(A) The county has only one public use airport that is owned by a city.

(B) (i) The county and the affected city adopt the elements in paragraph (2) of subdivision (d), as part of their general and specific plans for the county and the affected city.

(ii) The general and specific plans shall be submitted, upon adoption, to the Division of Aeronautics. If the county and the affected city do not submit the elements specified in paragraph (2) of subdivision (d), on or before May 1, 1996, then a commission shall be established in accordance with this article.

21670.2. Application to Counties Having over 4 Million in Population

(a) Sections 21670 and 21670.1 do not apply to the County of Los Angeles. In that county, the county regional planning commission has the responsibility for coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the airport land use compatibility plans required pursuant to Section 21675.

(c) Sections 21675.1, 21675.2, and 21679.5 do not apply to the County of Los Angeles until January 1, 1992. If the airport land use compatibility plans required pursuant to Section 21675 are not adopted by the county regional planning commission by January 1, 1992, Sections 21675.1 and 21675.2 shall apply to the County of Los Angeles until the airport land use compatibility plans are adopted.

21670.3 San Diego County

(a) Sections 21670 and 21670.1 do not apply to the County of San Diego. In that county, the San Diego County Regional Airport Authority, as established pursuant to Section 170002, shall be responsible for the preparation, adoption, and amendment of an airport land use compatibility plan for each airport in San Diego County.

(b) The San Diego County Regional Airport Authority shall engage in a public collaborative planning process when preparing and updating an airport land use compatibility plan.

21670.4. Intercounty Airports

(a) As used in this section, "intercounty airport" means any airport bisected by a county line through its runways, runway protection zones, inner safety zones, inner turning zones, outer safety zones, or sideline safety zones, as defined by the department's Airport Land Use Planning Handbook and referenced in the airport land use compatibility plan formulated under Section 21675.

(b) It is the purpose of this section to provide the opportunity to establish a separate airport land use commission so that an intercounty airport may be served by a single airport land use planning agency, rather than having to look separately to the airport land use commissions of the affected counties.

(c) In addition to the airport land use commissions created under Section 21670 or the alternatives established under Section 21670.1, for their respective counties, the boards of supervisors and city selection committees for the affected counties, by independent majority vote of each county's two delegations, for any intercounty airport, may do either of the following:

(1) Establish a single separate airport land use commission for that airport. That commission shall consist of seven members to be selected as follows:

(A) One representing the cities in each of the counties, appointed by that county's city selection committee.

(B) One representing each of the counties, appointed by the board of supervisors of each county.

(C) One from each county having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(D) One representing the general public, appointed by the other six members of the commission.

(2) In accordance with subdivision (a) or (b) of Section 21670.1, designate an existing appropriate entity as that airport's land use commission.

21671. Airports Owned by a City, District, or County

In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (b) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) subdivision (b) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

21671.5. Term of Office

(a) Except for the terms of office of the members of the first commission, the term of office of each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members is four years. The body that originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing that member. The expiration date of the term of office of each member shall be the first Monday in May in the year in which that member's term is to expire. Any vacancy in the membership of the commission shall be filled for the unexpired term by appointment by the body which originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes and necessary quarters, equipment, and supplies, shall be provided by the county. The usual and necessary operating expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees necessary to comply with this article. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Section 66016 of the Government Code. Except as provided in subdivision (g), after June 30, 1991, a commission that has not adopted the airport land use compatibility plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

(g) In any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county, the commission may continue to charge fees necessary to comply with this article until June 30, 1992, and, if the airport land use compatibility plans are complete by that date, may continue charging fees after June 30, 1992. If the airport land use compatibility plans are not complete by June 30, 1992, the commission shall not charge fees pursuant to subdivision (f) until the commission adopts the land use plans.

21672. Rules and Regulations

Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

21673. Initiation of Proceedings for Creation by Owner of Airport

In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefor to the satisfaction of the board of supervisors.

21674. Powers and Duties

The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.

(b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

(c) To prepare and adopt an airport land use compatibility plan pursuant to Section 21675.

(d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676.

(e) The powers of the commission shall in no way be construed to give the commission jurisdiction over the operation of any airport.

(f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with this article.

21674.5. Training of Airport Land Use Commission's Staff

(a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff of airport land use commissions, after consulting with airport land use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use commissions in addressing high priority needs, and may include, but need not be limited to, the following:

(1) The establishment of a process for the development and adoption of airport land use compatibility plans.

(2) The development of criteria for determining the airport influence area.

(3) The identification of essential elements that should be included in the airport land use compatibility plans.

(4) Appropriate criteria and procedures for reviewing proposed developments and determining whether proposed developments are compatible with the airport use.

(5) Any other organizational, operational, procedural, or technical responsibilities and functions that the department determines to be appropriate to provide to commission staff and for which it determines there is a need for staff training or development.

(c) The department may provide training and development programs for airport land use commission staff pursuant to this section by any means it deems appropriate. Those programs may be presented in any of the following ways:

(1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and development of airport land use commission staff.

21674.7. Airport Land Use Planning Handbook

(a) An airport land use commission that formulates, adopts or amends an airport land use compatibility plan shall be guided by information prepared and updated pursuant to Section 21674.5 and referred to as the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation.

(b) It is the intent of the Legislature to discourage incompatible land uses near existing airports. Therefore, prior to granting permits for the renovation or remodeling of an existing building, structure, or facility, and before the construction of a new building, it is the intent of the Legislature that local agencies shall be guided by the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations, to the extent that the criteria has been incorporated into the plan prepared by a commission pursuant to Section 21675. This subdivision does not limit the jurisdiction of a commission as established by this article. This subdivision does not limit the authority of local agencies to overrule commission actions or recommendations pursuant to Sections 21676, 21676.5, or 21677.

21675. Land Use Plan

(a) Each commission shall formulate an airport land use compatibility plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission airport land use compatibility plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation that reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the airport influence area. The airport land use compatibility plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission shall include, within its airport land use compatibility plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any military airport for all of the purposes specified in subdivision (a). The airport land use compatibility plan shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport. This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The airport influence area shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the airport land use compatibility plan and each amendment to the plan.

(e) If an airport land use compatibility plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

21675.1. Adoption of Land Use Plan

(a) By June 30, 1991, each commission shall adopt the airport land use compatibility plan required pursuant to Section 21675, except that any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county, shall adopt that airport land use compatibility plan on or before June 30, 1992.

(b) Until a commission adopts an airport land use compatibility plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, "vicinity" means land that will be included or reasonably could be included within the airport land use compatibility plan. If the commission has not designated an airport influence area for the airport land use compatibility plan, then "vicinity" means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

(1) The commission is making substantial progress toward the completion of the airport land use compatibility plan.

(2) There is a reasonable probability that the action, regulation, or permit will be consistent with the airport land use compatibility plan being prepared by the commission.

(3) There is little or no probability of substantial detriment to or interference with the future adopted airport land use compatibility plan if the action, regulation, or permit is ultimately inconsistent with the airport land use compatibility plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.

(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the airport land use compatibility plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport is not liable for damages to property or personal injury resulting from the city's or county's decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations that exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

(1) More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.

(2) Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

21675.2. Approval or Disapproval of Actions, Regulations, or Permits

(a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to the commission of the intent to provide public notice pursuant to this subdivision, then, not earlier than the date of the expiration of the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the location of any proposed development, the application number, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission's legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

21676. Review of Local General Plans

(a) Each local agency whose general plan includes areas covered by an airport land use compatibility plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the airport land use compatibility plan. If the plan or plans are inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its airport land use compatibility plans. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the public record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(c) Each public agency owning any airport within the boundaries of an airport land use compatibility plan shall, prior to modification of its airport master plan, refer any proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The public agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes

specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the airport land use compatibility plan.

21676.5. Review of Local Plans

(a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require that the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the commission, an action, regulation, or permit of the local agency is inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that individual projects shall be reviewed by the commission.

21677. Marin County Override Provisions

Notwithstanding the two-thirds vote required by Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing

body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the public record of the final decision to overrule the commission, which may be adopted by a majority vote of the governing body.

21678. Airport Owner's Immunity

With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676, 21676.5, or 21677 overrules a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to overrule the commission's action or recommendation.

21679. Court Review

(a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use compatibility plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, that directly affects the use of land within one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction that postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency that took the action does one of the following:

  (1) In the case of an action that is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

  (2) In the case of an action that is not a legislative act, adopts a resolution making findings based on substantial evidence in the record that the proposed action is consistent with the purposes of this article stated in Section 21670.

  (3) Rescinds the action.

  (4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2), whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency that took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use compatibility plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the local agency's decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, "interested party" means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

21679.5. Deferral of Court Review

(a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility plan.

(b) If a commission has been prevented from adopting the airport land use compatibility plan by June 30, 1991, or if the adopted airport land use compatibility plan could not become effective, because of a lawsuit involving the adoption of the airport land use compatibility plan, the June 30, 1991 date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body adopts an airport land use compatibility plan on or before June 30, 1991, the action shall be dismissed. If the commission or other designated body does not adopt an airport land use compatibility plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use compatibility plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1
Chapter 3—Regulation of Aeronautics
(excerpts)

21402. Ownership; Prohibited Use of Airspace

The ownership of the space above the land and waters of this State is vested in the several owners of the surface beneath, subject to the right of flight described in Section 21403. No use shall be made of such airspace which would interfere with such right of flight; provided that any use of property in conformity with an original zone of approach of an airport shall not be rendered unlawful by reason of a change in such zone of approach.

21403. Lawful Flight; Flight Within Airport Approach Zone

(a) Flight in aircraft over the land and waters of this state is lawful, unless at altitudes below those prescribed by federal authority, or unless conducted so as to be imminently dangerous to persons or property lawfully on the land or water beneath. The landing of an aircraft on the land or waters of another, without his or her consent, is unlawful except in the case of a forced landing or pursuant to Section 21662.1. The owner, lessee, or operator of the aircraft is liable, as provided by law, for damages caused by a forced landing.

(b) The landing, takeoff, or taxiing of an aircraft on a public freeway, highway, road, or street is unlawful except in the following cases:

(1) A forced landing.

(2) A landing during a natural disaster or other public emergency if the landing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road, or street.

(3) When the landing, takeoff, or taxiing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road or street.

The prosecution bears the burden of proving that none of the exceptions apply to the act which is alleged to be unlawful.

(c) The right of flight in aircraft includes the right of safe access to public airports, which includes the right of flight within the zone of approach of any public airport without restriction or hazard. The zone of approach of an airport shall conform to the specifications of Part 77 of the Federal Aviation Regulations of the Federal Aviation Administration, Department of Transportation.

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1
Chapter 4—Airports and Air Navigation Facilities
Article 2.7—Regulation of Obstructions
(excerpts)

21655. Proposed Site for Construction of State Building Within Two Miles of Airport Boundary

Notwithstanding any other provision of law, if the proposed site of any state building or other enclosure is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the state agency or office which proposes to construct the building or other enclosure shall, before acquiring title to property for the new state building or other enclosure site or for an addition to a present site, notify the Department of Transportation, in writing, of the proposed acquisition. The department shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the state agency or office which proposes to construct the building or other enclosure a written report of the investigation and its recommendations concerning acquisition of the site.

If the report of the department does not favor acquisition of the site, no state funds shall be expended for the acquisition of the new state building or other enclosure site, or the expansion of the present site, or for the construction of the state building or other enclosure, provided that the provisions of this section shall not affect title to real property once it is acquired.

21658. Construction of Utility Pole or Line in Vicinity of Aircraft Landing Area

No public utility shall construct any pole, pole line, distribution or transmission tower, or tower line, or substation structure in the vicinity of the exterior boundary of an aircraft landing area of any airport open to public use, in a location with respect to the airport and at a height so as to constitute an obstruction to air navigation, as an obstruction is defined in accordance with Part 77 of the Federal Aviation Regulations, Federal Aviation Administration, or any corresponding rules or regulations of the Federal Aviation Administration, unless the Federal Aviation Administration has determined that the pole, line, tower, or structure does not constitute a hazard to air navigation. This section shall not apply to existing poles, lines, towers, or structures or to the repair, replacement, or reconstruction thereof if the original height is not materially exceeded and this section shall not apply unless just compensation shall have first been paid to the public utility by the owner of any airport for any property or property rights which would be taken or damaged hereby.

21659. Hazards Near Airports Prohibited

(a) No person shall construct or alter any structure or permit any natural growth to grow at a height which exceeds the obstruction standards set forth in the regulations of the Federal Aviation Administration relating to objects affecting navigable airspace contained in Title 14 of the Code of

Federal Regulations, Part 77, Subpart C, unless a permit allowing the construction, alteration, or growth is issued by the department.

(b) The permit is not required if the Federal Aviation Administration has determined that the construction, alteration, or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation. Subdivision (a) does not apply to a pole, pole line, distribution or transmission tower, or tower line or substation of a public utility.

(c) Section 21658 is applicable to subdivision (b).

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1, Chapter 4
Article 3—Regulation of Airports
(excerpts)

21661.5. City Council or Board of Supervisors and ALUC Approvals

(a) No political subdivision, any of its officers or employees, or any person may submit any application for the construction of a new airport to any local, regional, state, or federal agency unless the plan for such construction is first approved by the board of supervisors of the county, or the city council of the city, in which the airport is to be located and unless the plan is submitted to the appropriate commission exercising powers pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9, and acted upon by such commission in accordance with the provisions of such article.

(b) A county board of supervisors or a city council may, pursuant to Section 65100 of the Government Code, delegate its responsibility under this section for the approval of a plan for construction of new helicopter landing and takeoff areas, to the county or city planning agency.

21664.5. Amended Airport Permits; Airport Expansion Defined

(a) An amended airport permit shall be required for every expansion of an existing airport. An applicant for an amended airport permit shall comply with each requirement of this article pertaining to permits for new airports. The department may by regulation provide for exemptions from the operation of this section pursuant to Section 21661, except that no exemption shall be made limiting the applicability of subdivision (e) of Section 21666, pertaining to environmental considerations, including the requirement for public hearings in connection therewith.

(b) As used in this section, "airport expansion" includes any of the following:

(1) The acquisition of runway protection zones, as defined in Federal Aviation Administration Advisory Circular 150/1500-13 [*sic.* – should be 150/5300-13], or of any interest in land for the purpose of any other expansion as set forth in this section.

(2) The construction of a new runway.

(3) The extension or realignment of an existing runway.

(4) Any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to the purpose of paragraph (1), (2), or (3).

(c) This section does not apply to any expansion of an existing airport if the expansion commenced on or prior to the effective date of this section and the expansion met the approval, on or prior to that effective date, of each governmental agency that required the approval by law.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7—Planning and Land Use
Division 1—Planning and Zoning
Chapter 3—Local Planning
Article 5—Authority for and Scope of General Plans
(excerpts)

65302.3. General and Applicable Specific Plans; Consistency with Airport Land Use Plans; Amendment; Nonconcurrence Findings

(a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

(b) The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code.

(c) If the legislative body does not concur with any of the provisions of the plan required under Section 21675 of the Public Utilities Code, it may satisfy the provisions of this section by adopting findings pursuant to Section 21676 of the Public Utilities Code.

(d) In each county where an airport land use commission does not exist, but where there is a military airport, the general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7, Division 1
Chapter 4.5—Review and Approval of Development Projects
Article 3—Application for Development Projects
(excerpts)

Note: The following government code sections are referenced in Section 21675.2(c) of the ALUC statutes.

65943. Completeness of Application; Determination; Time; Specification of Parts not Complete and Manner of Completion

(a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any resubmittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.

(b) Not later than 30 calendar days after receipt of the submitted materials, the public agency shall determine in writing whether they are complete and shall immediately transmit that determination to the applicant. If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for the purposes of this chapter.

(c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency of the appeal not later than 60 calendar days after receipt of the applicant's written appeal. The fact that an appeal is permitted to both the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

(d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

(e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65943.5.

(a) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving a permit application to a board, office, or department within the California Environmental Protection Agency shall be made to the Secretary for Environmental Protection.

(b) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving an application for the issuance of an environmental permit from an environmental agency shall be made to the Secretary for Environmental Protection under either of the following circumstances:

(1) The environmental agency has not adopted an appeals process pursuant to subdivision (c) of Section 65943.

(2) The environmental agency declines to accept an appeal for a decision pursuant to subdivision (c) of Section 65943.

(c) For purposes of subdivision (b), "environmental permit" has the same meaning as defined in Section 72012 of the Public Resources Code, and "environmental agency" has the same meaning as defined in Section 71011 of the Public Resources Code, except that "environmental agency" does not include the agencies described in subdivisions (c) and (h) of Section 71011 of the Public Resources Code.

65944. Acceptance of Application as Complete; Requests for Additional Information; Restrictions; Clarification, Amplification, Correction, etc; Prior to Notice of Necessary Information

(a) After a public agency accepts an application as complete, the agency shall not subsequently request of an applicant any new or additional information which was not specified in the list prepared pursuant to Section 65940. The agency may, in the course of processing the application, request the applicant to clarify, amplify, correct, or otherwise supplement the information required for the application.

(b) The provisions of subdivision (a) shall not be construed as requiring an applicant to submit with his or her initial application the entirety of the information which a public agency may require in order to take final action on the application. Prior to accepting an application, each public agency shall inform the applicant of any information included in the list prepared pursuant to Section 65940 which will subsequently be required from the applicant in order to complete final action on the application.

(c) This section shall not be construed as limiting the ability of a public agency to request and obtain information which may be needed in order to comply with the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

(d) (1) After a public agency accepts an application as complete, and if the project applicant has identified that the proposed project is located within 1,000 feet of a military installation or within special use airspace or beneath a low-level flight path in accordance with Section 65940, the public agency shall provide a copy of the complete application to any branch of the

United States Armed Forces that has provided the Office of Planning and Research with a single California mailing address within the state for the delivery of a copy of these applications. This subdivision shall apply only to development applications submitted to a public agency 30 days after the Office of Planning and Research has notified cities, counties, and cities and counties of the availability of Department of Defense information on the Internet pursuant to subdivision (d) of Section 65940.

(2) Except for a project within 1,000 feet of a military installation, the public agency is not required to provide a copy of the application if the project is located entirely in an "urbanized area." An urbanized area is any urban location that meets the definition used by the United State Department of Commerce's Bureau of Census for "urban" and includes locations with core census block groups containing at least 1,000 people per square mile and surrounding census block groups containing at least 500 people per square mile.

(e) Upon receipt of a copy of the application as required in subdivision (d), any branch of the United States Armed Forces may request consultation with the public agency and the project applicant to discuss the effects of the proposed project on military installations, low-level flight paths, or special use airspace, and potential alternatives and mitigation measures.

(f) (1) Subdivisions (d), (e), and (f) as these relate to low-level flight paths, special use airspace, and urbanized areas shall not be operative until the United States Department of Defense provides electronic maps of low-level flight paths, special use airspace, and military installations, at a scale and in an electronic format that is acceptable to the Office of Planning and Research.

(2) Within 30 days of a determination by the Office of Planning and Research that the information provided by the Department of Defense is sufficient and in an acceptable scale and format, the office shall notify cities, counties, and cities and counties of the availability of the information on the Internet. Cities, counties, and cities and counties shall comply with subdivision (d) within 30 days of receiving this notice from the office.

65945. Notice of Proposal to Adopt or Amend Certain Plans or Ordinances by City or County, Fee; Subscription to Periodically Updated Notice as Alternative, Fee

(a) At the time of filing an application for a development permit with a city or county, the city or county shall inform the applicant that he or she may make a written request to retrieve notice from the city or county of a proposal to adopt or amend any of the following plans or ordinances:

(1) A general plan.

(2) A specific plan.

(3) A zoning ordinance.

(4) An ordinance affecting building permits or grading permits.

The applicant shall specify, in the written request, the types of proposed action for which notice is requested. Prior to taking any of those actions, the city or county shall give notice to any applicant who has requested notice of the type of action proposed and whose development project is pending before the city or county if the city or county determines that the proposal is reasonably related to the applicant's request for the development permit. Notice shall be given only for those types of actions which the applicant specifies in the request for notification.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this subdivision, the fee shall be collected as part of the application fee charged for the development permit.

(b) As an alternative to the notification procedure prescribed by subdivision (a), a city or county may inform the applicant at the time of filing an application for a development permit that he or she may subscribe to a periodically updated notice or set of notices from the city or county which lists pending proposals to adopt or amend any of the plans or ordinances specified in subdivision (a), together with the status of the proposal and the date of any hearings thereon which have been set.

Only those proposals which are general, as opposed to parcel-specific in nature, and which the city or county determines are reasonably related to requests for development permits, need be listed in the notice. No proposals shall be required to be listed until such time as the first public hearing thereon has been set. The notice shall be updated and mailed at least once every six weeks; except that a notice need not be updated and mailed until a change in its contents is required.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice, including the costs of updating the notice, for the length of time the applicant requests to be sent the notice or notices.

65945.3. Notice of Proposal to Adopt or Amend Rules or Regulations Affecting Issuance of Permits by Local Agency other than City or County; Fee

At the time of filing an application for a development permit with a local agency, other than a city or county, the local agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a rule or regulation affecting the issuance of development permits.

Prior to adopting or amending any such rule or regulation, the local agency shall give notice to any applicant who has requested such notice and whose development project is pending before the agency if the local agency determines that the proposal is reasonably related to the applicant's request for the development permit.

The local agency may charge the applicant for a development permit, to whom notice is provided pursuant to this section, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65945.5. Notice of Proposal to Adopt or Amend Regulation Affecting Issuance of Permits and Which Implements Statutory Provision by State Agency

At the time of filing an application for a development permit with a state agency, the state agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a regulation affecting the issuance of development permits and which implements a statutory provision.

Prior to adopting or amending any such regulation, the state agency shall give notice to any applicant who has requested such notice and whose development project is pending before the state agency if the

state agency determines that the proposal is reasonably related to the applicant's request for the development permit.

65945.7. Actions, Inactions, or Recommendations Regarding Ordinances, Rules or Regulations; Invalidity or Setting Aside Ground of Error Only if Prejudicial

No action, inaction, or recommendation regarding any ordinance, rule, or regulation subject to this Section 65945, 65945.3, or 65945.5 by any legislative body, administrative body, or the officials of any state or local agency shall be held void or invalid or be set aside by any court on the ground of any error, irregularity, informality, neglect or omission (hereinafter called "error") as to any matter pertaining to notices, records, determinations, publications, or any matters of procedure whatever, unless after an examination of the entire case, including evidence, the court shall be of the opinion that the error complained of was prejudicial, and that by reason of such error the party complaining or appealing sustained and suffered substantial injury, and that a different result would have been probable if such error had not occurred or existed. There shall be no presumption that error is prejudicial or that injury was done if error is shown.

65946. [Replaced by AB2351 Statutes of 1993]

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7, Division 1
Chapter 9.3—Mediation and Resolution of Land Use Disputes
(excerpts)

66030.

(a) The Legislature finds and declares all of the following:

(1) Current law provides that aggrieved agencies, project proponents, and affected residents may bring suit against the land use decisions of state and local governmental agencies. In practical terms, nearly anyone can sue once a project has been approved.

(2) Contention often arises over projects involving local general plans and zoning, redevelopment plans, the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), development impact fees, annexations and incorporations, and the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920)).

(3) When a public agency approves a development project that is not in accordance with the law, or when the prerogative to bring suit is abused, lawsuits can delay development, add uncertainty and cost to the development process, make housing more expensive, and damage California's competitiveness. This litigation begins in the superior court, and often progresses on appeal to the Court of Appeal and the Supreme Court, adding to the workload of the state's already overburdened judicial system.

(b) It is, therefore, the intent of the Legislature to help litigants resolve their differences by establishing formal mediation processes for land use disputes. In establishing these mediation processes, it is not the intent of the Legislature to interfere with the ability of litigants to pursue remedies through the courts.

66031.

(a) Notwithstanding any other provision of law, any action brought in the superior court relating to any of the following subjects may be subject to a mediation proceeding conducted pursuant to this chapter:

(1) The approval or denial by a public agency of any development project.

(2) Any act or decision of a public agency made pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(3) The failure of a public agency to meet the time limits specified in Chapter 4.5 (commencing with Section 65920), commonly known as the Permit Streamlining Act, or in the Subdivision Map Act (Division 2 (commencing with Section 66410)).

(4) Fees determined pursuant to Sections 53080 to 53082, inclusive, or Chapter 4.9 (commencing with Section 65995).

(5) Fees determined pursuant to Chapter 5 (commencing with Section 66000).

(6) The adequacy of a general plan or specific plan adopted pursuant to Chapter 3 (commencing with Section 65100).

(7) The validity of any sphere of influence, urban service area, change of organization or reorganization, or any other decision made pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Division 3 (commencing with Section 56000) of Title 5).

(8) The adoption or amendment of a redevelopment plan pursuant to the Community Redevelopment Law (Part 1 (commencing with Section 33000) of Division 24 of the Health and Safety Code).

(9) The validity of any zoning decision made pursuant to Chapter 4 (commencing with Section 65800).

(10) The validity of any decision made pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9 of the Public Utilities Code.

(b) Within five days after the deadline for the respondent or defendant to file its reply to an action, the court may invite the parties to consider resolving their dispute by selecting a mutually acceptable person to serve as a mediator, or an organization or agency to provide a mediator.

(c) In selecting a person to serve as a mediator, or an organization or agency to provide a mediator, the parties shall consider the following:

(1) The council of governments having jurisdiction in the county where the dispute arose.

(2) Any subregional or countywide council of governments in the county where the dispute arose.

(3) Any other person with experience or training in mediation including those with experience in land use issues, or any other organization or agency which can provide a person with experience or training in mediation, including those with experience in land use issues.

(d) If the court invites the parties to consider mediation, the parties shall notify the court within 30 days if they have selected a mutually acceptable person to serve as a mediator. If the parties have not selected a mediator within 30 days, the action shall proceed. The court shall not draw any implication, favorable or otherwise, from the refusal by a party to accept the invitation by the court to consider mediation. Nothing in this section shall preclude the parties from using mediation at any other time while the action is pending.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7—Planning and Land Use
Division 2—Subdivisions
Chapter 3—Procedure
Article 3—Review of Tentative Map by Other Agencies
(excerpts)

66455.9.

Whenever there is consideration of an area within a development for a public school site, the advisory agency shall give the affected districts and the State Department of Education written notice of the proposed site. The written notice shall include the identification of any existing or proposed runways within the distance specified in Section 17215 of the Education Code. If the site is within the distance of an existing or proposed airport runway as described in Section 17215 of the Education Code, the department shall notify the State Department of Transportation as required by the section and the site shall be investigated by the State Department of Transportation required by Section 17215.

EDUCATION CODE
Title 1—General Education Code Provisions
Division 1—General Education Code Provisions
Part 10.5—School Facilities
Chapter 1—School Sites
Article 1—General Provisions
(excerpts)

17215.

(a) In order to promote the safety of pupils, comprehensive community planning, and greater educational usefulness of school sites, before acquiring title to or leasing property for a new school site, the governing board of each school district, including any district governed by a city board of education or a charter school, shall give the State Department of Education written notice of the proposed acquisition or lease and shall submit any information required by the State Department of Education if the site is within two miles, measured by air line, of that point on an airport runway or a potential runway included in an airport master plan that is nearest to the site.

(b) Upon receipt of the notice required pursuant to subdivision (a), the State Department of Education shall notify the Department of Transportation in writing of the proposed acquisition or lease. If the Department of Transportation is no longer in operation, the State Department of Education shall, in lieu of notifying the Department of Transportation, notify the United States Department of Transportation or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the department or other agency any information or assistance that it may desire to give.

(c) The Department of Transportation shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the State Department of Education a written report of its findings including recommendations concerning acquisition or lease of the site. As part of the investigation, the Department of Transportation shall give notice thereof to the owner and operator of the airport who shall be granted the opportunity to comment upon the site. The Department of Transportation shall adopt regulations setting forth the criteria by which a site will be evaluated pursuant to this section.

(d) The State Department of Education shall, within 10 days of receiving the Department of Transportation's report, forward the report to the governing board of the school district or charter school. The governing board or charter school may not acquire title to or lease the property until the report of the Department of Transportation has been received. If the report does not favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school may not acquire title to or lease the property. If the report does favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school shall hold a public hearing on the matter prior to acquiring or leasing the site.

(e) If the Department of Transportation's recommendation does not favor acquisition or lease of the proposed site, state funds or local funds may not be apportioned or expended for the acquisition of that site, construction of any school building on that site, or for the expansion of any existing site to include that site.

(f) This section does not apply to sites acquired prior to January 1, 1966, nor to any additions or extensions to those sites.

EDUCATION CODE
Title 3—Postsecondary Education
Division 7—Community Colleges
Part 49—Community Colleges, Education Facilities
Chapter 1—School Sites
Article 2—School Sites
(excerpts)

81033. Investigation: Geologic and Soil Engineering Studies; Airport in Proximity

(c) To promote the safety of students, comprehensive community planning, and greater educational usefulness of community college sites, the governing board of each community college district, if the proposed site is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site and excluding them if the property is not so located, before acquiring title to property for a new community college site or for an addition to a present site, shall give the board of governors notice in writing of the proposed acquisition and shall submit any information required by the board of governors.

Immediately after receiving notice of the proposed acquisition of property which is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site, the board of governors shall notify the Division of Aeronautics of the Department of Transportation, in writing, of the proposed acquisition. The Division of Aeronautics shall make an investigation and report to the board of governors within 30 working days after receipt of the notice. If the Division of Aeronautics is no longer in operation, the board of governors shall, in lieu of notifying the Division of Aeronautics, notify the Federal Aviation Administration or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the authority or other agency such information or assistance as it may desire to give.

The board of governors shall investigate the proposed site and within 35 working days after receipt of the notice shall submit to the governing board a written report and its recommendations concerning acquisition of the site. The governing board shall not acquire title to the property until the report of the board of governors has been received. If the report does not favor the acquisition of the property for a community college site or an addition to a present community college site, the governing board shall not acquire title to the property until 30 days after the department's report is received and until the board of governors' report has been read at a public hearing duly called after 10 days' notice published once in a newspaper of general circulation within the community college district, or if there is no such newspaper, then in a newspaper of general circulation within the county in which the property is located.

(d) If, with respect to a proposed site located within two miles of an operative airport runway, the report of the board of governors submitted to a community college district governing board under subdivision (c) does not favor the acquisition of the site on the sole or partial basis of the unfavorable recommendation of the Division of Aeronautics of the Department of Transportation, no state agency or officer shall grant, apportion, or allow to such community college district for expenditure in connection with that site, any state funds otherwise made available under any state law whatever for a community college site acquisition or college building

construction, or for expansion of existing sites and buildings, and no funds of the community college district or of the county in which the district lies shall be expended for such purposes; provided that provisions of this section shall not be applicable to sites acquired prior to January 1, 1966, nor any additions or extensions to such sites.

If the recommendations of the Division of Aeronautics are unfavorable, such recommendations shall not be overruled without the express approval of the board of governors and the State Allocation Board.

CALIFORNIA ENVIRONMENTAL QUALITY ACT STATUTES

PUBLIC RESOURCES CODE
Division 13—Environmental Quality
Chapter 2.6—General
(excerpts)

21096. Airport Planning

(a) If a lead agency prepares an environmental impact report for a project situated within airport land use compatibility plan boundaries, or, if an airport land use compatibility plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with Section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation of the environmental impact report as the report relates to airport-related safety hazards and noise problems.

(b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area.

BUSINESS AND PROFESSIONS CODE
Division 4—Real Estate
Part 2—Regulation of Transactions
Chapter 1—Subdivided Lands
Article 2—Investigation, Regulation and Report
(excerpts)

11010.

(a) Except as otherwise provided pursuant to subdivision (c) or elsewhere in this chapter, any person who intends to offer subdivided lands within this state for sale or lease shall file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire on a form prepared by the department.

(b) The notice of intention shall contain the following information about the subdivided lands and the proposed offering:

[Sub-Sections (1) through (12) omitted]

(13) (A) The location of all existing airports, and of all proposed airports shown on the general plan of any city or county, located within two statute miles of the subdivision. If the property is located within an airport influence area, the following statement shall be included in the notice of intention:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

(B) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

CIVIL CODE
Division 2—Property
Part 4—Acquisition of Property
Title 4—Transfer
Chapter 2—Transfer of Real Property
Article 1.7—Disclosure of Natural Hazards Upon Transfer of Residential Property
(excerpts)

1103.

(a) Except as provided in Section 1103.1, this article applies to any transfer by sale, exchange, installment land sale contract, as defined in Section 2985, lease with an option to purchase, any other option to purchase, or ground lease coupled with improvements, of any real property described in subdivision (c), or residential stock cooperative, improved with or consisting of not less than one nor more than four dwelling units.

(b) Except as provided in Section 1103.1, this article shall apply to a resale transaction entered into on or after January 1, 2000, for a manufactured home, as defined in Section 18007 of the Health and Safety Code, that is classified as personal property intended for use as a residence, or a mobilehome, as defined in Section 18008 of the Health and Safety Code, that is classified as personal property intended for use as a residence, if the real property on which the manufactured home or mobilehome is located is real property described in subdivision (c).

(c) This article shall apply to the transactions described in subdivisions (a) and (b) only if the transferor or his or her agent are required by one or more of the following to disclose the property's location within a hazard zone:

(1) A person who is acting as an agent for a transferor of real property that is located within a special flood hazard area (any type Zone "A" or "V") designated by the Federal Emergency Management Agency, or the transferor if he or she is acting without an agent, shall disclose to any prospective transferee the fact that the property is located within a special flood hazard area if either:

(A) The transferor, or the transferor's agent, has actual knowledge that the property is within a special flood hazard area.

(B) The local jurisdiction has compiled a list, by parcel, of properties that are within the special flood hazard area and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the parcel list.

(2) … is located within an area of potential flooding … shall disclose to any prospective transferee the fact that the property is located within an area of potential flooding …

(3) … is located within a very high fire hazard severity zone, designated pursuant to Section 51178 of the Public Resources Code … shall disclose to any prospective transferee the fact that the property is located within a very high fire hazard severity zone and is subject to the requirements of Section 51182 …

(4) … is located within an earthquake fault zone, designated pursuant to Section 2622 of the Public Resources Code … shall disclose to any prospective transferee the fact that the property is located within a delineated earthquake fault zone …

(5) … is located within a seismic hazard zone, designated pursuant to Section 2696 of the Public Resources Code … shall disclose to any prospective transferee the fact that the property is located within a seismic hazard zone …

(6) … is located within a state responsibility area determined by the board, pursuant to Section 4125 of the Public Resources Code, shall disclose to any prospective transferee the fact that the property is located within a wildland area that may contain substantial forest fire risks and hazards and is subject to the requirements of Section 4291 …

(d) Any waiver of the requirements of this article is void as against public policy.

1103.1.

(a) This article does not apply to the following transfers:

(1) Transfers pursuant to court order, including, but not limited to, transfers ordered by a probate court in administration of an estate, transfers pursuant to a writ of execution, transfers by any foreclosure sale, transfers by a trustee in bankruptcy, transfers by eminent domain, and transfers resulting from a decree for specific performance.

(2) Transfers to a mortgagee by a mortgagor or successor in interest who is in default, transfers to a beneficiary of a deed of trust by a trustor or successor in interest who is in default, transfers by any foreclosure sale after default, transfers by any foreclosure sale after default in an obligation secured by a mortgage, transfers by a sale under a power of sale or any foreclosure sale under a decree of foreclosure after default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale, or transfers by a mortgagee or a beneficiary under a deed of trust who has acquired the real property at a sale conducted pursuant to a power of sale under a mortgage or deed of trust or a sale pursuant to a decree of foreclosure or has acquired the real property by a deed in lieu of foreclosure.

(3) Transfers by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust.

(4) Transfers from one coowner to one or more other coowners.

(5) Transfers made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferors.

(6) Transfers between spouses resulting from a judgment of dissolution of marriage or of legal separation of the parties or from a property settlement agreement incidental to that judgment.

(7) Transfers by the Controller in the course of administering Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.

(8) Transfers under Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.

(9) Transfers or exchanges to or from any governmental entity.

(b) Transfers not subject to this article may be subject to other disclosure requirements, including those under Sections 8589.3, 8589.4, and 51183.5 of the Government Code and Sections 2621.9,

2694, and 4136 of the Public Resources Code. In transfers not subject to this article, agents may make required disclosures in a separate writing.

1103.2.

(a) The disclosures required by this article are set forth in, and shall be made on a copy of, the following Natural Hazard Disclosure Statement: [content omitted].

(b) If an earthquake fault zone, seismic hazard zone, very high fire hazard severity zone, or wildland fire area map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a natural hazard area, the transferor or transferor's agent shall mark "Yes" on the Natural Hazard Disclosure Statement. The transferor or transferor's agent may mark "No" on the Natural Hazard Disclosure Statement if he or she attaches a report prepared pursuant to subdivision (c) of Section 1103.4 that verifies the property is not in the hazard zone. Nothing in this subdivision is intended to limit or abridge any existing duty of the transferor or the transferor's agents to exercise reasonable care in making a determination under this subdivision.

[Sub-Sections (c) through (h) omitted]

[Section 1103.3 omitted]

1103.4.

(a) Neither the transferor nor any listing or selling agent shall be liable for any error, inaccuracy, or omission of any information delivered pursuant to this article if the error, inaccuracy, or omission was not within the personal knowledge of the transferor or the listing or selling agent, and was based on information timely provided by public agencies or by other persons providing information as specified in subdivision (c) that is required to be disclosed pursuant to this article, and ordinary care was exercised in obtaining and transmitting the information.

(b) The delivery of any information required to be disclosed by this article to a prospective transferee by a public agency or other person providing information required to be disclosed pursuant to this article shall be deemed to comply with the requirements of this article and shall relieve the transferor or any listing or selling agent of any further duty under this article with respect to that item of information.

(c) The delivery of a report or opinion prepared by a licensed engineer, land surveyor, geologist, or expert in natural hazard discovery dealing with matters within the scope of the professional's license or expertise, shall be sufficient compliance for application of the exemption provided by subdivision (a) if the information is provided to the prospective transferee pursuant to a request therefor, whether written or oral. In responding to that request, an expert may indicate, in writing, an understanding that the information provided will be used in fulfilling the requirements of Section 1103.2 and, if so, shall indicate the required disclosures, or parts thereof, to which the information being furnished is applicable. Where that statement is furnished, the expert shall not be responsible for any items of information, or parts thereof, other than those expressly set forth in the statement.

(1) In responding to the request, the expert shall determine whether the property is within an airport influence area as defined in subdivision (b) of Section 11010 of the Business and Professions Code. If the property is within an airport influence area, the report shall contain the following statement:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

[Remainder of Article 1.7 omitted]

CIVIL CODE
Division 2, Part 4
Title 6—Common Interest Developments
(excerpts)

1353.

(a) (1) A declaration, recorded on or after January 1, 1986, shall contain a legal description of the common interest development, and a statement that the common interest development is a community apartment project, condominium project, planned development, stock cooperative, or combination thereof. The declaration shall additionally set forth the name of the association and the restrictions on the use or enjoyment of any portion of the common interest development that are intended to be enforceable equitable servitudes. If the property is located within an airport influence area, a declaration, recorded after January 1, 2004, shall contain the following statement:

> NOTICE OF AIRPORT IN VICINITY
>
> This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

(2) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

(3) [Omitted]

(4) The statement in a declaration acknowledging that a property is located in an airport influence area does not constitute a title defect, lien, or encumbrance.

(b) The declaration may contain any other matters the original signator of the declaration or the owners consider appropriate.

LEGISLATIVE HISTORY SUMMARY

PUBLIC UTILITIES CODE
Sections 21670 et seq.
Airport Land Use Commission Statutes
And Related Statutes

1967 Original ALUC statute enacted.

- Establishment of ALUCs required in each county containing a public airport served by a certificated air carrier.
- The purpose of ALUCs is indicated as being to make recommendations regarding height restrictions on buildings and the use of land surrounding airports.

1970 Assembly Bill 1856 (Badham) Chapter 1182, Statutes of 1970—Adds provisions which:

- Require ALUCs to prepare comprehensive land use plans.
- Require such plans to include a long-range plan and to reflect the airport's forecast growth during the next 20 years.
- Require ALUC review of airport construction plans (Section 21661.5).
- Exempt Los Angeles County from the requirement of establishing an ALUC.

1971 The function of ALUCs is restated as being to require new construction to conform to Department of Aeronautics standards.

1973 ALUCs are permitted to establish compatibility plans for military airports.

1982 Assembly Bill 2920 (Rogers) Chapter 1041, Statutes of 1982—Adds major changes which:

- More clearly articulate the purpose of ALUCs.
- Eliminate reference to "achieve by zoning."
- Require consistency between local general and specific plans and airport land use commission plans; the requirements define the process for attaining consistency, they do not establish standards for consistency.
- Eliminate the requirement for proposed individual development projects to be referred to an ALUC for review once local general/specific plans are consistent with the ALUC's plan.
- Require that local agencies make findings of fact before overriding an ALUC decision.
- Change the vote required for an override from 4/5 to 2/3.

1984 Assembly Bill 3551 (Mountjoy) Chapter 1117, Statutes of 1984—Amends the law to:

- Require ALUCs in all counties having an airport which serves the general public unless a county and its cities determine an ALUC is not needed.
- Limit amendments to compatibility plans to once per year.
- Allow individual projects to continue to be referred to the ALUC by agreement.
- Extend immunity to airports if an ALUC action is overridden by a local agency not owning the airport.

- Provide state funding eligibility for preparation of compatibility plans through the Regional Transportation Improvement Program process.

1987 Senate Bill 633 (Rogers) Chapter 1018, Statutes of 1987—Makes revisions which:

- Require that a designated body serving as an ALUC include two members having "expertise in aviation."
- Allows an interested party to initiate court proceedings to postpone the effective date of a local land use action if a compatibility plan has not been adopted.
- Delete *sunset* provisions contained in certain clauses of the law. Allows reimbursement for ALUC costs in accordance with the Commission on State Mandates.

1989 Senate Bill 255 (Bergeson) Chapter 54, Statutes of 1989—

- Sets a requirement that comprehensive land use plans be completed by June 1991.
- Establishes a method for compelling ALUCs to act on matters submitted for review.
- Allows ALUCs to charge fees for review of projects.
- Suspends any lawsuits that would stop development until the ALUC adopts its plan or until June 1, 1991.

1989 Senate Bill 235 (Alquist) Chapter 788, Statutes of 1989—Appropriates $3,672,000 for the payment of claims to counties seeking reimbursement of costs incurred during fiscal years 1985-86 through 1989-90 pursuant to state-mandated requirement (Chapter 1117, Statutes of 1984) for creation of ALUCs in most counties. This statute was repealed in 1993.

1990 Assembly Bill 4164 (Mountjoy) Chapter 1008, Statutes of 1990—Adds section 21674.5 requiring the Division of Aeronautics to develop and implement a training program for ALUC staffs.

1990 Assembly Bill 4265 (Clute) Chapter 563, Statutes of 1990—With the concurrence of the Division of Aeronautics, allows ALUCs to use an airport layout plan, rather than a long-range airport master plan, as the basis for preparation of a compatibility plan.

1990 Senate Bill 1288 (Beverly) Chapter 54, Statutes of 1990—Amends Section 21670.2 to give Los Angeles County additional time to prepare compatibility plans and meet other provisions of the ALUC statutes.

1991 Senate Bill 532 (Bergeson) Chapter 140, Statutes of 1991—

- Allows counties having half of their compatibility plans completed or under preparation by June 30, 1991, an additional year to complete the remainder.
- Allows ALUCs to continue to charge fees under these circumstances.
- Fees may be charged only until June 30, 1992, if plans are not completed by then.

1993 Senate Bill 443 (Committee on Budget and Fiscal Review) Chapter 59, Statutes of 1993—Amends Section 21670(b) to make the formation of ALUCs permissive rather than mandatory as of June 30, 1993. (Note: Section 21670.2 which assigns responsibility for coordinating the airport planning of public agencies in Los Angeles County is not affected by this amendment.)

1994 Assembly Bill 2831 (Mountjoy) Chapter 644, Statutes of 1994 —Reinstates the language in Section 21670(b) mandating establishment of ALUCs, but also provides for an alternative airport land use planning process. Lists specific actions which a county and affected cities must take in order for such alternative process to receive Caltrans approval. Requires that

ALUCs be guided by information in the Caltrans *Airport Land Use Planning Handbook* when formulating airport land use plans.

1994 Senate Bill 1453 (Rogers) Chapter 438, Statutes of 1994—Amends California Environmental Quality Act (CEQA) statutes as applied to preparation of environmental documents affecting projects in the vicinity of airports. Requires lead agencies to use the *Airport Land Use Planning Handbook* as a technical resource when assessing the airport-related noise and safety impacts of such projects.

1997 Assembly Bill 1130 (Oller) Chapter 81, Statutes of 1997—Added Section 21670.4 concerning airports whose planning boundary straddles a county line.

2000 Senate Bill 1350 (Rainey) Chapter 506, Statutes of 2000—Added Section 21670(f) clarifying that special districts are among the local agencies to which airport land use planning laws are intended to apply.

2001 Assembly Bill 93 (Wayne) Chapter 946, Statutes of 2001—Added Section 21670.3 regarding San Diego County Regional Airport Authority's responsibility for airport planning within San Diego County.

2002 Assembly Bill 3026 (Committee on Transportation) Chapter 438, Statutes of 2002—Changes the term "comprehensive land use plan" to "airport land use compatibility plan."

2002 Assembly Bill 2776 (Simitian) Chapter 496, Statutes of 2002—Requires information regarding the location of a property within an airport influence area be disclosed as part of certain real estate transactions effective January 1, 2004.

2002 Senate Bill 1468 (Knight) Chapter 971, Statutes of 2002—Changes ALUC preparation of airport land use compatibility plans for military airports from optional to required. Requires that the plans be consistent with the safety and noise standards in the Air Installation Compatible Use Zone for that airport. Requires that the general plan and any specific plans be consistent with these standards where there is military airport, but an airport land use commission does not exist.

2003 Assembly Bill 332 (Mullin) Chapter 351, Statutes of 2003—Clarifies that school districts and community college districts are subject to compatibility plans. Requires local public agencies to notify ALUC and Division of Aeronautics at least 45 days prior to deciding to overrule the ALUC.

2004 Senate Bill 1223 (Committee on Transportation) Chapter 615, Statutes of 2004—Technical revisions eliminating most remaining references to the term "comprehensive land use plan" and replacing it with "airport land use compatibility plan." Also replaces the terms "planning area" and "study area" with "airport influence area."

2005 Assembly Bill 1358 (Mullin) Chapter 29, Statutes of 2005—Requires a school district to notify the Department of Transportation before leasing property for a new school site. Also makes these provisions applicable to charter schools.

Federal Aviation Regulations Part 77

Objects Affecting Navigable Airspace

Amdt. 77-13, Effective January 18, 2011

Subpart A

GENERAL

77.1 Purpose.

This part establishes:

(a) The requirements to provide notice to the FAA of certain proposed construction, or the alteration of existing structures;

(b) The standards used to determine obstructions to air navigation, and navigational and communication facilities;

(c) The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and

(d) The process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

77.3 Definitions.

For the purpose of this part:

"Non-precision instrument runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

Planned or proposed airport is an airport that is the subject of at least one of the following documents received by the FAA:

(1) Airport proposals submitted under 14 CFR Part 157.

(2) Airport Improvement Program requests for aid.

(3) Notices of existing airports where prior notice of the airport construction or alteration was not provided as required by 14 CFR Part 157.

(4) Airport layout plans.

(5) DOD proposals for airports used only by the U.S. Armed Forces.

(6) DOD proposals on joint-use (civil-military) airports.

(7) Completed airport site selection feasibility study.

"Precision instrument runway" means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA-approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

"Public use airport" is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator.

"Seaplane base" is considered to be an airport only if its sea lanes are outlined by visual markers.

"Utility runway" means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

"Visual runway" means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

Subpart B
NOTICE REQUIREMENTS

77.5 Applicability.

(a) If you propose any construction or alteration described in §77.9, you must provide adequate notice to the FAA of that construction or alteration.

(b) If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in §77.9.

(c) Notice received by the FAA under this subpart is used to:

(1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;

(2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;

(3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460–1, Obstruction Marking and Lighting;

(4) Determine other appropriate measures to be applied for continued safety of air navigation; and

(5) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

77.7 Form and time of notice.

(a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

  (1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

  (2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

  (3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;

(2) A military airport under construction, or an airport under construction that will be available for public use;

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

77.11 Supplemental notice requirements.

(a) You must file supplemental notice with the FAA when:

(1) The construction or alteration is more than 200 feet in height AGL at its site; or

(2) Requested by the FAA.

(b) You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.

(c) If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.

(d) If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Subpart C
STANDARDS FOR DETERMINING OBSTRUCTIONS TO AIR NAVIGATION OR NAVIGATIONAL AIDS OR FACILITIES

77.13 Applicability.

This subpart describes the standards used for determining obstructions to air navigation, navigational aids, or navigational facilities. These standards apply to the following:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.

(b) The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

77.15 Scope.

(a) This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.

(b) Objects that are considered obstructions under the standards described in this subpart are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard. Once further aeronautical study has been initiated, the FAA will use the standards in this subpart, along with FAA policy and guidance material, to determine if the object is a hazard to air navigation.

(c) The FAA will apply these standards with reference to an existing airport facility, and airport proposals received by the FAA, or the appropriate military service, before it issues a final determination.

(d) For airports having defined runways with specially prepared hard surfaces, the primary surface for each runway extends 200 feet beyond each end of the runway. For airports having defined strips or pathways used regularly for aircraft takeoffs and landings, and designated runways, without specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for aircraft takeoffs and landings, a determination must be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those determined pathways must be considered runways, and an appropriate primary surface as defined in §77.19 will be considered as longitudinally centered on each such runway. Each end of that primary surface must coincide with the corresponding end of that runway.

(e) The standards in this subpart apply to construction or alteration proposals on an airport (including heliports and seaplane bases with marked lanes) if that airport is one of the following before the issuance of the final determination:

(1) Available for public use and is listed in the Airport/Facility Directory, Supplement Alaska, or Supplement Pacific of the U.S. Government Flight Information Publications; or

(2) A planned or proposed airport or an airport under construction of which the FAA has received actual notice, except DOD airports, where there is a clear indication the airport will be available for public use; or,

(3) An airport operated by a Federal agency or the DOD; or,

(4) An airport that has at least one FAA-approved instrument approach.

77.17 Obstruction standards.

(a) An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 499 feet AGL at the site of the object.

(2) A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service furnished by an airport traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) 15 feet for any other public roadway.

(3) 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) 23 feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

77.19 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end.

(a) Horizontal surface. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by Swinging arcs of a specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) Conical surface. A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) Primary surface. A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having non-precision instrument approaches.

(3) For other than utility runways, the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for non-precision instrument runways having visibility minimums greater than three-fourths statue mile.

(iii) 1,000 feet for a non-precision instrument runway having a non-precision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

(iv) The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface. A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is

applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a non-precision instrument approach;

(iv) 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater that three-fourths of a statute mile;

(v) 4,000 feet for that end of a non-precision instrument runway, other than utility, having a non-precision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all non-precision instrument runways other than utility; and

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) Transitional surface. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

77.21 Department of Defense (DoD) airport imaginary surfaces.

(a) Related to airport reference points. These surfaces apply to all military airports. For the purposes of this section, a military airport is any airport operated by the DOD.

(1) Inner horizontal surface. A plane that is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) Conical surface. A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) Outer horizontal surface. A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) Related to runways. These surfaces apply to all military airports.

(1) Primary surface. A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) Clear zone surface. A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) Approach clearance surface. An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) Transitional surfaces. These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

77.23 Heliport imaginary surfaces.

(a) Primary surface. The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) Approach surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) Transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subpart D
AERONAUTICAL STUDIES AND DETERMINATIONS

77.25 Applicability.

(a) This subpart applies to any aeronautical study of a proposed construction or alteration for which notice to the FAA is required under 77.9.

(b) The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation.

(c) The obstruction standards in subpart C of this part are supplemented by other manuals and directives used in determining the effect on the navigable airspace of a proposed construction or alteration. When the FAA needs additional information, it may circulate a study to interested parties for comment.

77.27 Initiation of studies.

The FAA will conduct an aeronautical study when:

(a) Requested by the sponsor of any proposed construction or alteration for which a notice is submitted; or

(b) The FAA determines a study is necessary.

77.29 Evaluating aeronautical effect.

(a) The FAA conducts an aeronautical study to determine the impact of a proposed structure, an existing structure that has not yet been studied by the FAA, or an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:

(1) The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules;

(2) The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules;

(3) The impact on existing and planned public use airports;

(4) Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;

(5) Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;

(6) The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;

(7) The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

(b) If you withdraw the proposed construction or alteration or revise it so that it is no longer identified as an obstruction, or if no further aeronautical study is necessary, the FAA may terminate the study.

77.31 Determinations.

(a) The FAA will issue a determination stating whether the proposed construction or alteration would be a hazard to air navigation, and will advise all known interested persons.

(b) The FAA will make determinations based on the aeronautical study findings and will identify the following:

(1) The effects on VFR/IFR aeronautical departure/arrival operations, air traffic procedures, minimum flight altitudes, and existing, planned, or proposed airports listed in §77.15(e) of which the FAA has received actual notice prior to issuance of a final determination.

(2) The extent of the physical and/or electromagnetic effect on the operation of existing or proposed air navigation facilities, communication aids, or surveillance systems.

(c) The FAA will issue a Determination of Hazard to Air Navigation when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard and would have a substantial aeronautical impact.

(d) A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but would not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include the following:

(1) Conditional provisions of a determination.

(2) Limitations necessary to minimize potential problems, such as the use of temporary construction equipment.

(3) Supplemental notice requirements, when required.

(4) Marking and lighting recommendations, as appropriate.

(e) The FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation.

77.33 Effective period of determinations.

(a) A determination issued under this subpart is effective 40 days after the date of issuance, unless a petition for discretionary review is received by the FAA within 30 days after issuance. The determination will not become final pending disposition of a petition for discretionary review.

(b) Unless extended, revised, or terminated, each Determination of No Hazard to Air Navigation issued under this subpart expires 18 months after the effective date of the determination, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(c) A Determination of Hazard to Air Navigation has no expiration date.

77.35 Extensions, terminations, revisions and corrections.

(a) You may petition the FAA official that issued the Determination of No Hazard to Air Navigation to revise or reconsider the determination based on new facts or to extend the effective period of the determination, provided that:

(1) Actual structural work of the proposed construction or alteration, such as the laying of a foundation, but not including excavation, has not been started; and

(2) The petition is submitted at least 15 days before the expiration date of the Determination of No Hazard to Air Navigation.

(b) A Determination of No Hazard to Air Navigation issued for those construction or alteration proposals not requiring an FCC construction permit may be extended by the FAA one time for a period not to exceed 18 months.

(c) A Determination of No Hazard to Air Navigation issued for a proposal requiring an FCC construction permit may be granted extensions for up to 18 months, provided that:

(1) You submit evidence that an application for a construction permit/license was filed with the FCC for the associated site within 6 months of issuance of the determination; and

(2) You submit evidence that additional time is warranted because of FCC requirements; and

(3) Where the FCC issues a construction permit, a final Determination of No Hazard to Air Navigation is effective until the date prescribed by the FCC for completion of the construction. If an extension of the original FCC completion date is needed, an extension of the FAA determination must be requested from the Obstruction Evaluation Service (OES).

(4) If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

Subpart E
PETITIONS FOR DISCRETIONARY REVIEW

77.37 General.

(a) If you are the sponsor, provided a substantive aeronautical comment on a proposal in an aeronautical study, or have a substantive aeronautical comment on the proposal but were not given an opportunity to state it, you may petition the FAA for a discretionary review of a determination, revision, or extension of a determination issued by the FAA.

(b) You may not file a petition for discretionary review for a Determination of No Hazard that is issued for a temporary structure, marking and lighting recommendation, or when a proposed structure or alteration does not exceed obstruction standards contained in subpart C of this part.

77.39 Contents of a petition.

(a) You must file a petition for discretionary review in writing and it must be received by the FAA within 30 days after the issuance of a determination under 77.31, or a revision or extension of the determination under 77.35.

(b) The petition must contain a full statement of the aeronautical basis on which the petition is made, and must include new information or facts not previously considered or presented during the aeronautical study, including valid aeronautical reasons why the determination, revisions, or extension made by the FAA should be reviewed.

(c) In the event that the last day of the 30-day filing period falls on a weekend or a day the Federal government is closed, the last day of the filing period is the next day that the government is open.

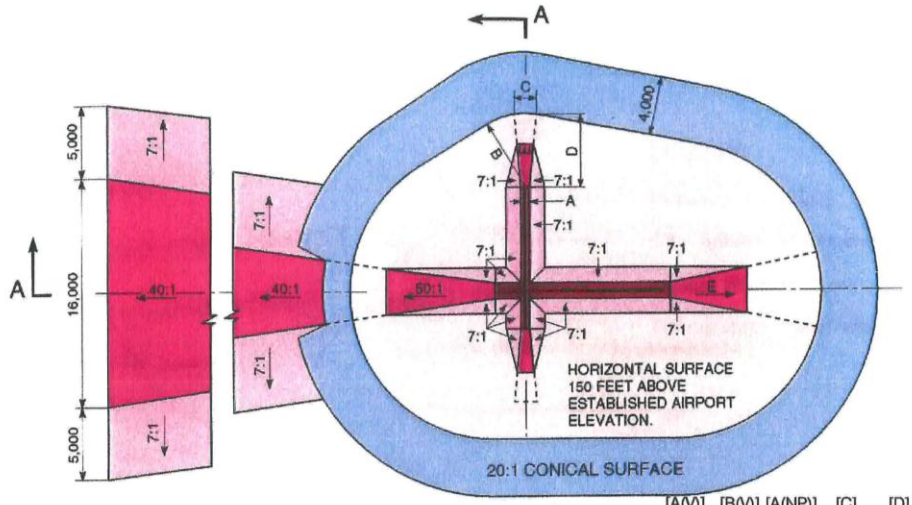
(d) The FAA will inform the petitioner or sponsor (if other than the petitioner) and the FCC (whenever an FCC-related proposal is involved) of the filing of the petition and that the determination is not final pending disposition of the petition.

77.41 Discretionary review results.

(a) If discretionary review is granted, the FAA will inform the petitioner and the sponsor (if other than the petitioner) of the issues to be studied and reviewed. The review may include a request for comments and a review of all records from the initial aeronautical study.

(b) If discretionary review is denied, the FAA will notify the petitioner and the sponsor (if other than the petitioner), and the FCC, whenever a FCC-related proposal is involved, of the basis for the denial along with a statement that the determination is final.

(c) After concluding the discretionary review process, the FAA will revise, affirm, or reverse the determination.

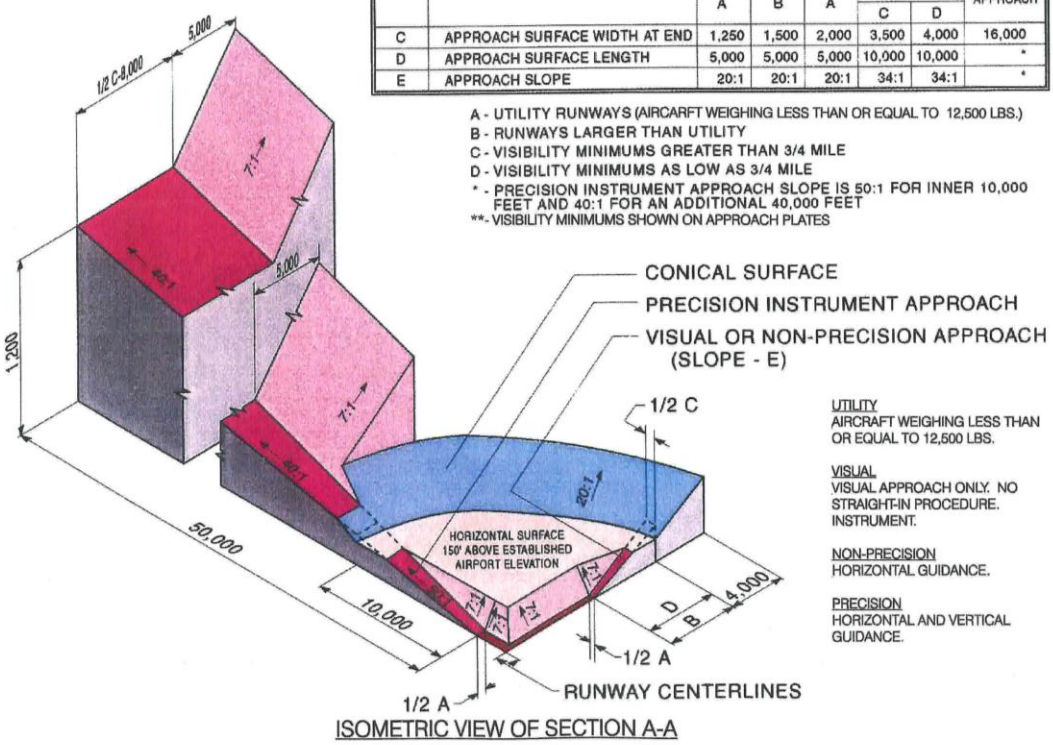


FAA CATEGORIES

VISUAL	[A(V)]
VISUAL	[B(V)]
NON-PRECISION	[A(NP)]
NON-PRECISION	[C]
NON-PRECISION	[D]
PRECISION	[PIR]

DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
					C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A - UTILITY RUNWAYS (AIRCARFT WEIGHING LESS THAN OR EQUAL TO 12,500 LBS.)
B - RUNWAYS LARGER THAN UTILITY
C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET
**- VISIBILITY MINIMUMS SHOWN ON APPROACH PLATES



ISOMETRIC VIEW OF SECTION A-A

Figure B-1

FAR Part 77 Imaginary Surfaces

A **Notice of Proposed Construction or Alteration** (Form 7460-1) must be filed with the Federal Aviation Administration (FAA) in accordance with subpart B.

Electronic (i.e., e-filing) is now available for both on airport and off airport proposed construction or alteration.

https://oeaaa.faa.gov/oeaaa/external/portal.jsp

A user name and password must be created to access the system.

Figure B-2

FAR Part 77 Filing Process

FAA Form 7460-1

Please Type or Print on This Form

Form Approved OMB No. 2120-0001

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY
Aeronautical Study Number
- - -

1. Sponsor *(person, company, etc. proposing this action) :*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

2. Sponsor's Representative *(if other than #1) :*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

3. Notice of: ☐ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☐ Temporary (months, days)

5. Work Schedule: Beginning _____ End _____

6. Type: ☐ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☐ Other _____

7. Marking/Painting and/or Lighting Preferred:
☐ Red Lights and Paint ☐ Dual - Red and Medium Intensity White
☐ White - Medium Intensity ☐ Dual - Red and High Intensity White
☐ White - High Intensity ☐ Other _____

8. FCC Antenna Structure Registration Number *(if applicable):*
_____

9. Latitude: ____° ____' ____. ____"

10. Longitude: ____° ____' ____. ____"

11. Datum: ☐ NAD 83 ☐ NAD 27 ☐ Other_____

12. Nearest: City: ____ State:_____

13. Nearest Public-use (not private-use) or Military Airport or Heliport:
_____

14. Distance from #13. to Structure: _____

15. Direction from #13. to Structure:_____

16. Site Elevation *(AMSL):* _____**ft.**

17. Total Structure Height *(AGL):* _____**ft.**

18. Overall height (#16. + #17.) *(AMSL):* _____**ft.**

19. Previous FAA Aeronautical Study Number (if applicable):
_____ -

20. Description of Location: (Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey.)

21. Complete Description of Proposal:

Frequency/Power (kW)	

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U.S.C., section 46301 (a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking and lighting standards as necessary.

Date	Typed or Printed name and Title of Person Filing Notice	Signature

FAA Form 7460-1 (2-99) Supersedes Previous Edition

NSN: 0052-00-012-0008

Figure B-3

FAR Part 77 Notification

FAA Form 7460-1

APPENDIX C

Airport Land Use Compatibility Concepts

INTRODUCTION

This appendix provides basic information regarding the concepts and rationale used to develop the compatibility policies and maps set forth in Chapter 2 of this *Nevada County Airport Land Use Compatibility Plan*. Some of the material is excerpted directly from the *California Airport Land Use Planning Handbook* published by the California Division of Aeronautics in January 2002. Other portions are based upon concepts that evolved from technical input obtained during review and discussion of preliminary drafts of key policies.

State law requires that airport land use commissions "be guided by" the information presented in the *Handbook*. Despite the statutory reference to it, though, the *Handbook* does not constitute formal state policy or regulation. Indeed, adjustment of the guidelines to fit the circumstances of individual airports is suggested by the *Handbook*. The *Handbook* guidance does not supersede or otherwise take precedence over the policies adopted by the Nevada County Transportation Commission (NCTC), acting in its capacity as the Airport Land Use Commission (ALUC) for Nevada County, in this *Compatibility Plan*. Furthermore, this appendix itself does not constitute ALUC policy. If the material herein conflicts in any manner with the actual policy language or maps, the policies and maps prevail.

As outlined in the *Handbook*, the noise and safety compatibility concerns of ALUCs fall into four categories. This *Compatibility Plan* refers to these categories as "layers:"

- *Noise:* As defined by cumulative noise exposure contours describing noise from aircraft operations near an airport.
- *Overflight:* The impacts of routine aircraft flight over a community.
- *Safety:* From the perspective of minimizing the risks of aircraft accidents beyond the runway environment.
- *Airspace Protection:* Accomplished by limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

The documentation in the remainder of this appendix is organized under these four categories. Under each of the four compatibility category headings, the discussion is organized around four topics:

- *Compatibility Objective:* The objective to be sought by establishment and implementation of the compatibility policies;
- *Measurement:* The scale on which attainment of the objectives can be measured;
- *Compatibility Strategies:* The types of strategies which, when formulated as compatibility policies, can be used to accomplish the objectives; and
- *Basis for Setting Criteria:* The factors which should be considered in setting the respective compatibility criteria.

NOISE

Noise is perhaps the most basic airport land use compatibility concern. Certainly, it is the most noticeable form of airport impact.

Compatibility Objective

The purpose of noise compatibility policies is to avoid establishment of new noise-sensitive land uses in the portions of an airport environs that are exposed to significant levels of aircraft noise, taking into account the characteristics of the airport and the community surrounding the airport.

Measurement

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for measurement of airport noise, is the Community Noise Equivalent Level (CNEL). Cumulative noise level metrics measure the noise levels of all aircraft operating at an airport on an average day (1/365) of the year. The calculations take into account not only the number of operations of each aircraft type and the noise levels they produce, but also their distribution geographically (the runways and flight tracks used) and by time of day. To reflect an assumed greater community sensitivity to nighttime and evening noise, the CNEL metric counts events during these periods as being louder than actually measured.

Cumulative noise level metrics provide a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed over the course of a day. Although the maximum noise levels produced by individual aircraft are a major component of the calculations, cumulative noise level metrics do not explicitly measure these peak values. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures—ones affected by high concentrations of aircraft takeoffs and landings.

For civilian airports, noise contours are typically calculated using the Federal Aviation Administration's Integrated Noise Model (INM) computer program. For military airports, the similar Department of Defense NOISEMAP model is used. Inputs to these models are of two basic types: standardized data regarding aircraft performance and noise levels generated (this data can be adjusted for a particular airport if necessary); and airport-specific data including aircraft types and number of operations, time of day of aircraft operations, runway usage distribution, and the location and usage of flight tracks. Airport elevation and surrounding topographic data can also be entered. For airports with airport traffic control towers, some of these inputs can be obtained from recorded data. Noise monitoring and radar flight tracking data available for airports in metropolitan areas are other sources of valuable information. At most airports, though, the individual input variables must be estimated.

Compatibility Strategies

The basic strategy for achieving noise compatibility in an airport's vicinity is to limit development of land uses that are particularly sensitive to noise. The most acceptable land uses are ones that either

involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses).

California state law regards any residential land uses as normally incompatible where the noise exposure exceeds 65 dB CNEL (although the state airport noise regulations explicitly apply only to identified "noise problem airports" in the context of providing the ability of these airports to operate under a noise variance from the State, the *Handbook* and other state guidelines extend this criterion to all airports as discussed below). This standard, however, is set with respect to high-activity airports, particularly major air carrier airports, in urban locations, where ambient noise levels are generally higher than in suburban and rural areas. As also discussed below and as provided in the *Handbook,* a lower threshold of incompatibility is often appropriate at certain airports, particularly around airports in suburban or rural locations where the ambient noise levels are lower than those found in more urban areas.

In places where the noise exposure is not so severe as to warrant exclusion of new residential development, the ideal strategy is to have very low densities—that is, parcels large enough that the dwelling can be placed in a less impacted part of the property. In urban areas, however, this strategy is seldom viable. The alternative for such locations is to encourage high-density, multi-family residential development with little, if any, outdoor areas, provided that the 65 dB CNEL standard and limitations based upon safety are not exceeded. Compared to single-family subdivisions, ambient noise levels are typically higher in multi-family developments, outdoor living space is less, and sound insulation features can be more easily added to the buildings. All of these factors tend to make aircraft noise less intrusive.

Sound insulation is an important requirement for residential and other noise-sensitive indoor uses in high noise areas. The California Building Code requires that sufficient acoustic insulation be provided in any habitable rooms of new hotels, motels, dormitories, dwellings other than detached single-family residences to assure that aircraft noise is reduced to an interior noise level of 45 dB CNEL or less. To demonstrate compliance with this standard, an acoustical analysis must be done for any residential structure proposed to be located where the annual CNEL exceeds 60 dB. This *Compatibility Plan* extends the 45 dB CNEL interior noise limit standard to single-family dwellings. The *Compatibility Plan* further requires dedication of an avigation easement (see later discussion in this appendix) as a condition for development approval in locations where these standards come into play.

Basis for Setting Criteria

Compatibility criteria related to cumulative noise levels are well-established in federal and state laws and regulations. The California Airport Noise Regulations (California Code of Regulations Section 5000 *et seq.*) states that:

> "The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a community noise equivalent level (CNEL) value of 65 dB for purposes of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep and community reaction."

No airport declared by a county's board of supervisors as having a "noise problem" is to operate in a manner that result in incompatible uses being located within the 65 dB CNEL contour. Incompatible uses are defined as being: residences of all types; public and private schools; hospitals and convalescent homes; and places of worship. However, these uses are not regarded as incompatible where acoustical insulation necessary to reduce the interior noise level to 45 dB CNEL has been installed or the airport proprietor has acquired an avigation easement for aircraft noise.

As noted in the regulations, the 65 dB CNEL standard is set with respect to urban areas. For many airports and many communities, 65 dB CNEL is too high to be considered acceptable to "reasonable persons." Through a process called "normalization," adjustments can be made to take into account such factors as the background noise levels of the community and previous exposure to particular noise sources. This process suggests, for example, that 60 dB CNEL may be a more suitable criterion for suburban communities not exposed to significant industrial noise and 55 dB CNEL may be appropriate for quiet suburban or rural communities remote from industrial noise and truck traffic. On the other hand, even though exceeding state standards, 70 dB CNEL may be regarded as an acceptable noise exposure in noisy urban residential communities near industrial areas and busy roads.

Industrial activity and transportation noise are undoubtedly two of the most prominent contributors to background noise levels in a community. According to a U.S. Environmental Protection Agency (EPA) study however, the variable that correlates best with ambient noise levels across a broad range of communities is population density (*Population Distribution of the United States as a Function of Outdoor Noise Level*, EPA Report No. 550/9-74-009, June 1974). This study established the following formula as a means of estimating the typical background noise level of a community:

$$DNL_{EPA} = 22 + 10 * \log(p)$$

where "p" is the population density measured in people per square statute mile.

These factors are reflected in the policies of this *Compatibility Plan*. The ALUC considers 60 dB CNEL to be the maximum normally acceptable noise exposure for new residential development near Nevada County Airport. Based upon the above EPA equation, these criteria are a minimum of 5 dB above the predicted ambient noise levels in the respective communities.

Similar considerations come into play with respect to establishing maximum acceptable noise exposure for nonresidential land uses, particularly those that are noise sensitive. For schools, lodging, and other such uses, a higher noise exposure may be tolerated in noisy urban communities than in quieter suburban and rural areas. For uses that are not noise sensitive or which generate their own noise, the maximum acceptable noise exposure levels tend to be the same regardless of ambient noise conditions. The criteria listed in Chapter 2 of this *Compatibility Plan* are set with these various factors in mind.

OVERFLIGHT

Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contours. Many people are sensitive to the frequent presence of aircraft overhead even at low levels of noise. These reactions can mostly be expressed in the form of *annoyance*.

The *Handbook* notes that at many airports, particularly air carrier airports, complaints often come from locations beyond any of the defined noise contours. Indeed, heavily used flight corridors to and from metropolitan areas are known to generate noise complaints 50 miles or more from the associated airport. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive—or, in some circumstances, even distinctly audible—above the quiet, natural background noise level. Elsewhere, especially in locations beneath the traffic patterns of general aviation airports, a fear factor also contributes to some individuals' sensitivity to aircraft overflights.

While these impacts may be important community concerns, the question of importance here is whether any land use planning actions can be taken to avoid or mitigate the impacts or otherwise address the

concerns. Commonly, when overflight impacts are under discussion in a community, the focus is on modification of the flight routes. Indeed, some might argue that overflight impacts should be addressed solely through the aviation side of the equation—not only flight route changes, but other modifications to where, when, and how aircraft are operated. Such changes are not always possible because of terrain, aircraft performance capabilities, FAA regulations, and other factors. In any case, though, ALUCs are particularly limited in their ability to deal with overflight concerns. Most significantly, they have no authority over aircraft operations. The most they can do to bring about changes is to make requests or recommendations. Even with regard to land use, the authority of ALUCs extends only to proposed new development and the delineation of an airport's overall influence area. The authority and responsibility for implementing the *Compatibility Plan*'s policies and criteria rests with the local governments.

These limitations notwithstanding, there are steps which ALUCs can and should take to help minimize overflight impacts.

Compatibility Objective

In an idealistic sense, the compatibility objective with respect to overflight is the same as for noise: avoid new land use development that can disrupt activities and lead to annoyance and complaints. However, given the extensive geographic area over which the impacts occur, this objective is unrealistic except relatively close to the airport. A more realistic objective of overflight compatibility policies therefore is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas.

Measurement

Cumulative noise metrics such as CNEL are well-suited for use in establishing land use compatibility policy criteria and are the only noise metrics for which widely accepted standards have been adopted. However, these metrics are not very helpful in determining the extent of overflight impact areas. Locations where overflight concerns may be significant are typically well beyond where noise contours can be drawn with precision. Flight tracks tend to be quite divergent and noise monitoring data is seldom available. Moreover, even if the contours could be drawn precisely, the noise levels they would indicate may not be much above the ambient noise levels.

For the purposes of airport land use compatibility planning, two other forms of noise exposure information are more useful. One measure is the momentary, maximum sound level (L_{max}) experienced on the ground as the aircraft flies over while landing at and taking off from a runway. These noise levels can be depicted in the form of a noise "footprint" as shown in Figure C1 for a variety of airline and general aviation aircraft. Each of these footprints is broadly representative of those produced by other aircraft similar to the ones shown. The actual sound level produced by any single aircraft takeoff or landing will vary not only among specific makes and models of aircraft, but also from one operation to another of identical aircraft.

In examining the footprints, two additional points are important to note. One is the importance of the outermost contour. This noise level (65 dBA L_{max}) is the level at which interference with speech begins to be significant. Land uses anywhere within the noise footprint of a given aircraft would experience a noise level, even if only briefly, that could be disruptive to outdoor conversation. Indoors, with windows closed, the aircraft noise level would have to be at least 20 dBA louder to present similar impacts. A second point to note concerns the differences among various aircraft, particularly business jets. As

the data shows, business jets manufactured in the 1990s are much quieter than those of 10 and 20 years earlier. The impacts of the 1990s era jets are similar to those of twin-engine piston aircraft and jets being made in the 2000s are quieter yet. At many general aviation airports, the size of the CNEL contours is driven by a relatively small number of operations by the older, noisier business jets. These aircraft are gradually disappearing from the nationwide aircraft fleet and will likely be mostly gone within 20 years, but at this point in time it is uncertain when they will be completely eliminated.

Another useful form of overflight information is a mapping of the common flight tracks used by aircraft when approaching and departing an airport. Where available, recorded radar data is an ideal source for flight track mapping. Even more revealing is to refine the simple flight track mapping with data such as the frequency of use and/or aircraft altitudes. Chapter 3 includes a map showing a sampling of actual flight tracks and flight altitudes of aircraft using Nevada County Airport.

Compatibility Strategies

As noted above, the ideal land use compatibility strategy with respect to overflight annoyance is to avoid development of new residential and other noise-sensitive uses in the affected locations. To the extent that this approach is not practical, other strategies need to be explored.

The strategy emphasized in this *Compatibility Plan* is to help people with above-average sensitivity to aircraft overflights—people who are highly *annoyed* by overflights—to avoid living in locations where frequent overflights occur. This strategy involves making people more aware of an airport's proximity and its current and potential aircraft noise impacts on the community before they move to the area. This can be accomplished through buyer awareness measures such as dedication of avigation or overflight easements, recorded deed notices, and/or real estate disclosure statements. In new residential developments, posting of signs in the real estate sales office and/or at key locations in the subdivision itself can be further means of alerting the initial purchasers about the impacts (signs, however, generally do not remain in place beyond the initial sales period and therefore are of little long-term value).

A second strategy is to minimize annoyance in by promoting types of land uses that tend to mask or reduce the intrusiveness of aircraft noise. Although this strategy does not directly appear in the overflight policies of this *Compatibility Plan*, the objectives of the plan would be well-served if local jurisdictions take this concept into consideration in their own planning efforts. To the extent that residential land uses must be located in aircraft overflight areas, multi-family residences—because they tend to have comparatively little outdoor living areas, fewer external walls through which aircraft noise can intrude, and relatively high noise levels of their own—are preferable to single-family dwellings. Particularly undesirable are "ranchette" style residential areas consisting of large (about an acre on average) lots. Such developments are dense enough to expose many people to overflight noise, yet sufficiently rural in character that background noise levels are likely to be low.

Basis for Setting Criteria

In California, the most definitive guidance on where overflight impacts are significant or what actions should be taken in response comes from a state law that took effect in January 2004. California statutes (Business and Profession Code Section 11010 and Civil Code Sections 1103 and 1353) now require most residential real estate transactions, including all involving new subdivisions, to include disclosure that an airport is nearby. The area encompassed by the disclosure requirements is two miles from the airport or the airport influence area established by the county's airport land use commission. The law defines the airport influence area as "the area in which current or future airport-related noise, over-

flight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission." This *Compatibility Plan* requires that the disclosure of airport proximity be applied to all new development within both the primary and secondary airport influence areas and recommends that disclosure be provided as part of all real estate transactions involving private property, especially any sale, lease, or rental of residential property.

SAFETY

Compared to noise, safety is in many respects a more difficult concern to address in airport land use compatibility policies. A major reason for this difference is that safety policies address uncertain events that *may occur* with *occasional* aircraft operations, whereas noise policies deal with known, more or less predictable events which *do occur* with *every* aircraft operation. Because aircraft accidents happen infrequently and the time, place, and consequences of an individual accident's occurrence cannot be predicted, the concept of *risk* is central to the assessment of safety compatibility.

Compatibility Objective

The overall objective of safety compatibility criteria is to minimize the risks associated with potential off-airport aircraft accidents and emergency landings beyond the runway environment. There are two components to this objective:

- *Safety on the Ground:* The most fundamental safety compatibility component is to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.
- *Safety for Aircraft Occupants:* The other important component is to enhance the chances of survival of the occupants of an aircraft involved in an accident that takes place beyond the immediate runway environment.

Measurement

Because aircraft accidents happen infrequently, measuring the risks associated with their occurrence is difficult. It is necessary to look beyond an individual airport in order to assemble enough data to be statistically valid. It is beyond the intent of this discussion to provide statistical data about aircraft accidents. Much can be found on that topic in the *Handbook*. However, certain aspects of aircraft accidents are necessary to discuss in that they have a direct bearing on land use compatibility strategies.

From the standpoint of land use planning, two variables determine the degree of risk posed by potential aircraft accidents: frequency and consequences.

The frequency variable measures *where* and *when* aircraft accidents occur in the vicinity of an airport. More specifically, these two elements can be described as follows:

- *Spatial Element:* The spatial element describes *where* aircraft accidents can be expected to occur. Of all the accidents that take place in the vicinity of airports, what percentage occurs in any given location?
- *Time Element:* The time element adds a *when* variable to the assessment of accident frequency. In any given location around a particular airport, what is the chance that an accident will occur in a specified period of time?

Spatial Distribution of Aircraft Accidents

Of these two elements, the spatial element is the one most meaningfully applied to land use compatibility planning around an individual airport. Looking at airports nationwide, enough accidents have occurred to provide useful data regarding where they mostly occur in the environs of airports. As described below, the *Handbook* uses this data to define a set of safety zones. Additionally, the relative concentration of accidents in certain parts of the airport environs is a key consideration in the establishment of compatibility criteria applicable within those zones.

In contrast, the time element is not very useful for land use compatibility planning purposes for several reasons. First, at any given airport, the number of accidents is, with rare exceptions, too few to be statistically meaningful in determining where future accidents might occur. Secondly, a calculation of accident frequency over time depends upon the size of the area under consideration—the smaller the area examined, the less likely it is that an accident will occur in that spot. Lastly, even if the accident frequency over a period of time is calculated, there are no clear baselines with which to compare the results—is once per 100 or 1,000 years significant or not?

The *Handbook* presents a set of diagrams indicating where accidents are most likely to occur around airline and general aviation airports. Figures C2 and C3 show the spatial distribution of general aviation aircraft accidents in the vicinity of airports. (Note that these charts show data for all general aviation accidents in the *Handbook* database. Data on accidents associated with different lengths of runway is also provided, though, and is considered in delineation of the safety zones depicted in Chapter 2 of this *Compatibility Plan*.)

The charts reveal several facts:

- About half of arrival accidents and a third of departure accidents take place within the FAA-defined runway protection zone for a runway with a low-visibility instrument approach procedure (a 2,500-foot long trapezoid, varying from 1,000 feet wide at the inner edge to 1,750 feet in width at the outer end). This fact lends validity to the importance of the runway protection zones as an area within which land use activities should be minimal.
- Although the runway protection zones represent the locations within which risk levels are highest, a significant degree of risk exists well beyond the runway protection zone boundaries. Among all near-airport (within 5 miles) accidents, over 80% are concentrated within 1.5 to 2.0 miles of a runway end.
- Arrival accidents tend to be concentrated relatively close to the extended runway centerline. Some 80% occur within a strip extending 10,000 feet from the runway landing threshold and 2,000 feet to each side of the runway centerline.
- Departure accidents are comparatively more dispersed laterally from the runway centerline, but are concentrated closer to the runway end. Many departure accidents also occur lateral to the runway itself, particularly when the runway is long. Approximately 80% of the departure accident sites lie within an area 2,500 from the runway centerline and 6,000 feet beyond the runway end or adjacent to the runway.

To provide some sense of order to the scatter of individual accident points, an analysis presented in the *Handbook* involves aggregating the accident location points (the scatter diagrams of where accidents have occurred relative to the runway) in a manner that better identifies where the accident sites are most concentrated. The results are presented as risk intensity contours—Figure C2 shows arrival acci-

dent risks and Figure C3 portrays departure accident risks. The two drawings divide the near-airport accident location points into five groups of 20% each (note that only accident sites that were not on a runway, but were within 5 miles of an airport are included in the database). The 20% contour represents the highest or most concentrated risk intensity, the 40% contour represents the next highest risk intensity, and so on up to 80%. The final 20% of the accident sites are beyond the 80% contour. Each contour is drawn so as to encompass 20% of the points within the most compact area. The contours are irregular in shape. No attempt has been made to create geometric shapes. However, the risk contours can serve as the basis for creating geometric shapes that can then be used as safety zones. The *Handbook* contains several examples. The Department of Defense, through its *Air Installation Compatible Use Zones (AICUZ)* program, has followed a similar process to establish safety zone guidelines for military airports.

The *Handbook* takes the additional step of translating the risk contours into several sets of generic safety zones having regular geometric shapes. Generic safety zones are illustrated for different types and lengths of runways. The shapes of these zones reflect not just the accident distribution data, but also the ways in which different phases of aircraft operations create different accident risk characteristics near an airport. For most runways, the *Handbook* suggests creation of six zones. The locations, typical dimensions, and characteristics of the accident risks within each zone are outlined in Table C1. In more general terms, the relative degree of the risk exposure in each zone can be described as listed below.

- *Zone 1* clearly is exposed to the greatest risk of aircraft accidents. For civilian airports, the dimensions of this zone are established by FAA standards. The FAA encourages airport ownership of this zone and provides specific land use standards to the extent that land is airport owned. Where the land is not airport owned, the FAA says these standards serve as recommendations. Zone 1 at military airports matches the clear zones defined by the Department of Defense.
- *Zone 2* lies beyond Zone 1 and also has a significant degree of risk as reflected in both national and local accident location data. At military airports, this zone is equivalent to Accident Potential Zone I.
- *Zone 3* has less risk than Zone 2, but more than Zones 4, 5, or 6. Zone 3 encompasses locations where aircraft often turn at low altitude while approaching or departing the runway.
- *Zone 4* lies along the extended runway centerline beyond Zone 2 and is especially significant at airports that have straight-in instrument approach procedures or a high volume of operations that result in an extended traffic pattern. This zone is equivalent to Accident Potential Zone II at military airports.
- *Zone 5* is a unique area lying adjacent to the runway and, for most airports, lies on airport property. The risk is comparable to Zone 4.
- *Zone 6* contains the aircraft traffic pattern. Although a high percentage of accidents occur within Zone 6, for any given runway Zone 6 is larger than all the other zones combined. Relative to the other zones, the risks in Zone 6 are much less, but are still greater than in locations more distant from the airport.

Although accident location data, together with information on how aircraft flight parameters affect where accidents occur, are the bases for delineation of the generic safety zones, the *Handbook* indicates that adjustments to the zone sizes and shapes must be made in recognition of airport-specific characteristics. Among these characteristics are:

- The particular mix of aircraft types operating at the airport. Larger aircraft generally are faster than smaller planes and thus fly longer and wider traffic patterns or make straight-in approaches.
- The overall volume of aircraft operations. At busy airports, a larger traffic pattern is common because aircraft have to get in sequence for landing.
- Nearby terrain or other airports. These physical features may, for example, limit a traffic pattern to a single side of the airport or dictate "nonstandard" approach and departure routes.
- Instrument approach procedures. Aircraft following these procedures typically fly long, straight-in, gradual descents to the runway. In some cases, though, an approach route may be aligned at an angle to the runway rather than straight in.
- Existence of an air traffic control tower. When a tower is present, controllers may direct or allow pilots to fly unusual routes in order to expedite traffic flow. By comparison, at relatively busy but non-towered airports, aircraft mostly follow the "standard" pattern dictated by federal aviation regulations.
- A dominant direction of traffic flow. As reflected in the *Handbook* analysis of accident locations, landing aircraft tend to follow routes directly in line with the runway during final descent and thus accident sites also are concentrated along this alignment. Departing aircraft are more likely to turn to head to their intended destination and the accident pattern is thus more dispersed. On runways where the flow of aircraft operations is almost always in one direction, this distinction in accident patterns is considered.

Radar data is particularly helpful in showing exactly where aircraft fly when approaching or departing an airport. This data can be used to further support adjustments to the safety zones based upon the above characteristics. Radar data, though, is not available for many of outlying airports. In these instances, information on normal traffic pattern locations can be obtained through contact with local flight instructors and others highly familiar with a particular airport.

Accident Consequences

The consequences variable describes *what* happens when an aircraft accident occurs. Specific measures can be defined in terms of deaths, injuries, property damage, or other such characteristics. In many respects, the consequences component of aircraft accident risk assessment is a more important variable than accident frequency. Not only can a single accident cost many lives, it can indirectly force operational changes or even airport closure.

Relatively little data is available specifically documenting the consequences of aircraft accidents. Except with regard to numbers of deaths or injuries to people on the ground, data on various aspects of aircraft accidents must be used to infer what the consequences have been. Swath size is one useful piece of information. It indicates the area over which accident debris is spread. Swath size in turn depends upon the type of aircraft and the nature of the accident: was the aircraft in controlled flight (an engine failure for example), but then collided with something on the ground or did a catastrophic event (such as a mid-air collision or stall-spin) result in the aircraft making an uncontrolled descent? For small general aviation aircraft, the swath size data suggests that a controlled emergency landing in which the aircraft occupants have a strong chance of surviving is possible in an area about the size of a football field: 75 feet by 300 feet or about 0.5 acre. For larger aircraft, the minimum flight speed is so much higher that the consequences for people on board and anyone on the ground are likely to be high regardless of the land use or terrain characteristics.

Compatibility Strategies

The relatively low numbers of deaths and injuries from aircraft accidents is sometimes cited as indicating that the risks are low. Clearly, though, the more people occupying the critical areas around airports, the greater the risks are. Aircraft accidents may be rare occurrences, but when they occur, the consequences can be severe.

From a land use compatibility perspective, it is therefore essential to avoid conditions that can lead to catastrophic results. Basically, the question is: what land use planning measures can be taken to reduce the severity of an aircraft accident if one occurs in a particular location near an airport? Although there is a significant overlap, specific strategies must consider both components of the safety compatibility objective: protecting people and property on the ground; and, primarily for general aviation airports, enhancing safety for aircraft occupants. In each case, the primary strategy is to limit the intensity of use (the number of people concentrated on the site) in locations most susceptible to an off-airport aircraft accident. This is accomplished by three types of criteria.

Density and Intensity Limitations

Establishment of criteria limiting the maximum number of dwellings or people in areas close to the airport is the most direct method of reducing the potential severity of an aircraft accident. In setting these criteria, consideration must be given to the two different forms of aircraft accidents: those in which the aircraft is descending, but is flying and under directional control of the pilot; and those in which the aircraft is out of control as it falls. Additionally, these data do not include the incidents in which the pilot made a successful emergency landing—the latter generally are categorized as "incidents" rather than as accidents and do not appear in the National Transportation Safety Board data from which the database in the *Handbook* is drawn.

Limits on usage intensity—the number of people per acre—must take into account both types of potential aircraft accidents. To the extent that accidents and incidents are of the controlled variety, then allowing high concentrations of people in a small area would be sensible, as long as intervening areas are little populated. However, concentrated populations present a greater risk for severe consequences in the event of an uncontrolled accident at that location. The policies in Chapter 2 address both of these circumstances. Limiting the average usage intensity over a site reduces the risks associated with either type of accident. In most types of land use development, though, people are not spread equally throughout the site. To minimize the risks from an uncontrolled accident, the policies also limit the extent to which people can be concentrated and development can be clustered in any small area.

Open Land Requirements

Creation of requirements for open land near an airport addresses the objective of enhancing safety for the occupants of an aircraft forced to make an emergency landing away from a runway. If sufficiently large and clear of obstacles, open land areas can be valuable for light aircraft anywhere near an airport. For large and high-performance aircraft, however, open land has little value for emergency landing purposes and is useful primarily where it is an extension of the clear areas immediately adjoining a runway.

Highly Risk-Sensitive Uses

Certain critical types of land uses—particularly schools, hospitals, and other uses in which the mobility of occupants is effectively limited—should be avoided near the ends of runways regardless of the number of people involved. Critical community infrastructure also should be avoided near airports. These

types of facilities include power plants, electrical substations, public communications facilities and other facilities, the damage or destruction of which could cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Lastly, aboveground storage of large quantities of highly flammable or hazardous materials may pose high risks if involved in an aircraft accident and therefore are generally incompatible close to runway ends.

Basis for Setting Criteria

As with noise contours, risk data by itself does not answer the question of what degree of land use restrictions should be established in response to the risks. Although most ALUCs have policies that restrict certain land use activities in locations beyond the runway protection zones, the size of the area in which restrictions are established and the specific restrictions applied vary from one county to another.

Data useful in defining the geographic extent of airport safety areas was discussed above. To set safety compatibility criteria applicable within these zones presents the fundamental question of what is safe. Expressed in another way: what is an *acceptable risk*? In one respect, it may seem ideal to reduce risks to a minimum by prohibiting most types of land use development from areas near airports. However, as addressed in the *Handbook*, there are usually costs associated with such high degrees of restrictiveness. In practice, safety criteria are set on a progressive scale with the greatest restrictions established in locations with the greatest potential for aircraft accidents.

Little established guidance is available to ALUCs regarding how restrictive to make safety criteria for various parts of an airport's environs. Unlike the case with noise, there are no formal federal or state laws or regulations which set safety criteria for airport area land uses for civilian airports except within *runway protection zones* (and with regard to airspace obstructions as described separately in the next section). Federal Aviation Administration safety criteria primarily are focused on the runway and its immediate environment. Runway protection zones—then called *clear zones*—were originally established mostly for the purpose of protecting the occupants of aircraft which overrun or land short of a runway. Now, they are defined by the FAA as intended to enhance the protection of people and property on the ground.

The most useful place from which ALUCs can begin to determine appropriate safety compatibility criteria for airport environs is the *Handbook* itself. Although not regulatory in nature, state law obligates ALUCs to "be guided by" the information presented in the *Handbook*. Suggested usage intensity limitations, measured in terms of people per acre, are set forth along with other safety criteria. Reference should be made to that document for detailed description of the suggested criteria. Three risk-related variables discussed in the *Handbook* are worth noting here, however.

- *Runway Proximity:* In general, the areas of highest risk are closest to the runway ends and secondarily along the extended runway centerline. However, many common aircraft flight tracks do not follow along the runway alignment, particularly on departures. Also, where an aircraft crashes may not be along the flight path that was intended to be followed. As indicated in Figures C2 and C3, these factors affect the risk distribution.

- *Urban versus Rural Areas:* Irrespective of airports, people living in urban areas face different types of risks than those living in rural areas. The cost of avoiding risks differs between these two settings as well. The *Handbook* acknowledges these differences by indicating that usage intensities can be higher in heavily developed urban areas compared to partially undeveloped suburban areas or minimally developed rural locations, yet be equivalent in terms of the level of acceptable risk.

- *Existing versus Proposed Uses:* Another distinction in compatibility policies can be drawn between existing and proposed development. It is reasonable for safety-related policies to be established which prohibit certain types of new development while considering identical existing development to be acceptable. The *Handbook* notes that cost is an important factor in this regard. The range of risks can be divided into three levels (see page 9-15 of the *Handbook*). At the bottom of this scale are negligible and acceptable risks for which no action is necessary. At the top are intolerable risks for which action is necessary regardless of the cost. In between are risks that are significant, but tolerable. Whether action should be taken to reduce these risks depends upon the costs involved. Typically, the cost of removing an incompatible development is greater than the cost of avoiding its construction in the first place.

Preparation of this *Compatibility Plan* has been greatly guided by the *Handbook* information. The *Handbook*, though, also recognizes the importance of tailoring compatibility plans to local circumstances. Such has been the case with the safety compatibility criteria included in this *Compatibility Plan*.

AIRSPACE PROTECTION

Relatively few aircraft accidents are caused by land use conditions that are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. In addition, and importantly, land use conditions that are hazards to flight may impact the continued viability of airport operations and limit the ability of an airport to operate in the manner identified by the airport proprietor in an adopted airport master plan and airport layout plan.

Compatibility Objective

Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions that, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics that pose other potential hazards to flight by creating visual or electronic interference with air navigation.

The purpose of the airspace protection policies is to ensure that structures and other uses do not cause hazards to aircraft in flight in the airport vicinity. Hazards to flight include physical obstructions to the navigable airspace, wildlife hazards, particularly bird strikes and land use characteristics that create visual or electronic interference with aircraft navigation or communication. This purpose is accomplished by policies that place limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

Measurement

The measurement of requirements for airspace protection around an airport is a function of several variables including: the dimensions and layout of the runway system; the type of operating procedures established for the airport; and, indirectly, the performance capabilities of aircraft operated at the airport.

- *Airspace Obstructions:* Whether a particular object constitutes an airspace obstruction depends upon two factors: the height of the object relative to the runway elevation; and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an "obstruction" and may affect the aeronautical use of the airspace. Additionally, as described below, another set of airspace protection surfaces is defined by the *U.S. Standard for Terminal Instrument Procedures*, known as TERPS. Although the intended function of these standards is in design of instrument approach and departure procedures, they can be important in land use compatibility planning in situations where ground elevations near an airport exceed the FAR Part 77 criteria.
- *Wildlife and Other Hazards to Flight:* The significance of other potential hazards to flight is principally measured in terms of the hazards' specific characteristics and their distance from the airport and/or its normal traffic patterns.

Compatibility Strategies

Compatibility strategies for the protection of airport airspace are relatively simple and are directly associated with the individual types of hazards:

- *Airspace Obstructions:* Buildings, antennas, other types of structures, and trees should be limited in height so as not to pose a potential hazard to flight.
- *Wildlife and Other Hazards to Flight:* Land uses that may create other types of hazards to flight near an airport should be avoided or modified so as not to include the offending characteristic.

Basis for Setting Criteria

The criteria for determining airspace obstructions have been long-established in FAR Part 77. Also, state of California regulation of obstructions under the State Aeronautics Act (Public Utilities Code, Section 21659) is based on FAR Part 77 criteria. A shortcoming of FAR Part 77 criteria, however, is that they often are too generic to fit the conditions specific to individual airports. The airspace protection surfaces defined in these regulations can be either more or less restrictive than appropriate for a particular airport. The surfaces can be less restrictive than essential in instances where an instrument approach procedure or its missed approach segment are not aligned with the runway. FAR Part 77 also does not take into account instrument departure procedures which, at some airports, can have critical airspace requirements. Oppositely, FAR Part 77 provides no useful guidance as to acceptable heights of objects located where the ground level already penetrates the airspace surfaces.

To define airspace protection surfaces better suited to these situations, reference must be made the TERPS standards mentioned above. These standards are used for creation of instrument approach and departure procedures. Thus they exactly match the procedures in effect at an individual airport. Unlike the FAR Part 77 surfaces, the elevations of which are set relative to the runway end elevations irrespective of surrounding terrain and obstacles, the TERPS surface elevations are directly determined by the location and elevation of critical obstacles. By design, neither the ground nor any obstacles can penetrate a TERPS surface. However, construction of a tall object that penetrates a TERPS surface can dictate immediate modifications to the location and elevation of the surfaces and directly cause minimum flight visibility and altitudes to be raised or the instrument course to be realigned. In severe instances,

obstructions can force a procedure to be cancelled altogether. A significant downside to use of TERPS surfaces for compatibility planning purposes is that they are highly complex compared to the relative simplicity of FAR Part 77 surfaces. Also, the configuration and/or elevations of TERPS surfaces can change not only in response to new obstacles, but as implementation of new navigational technologies permits additional or modified instrument procedures to be established at an airport.

In the Compatibility Policy Map: Airspace Protection presented in Chapter 2 of this *Compatibility Plan*, primary reliance is placed upon FAR Part 77 criteria. Where an instrument approach procedure is established, the associated TERPS surfaces are depicted as well. In most locations, the TERPS surfaces are well above the underlying terrain and present no significant constraint on land use development. As a precaution to help ensure that tall towers or antennas located on high terrain do not penetrate a TERPS surface, places where the ground elevation comes within 100 feet of a TERPS surface are shown on the map.

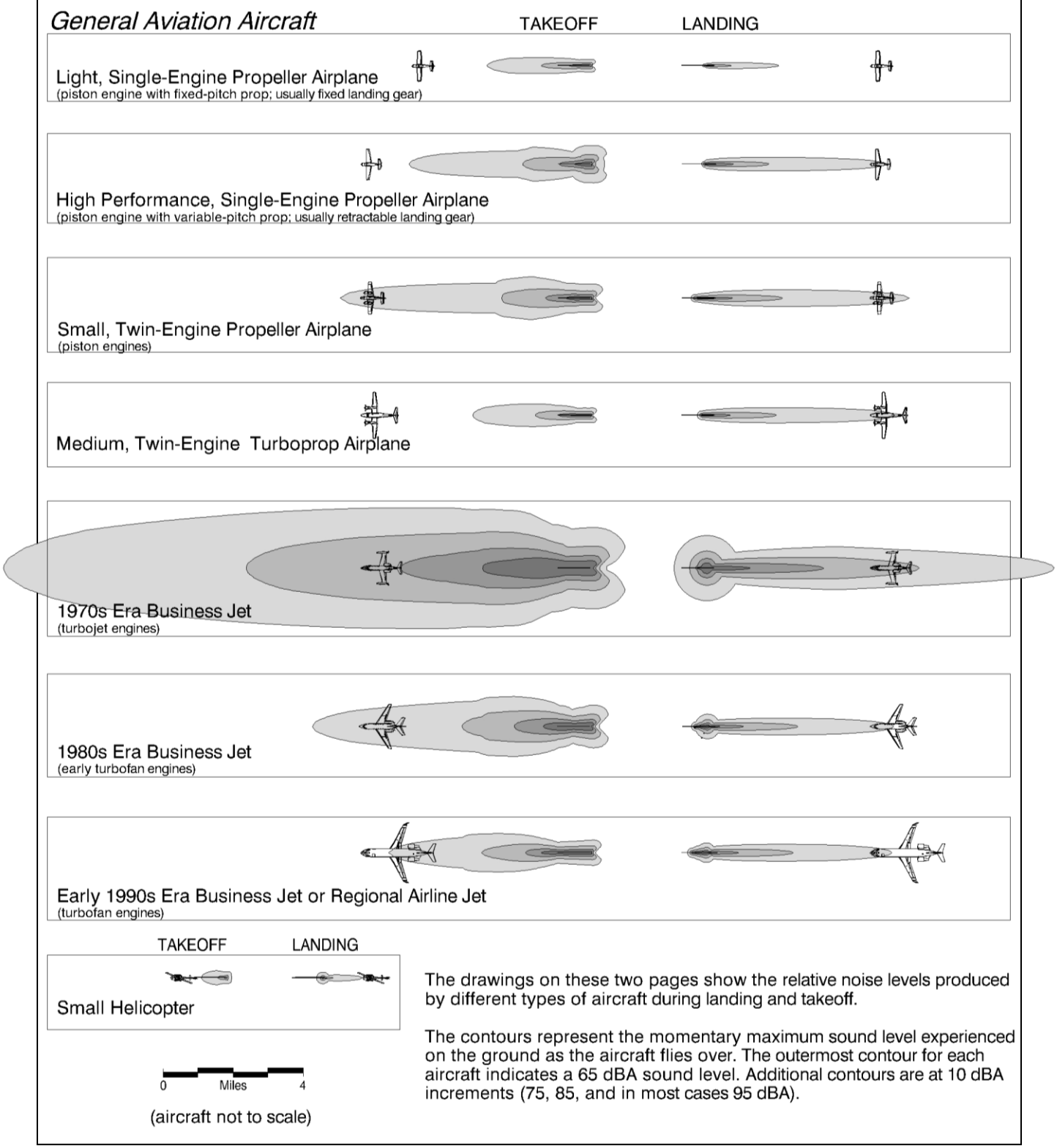
Among other hazards to flight, bird strikes no doubt represent the most widespread concern. The FAA recommends that uses known to attract birds—sanitary landfills being a primary example—be kept at least 10,000 feet away from any runway used by turbine-powered aircraft. More information regarding criteria for avoidance of uses that can attract wildlife to airports can be found in FAA Advisory Circulars 150/5200-34 and 150/5300-33.

Other flight hazards include land uses that may cause visual or electronic hazards to aircraft in flight or taking off or landing at the airport. Specific characteristics to be avoided include sources of glare or bright lights, distracting lights that could be mistaken for airport lights, sources of dust, steam, or smoke that may impair pilot visibility, and sources of electrical interference with aircraft communications or navigation.

Zone	***Description***	***Nominal Dimensions*** (California Airport Land Use Planning Handbook)	***Relative Risk Level***	***Nature of Accident Risk***	***% of Accidents in Zone*** (Handbook Database)
1	Runway Protection Zone and within Runway Primary Surface primarily on airport property; airport ownership encouraged	Depending upon approach visibility minimums: 1,200 feet minimum, 2,700 feet maximum beyond runway ends; 125 to 500 feet from centerline adjacent to runway (zone dimensions established by FAA standards) Acreage (one runway end): 8 to 79 (RPZ only)	Very High	Landing undershoots and overshoots; overruns on aborted takeoffs; loss of control on takeoff	Arrivals: 28%–56% Departures: 23%–29% Total: 33%–39%
2	Inner Safety Zone	Along extended runway centerline, to a distance of 2,000 feet minimum, 6,000 feet maximum beyond runway ends Acreage (one runway end): 44 to 114	High	Aircraft at low altitude with limited directional options in emergencies: typically under 400 feet on landing; on takeoff, engine at maximum stress	Arrivals: 9%–15% Departures: 3%–28% Total: 8%–22%
3	Inner Turning Zone	Fan-shaped area adjacent to Zone 2 extending 2,000 feet minimum, 4,000 feet maximum from runway ends Acreage (one runway end): 50 to 151	Moderate	Turns at low altitude on arrival for aircraft flying tight base leg present stall-spin potential; likely touchdown area if emergency at low altitude on takeoff, especially to left of centerline	Arrivals: 2%–6% Departures: 5%–9% Total: 4%–7%
4	Outer Safety Zone	Along extended runway centerline extending 3,500 feet minimum, 10,000 feet maximum beyond runway ends Acreage (one runway end): 35 to 92	Low to Moderate	Low altitude overflight for aircraft on straight-in approaches, especially instrument approaches; on departure, aircraft normally complete transition from takeoff power and flap settings to climb mode and begin turns to en route heading	Arrivals: 3%–8% Departures: 2%–4% Total: 2%–6%
5	Sideline Zone primarily on airport property	Adjacent to runway, 500 feet minimum, 1,000 feet maximum from centerline Acreage: varies with runway length	Low to Moderate	Low risk on landing; moderate risk from loss of directional control on takeoff, especially with twin-engine aircraft	Arrivals: 1%–3% Departures: 5%–8% Total: 3%–5%
6	Traffic Pattern Zone	Oval area around other zones: 5,000 feet minimum, 10,000 feet maximum beyond runway ends; 4,500 feet minimum, 6,000 feet maximum from runway centerline Acreage: varies with runway length	Low	Significant percentage of accidents, but spread over wide area; widely varied causes	Arrivals: 10%–21% Departures: 24%–39% Total: 18%–29%

Table C1

Safety Zone Aircraft Accident Risk Characteristic



The drawings on these two pages show the relative noise levels produced by different types of aircraft during landing and takeoff.

The contours represent the momentary maximum sound level experienced on the ground as the aircraft flies over. The outermost contour for each aircraft indicates a 65 dBA sound level. Additional contours are at 10 dBA increments (75, 85, and in most cases 95 dBA).

Figure C1

Noise Footprints of Selected Aircraft

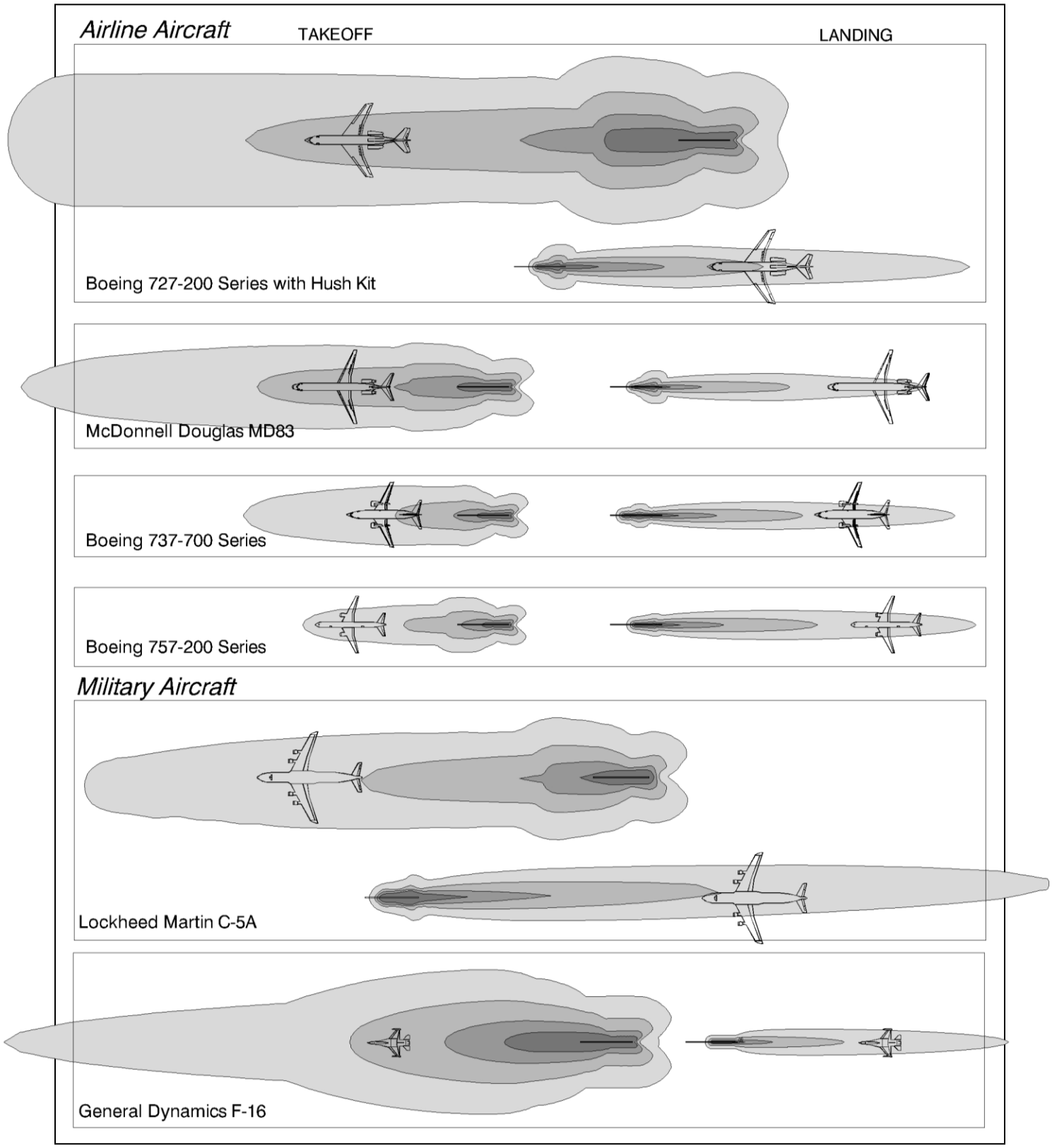
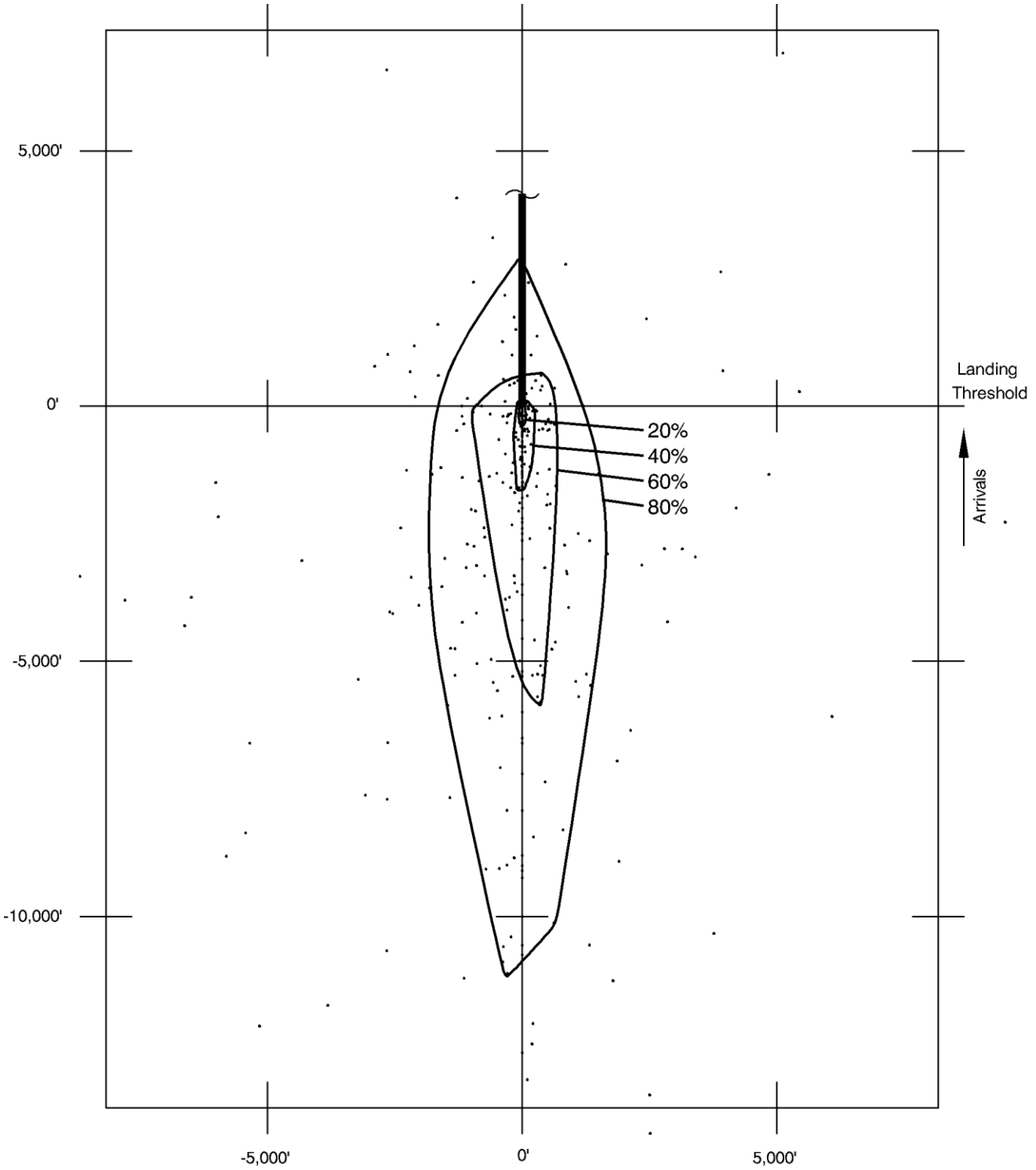


Figure C1, continued



Notes:
445 arrival accidents in database - each dot represents one accident site.
contours represent relative intensities (highest concentrations) of points in 20% increments.

Figure C2

General Aviation Accident Distribution Contours

All Arrivals

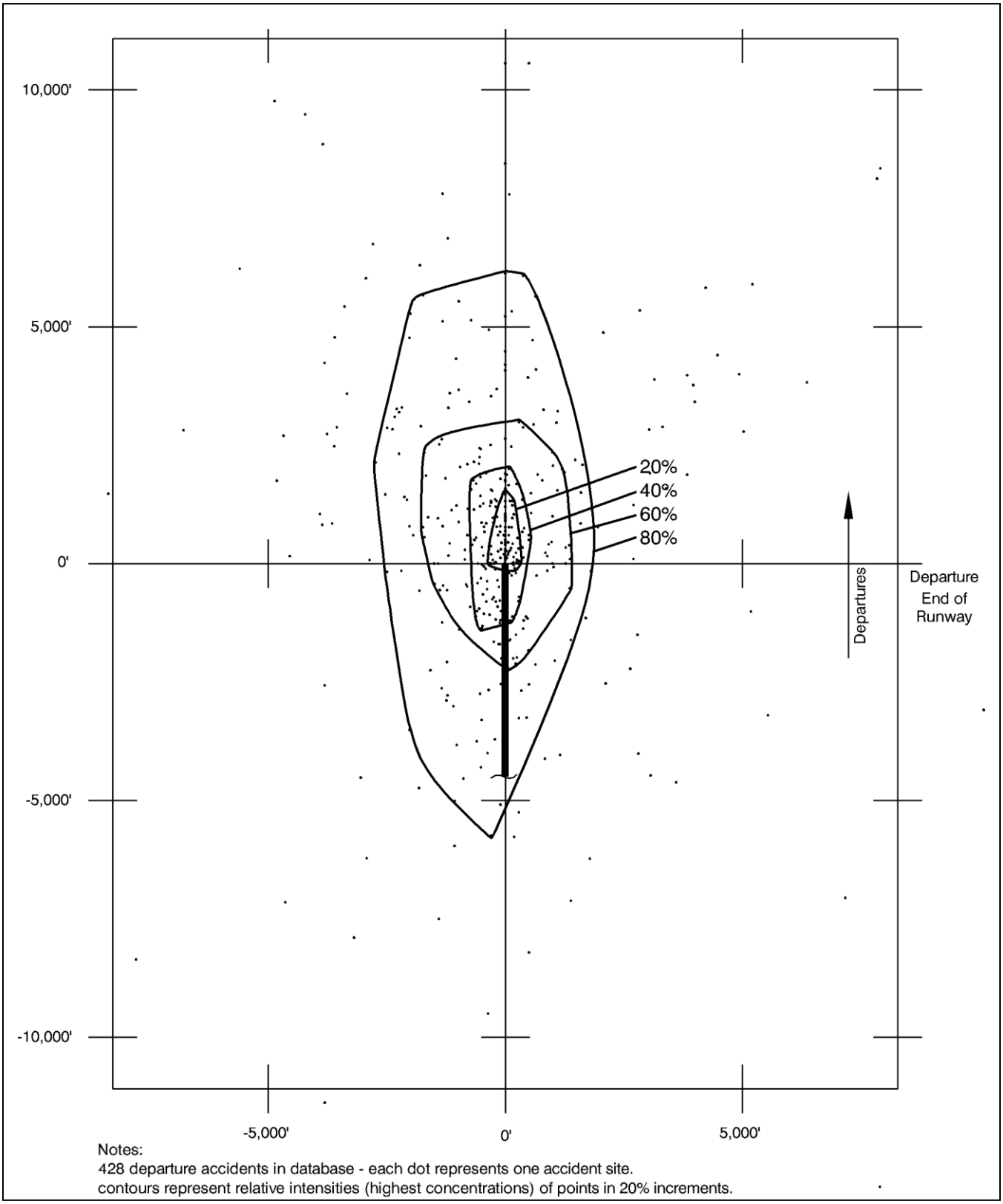


Figure C3

General Aviation Accident Distribution Contours

All Departures

APPENDIX D

Methods for Determining Concentrations of People

INTRODUCTION

The underlying safety compatibility criterion employed in this *Compatibility Plan* is "usage intensity"—the maximum number of people per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum intensity, it is considered incompatible and thus inconsistent with compatibility planning policies. The usage intensity concept is identified in the *California Airport Land Use Planning Handbook* as the measure best suited for assessment of land use safety compatibility with airports. The *Handbook* is published by the California Division of Aeronautics is required under state law to be used as a guide in preparation of airport land use compatibility plans.

It is recognized, though, that "people per acre" is not a common measure in other facets of land use planning. This *Compatibility Plan* therefore also utilizes the more common measure of floor area ratio (FAR) as a means of implementing the usage intensity criteria on the local level. This appendix both provides guidance on how the usage intensity determination can be made and defines the relationships between this measure, FAR, and other measures found in land use planning.

COUNTING PEOPLE

The most difficult part about calculating a use's intensity is estimating the number of people expected to use a particular facility under normal circumstances. All people—not just employees, but also customers and visitors—who may be on the property at a single point in time, whether indoors or outside, must be counted. The only exceptions are for rare special events, such as an air show at an airport, for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

Ideally, the actual number of people for which the facility is designed would be known. For example, the number of seats in a proposed movie theater can be determined with high accuracy once the theater size is decided. Other buildings, though, may be built as a shell and the eventual number of occupants not known until a specific tenant is found. Furthermore, even then, the number of occupants can change in the future as tenants change. Even greater uncertainty is involved with relatively open uses not having fixed seating—retail stores or sports parks, for example.

Absent clearly measurable occupancy numbers, other sources must be relied upon to estimate the number of people in a proposed development.

Survey of Similar Uses

A survey of similar uses already in existence is one option. Gathering data in this manner can be time-consuming and costly, however. Also, unless the survey sample is sufficiently large and conducted at various times, inconsistent numbers may result. Except for uncommon uses for which occupancy lev-

els cannot be estimated through other means, surveys are most appropriate as supplemental information.

Maximum Occupancy

A second option for estimating the number of people who will be on a site is to rely upon data indicating the maximum occupancy of a building measured in terms of occupancy load factor—the number of square feet per occupant. The number of people on the site, assuming limited outdoor or peripheral uses, can be calculated by dividing the total floor area of a proposed use by the occupancy load factor. The challenge of this methodology lies in establishing realistic figures for square feet per occupant. The number varies greatly from one use to another and, for some uses, has changed over time as well.

A commonly used source of maximum occupancy data is the standards set in the California Building Code (CBC). The chart reproduced as Table E1 indicates the occupancy load factors for various types of uses. The CBC, though, is intended primarily for purposes of structural design and fire safety and represents a legal maximum occupancy in most jurisdictions. A CBC-based methodology consequently results in occupancy numbers that are higher than normal maximum usage in most instances. The numbers also are based upon usable floor area and do not take into account corridors, stairs, building equipment rooms, and other functions that are part of a building's gross square footage. Surveys of actual occupancy load factors conducted by various agencies have indicated that many retail and office uses are generally occupied at no more than 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the *Handbook* indicates that the number of people calculated for office and retail uses can usually be divided in half to reflect the actual occupancy levels before making the final people-per-acre determination. Even with this adjustment, the CBC-based methodology typically produces intensities at the high end of the likely range.

Another source of data on square footage per occupant comes from the facility management industry. The data is used to help businesses determine how much building space they need to build or lease and thus tends to be more generous than the CBC standards. The numbers vary not only by the type of facility, as with the CBC, but also by type of industry. The following are selected examples of square footage per *employee* gathered from a variety of sources.

- Call centers 150 – 175
- Typical offices 180 – 250
- Law, finance, real estate offices 300 – 325
- Research & development, light industry 300 – 500
- Health services 500

The numbers above do not take into account the customers who may also be present for certain uses. For retail business, dining establishments, theaters, and other uses where customers outnumber employees, either direct measures of occupancy—the number of seats, for example—or other methodologies must be used to estimate the potential number of people on the site.

Parking Space Requirements

For many jurisdictions and a wide variety of uses, the number of people present on a site can be calculated based upon the number of automobile parking spaces that are required. Certain limitations and assumptions must be considered when applying this methodology, however. An obvious limitation is

that parking space requirements can be correlated with occupancy numbers only where nearly all users arrive by private vehicle rather than by public transportation, walking, or other method. Secondly, the jurisdiction needs to have a well-defined parking ordinance that lists parking space requirements for a wide range of land uses. For most uses, these requirements are typically stated in terms of the number of parking spaces that must be provided per 1,000 square feet of gross building size or a similar ratio. Lastly, assumptions must be made with regard to the average number of people who will arrive in each car.

Both of the critical ratios associated with this methodology—parking spaces to building size and occupants to vehicles—vary from one jurisdiction to another even for the same types of uses. Research of local ordinances and other sources, though, indicates that the following ratios are typical.

- **Parking Space Ratios**—These examples of required parking space requirements are typical of those found in ordinances adopted by urban and suburban jurisdictions. The numbers are ratios of spaces required per 1,000 square feet of gross floor area. Gross floor area is normally measured to the outside surfaces of a building and includes all floor levels as well as stairways, elevators, storage, and mechanical rooms.
  - Small Restaurants 10.0
  - Medical Offices 4.0 – 5.7
  - Shopping Centers 4.0 – 5.0
  - Health Clubs 3.3 – 5.0
  - Business Professional Offices 3.3 – 4.0
  - Retail Stores 3.0 – 3.5
  - Research & Development 2.5 – 4.0
  - Manufacturing 2.0 – 2.5
  - Furniture, Building Supply Stores 0.7 – 1.0
- **Vehicle Occupancy**—Data indicating the average number of people occupying each vehicle parking at a particular business or other land use can be found in various transportation surveys. The numbers vary both from one community or region to another and over time, thus current local data is best if available. The following data represent typical vehicle occupancy for different trip purposes.
  - Work 1.05 – 1.2
  - Education 1.2 – 2.0
  - Medical 1.5 – 1.7
  - Shopping 1.5 – 1.8
  - Dining, Social, Recreational 1.7 – 2.3

USAGE INTENSITY RELATIONSHIP TO OTHER DEVELOPMENT MEASURES

Calculating Usage Intensities

Once the number of people expected in a particular development—both over the entire site and within individual buildings—has been estimated, the usage intensity can be calculated. The criteria in Chapter 3 of this *Compatibility Plan* are measured in terms of the average intensity over the entire project site.

The average intensity is calculated by dividing the total number of people on the site by the site size. A 10-acre site expected to be occupied by as many as 1,000 people at a time, thus would have an average intensity of 100 people per acre. The site size equals the total size of the parcel or parcels to be developed.

Having calculated the usage intensities of a proposed development, a comparison can be made with the criteria set forth in the *Compatibility Plan* to determine whether the proposal is consistent or inconsistent with the policies.

Comparison with Floor Area Ratio

As noted earlier, usage intensity or people per acre is not a common metric in land use planning. Floor area ratio or FAR—the gross square footage of the buildings on a site divided by the site size—is a more common measure in land use planning. Some counties and cities adopt explicit FAR limits in their zoning ordinance or other policies. Those that do not set FAR limits often have other requirements such as, a maximum number of floors a building can have, minimum setback distances from the property line, and minimum number of parking spaces. These requirements effectively limit the floor area ratio as well.

To facilitate local jurisdiction implementation, the Safety Compatibility Criteria table in Chapter 3 has been structured around FAR measures to determine usage intensity limits for many types of nonresidential land use development. To utilize FAR in this manner, a critical additional piece of information is necessary to overcome the major shortcoming of FAR as a safety compatibility measure. The problem with FAR is that it does not directly correlate with risks to people because different types of buildings with the same FAR can have vastly different numbers of people inside—a low-intensity warehouse versus a high-intensity restaurant, for example. For FAR to be applied as a factor in setting development limitations, assumptions must be made as to how much space each person (employees and others) in the building will occupy. The Safety Compatibility Criteria table therefore indicates the assumed occupancy load factor for various land uses. Mathematically, the relationship between usage intensity and FAR is:

$$\text{FAR} = \frac{\text{(allowable usage intensity) x (occupancy load factor)}}{43{,}560}$$

where *usage intensity* is measured in terms of people per acre and *occupancy load factor* as square feet per person.

Selection of the usage intensity, occupancy level, and FAR numbers that appear in the Safety Compatibility Criteria table was done in an iterative manner that considered each of the components both separately and together. Usage intensities were initially set with respect to guidelines provided in the *California Airport Land Use Planning Handbook* (see Appendix C of this *Compatibility Plan*). Occupancy levels

were derived from the CBC, but were adjusted based upon additional research from both local and national sources in the manner discussed earlier in this appendix. The FAR limits were initially calculated from these other two numbers using the formula above.

Comparison with Parking Space Requirements

As discussed above, many jurisdictions have adopted parking space requirements that vary from one land use type to another. Factoring in an estimated vehicle occupancy rate for various land uses as described earlier, the occupancy load factor can be calculated. For example, a typical parking space requirement for office uses is 4.0 spaces per 1,000 square feet or 1 space per 250 square feet. If each vehicle is assumed to be occupied by 1.1 persons, the equivalent occupancy load factor would be 1 person per 227 square feet. This number falls squarely within the range noted above that was found through separate research of norms used by the facility management industry.

As an added note, the occupancy load factor of 215 square feet per person indicated in the Safety Compatibility Criteria table for office uses is slightly more conservative than the above calculation produces. This means that, for a given usage intensity standard, the FAR limit in the table is slightly more restrictive than would result from a higher occupancy load factor.

	Use	*Minimum Square Feet per Occupant*
1.	Aircraft Hangars (no repair)	500
2.	Auction Rooms	7
3.	Assembly Areas, Concentrated Use (without fixed seats)	7
	Auditoriums	
	Churches and Chapels	
	Dance Floors	
	Lobby Accessory to Assembly Occupancy	
	Lodge Rooms	
	Reviewing Stands	
	Stadiums	
	Waiting Areas	3
4.	Assembly Areas, Less Concentrated Use	15
	Conference Rooms	
	Dining Rooms	
	Drinking Establishments	
	Exhibit Rooms	
	Gymnasiums	
	Lounges	
	Stages	
	Gaming	11
5.	Bowling Alley (assume no occupant load for bowling lanes)	4
6.	Children's Homes and Homes for the Aged	80
7.	Classrooms	20
8.	Congregate Residences	200
9.	Courtrooms	40
10.	Dormitories	50
11.	Dwellings	300
12.	Exercising Rooms	50
13.	Garage, Parking	200
14.	Health-Care Facilities	80
	Sleeping Rooms	120
	Treatment Rooms	240
15.	Hotels and Apartments	200
16.	Kitchen – Commercial	200
17.	Library Reading Room	50
	Stack Areas	100
18.	Locker Rooms	50
19.	Malls	Varies
20.	Manufacturing Areas	200
21.	Mechanical Equipment Room	300
22.	Nurseries for Children (Daycare)	35
23.	Offices	100
24.	School Shops and Vocational Rooms	50
25.	Skating Rinks	50 on the skating area; 15 on the deck
26.	Storage and Stock Rooms	300
27.	Stores – Retail Sales Rooms	
	Basements and Ground Floors	30
	Upper Floors	60
28.	Swimming Pools	50 for the pool area; 15 on the deck
29.	Warehouses	500
30.	All Others	100

Source: California Building Code (2001), Table 10-A

Table D1

Occupant Load Factors

California Building Code

Example 1

Proposed Development: Two office buildings, each two stories and containing 20,000 square feet of floor area per building. Site size is 3.0 net acres. Counting a portion of the adjacent road, the gross area of the site is 3.5± acres.

A. Calculation Based on Parking Space Requirements

For office uses, assume that a county or city parking ordinance requires 1 parking space for every 300 square feet of floor area. Data for the traffic studies or other sources can be used to estimate the average vehicle occupancy. For the purposes of this example, the number of people on the property is assumed to equal 1.5 times the number of parking spaces.

The average usage intensity would therefore be calculated as follows:

1) 40,000 sq. ft. floor area x 1.0 parking space per 300 sq. ft. = 134 required parking spaces

2) 134 parking spaces x 1.5 people per space = 200 people maximum on site

3) 200 people ÷ 3.5 acres gross site size = 57 people per acre average for the site

Assuming that occupancy of each building is relatively equal throughout, but that there is some separation between the buildings and outdoor uses are minimal, the usage intensity for a single acre would be estimated to be:

1) 20,000 sq. ft. bldg. ÷ 2 stories = 10,000 sq. ft. bldg. footprint

2) 10,000 sq. ft building footprint ÷ 43,560 sq. ft. per acre = 0.23 acre bldg. footprint

3) Building footprint <1.0 acre; therefore maximum people in 1 acre = bldg. occupancy = 100 people per single acre

B. Calculation Based on Uniform Building Code

Using the UBC (Appendix C1) as the basis for estimating building occupancy yields the following results for the above example:

1) 40,000 sq. ft. bldg. ÷ 100 sq. ft./occupant = 400 people max. building occupancy (under UBC)

2) 400 people max. building occupancy x 50% adjustment = 200 people maximum on site

3) 200 people ÷ 3.5 acres gross site size = 57 people per acre average for the site

Conclusions: In this instance, both methodologies give the same results. For different uses and/or different assumptions, the two methodologies are likely to produce different numbers. In most such cases, the UBC methodology will indicate a higher intensity.

Table D-2

Sample People-Per-Acre Calculations

Example 2

Proposed Development: Single-floor furniture store containing 24,000 square feet of floor area on a site of 1.7 net acres. Counting a portion of the adjacent road, the gross area of the site is 2.0 acres).

A. Calculation Based on Parking Space Requirements

Note: This method is specifically to be used in the unincorporated areas of Placer County.

For furniture stores, the county requires 1 parking space per 1,500 square feet of use area. Assuming 1.5 people per automobile as indicated in the Primary Compatibility Criteria table results in the following intensity estimates:

The average usage intensity would be:

1) 24,000 sq. ft. bldg. x 1.0 parking space per 1,500 sq. ft. = 16 required parking spaces

2) 16 parking spaces x 1.5 people per space = 24 people maximum on site

3) 24 people) 1.26 acres gross site size = 19 people per acre average for the site

Again assuming a relatively balanced occupancy throughout the building and that outdoor uses are minimal, the usage intensity for a single acre would be estimated to be:

1) 24,000 sq. ft. bldg. footprint) 43,560 sq. ft. per acre = 0.55 acre bldg. footprint

2) Building footprint < 1.0 acre; therefore maximum people in 1 acre = bldg. occupancy = 24 people per single acre

B. Calculation Based on Uniform Building Code

For the purposes of the UBC-based methodology, the furniture store is assumed to consist of 50% retail sales floor (at 30 square feet per occupant) and 50% warehouse (at 500 square feet per occupant). Usage intensities would therefore be estimated as follows:

1) 12,000 sq. ft. retail floor area) 30 sq. ft./occupant = 400 people max. occupancy in retail area

2) 12,000 sq. ft. warehouse floor area) 500 sq. ft./occupant = 24 people max. occupancy in warehouse area

3) Maximum occupancy under UBC assumptions = 400 + 24 = 424 people

4) Assuming typical peak occupancy is 50% of UBC numbers = 212 people maximum expected at any one time

5) 212 people) 1.26 acres = 168 people per acre average for the site

With respect to the single-acre intensity criteria, the entire building occupancy would again be within less than 1.0 acre, thus yielding the same intensity of 168 people per single acre.

Conclusions: In this instance, the two methods produce very different results. The occupancy area estimate of 30 square feet per person is undoubtedly low for a furniture store even after the 50% adjustment. On the other hand, the 19 people-per-acre estimate using the parking requirement methodology appears low, but is probably closer to being realistic. Unless better data is available from surveys of similar uses, this proposal should reasonably be considered compatible within *Zone B2* (50 people per average acre and 100 people per single acre) and potentially also compatible within *Zone B1* (25 people per average acre and 50 people per single acre).

Table D-2, continued

Compatibility Guidelines for Specific Land Uses

The compatibility evaluations listed below for specific types of land uses can be used by affected jurisdictions as guidelines in implementation of the general compatibility criteria listed in Table 2A. These evaluations are not regarded as adopted ALUC policies or criteria. In case of any conflicts between these evaluations of specific land uses and the policies and criteria in Chapter 2 of this document, the contents of Chapter 2 shall prevail.

Land Use Category [1] ➤ Land Use Acceptability Legend for Green, Yellow, and Red provided on last page of this table	**Compatibility Zone**						**Suggested Criteria for Conditional Uses** [2] ➤ Intensity limits applicable to all nonresidential uses including ones shown as "Normally Compatible" (green) ➤ Nonresidential development must satisfy both forms of intensity limits in (see *Policy 3.1.3)* ➤ Conditions listed below applicable to uses listed as "Conditional" (yellow) for a particular zone ➤ Up to 10% of total floor area may be devoted to an ancillary use
	A	**B1**	**B2**	**C**	**D**	**E**	
Max. Sitewide Average Intensity (people/acre)[3] **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**0 0**	**50 100**	**100 300**	**100 300**	**200 600**	**no limit**	
Open Land Requirement (see *Policy 5.2.6*)	**all remain-ing**	**30%**	**no req't**	**20%**	**10%**	**no req't**	
General Characteristics							
Any use having more than 1 habitable floor							B1, B2: Limited to no more than 2 habitable floors C: Limited to no more than 3 habitable floors
Any use having structures or trees 35 to 100 feet in height							B1: Ensure airspace obstruction does not occur (see Airspace Protection Plans)
Any use having structures or trees more than 100 feet in height							B1, B2, C, D, E: Ensure airspace obstruction does not occur(see Airspace Protection Plans)
Any use having the potential to cause an increase in the attraction of birds or other wildlife							B1, B2, C, D, E: Mitigation must be provided consistent with FAA rules and regulations [4]
Any use creating visual or electronic hazards to flight [5]							
Outdoor Uses (limited or no activities in buildings)							
Natural Land Areas: woods, brush lands, desert							A: Objects above runway elevation not allowed in OFA [6]
Water: flood plains, wetlands, lakes, reservoirs							A: Objects above runway elevation not allowed in OFA [6] All: Avoid new features that attract more birds
Agriculture (except residences and livestock): crops, orchards, vineyards, pasture, range land							A: Not allowed in OFA [6] A, B1, B2, C: ensure airspace obstruction does not occur (see Airspace Protection Plans) All: Avoid crops that attract birds
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables							B1, B2, C: Avoid uses that attract birds
Outdoor Major Assembly Facilities (capacity ≥1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, zoos							D: Allowed only if alternative site outside zone would not serve intended function
Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas							B2, C: Avoid if intended for noise-sensitive uses; ensure intensity criteria met

Table E-1

Land Use Compatibility Matrix

Land Use Category [1] ➤ Land Use Acceptability Legend for Green, Yellow, and Red provided on last page of this table	**Compatibility Zone**						**Suggested Criteria for Conditional Uses** [2] ➤ Intensity limits applicable to all nonresidential uses including ones shown as "Normally Compatible" (green) ➤ Nonresidential development must satisfy both forms of intensity limits in (see *Policy 3.1.3)* ➤ Conditions listed below applicable to uses listed as "Conditional" (yellow) for a particular zone ➤ Up to 10% of total floor area may be devoted to an ancillary use
	A	**B1**	**B2**	**C**	**D**	**E**	
Max. Sitewide Average Intensity (people/acre)[3] **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**0** **0**	**50** **100**	**100** **300**	**100** **300**	**200** **600**	**no limit**	
Open Land Requirement (see *Policy 5.2.6*)	**all remain-ing**	**30%**	**no req't**	**20%**	**10%**	**no req't**	
Small/Non-Group Recreation: golf courses, tennis courts, shooting ranges							B1, B2, C: Avoid if intended for noise-sensitive uses; ensure intensity criteria met
Local Parks: children-oriented neighborhood parks, playgrounds							B2, C: Allowed only if alternative site outside zone would not serve intended function, ensure intensity criteria met
Camping: campgrounds, recreational vehicle/ motor home parks							B2, C: Ensure intensity criteria met
Cemeteries (except chapels)							
Residential and Lodging Uses							
Single-Family Residential: individual dwellings, townhouses, mobile homes, bed & breakfast inns							B1: Maximum 1 d.u./10 acres B2: Maximum 1 d.u./3 acres C: Maximum 1 d.u./2 acres
Multi-Family Residential							D: Maximum 4 d.u./acre D*(Urban Overlay): Maximum 20 d.u./acre
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories							C: Ensure intensity criteria met
Short-Term Lodging (≤30 nights): hotels, motels, other transient lodging (except conference/assembly facilities) [approx. 200 s.f./person]			0.46	0.46	0.92		B2, C, D: Ensure intensity criteria met
Congregate Care: retirement homes, assisted living, nursing homes, intermediate care facilities							D: Ensure intensity criteria met
Educational and Institutional Uses							
Family day care homes (≤14 children)							
Children's Schools: K-12, day care centers (>14 children); school libraries							D: Limited expansion on existing sites; no new sites (see Policy 5.5.2(c)(2))
Adult Education classroom space: adult schools, colleges, universities [approx. 40 s.f./person]			0.09	0.09	0.18		B2, C, D: Ensure intensity criteria met
Community Libraries [approx. 100 s.f./person]					0.46		D: Ensure intensity criteria met
Indoor Major Assembly Facilities (capacity ≥1,000 people): auditoriums, conference centers, concert halls, indoor arenas							D: Ensure intensity criteria met D* (Urban Overlay): no intensity limit
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries [approx. 15 s.f./person]				0.03	0.07		C, D: Ensure intensity criteria met
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios [approx. 60 s.f./person]			0.14	0.14	0.28		B2, C, D: Ensure intensity criteria met
In-Patient Medical: hospitals, mental hospitals							C: No new sites or land acquisition; replacement/expansion of existing facilities limited to existing site

Land Use Category [1] ➤ Land Use Acceptability Legend for Green, Yellow, and Red provided on last page of this table	**Compatibility Zone**						**Suggested Criteria for Conditional Uses** [2] ➤ Intensity limits applicable to all nonresidential uses including ones shown as "Normally Compatible" (green) ➤ Nonresidential development must satisfy both forms of intensity limits in (see *Policy 3.1.3)* ➤ Conditions listed below applicable to uses listed as "Conditional" (yellow) for a particular zone ➤ Up to 10% of total floor area may be devoted to an ancillary use
	A	**B1**	**B2**	**C**	**D**	**E**	
Max. Sitewide Average Intensity (people/acre)[3] **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**0** **0**	**50** **100**	**100** **300**	**100** **300**	**200** **600**	**no limit**	
Open Land Requirement (see *Policy 5.2.6*)	**all remain-ing**	**30%**	**no req't**	**20%**	**10%**	**no req't**	
Out-Patient Medical: health care centers, clinics [approx. 240 s.f./person]			0.55	0.55	1.10		B2, C, D: Ensure intensity criteria met
Penal Institutions: prisons, reformatories							
Public Safety Facilities: police, fire stations							B2: Allowed only if airport serving C: Allowed only if alternative site outside zone would not serve intended public function
Commercial, Office, and Service Uses							
Major Retail: regional shopping centers, 'big box' retail [approx. 110 s.f./person]				0.25	0.51		C, D: Ensure intensity criteria met; capacity <1,000 people per bldg; evaluate eating/drinking areas separately if >10% of total floor area
Local Retail: community/neighborhood shopping centers, grocery stores [approx. 170 s.f./person]			0.39	0.39	0.78		B2, C, D: Ensure intensity criteria met; capacity <150 people per bldg; evaluate eating/drinking areas separately if >10% of total floor area
Eating/Drinking Establishments: restaurants, fast-food dining, bars [approx. 60 s.f./person]				0.14	0.28		C, D: Ensure intensity criteria met; capacity <500 people per bldg
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, lumber yards, nurseries [approx. 250 s.f./person]		0.29	0.57	0.57	1.15		B1: Design site to place parking inside and bldgs outside of zone if possible B1, B2, C, D: Ensure intensity criteria met
Offices: professional services, doctors, finance, civic; radio, television & recording studios, office space related to other listed uses [approx. 215 s.f./person]		0.25	0.49	.49	0.99		B1, B2, C, D: Ensure intensity criteria met
Personal & Miscellaneous Services: barbers, car washes, print shops [approx. 200 s.f./person]			0.46	0.46	0.92		B2, C, D: Ensure intensity criteria met
Fueling Facilities: gas stations, trucking & transportation terminals							B1, B2: Ensure intensity criteria met; no aboveground bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Industrial, Manufacturing, and Storage Uses							
Hazardous Materials Production: oil refineries, chemical plants							E: Allowed only if site outside zone would not serve intended function
Heavy Industrial							C, D: Avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Light Industrial, High Intensity: food products preparation, electronic equipment [approx. 200 s.f./person]		0.23	0.46	0.46	0.92		B2, C, D: Ensure intensity criteria met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft

Land Use Category [1] ➤ Land Use Acceptability Legend for Green, Yellow, and Red provided on last page of this table	**Compatibility Zone**						**Suggested Criteria for Conditional Uses** [2] ➤ Intensity limits applicable to all nonresidential uses including ones shown as "Normally Compatible" (green) ➤ Nonresidential development must satisfy both forms of intensity limits in (see *Policy 3.1.3)* ➤ Conditions listed below applicable to uses listed as "Conditional" (yellow) for a particular zone ➤ Up to 10% of total floor area may be devoted to an ancillary use
	A	**B1**	**B2**	**C**	**D**	**E**	
Max. Sitewide Average Intensity (people/acre)[3] **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**0** **0**	**50** **100**	**100** **300**	**100** **300**	**200** **600**	**no limit**	
Open Land Requirement (see *Policy 5.2.6*)	**all remain-ing**	**30%**	**no req't**	**20%**	**10%**	**no req't**	
Light Industrial, Low Intensity: machine shops, wood products, auto repair [approx. 350 s.f./person]		0.40	0.80	0.80	1.61		B1, B2, C, D: Ensure intensity criteria are met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Research & Development [approx. 300 s.f./person]		0.34	0.69	0.69	1.38		B1, B2, C: Ensure intensity criteria are met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses [approx. 1,000 s.f./person]		1.14					B1: Ensure intensity criteria are met
Outdoor Storage: public works yards, automobile dismantling							
Mining & Extraction							
Transportation, Communication, and Utilities							
Airport Terminals: airline, general aviation							
Rail & Bus Stations							B1, B2: Allowed only if site outside zone would not serve intended public function; ensure intensity criteria met
Transportation Routes: road & rail rights-of-way, bus stops							A: Not allowed in OFA [6]; avoid road intersections if traffic congestion occurs
Auto Parking: surface lots, structures							A: Not allowed in OFA [2]; allowed only if site outside zone would not serve intended function
Communications Facilities: emergency communications, broadcast & cell towers							B2, C: Allowed only if site outside zone would not serve intended public function
Power Plants							D: Allowed only if site outside zone would not serve intended public function
Electrical Substations							B2, C: Allowed only if site outside zone would not serve intended public function
Wastewater Facilities: treatment, disposal							
Solid Waste Disposal Facilities: landfill, incineration							E: Allowed only if site outside zone would not serve intended public function
Solid Waste Transfer Facilities, Recycle Centers							D, E: Avoid new features that may attract birds

Land Use Acceptability		Interpretation/Comments
	Normally Compatible	Normal examples of the use are compatible with noise, safety, and airspace protection criteria. Atypical examples may require review to ensure compliance with usage intensity, lot coverage, and height limit criteria.
	Conditional	Use is compatible if indicated usage intensity, lot coverage, and other listed conditions are met. For the purposes of these criteria, "avoid" is intended as cautionary guidance, not a prohibition of the use.
	Incompatible	Use should not be permitted under any circumstances.

Notes

[1] Land uses not specifically listed may be evaluated using the criteria for similar uses. Assumed occupancy levels (square feet / person) cited for many listed uses can be used as a factor in determining the appropriate land use category for unlisted uses or atypical examples of a use. Multiple land use categories and compatibility criteria may apply to a project.

[2] Dedication of an avigation easement should be required as a condition for approval of any proposed development, except ministerial actions associated with modification of existing single-family residences, situated on a site that lies completely or partially within any of the following: Compatibility Zones A, B1, or B2; or, as defined by FAR Part 77 and shown on the airport's Airspace Protection Map, the area beneath the approach or transitional surfaces or an area situated at an elevation that penetrates or is less than 35 feet below any other airspace protection surface. Recorded overflight notification should be required for all residential development in the remainder of the airport influence area (except Zone E).

[3] Usage intensity calculations shall include all people (e.g., employees, customers/visitors) who may be on the property at any single point in time, whether indoors or outdoors. Local agencies may make exceptions for rare special events (e.g., an air show at the airport) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

[4] No proposed use should be allowed that would create an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Order 5200.5A, Waste Disposal Sites on or Near Airports, and Advisory Circular 150/5200-33, Hazardous Wildlife Attractants On or Near Airports. Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight.

[5] Specific characteristics to be avoided include: sources of glare (such as from mirrored or other highly reflective structures or building features) or bright lights (including search lights and laser light displays); distracting lights that could be mistaken for airport lights; sources of dust, steam, or smoke that may impair pilots' vision; sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and sources of electrical interference with aircraft communications or navigation.

[6] Object Free Area (OFA): Shown on the Airport Layout Plan and the airport's Compatibility Policy Map; dimensions are established by FAA airport design standards for the runway.

APPENDIX F

General Plan Consistency Checklist

This checklist is intended to assist counties and cities with modifications necessary to make their general plans and other local policies consistent with the ALUC's compatibility plan. It is also designed to facilitate ALUC reviews of these local plans and policies. The list will need to be modified to reflect the policies of each individual ALUC and is not intended as a state requirement.

COMPATIBILITY CRITERIA

General Plan Document

The following items typically appear directly in a general plan document. Amendment of the general plan will be required if there are any conflicts with the compatibility plan.

- **Land Use Map**—No direct conflicts should exist between proposed new land uses indicated on a general plan land use map and the ALUC land use compatibility criteria.
  - Residential densities (dwelling units per acre) should not exceed the set limits. Differences between gross and net densities and the potential for secondary dwellings on single parcels (see below) may need to be taken into account.
  - Proposed nonresidential development needs to be assessed with respect to applicable intensity limits (see below).
  - No new land uses of a type listed as specifically prohibited should be shown within affected areas.
- **Noise Element**—General plan noise elements typically include criteria indicating the maximum noise exposure for which residential development is normally acceptable. This limit must be made consistent with the equivalent compatibility plan criteria. Note, however, that a general plan may establish a different limit with respect to aviation-related noise than for noise from other sources (this may be appropriate in that aviation-related noise is often judged to be more objectionable than other types of equally loud noises).

Zoning or Other Policy Documents

The following items need to be reflected either in the general plan or in a separate policy document such as a combining zone ordinance. If a separate policy document is adopted, modification of the general plan to achieve consistency with the compatibility plan may not be required. Modifications would normally be needed only to eliminate any conflicting language which may be present and to make reference to the separate policy document.

- **Secondary Dwellings**—Detached secondary dwellings on the same parcel should be counted as additional dwellings for the purposes of density calculations. This factor needs to be reflected in local policies either by adjusting the maximum allowable densities or by prohibiting secondary dwellings where their presence would conflict with the compatibility criteria.
- **Intensity Limitations on Nonresidential Uses**—Local policies must be established to limit the usage intensities of commercial, industrial, and other nonresidential land uses. This can be done by duplication of the performance-oriented criteria—specifically, the number of people per acre-indicated in the compatibility plan. Alternatively, local jurisdictions may create a detailed list of land uses which are allowable and/or not allowable within each compatibility zone. For certain land uses, such a list may need to include limits on building sizes, floor area ratios, habitable floors, and/or other design parameters with are equivalent to the usage intensity criteria.
- **Identification of Prohibited Uses**—Compatibility plans may prohibit day care centers, hospitals, and certain other uses within much of each airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations. Policies need to be established which preclude these uses in accordance with the compatibility criteria.

Zoning or Other Policy Documents, Continued

- **Open Land Requirements**—Compatibility plan requirements, if any, for assuring that a minimum amount of open land is preserved for the airport vicinity must be reflected in local policies. Normally, the locations which are intended to be maintained as open land would be identified on a map with the total acreage within each compatibility zone indicated. If some of the area included as open land is private property, then policies must be established which assure that the open land will continue to exist as the property develops. Policies specifying the required characteristics of eligible open land also must be established.
- **Infill Development**—If a compatibility plan contains infill policies and a jurisdiction wishes to take advantage of them, the lands which meet the qualifications must be shown on a map.
- **Height Limitations and Other Hazards to Flight**—To protect the airport airspace, limitations must be set on the height of structures and other objects near airports. These limitations are to be based upon Part 77 of the Federal Aviation Regulations, but may include exceptions for objects on high terrain if provided for in the compatibility plan. Restrictions also must be established on other land use characteristics which can cause hazards to flight (specifically, visual or electronic interference with navigation and uses which attract birds). Note that many jurisdictions have already adopted an airport-related hazard and height limit zoning ordinance which, if up to date, will satisfy this consistency requirement.
- **Noise Insulation Requirements**—Some compatibility plans call for certain buildings proposed for construction within high noise-impact areas to demonstrate that they will contain sufficient sound insulation to reduce aircraft-related noise to an acceptable level. These criteria apply to new residences, schools, and certain other buildings containing noise-sensitive uses. Local policies must include parallel criteria.
- **Buyer Awareness Measures**—As a condition for approval of development within certain compatibility zones, some compatibility plans require either dedication of an avigation easement to the airport proprietor or placement on deeds of a notice regarding airport impacts. If so, local jurisdiction policies must contain similar requirements. Compatibility plans also may encourage, but should not require, local jurisdictions to adopt a policy stating that airport proximity and the potential for aircraft overflights be disclosed as part of real estate transactions regarding property in the airport influence area.
- **Nonconforming Uses and Reconstruction**—Local jurisdiction policies regarding nonconforming uses and reconstruction must be equivalent to or more restrictive than those in the compatibility plan, if any.

REVIEW PROCEDURES

In addition to incorporation of ALUC compatibility criteria, local jurisdiction implementing documents must specify the manner in whish development proposals will be reviewed for consistency with the compatibility criteria.

- **Actions Always Required to be Submitted for ALUC Review**—State law specifies which types of development actions must be submitted for airport land use commission review. Local policies should either list these actions or, at a minimum, note the jurisdiction's intent to comply with the state statute.
- **Other Land Use Actions Potentially Subject to ALUC Review**—In addition to the above actions, compatibility plan may identify certain major land use actions for which referral to the ALUC is dependent upon agreement between the jurisdiction and the ALUC. If the jurisdiction fully complies with all of the items in this general plan consistency check list or has taken the necessary steps to overrule the ALUC, then referral of the additional actions is voluntary. On the other hand, a jurisdiction may elect not to incorporate all of the necessary compatibility criteria and review procedures into its own policies. In this case, referral of major land use actions to the ALUC is mandatory. Local policies should indicate the jurisdiction's intentions in this regard.
- **Process for Compatibility Reviews by Local Jurisdictions**—If a jurisdiction chooses to submit only the mandatory actions for ALUC review, then it must establish a policy indicating the procedures which will be used to assure that airport compatibility criteria are addressed during review of other projects. Possibilities include: a standard review procedure checklist which includes reference to compatibility criteria; use of a geographic information system to identify all parcels within the airport influence area; etc.
- **Variance Procedures**—Local procedures for granting of variances to the zoning ordinance must make certain that any such variances do not result in a conflict with the compatibility criteria. Any variance which involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the compatibility plan must be referred to the ALUC for review.
- **Enforcement**—Policies must be established to assure compliance with compatibility criteria during the lifetime of the development. Enforcement procedures are especially necessary with regard to limitations on usage intensities and the heights of trees. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

Source: California Airport Land Use Planning Handbook (January 2002)

APPENDIX G

Sample Implementation Documents

The responsibility for implementation of the compatibility criteria set forth in the *Nevada County Airport Land Use Compatibility Plan* rests largely with the Nevada County Transportation Commission (NCTC), acting in its capacity as the Airport Land Use Commission (ALUC) for the Cities of Grass Valley, Nevada City, Town of Truckee and the County of Nevada. As described in Appendix E, modification of general plans and specific plans for consistency with applicable compatibility plans is the major step in this process. However, not all of the measures necessary for achievement of airport land use compatibility are necessarily included in general plans and specific plans. Other types of documents also serve to implement the *Compatibility Plan* policies. Samples of such implementation documents are included in this appendix.

Airport Combining Zone Ordinance

As noted in Chapter 1 of this document, one option that the affected local jurisdictions can utilize to implement airport land use compatibility criteria and associated policies is adoption of an airport combining zone ordinance. An airport combining zone ordinance is a way of collecting various airport-related development conditions into one local policy document. Adoption of a combining zone is not required, but is suggested as an option. Table G1 describes some of the potential components of an airport combining zone ordinance.

Buyer Awareness Measures

Buyer awareness is an umbrella category for several types of implementation documents all of which have the objective of ensuring that prospective buyers of airport area property, particularly residential property, are informed about the airport's impact on the property. The *Nevada County Airport Land Use Compatibility Plan* policies include each of these measures.

- **Avigation Easement**—Avigation easements transfer certain property rights from the owner of the underlying property to the owner of an airport or, in the case of military airports, to a local government agency on behalf of the federal government (the U.S. Department of Defense is not authorized to accept avigation easements). This *Compatibility Plan* requires avigation easement dedication as a condition for approval of development on property subject to high noise levels or a need to restrict heights of structures and trees to less than might ordinarily occur on the property. Specific easement dedication requirements are set forth in Chapter 2. Also, airports may require avigation easements in conjunction with programs for noise insulation of existing structures in the airport vicinity. A sample of a standard avigation easement is included in Table G2.
- **Recorded Overflight Notification**—An overflight notification informs property owners that the property is subject to aircraft overflight and generation of noise and other impacts. No restrictions on the heights of objects, requirements for marking or lighting of objects, or access to the property for these purposes are included. An overflight notification serves only as buyer acceptance of overflight conditions. Suggested wording of an overflight notification is included in Table G3. Unlike

an avigation easement, overflight easement, or other type of easement, an overflight notification is not a conveyance of property rights. However, like an easement, an overflight notification is recorded on the property deed and therefore remains in effect with sale of the property to subsequent owners. Overflight notifications are generally appropriate in areas outside the 60 dB CNEL noise contour, outside Safety Zones, and within areas where the height of structures and other objects would not pose a significant potential of being airspace obstruction hazards.

- **Real Estate Disclosure**—A less definitive, but more all-encompassing, form of buyer awareness measure is for the ALUC and local jurisdictions to establish a policy indicating that information about and airport's influence area should be disclosed to prospective buyers of all airport-vicinity properties prior to transfer of title. The advantage of this type of program is that it applies to previously existing land uses as well as to new development. The requirement for disclosure of information about the proximity of an airport has been present in state law for some time, but legislation adopted in 2002 and effective in January 2004 explicitly ties the requirement to the airport influence areas established by airport land use commissions (see Appendix B for excerpts from sections of the Business and Professions Code and Civil Code that define these requirements). With certain exceptions, these statutes require disclosure of a property's location within an airport influence area under any of the following three circumstances: (1) sale or lease of subdivided lands; (2) sale of common interest developments; and (3) sale of residential real property. In each case, the disclosure statement to be used is defined by state law as follows:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

An airport compatibility combining zoning ordinance might include some or all of the following components:

- **Airspace Protection**—A combining district can establish restrictions on the height of buildings, antennas, trees, and other objects as necessary to protect the airspace needed for operation of the airport. These restrictions should be based upon the current version of the Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, Subpart C. Additions or adjustment to take into account instrument approach (TERPS) surfaces should be made as necessary. Provisions prohibiting smoke, glare, bird attractions, and other hazards to flight should also be included.

- **FAA Notification Requirements**—Combining districts also can be used to ensure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project which exceeds a specified set of height criteria submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration prior to commencement of construction. The height criteria associated with this notification requirement are lower than those spelled out in Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety.

- **State Regulation of Obstructions**—State law prohibits anyone from constructing or altering a structure or altering a structure or permitting an object of natural growth to exceed the heights established by FAR Part 77, Subpart C, unless the FAA has determined the object would or does not constitute a hazard to air navigation (Public Utilities Code, Section 21659). Additionally, a permit from the Department of Transportation is required for any structure taller than 500 feet above the ground unless the height is reviewed and approved by the Federal Communications Commission or the FAA (Section 21656).

- **Designation of High Noise-Impact Areas**—California state statutes require that multi-family residential structures in high-noise exposure areas be constructed so as to limit the interior noise to a Community Noise Equivalent Level of no more than 45 dB. A combining district could be used to indicate the locations where special construction techniques may be necessary in order to ensure compliance with this requirement. The combining district also could extend this criterion to single-family dwellings.

- **Maximum Densities/Intensities**—Airport noise and safety compatibility criteria are frequently expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. These standards can either be directly included in a combining zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the method of calculating the intensity limitations needs to be defined. Alternatively, a matrix can be established indicating whether each specific type of land use is compatible with each compatibility zone. To be useful, the land use categories need to be more detailed than typically provided by general plan or zoning ordinance land use designations.

- **Open Areas for Emergency Landing of Aircraft**—In most circumstances in which an accident involving a small aircraft occurs near an airport, the aircraft is under control as it descends. When forced to make an off-airport emergency landing, pilots will usually attempt to do so in the most open areas readily available. To enhance safety both for people on the ground and the occupants of the aircraft, airport compatibility plans often contain criteria requiring a certain amount of open land near airports. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be included in a combining district so that they will be applied to development of large parcels. Adequate open areas can often be provided by clustering of development on adjacent land.

- **Areas of Special Compatibility Concern**—A significant drawback of standard general plan and zoning ordinance land use designations is that they can be changed. Uses that are currently compatible are not assured of staying that way in the future. Designation of areas of special compatibility concern would serve as a reminder that airport impacts should be carefully considered in any decision to change the existing land use designation. [A legal consideration which supports the value of this concept is that down-zoning of a property to a less intensive use is becoming more difficult. It is much better not to have inappropriately up-zoned the property in the first place.]

- **Real Estate Disclosure Policies**—The geographic extent and specific language of recommended real estate disclosure statements can be described in an airport combining zone ordinance.

Source: California Airport Land Use Planning Handbook (January 2002)

Table G1

Sample Airport Combining Zone Components

TYPICAL AVIGATION EASEMENT

For Nevada County Airport

This indenture made this _____ day of _____, 20__, between _____ hereinafter referred to as Grantor, and the County of Nevada, a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ on "Exhibit A" attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the Nevada County Airport official runway end elevation of 3,154 feet Above Mean Sea Level (AMSL), as determined by Airport Layout Plan, the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

(1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and

(2) The easement and right to cause or create, or permit or allow to be caused and created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and

(3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and

(4) The right to mark and light, or cause or require to be marked and lighted, as obstructions to air navigation, any and all buildings, structures or other improvements, and trees or other objects, which extend into or above the Airspace; and

(5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

Table G2

Typical Avigation Easement

For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the County of Nevada, for the direct benefit of the real property constituting the Nevada County Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow, in or upon the hereinabove described real property, nor will they permit or allow any building structure, improvement, tree, or other object to extend into or above the Airspace so as to constitute an obstruction to air navigation or to obstruct or interfere with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the Nevada County Airport, in the County of Nevada, State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the Nevada County Airport, or in otherwise flying through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors or assigns for monetary damages or other redress due to impacts, as described in paragraph (2) of the granted rights of easement, associated with aircraft operations in the air or on the ground at the airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantee, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said Nevada County Airport is the dominant tenement.

DATED: _____ _____

_____

STATE OF }

ss

COUNTY OF }

On _____, before me, the undersigned, a Notary Public in and for said County and State personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

_____

Notary Public

Source: Modified from California Airport Land Use Planning Handbook (January 2002)

Table G2, continued

RECORDED OVERFLIGHT NOTIFICATION

This *Overflight Notification* concerns the real property situated in the County of Nevada and *[insert if applicable]* the City of _____, State of California, described as _____[APN No.:_____].

This *Overflight Notification* provides notification of the condition of the above described property in recognition of, and in compliance with, CALIFORNIA BUSINESS & PROFESSIONS CODE Section 11010 and CALIFORNIA CIVIL CODE Sections 1102.6, 1103.4 and 1353, effective January 1, 2004, and related state and local regulations and consistent with policies of the Airport Land Use Commission for Nevada County for overflight notification provided in the Nevada County Airport Land Use Compatibility Plan.

NOTICE OF AIRPORT IN VICINITY: This property is located in the vicinity of an airport and within the airport influence area. The property may be subject to some of the annoyances or inconveniences associated with proximity to an airport and aircraft operations (for example: noise, vibration, overflights or odors). Individual sensitivities to those annoyances can vary from person to person. You should consider what airport annoyances, if any, affect the Property before you complete your purchase and whether they are acceptable to you.

The Federal Aviation Administration (FAA) has regulatory authority over the operation of aircraft in flight and on the runway and taxiway surfaces at Nevada County Airport. The FAA is, therefore, exclusively responsible for airspace and air traffic management, including ensuring the safe and efficient use of navigable airspace, developing air traffic rules, assigning the use of airspace and controlling air traffic. Please contact the FAA for more detailed information regarding overflight and airspace protection issues associated with the operation of military aircraft.

The airport operator, the County of Nevada, maintains information regarding hours of operation and other relevant information regarding airport operations. Please contact your local airport operator for more detailed information regarding airport specific operational issues including hours of operation.

This *Overflight Notification* shall be duly recorded with the Nevada County Assessor's Office, shall run with the Property, and shall be binding upon all parties having or acquiring any right, title or interest in the Property.

Effective Date:_____, 20__

Table G3

Sample Recorded Overflight Notification

APPENDIX H

Glossary of Terms

Above Ground Level (AGL): An elevation datum given in feet above ground level.

Accident Potential Zones (APZs): A set of safety-related zones defined by AICUZ studies for areas beyond the ends of military airport runways. Typically, three types of zones are established: a clear zone closest to the runway end, then APZ I and APZ II. The potential for aircraft accidents and the corresponding need for land use restrictions is greatest with the clear zone and diminishes with increased distance from the runway.

Air Carriers: The commercial system of air transportation, consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

Air Installation Compatible Use Zones (AICUZ): A land use compatible plan prepared by the U.S. Department of Defense for military airfields. AICUZ plans serve as recommendations to local governments bodies having jurisdiction over land uses surrounding these facilities.

Aircraft Accident: An occurrence incident to flight in which, as a result of the operation of an aircraft, a person (occupant or nonoccupant) receives fatal or serious injury or an aircraft receives substantial damage.

- Except as provided below, *substantial damage* means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component.
- Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage.

Aircraft Incident: A mishap associated with the operation of an aircraft in which neither fatal nor serious injuries nor substantial damage to the aircraft occurs.

Aircraft Mishap: The collective term for an aircraft accident or an incident.

Aircraft Operation: The airborne movement of aircraft at an airport or about an en route fix or at other point where counts can be made. There are two types of operations: local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

Airport: An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities if any. (FAR 1)

Airport Compatibility Zones: Areas on and near an airport in which land use and development restrictions are established to protect the safety of the public and include the Runway Protection Zone, Inner Approach/Departure Zone, Inner Turning Zone, Outer Approach/Departure Zone, Sideline Zone, and the Traffic Pattern Zone.

Airport Elevation: The highest point of an airport's useable runways, measured in feet above mean sea level. (AIM)

Airport Influence Area: An Airport Influence Area (AIA) is the area or areas in which current or future airport-related noise, over flight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The ALUC establishes its jurisdictional authority by designating one or more AIA(s). If the ALUC has not designated an AIA, PUC Section 21675.1(b) states that land within two miles of a public airport must be used instead..

Airport Land Use Commission (ALUC): A commission authorized under the provisions of California Public Utilities Code, Section 21670 et seq. and established (in any county within which a public-use airport is located) for the purpose of promoting compatibility between airports and the land uses surrounding them.

Airport Land Use Compatibility Plan (ALUCP): A planning document that contains policies for promoting safety and compatibility between public use airports and the communities that surround them. The ALUCP is the foundation of the airport land use compatibility planning process. It is adopted by the ALUC and reflects the ALUCs jurisdictional boundary.

Airport Layout Plan (ALP): A scale drawing of existing and proposed airport facilities, their location on an airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

Airport Master Plan (AMP): A long-range plan for development of an airport, including descriptions of the data and analyses on which the plan is based.

Airport Reference Code (ARC): A coding system used to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport. (Airport Design AC)

Airports, Classes of: For the purposes of issuing a Site Approval Permit, The California Department of Transportation, Division of Aeronautics classifies airports into the following categories: (CCR)

- *Agricultural Airport or Heliport:* An airport restricted to use only be agricultural aerial applicator aircraft (FAR Part 137 operators).
- *Emergency Medical Services (EMS) Landing Site:* A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near a medical facility and
  (1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in PUC Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters and
  (2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits, and
  (3) is not marked as a permitted heliport as described in Section 3554 of these regulations and
  (4) is used only for emergency medical purposes.
- *Heliport on Offshore Oil Platform:* A heliport located on a structure in the ocean, not connected to the shore by pier, bridge, wharf, dock or breakwater, used in the support of petroleum exploration or production.

- *Personal-Use Airport:* An airport limited to the non-commercial use of an individual owner or family and occasional invited guests.
- *Public-Use Airport:* An airport that is open for aircraft operations to the general public and is listed in the current edition of the *Airport/Facility Directory* that is published by the National Ocean Service of the U.S. Department of Commerce.
- *Seaplane Landing Site:* An area of water used, or intended for use, for landing and takeoff of seaplanes.
- *Special-Use Airport or Heliport:* An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations, and/or personal use.
- *Temporary Helicopter Landing Site:* A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and
  (1) is used or intended to be used for less than one year, except for recurrent annual events and
  (2) is not marked or lighted to be distinguishable as a heliport and
  (3) is not used exclusively for helicopter operations.

Ambient Noise Level: The level of noise that is all encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the receiver.

Approach Protection Easement: A form of easement that both conveys all of the rights of an avigation easement and sets specified limitations on the type of land uses allowed to be developed on the property.

Approach Speed: The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

Aviation-Related Use: Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. Such uses specifically include runways, taxiways, and their associated protected areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations, terminal buildings, etc.

Avigation Easement: A type of easement that typically conveys the following rights:

- A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with FAR Part 77 criteria).
- A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity.
- A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace.
- A right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.
- A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.

Based Aircraft: Aircraft stationed at an airport on a long-term basis.

California Environmental Quality Act (CEQA): Statutes adopted by the state legislature for the purpose of maintaining a quality environment for the people of the state now and in the future. The Act establishes a process for state and local agency review of projects, as defined in the implementing guidelines that may adversely affect the environment.

Ceiling: Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

Circling Approach/Circle-to-Land Maneuver: A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

Clear Zone: The military airport equivalent of runway protection zones at civilian airports.

Combining District: A zoning district that establishes development standards in areas of special concern over and above the standards applicable to basic underlying zoning districts.

Commercial Activities: Airport-related activities that may offer a facility, service or commodity for sale, hire or profit. Examples of commodities for sale are: food, lodging, entertainment, real estate, petroleum products, parts and equipment. Examples of services are: flight training, charter flights, maintenance, aircraft storage, and tiedown. (CCR)

Commercial Operator: A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

Commercial Service Airports: Public airports receiving scheduled passenger service and having 2,500 or more enplaned passengers per year. Commercial service airports are further broken down into Primary and Non-Primary Airports.

Community Noise Equivalent Level (CNEL): The noise metric adopted by the State of California for evaluating airport noise. It represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period. (State Airport Noise Standards)

Compatibility Plan: As used herein, a plan, usually adopted by an Airport Land Use Commission that sets forth policies for promoting compatibility between airports and the land uses that surround them. Often referred to as a *Comprehensive Land Use Plan (CLUP)*.

Controlled Airspace: Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

Day-Night Average Sound Level (DNL): The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is L_{dn}.

Decibel (dB): A unit measuring the magnitude of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear. For environmental noise from aircraft and other transportation sources, an *A-weighted sound level* (abbreviated dBA) is normally used. The A-weighting scale adjusts the values of different sound frequencies to approximate the auditory sensitivity of the human ear.

Deed Notice: A formal statement added to the legal description of a deed to a property and on any subdivision map. As used in airport land use planning, a deed notice would state that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas.

Departure Surface for Instrument Runways: Applied to runways with an instrument approach, this surface has a slope of 40:1 starting from the departure end of the runway with dimensions of 1,000 foot inner width, 6,466 foot outer width, and 10,200-foot-length.

Designated Body: A local government entity, such as a regional planning agency or a county planning commission, chosen by the county board of supervisors and the selection committee of city mayors to act in the capacity of an airport land use commission.

Displaced Threshold: A landing threshold that is located at a point on the runway other than the designated beginning of the runway (see *Threshold*). (AIM)

Easement: A less-than-fee-title transfer of real property rights from the property owner to the holder of the easement.

Equivalent Sound Level (L_{eq}): The level of constant sound that, in the given situation and time period, has the same average sound energy as does a time-varying sound.

Federal Aviation Regulations (FAR) Part 77: The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. FAR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace.

FAR Part 77 Surfaces: Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

Federal Aviation Administration (FAA): The U.S. government agency that is responsible for ensuring the safe and efficient use of the nation's airports and airspace.

Federal Aviation Regulations (FAR): Regulations formally issued by the FAA to regulate air commerce.

FAR Part 121 Operations: Operating requirements for Domestic, Flag, and Supplemental Air Carriers and Commercial Operators of Large Aircraft.

FAR Part 135 Operations: Operating requirements for Commuter, and On Demand Operations and rules governing persons on board such aircraft.

FAR Part 150 Study: A study that determines the amount of noise impact an airport generates from its operations with the purpose of reducing noise impacts on existing

Findings: Legally relevant subconclusions that expose a government agency's mode of analysis of facts, regulations, and policies, and that bridge the analytical gap between raw data and ultimate decision.

Fixed Base Operator (FBO): A business that operates at an airport and provides aircraft services to the general public including, but not limited to, sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

Floor Area Ratio (FAR): FAR expresses the relationship between the amount of useable floor area permitted in a building (or buildings) and the area of the lot on which the building stands. It is obtained by dividing the gross floor area of a building by the total area of the lot.

General Aviation: That portion of civil aviation that encompasses all facets of aviation except air carriers. (FAA Stats)

General Aviation Airport: Airports that do not receive scheduled commercial service, or do not meet the criteria for classification as a commercial service airport. General aviation airports have at least 10 locally based aircraft, are at least twenty miles from the nearest NPIAS airports

General Plan: A statement of policies, including text and diagrams, setting forth objectives, principles, standards, and plan proposals, for the future physical development of a city or county.

Glide Slope: An electronic signal radiated by a component of an ILS to provide vertical guidance for aircraft during approach and landing.

Global Positioning System (GPS): A navigational system that utilizes a network of satellites to determine a positional fix almost anywhere on or above the earth. Developed and operated by the U.S. Department of Defense, GPS has been made available to the civilian sector for surface, marine, and aerial navigational use. For aviation purposes, the current form of GPS guidance provides en route aerial navigation and selected types of nonprecision instrument approaches. Eventual application of GPS as the principal system of navigational guidance throughout the world is anticipated.

Helipad: A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

Heliport: A facility used for operating, basing, housing, and maintaining helicopters. (HAI)

Infill: Development that takes place on vacant property largely surrounded by existing development, especially development that is similar in character.

Inner Approach/Departure Zone: A rectangular area extending beyond the RPZ. If the RPZ widths approximately equal the runway widths, the Inner Approach/Departure Zoned extends along the sides of the RPZ from the end of the runway.

Inner Turning Zone: A triangular area over which aircraft are turning from the base to final approach legs of the standard traffic pattern. It also includes the area where departing aircraft normally complete the transition from takeoff to climb mode and begin to turn on their en route headings.

Instrument Approach Procedure: A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority (refer to *Nonprecision Approach Procedure* and *Precision Approach Procedure*). (AIM)

Instrument Flight Rules (IFR): Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

Instrument Landing System (ILS): A precision instrument approach system that normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

Instrument Operation: An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

Instrument Runway: A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

Intercounty Airport: An airport where a county line bisects a runway or any various safety compatibility zones.

Inverse Condemnation: An action brought by a property owner seeking just compensation for land taken for a public use against a government or private entity having the power of eminent domain. It is a remedy peculiar to the property owner and is exercisable by that party where it appears that the taker of the property does not intend to bring eminent domain proceedings.

Land Use Density: A measure of the concentration of land use development in an area. Mostly the term is used with respect to residential development and refers to the number of dwelling units per acre. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

Land Use Intensity: A measure of the concentration of nonresidential land use development in an area. For the purposes of airport land use planning, the term indicates the number of people per acre attracted by the land use. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

Land Use Map: A map showing land-use classifications as well as other important surface features such as roads, rail lines, waterways, and jurisdictional boundaries. Land Use Maps may show either existing or proposed land uses.

Large Airplane: An airplane of more than 12,500 pounds maximum certificated takeoff weight.(Airport Design AC)

Localizer (LOC): The component of an ILS that provides course guidance to the runway. (AIM)

Mean Sea Level (MSL): An elevation datum given in feet from mean sea level.

Minimum Descent Altitude (MDA): The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

Missed Approach: A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

National Transportation Safety Board (NTSB): The U.S. government agency responsible for investigating transportation accidents and incidents.

Navigational Aid (Navaid): Any visual or electronic device airborne or on the surface that provides point-to-point guidance information or position data to aircraft in flight. (AIM)

Noise Contours: Continuous lines of equal noise level usually drawn around a noise source, such as an airport or highway. The lines are generally drawn in 5-decibel increments so that they resemble elevation contours in topographic maps.

Noise Level Reduction (NLR): A measure used to describe the reduction in sound level from environmental noise sources occurring between the outside and the inside of a structure.

Nonconforming Use: An existing land use that does not conform to subsequently adopted or amended zoning or other land use development standards.

Nonprecision Approach Procedure: A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

Nonprecision Instrument Runway: A runway with an approved or planned straight-in instrument approach procedure that has no existing or planned precision instrument approach procedure. (Airport Design AC)

Obstruction: Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, the height of which exceeds the standards established in Subpart C of Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*.

One-Engine Inoperative (OEI) Obstacle Identification Surface: For airports with runways that support air carrier operations, this surface begins at the same elevation of the end of the departure runway and slopes upward at 1 foot vertically to 62.5 feet horizontally. The inner width of the OEI surface is 600 feet while the outer width is 12,000 feet. The surface extends for a distance of 50,000 feet along the runway centerline.

Outer Approach/Departure Zone: A rectangular area located along the extended centerline beyond the Inner Approach/Departure Zone.

Overflight: Any distinctly visible and/or audible passage of an aircraft in flight, not necessarily directly overhead.

Overflight Easement: An easement that describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes, and emissions. An overflight easement is used primarily as a form of buyer notification.

Overflight Zone: The area(s) where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

Overlay Zone: See *Combining District*.

Planning Area Boundary: An area surrounding an airport designated by an ALUC for the purpose of airport land use compatibility planning conducted in accordance with provisions of the State Aeronautics Act.

Precision Approach Procedure: A standard instrument approach procedure where an electronic glide slope is provided. (FAR 1)

Precision Instrument Runway: A runway with an existing or planned precision instrument approach procedure. (Airport Design AC)

Referral Area: The area around an airport defined by the planning area boundary adopted by an airport land use commission within which certain land use proposals are to be referred to the commission for review.

Runway Capacity: The number of landings and take-offs, or a combination of both, that can be accommodated without undue delays to aircraft with the minimal approach spacing published for IFR (instrument flight rules) and VFR (visual flight rules).

Runway Protection Zone (RPZ): An area (formerly called a *clear zone*) off the end of a runway used to enhance the protection of people and property on the ground. (Airport Design AC)

Safety Zone: For the purpose of airport land use planning, an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

Sideline Zone: A rectangular area in close proximity and parallel to the runway.

Single-Event Noise: As used herein, the noise from an individual aircraft operation or overflight.

Single Event Noise Exposure Level (SENEL): A measure, in decibels, of the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of the event exceeds a threshold noise level and normalized to a reference duration of one second. SENEL is a noise metric established for use in California by the state Airport Noise Standards and is essentially identical to *Sound Exposure Level (SEL)*.

Site Approval Permit: A written approval issued by the California Department of Transportation authorizing construction of an airport in accordance with approved plans, specifications, and conditions. Both public-use and special-use airports require a site approval permit. (CCR)

Small Airplane: An airplane of 12,500 pounds or less maximum certificated takeoff weight. (Airport Design AC)

Sound Exposure Level (SEL): A time-integrated metric (i.e., continuously summed over a time period) that quantifies the total energy in the A-weighted sound level measured during a transient noise event. The time period for this measurement is generally taken to be that between the moments when the A-weighted sound level is 10 dB below the maximum.

Straight-In Instrument Approach: An instrument approach wherein a final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

Taking: Government appropriation of private land for which compensation must be paid as required by the Fifth Amendment of the U.S. Constitution. It is not essential that there be physical seizure or appropriation for a *taking* to occur, only that the government action directly interferes with or substantially disturbs the owner's right to use and enjoyment of the property.

Terminal Instrument Procedures (TERPS): Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

Threshold: The beginning of that portion of the runway usable for landing (also see *Displaced Threshold*). (AIM)

Touch-and-Go: An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway. (AIM)

Traffic Pattern: The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

Traffic Pattern Zone: An elliptical area that includes the majority of other portions of regular air traffic patterns and pattern entry routes, and generally extends to the farthest point of 6,000 foot radius arcs from the centers of each of the primary surfaces and connecting lines tangent to those arcs.

Visual Approach: An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

Visual Flight Rules (VFR): Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum-generally, a 1,000-foot ceiling and 3-mile visibility.

Visual Runway: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan. (Airport Design AC)

Zoning: A police power measure, enacted primarily by units of local government, in which the community is divided into districts or zones within which permitted and special uses are established, as are regulations governing lot size, building bulk, placement, and other development standards. Requirements vary from district to district, but they must be uniform within districts. A zoning ordinance consists of two parts: the text and a map.

Glossary Sources

FAR 1: Federal Aviation Regulations Part 1, Definitions and Abbreviations

AIM: Aeronautical Information Manual

Airport Design AC: Federal Aviation Administration, *Airport Design* Advisory Circular 150/5300-13

CCR: California Code of Regulations, Title 21, Section 3525 et seq., *Division of Aeronautics*

FAA ATA: Federal Aviation Administration, *Air Traffic Activity*

FAA Stats: Federal Aviation Administration, *Statistical Handbook of Aviation*

HAI: Helicopter Association International

NTSB: National Transportation and Safety Board

Attachments