Final Environmental Impact Report
Mather Airport Comprehensive Land Use Plan Update
May 1997
AIRPORT LAND USE COMMISSION

Under provisions of the California Public Utilities Code, Chapter 4, Article 3.5, Section 21670.1, Airport Land Use Commission Law, the Sacramento Area Council of Governments (SACOG) has been designated the Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo and Yuba counties.

The Sacramento Area Council of Governments (SACOG) is an association of local governments formed by four counties and fifteen cities. SACOG serves the entire Counties of Sacramento, Sutter, Yolo and Yuba and the Cities of Lincoln, Rocklin and Roseville in Placer County.

SACOG is governed by a Board of Directors composed of county supervisors or city councilpersons, appointed by the member jurisdictions. The Board is advised by several policy and technical committees. A full-time staff is employed to implement Council policies and work programs, as well as coordinate the efforts of consultants who are retained to augment the staff's efforts.

SACOG serves as an advisory agency to local government on matters of interjurisdictional concern, and has developed a comprehensive planning program in the areas of transportation, housing, water quality, airport land use and air quality.

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INTRODUCTION

This document represents the Final Environmental Impact Report (FEIR) for the proposed Mather Airport Comprehensive Land Use Plan Update. It consists of the Draft Environmental Impact Report (DEIR), comments received on the DEIR and the written responses to these comments.

The Airport Land Use Commission, as the "lead agency", used several methods to solicit input on the DEIR. These methods included the distribution of a Notice of Preparation, the DEIR, and the Notice of Completion. The DEIR was distributed to various public agencies and interested individuals. Copies of the DEIR were also made available to the general public at the Airport Land Use Commission offices and area libraries. The DEIR was publicly circulated on June 20, 1996 for a period of public review and comment. The public review period ended on August 5, 1996. All comments received during the DEIR public review period are presented in this Final EIR (FEIR).

According to CEQA Guidelines Section 15132, the FEIR shall consist of the following:

- the DEIR or a revision of the DEIR;
- comments and recommendations received on the DEIR, either verbatim or summary;
- a list of persons, organizations, and public agencies commenting on the DEIR;
- the response of the Lead Agency to significant environmental points raised in the review and consultation process; and
- any other information added by the Lead Agency.

This FEIR is comprised of two major sections. The first Section consists of the original DEIR in its entirety, and the second section contains the comments received on the DEIR and written responses to these comments.
SECTION I

DRAFT ENVIRONMENTAL IMPACT REPORT
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1. INTRODUCTION AND SCOPE OF EIR

INTRODUCTION

This Environmental Impact Report (EIR) assesses the potential environmental effects of the proposed Mather Airport Comprehensive Land Use Plan Update (CLUP Update) (the proposed project). The project consists of a major amendment to the existing Mather Air Force Base Comprehensive Land Use Plan, adopted January 1987, which is necessitated due to the conversion of Mather from an Air Force Base to a public-use airport. As required by Section 15126 and 15130 of the Guidelines for Implementation of the California Environmental Quality Act (CEQA of 1970, as amended), this EIR assesses the expected impacts of the ultimate environmental changes resulting from adoption of the project, identifies means of minimizing potential adverse impacts, and evaluates reasonable alternatives to the proposed project, including the required No Project Alternative.

The Sacramento Area Council of Governments, acting in its capacity as the Airport Land Use Commission (ALUC) for the Counties of Sacramento, Sutter, Yolo and Yuba, is the "lead agency" for the project evaluated in this EIR and as such has the responsibility for approving the project. The EIR will be used in the ALUC's decision-making process for approval of the Mather Airport CLUP Update.

SCOPE OF THIS EIR

Purpose of EIR

The purpose of this EIR is (1) to identify the potential significant effects of the proposed project on the environment and to indicate the manner in which those significant effects can be mitigated or avoided; (2) to identify any unavoidable adverse impacts that cannot be mitigated; and (3) to identify alternatives to the project. Although the EIR does not control the ultimate decision on the project, the ALUC must consider the information in the EIR and respond to each significant effect identified in the EIR.

As provided in the CEQA Guidelines, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. In discharging this duty, the public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social (Section 15021 of the CEQA Guidelines). The EIR is an informational document, the purpose of which is to inform public agency decision-makers and the general public of the significant environmental effects of a proposed project.

Additionally, the EIR identifies possible means to minimize the significant effects, if possible, and describes reasonable alternatives to the project. The public agency is required to consider the information in the EIR, along with any other relevant information, in making its decision on the project (Section 15121 of the CEQA Guidelines). Sections 15122 through 15132 of the CEQA Guidelines describe the content requirement for Draft and Final EIRs. The basic content of an EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.
Focus of EIR

Pursuant to State CEQA Guidelines, the focus of this Draft EIR includes specific issues and concerns identified as potentially significant. An Initial Study was prepared to identify issues of concern and potentially significant impacts associated with the proposed project. The Initial Study identified the following potentially significant impacts which could be caused by implementing the proposed project:

- Noise
- Effects to Public Health and Safety

The Initial Study and Notice of Preparation (NOP) were circulated by the ALUC for a 30-day public review period on March 19, 1996. Copies of the Initial Study and NOP are included in this document as Appendix A. Comments received in response to the NOP, and responses to these comments, are included in this EIR as Appendix B.

Subsequent to circulation of the Initial Study and Notice of Preparation, an additional potentially significant impact associated with the proposed project was identified. This impact is:

- Growth Inducement

This EIR focuses on potential impacts resulting from the adoption of the proposed project in the three areas identified above.

Introduction to the Analysis

Chapter 4 contains an analysis of each environmental issue, and as such, constitutes the major portion of the Draft EIR. Sections 4.1 through 4.3 describe for each environmental issue area: the focus of the analysis, references and other data sources for the analysis undertaken, the environmental setting as it relates to the specific issue; standards of significance for identifying impacts; project-specific impacts and mitigation measures; and cumulative impacts of the proposed project for each issue area. The format of each of the sections is further described below.

Determination of Significance

Under CEQA a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment (Public Resources Code 21068). The Guidelines implementing CEQA direct that this determination be based on scientific and factual data. The specific criteria used in this EIR for determining the significance of a particular impact are identified prior to the project-specific impact discussion in each issue section, and are consistent with significance criteria set forth in the CEQA Guidelines.

Format of Issue Sections

Each issue section in Chapter 4 consists of the following four parts: Introduction, Setting, Impacts and Mitigation Measures, and Cumulative Impacts.

The Introduction describes the purpose of the section. The Setting section describes the existing conditions as applicable, and related plans, policies, and regulations.

The Impacts and Mitigation Measures section identifies the potential impacts of the proposed project. This section identifies standards for determining impact significance. The pre-mitigation
level of significance for each impact is established. Specific mitigation measures, when feasible, and potential impact significance after implementation of the mitigation measures are identified.

**Organization of the EIR**

The EIR is organized into the following sections:

**Chapter 1 - Introduction and Scope of EIR:** Provides an introduction and overview describing the intended use of the EIR and the review and certification process.

**Chapter 2 - Summary of Impacts and Mitigation Measures:** Summarizes environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation.

**Chapter 3 - Project Description and Description of Alternatives:** Provides a detailed description of the proposed project, including its location, background information, and major objectives.

**Chapter 4 - Environmental Setting, Impacts and Mitigation Measures:** Contains a project specific analysis of environmental issue areas. The subsection for each environmental issue contains an introduction and description of the setting of the project site, identifies project-specific impacts, and recommends appropriate mitigation measures.

**Chapter 5 - Statutorily Required Sections:** Provides discussions required by CEQA regarding impacts that would result from the proposed project, including: a summary of cumulative impacts; potential growth-inducing impacts; unavoidable changes to the environment; and unavoidable significant impacts which cannot be mitigated. A brief overview of cumulative impacts for each environmental issue is also presented at the end of each issue section in Chapter 4.

**Chapter 6 - Alternatives Analysis:** Describes the alternatives to the proposed project and their associated environmental effects.

**Chapter 7 - Bibliography:** Itemizes supporting and reference data used in the preparation

**Chapter 8 - Report Preparation and Persons Contacted:** Lists authors responsible for EIR preparation and others assisting in the preparation and review of the EIR.

**Chapter 9 - Appendices:** Includes technical appendices to the EIR.
PROJECT UNDER REVIEW

This EIR evaluates the environmental impacts of the proposed Mather Airport Comprehensive Land Use Plan Update. A more detailed description is contained in Chapter 3.

SUMMARY OF IMPACTS

This summary provides an overview of the analysis contained in Chapter 4, Environmental Setting, Impacts and Mitigation Measures. This summary includes effects found not to be significant, significant impacts, mitigation measures to avoid or reduce identified significant impacts, and unavoidable significant impacts.

Summary of Impacts

The following discussion summarizes the impacts associated with implementation of the proposed project and recommended mitigation measures which shall be adopted if the project is to be approved. The impacts and mitigation measures are more fully described in Chapter 4 of this EIR.

4.1 Public Safety

Impacts

4.1-1 The proposed project would result in exposing existing incompatible land uses within future safety zones to an increased safety hazard due to increased future aircraft operations as compared to current operations. This is considered to be a significant and unavoidable impact.

The Mather Air Force Base Hospital is located within the Overflight Zone as designated in the 1987 Mather Air Force Base CLUP. The hospital was an existing use at the time of the Mather Air Force Base CLUP adoption, and was therefore allowed to remain in operation. The hospital would continue to be exempt from standards contained in the proposed Mather Airport CLUP Update as long as it did not increase in size, or change its use to a new incompatible use.

Because existing uses at a given site are exempt from new CLUP standards, with the exception that they may not expand or be converted to other incompatible uses, all the existing land uses at Mather Air Force Base would be exempt from safety zone standards associated with the CLUP update. Future proposed development would be subject to conformance with the land use compatibility guidelines for safety and population density requirements identified in the proposed Mather Airport Comprehensive Land Use Plan Update. Adoption of the proposed CLUP Update would therefore prevent the creation of new incompatible uses. In addition, redevelopment or changes to existing land uses would be subject to compliance with the proposed Mather Airport Comprehensive Land Use Plan Update.

Mitigation Measures

4.1-1 None available.
4.2 Noise

Impacts

4.2-1 Operation of the Mather Airport would generate aircraft noise which would expose existing incompatible residential and commercial uses to increased levels of aircraft noise as compared to current levels. This is considered to be a significant and unavoidable impact.

The proposed project would impact fewer residents then when Mather Air Force Base was in full operation as a military facility. When comparing the proposed project buildout 65 CENL noise contours to the pre-closure Mather Air Force Base CLUP noise contours, the reduction in aircraft noise in all areas within and surrounding the project area is apparent. For example, during full operation of Mather Air Force Base, existing homes located along Jackson Road between Mayhew Road and Bradshaw Road were exposed to noise levels of approximately 80 Ldn. Operation of the proposed project would expose these same residents to aircraft noise levels less than 70 CENL.

The proposed Mather Airport CLUP Update proposes the adoption of new noise contours for the vicinity around the airport. Future development would be compatible within the new 65 CENL noise contours only if it is consistent with the land use compatibility guidelines for noise proposed in the CLUP update. Therefore, there would be no significant impact on future development due to aircraft noise as a result of airport operations. However, existing residential uses would still be exposed to significant exterior noise levels. Interior noise levels can be mitigated to a less-than-significant level by providing exterior to interior noise reduction mitigation to 45 Ldn for habitable space. Implementation of this mitigation measure is not, however, within the authority of the ALUC. Any noise insulation of these uses would have to be undertaken by Sacramento County. Exterior noise levels cannot be mitigated, therefore, this impact is still considered significant and unavoidable.

Mitigation Measures

4.2-1 Although the proposed CLUP acknowledges that changes in the operations of Mather Airport reduces noise impacts on existing residential uses, Sacramento County should consider testing existing residential uses located within the 65 CENL noise contour proposed by the Mather Airport CLUP Update to determine if interior noise levels would exceed 45 CENL in habitable spaces. Where this level is found to be exceeded, Sacramento County should consider implementing a program to pay for all or a portion of noise reduction measures for existing residential structures to reduce interior noise levels to 45 CENL.

This is considered to be a significant and unavoidable impact.

4.3 Growth Inducement

Impacts

4.3-1 The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those land uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update. This has the potential to result in the development of additional residential, commercial or industrial uses around the airport which are not currently allowed.
The noise and safety planning boundaries proposed by the CLUP Update are smaller in dimension than are the existing Mather Air Force Base CLUP planning boundaries for noise and safety. Land uses currently located within the existing planning boundaries but outside of the proposed planning boundaries that are defined as incompatible uses by the existing CLUP would no longer be incompatible under the proposed CLUP Update. The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update. The potential exists, therefore, for the development of additional residential, commercial or industrial uses which could foster additional economic or population growth in areas around the airport.

For any additional growth around the airport to occur other than that currently planned, Sacramento County would have to adopt changes to its existing general plan land use and zoning designations. Adoption of a CLUP by an Airport Land Use Commission does require the affected jurisdiction to ensure that its land use regulations are consistent with the ALUC adopted planning boundaries and land use compatibility guidelines around an airport. In this case, however, adoption of the CLUP Update by the ALUC would not require Sacramento County to modify its existing general plan land use and zoning designations, since these regulations are already consistent with the CLUP Update.

The County took action following ALUC adoption of the existing CLUP to achieve consistency between its land use regulations and the CLUP. The noise and safety planning boundaries proposed by the CLUP Update are smaller than, and entirely contained within, the existing Mather Air Force Base CLUP planning boundaries for noise and safety. Changes by the County to existing land use or zoning designations on any specific parcels of land would therefore not be required, since these designations are currently consistent with the planning boundaries proposed by the CLUP Update. This is atypical of most situations when a CLUP is updated to reflect changes in noise or safety areas around an airport. Generally, these changes result in new planning boundaries which are larger than previous ones, and usually require action on the part of a jurisdiction to modify affected land use regulations to achieve consistency with the updated CLUP.

While ALUC adoption of the CLUP Update will not require the County to change existing land use or zoning designations on any specific parcels of land, the reduction in noise and safety planning boundary dimensions would remove a barrier to development should the County decide on its own to change existing land use or zoning designations on land currently located within the existing CLUP planning boundaries but outside of the proposed planning boundaries. ALUC law does permit a jurisdiction to approve projects consisting of 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 which are incompatible with an adopted CLUP. Such approval can only occur, however, if the jurisdiction takes formal action to overrule the ALUC CLUP by a two-thirds vote of its governing body following a public hearing, and adopts specific findings that the proposed action is consistent with the purposes of ALUC law.

ALUC adoption of the CLUP Update would effectively make those land uses that are currently defined as incompatible uses within existing CLUP planning boundaries compatible uses if they are located outside of the proposed CLUP Update planning boundaries. The requirement for the County to take formal action to overrule the CLUP when adopting the land use entitlements referred to above would therefore be eliminated for uses within this area. This removal of a potential constraint to development is considered a significant and unavoidable impact which cannot be mitigated.

**Mitigation Measures**

4.3-1 None Available.
3. PROJECT DESCRIPTION AND DESCRIPTION OF ALTERNATIVES

**Project Location**

The project includes Mather Airport and the area around the airport overflown by aircraft using the airport's two runways. Mather Airport is located in the central portion of Sacramento County, approximately one-half mile south of Highway 50 at Mather Field Road, and approximately 12 miles east of downtown Sacramento. The regional location of the airport is depicted in Figure 1, and the airport's local location shown in Figure 2.

**Project Objective**

The objective of the Airport Land Use Commission is to update the existing Mather Air Force Base Comprehensive Land Use Plan to reflect the Base's conversion to a public-use, general aviation airport using the standards adopted in the Airport Land Use Commission Policy Plan, as amended December 1992. The Policy Plan establishes standards for determining planning boundaries for height noise and safety around public-use airports, and also establishes land use compatibility criteria.

**Project Characteristics**

The proposed Mather Airport CLUP Update was prepared by the Airport Land Use Commission (ALUC) under the authority of the Airport Land Use Commission Law, Chapter 4, Article 3.5, California Public Utilities Code. The purpose of the Airport Land Use Commission Law is to:

1. Protect public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise.
2. Prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utility of these airports into the future.

These purposes are implemented through Airport Land Use Commissions, which are required in every county with a public use airport or with an airport served by a scheduled airline. The Sacramento Area Council of Governments (SACOG) has been designated the ALUC for the counties of Sacramento, Sutter, Yolo and Yuba. Under the provisions of the Law, the ALUC is required to prepare a CLUP for each public airport within its jurisdiction.

The Airport Land Use Commission fulfills its responsibilities in four basic ways:

1. The adoption of a basic Airport Land Use Commission Policy Plan.
2. The adoption of land use plans for individual airports called "Comprehensive Land Use Plans" (CLUPs) which contain land use compatibility guidelines for height, noise, and safety. Individual CLUPs prepared for public airports are based upon the standards established by the ALUC Policy Plan.
Figure 1
Regional Location
3. The incorporation of the land use compatibility guidelines contained in the CLUP into the general plan and land use regulations by cities and counties with jurisdiction over any geographic area subject to the CLUP.

4. ALUC review and determination of compatibility of individual development proposals, general plan amendments, and other land use plans and regulations around airports.

The Comprehensive Land Use Plan (CLUP) is the key to implementation of the ALUC law. It provides the land use compatibility guidelines on which compatibility of land uses are determined. It also establishes the planning boundaries around the airport. Planning boundaries are established for height, noise, and safety.

The concerns of airport land use planning fall into three categories:

- **Height Restrictions** - protecting the navigable airspace around airports for aircraft safety;
- **Noise Compatibility** - minimizing the number of people exposed to noise from aircraft operations;
- **Safety of Persons on the Ground** - minimizing the number of people exposed to hazards related to aircraft operations and accidents.

The findings, policies, and guidelines contained in the plan have three major functions:

1. To protect the airport from encroachment by incompatible land uses;
2. To safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general by protecting them from the adverse effects of aircraft noise and reducing the number of people exposed to airport-related hazards; and
3. To ensure that no structures affect navigable airspace.

The proposed Mather Airport CLUP Update establishes planning boundaries for the airport and provides guidelines that define compatible types and patterns of future land use. It should be clearly understood that the plan provides a basis for determining compatible land uses and is not a specific development plan. The plan neither sets forth specific land uses for any particular parcel or parcels of land, nor is it retroactive with respect to any existing incompatible land uses.

State ALUC law requires that a CLUP be based on a long-range master plan or an airport layout plan, as determined by the Aeronautics Program of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. The planning boundaries established by a CLUP are, therefore, based upon the future operations expected at an airport. It should be clearly understood that a CLUP itself does not establish any control over airport operations. State ALUC law does not give the Airport Land Use Commission jurisdiction over the operation of any airport. The ALUC, therefore, has no power over such things as the number of aircraft which can be based at an airport, the number of operations which can occur, the flight patterns which aircraft use, or the hours during which aircraft can use an airport.

This EIR focuses on the impacts associated with adoption of an update to the Mather Air Force Base Comprehensive Land Use Plan, not on the impacts associated with the operation of the airport. The impacts associated with airport operation were analyzed in the **Mather Field County-Operated Aviation Facility Final Environmental Impact Report**, dated September 1994.
While the plan provides a guide to compatible land uses around the airport, some development already exists in the area surrounding the airport that is inconsistent with the compatibility guidelines. The proposed Mather Airport CLUP Update is primarily directed at preventing new problems of land use incompatibility, not at removing existing incompatible uses. Incompatible development that currently exists is recognized as an existing incompatible land use. It should be noted that although the ALUC recognizes the existence of these incompatible land uses, neither the plan, nor the ALUC, finds these uses to be consistent with this plan.

Airport planning boundaries define areas where height, noise, or safety restrictions are imposed. Height standards for defining obstructions to air navigation are established by the Federal Aviation Administration (FAA) and are defined in Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. Noise restrictions are governed by California Administrative Code, Title 21, Subchapter 6. Airport safety areas are determined by the Airport Land Use Commission. The total area encompassed by these three sets of boundaries is referred to as the "Airport Area of Influence".

Following adoption by the ALUC, a CLUP is transmitted to all jurisdictions affected by the plan. State Law (Government Code, Section 65302.3) requires that the local jurisdiction take action within 180 days to assure that its land use regulations are consistent with the provisions of the CLUP. The law provides for two methods by which to achieve this consistency:

1. To amend pertinent portions of general plans, specific plans, zoning ordinances, or other land use regulations as necessary to achieve consistency with the CLUP. Once this is done, the local jurisdiction, through enforcement of its land use controls and regulations, effectively becomes the agency that actually implements the standards contained within a CLUP.

2. In the event a Board of Supervisors or City Council does not agree with specific provisions of a CLUP, it can satisfy the consistency requirement by overruling specific provisions of the ALUC plan by a two-thirds vote. The overruling must, however, be made after a public hearing and must be based on specific findings that the proposed action is consistent with the purposes of the Airport Land Use Commission Law.

If the ALUC finds that a city or county has not revised its general plan or specific plan, or overruled the ALUC, the ALUC may require that city or county to submit all subsequent actions, regulations or permits in the affected airport area to the ALUC for consistency determination. If the ALUC finds the proposed action inconsistent, the city or county must hold a public hearing to reconsider its proposal. If, after the public hearing, the city or county still wishes to pursue the action, it may overrule the ALUC on a two-thirds vote, based on specific findings.

**DESCRIPTION OF ALTERNATIVES**

The following discussion describes the alternatives that were evaluated in addition to the proposed project as part of this EIR. Chapter 6 contains the complete text of the Alternatives Analysis.

**No Project Alternative**

The No Project Alternative assumes that the ALUC does not adopt the Mather Airport CLUP Update. This would leave the existing Mather Air Force Base CLUP in effect as the ALUC plan.
which establishes planning boundaries for height, noise and safety, as well as land use compatibility surrounding the airport.

**ALUC Policy Plan Alternative**

The ALUC Policy Plan Alternative assumes that the ALUC does not adopt the proposed Mather Airport CLUP Update and, further, rescinds the existing Mather Air Force Base CLUP. The ALUC Policy Plan, by default, would then become the document which establishes height, noise and safety planning boundaries as well as land use compatibility guidelines for land uses around the airport.

**More Restrictive Mather Airport CLUP Update Alternative**

The More Restrictive Mather Airport CLUP Update Alternative assumes ALUC adoption of safety areas and/or land use compatibility guidelines for safety which are more restrictive than those proposed in the Mather Airport CLUP Update, but less restrictive than those established by the existing Mather Air Force Base CLUP. This could include either larger Clear Zone, Approach-Departure Zone or Overflight Zone areas, or safety zones having the same dimensions as the proposed project, but with more restrictive land use compatibility guidelines for safety. This alternative could also include both larger safety areas and more restrictive safety guidelines. Noise contour dimensions would not change under this alternative, since the proposed project's noise contour dimensions have been established based upon a set of airport build-out assumptions which would not be altered by any of the project alternatives. The land use compatibility guidelines for noise under this alternative are, however, assumed to be more restrictive than those of the proposed project.

**Less Restrictive Mather Airport CLUP Update Alternative**

The Less Restrictive Mather Airport CLUP Update Alternative assumes ALUC adoption of planning boundaries and/or land use compatibility guidelines which are less restrictive than those proposed in the Mather Airport CLUP Update. This could include either smaller Clear Zone, Approach-Departure Zone or Overflight Zone areas, or safety zones having the same dimensions as the proposed project, but with less restrictive land use compatibility guidelines for safety. This alternative could also include both smaller safety areas and less restrictive safety guidelines. Noise contour dimensions would not change under this alternative, but the land use compatibility guidelines for noise under this alternative are assumed to be less restrictive than those of the proposed project.
4. ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES
4.1 PUBLIC SAFETY

INTRODUCTION

This section addresses public safety issues relating to airport safety zones associated with the proposed Mather Airport CLUP Update. Since there are residential and commercial developments immediately surrounding the project site, this analysis identifies aircraft accident rates and development restrictions in proposed safety zones associated with the project.


SETTING

Airport History

Mather Air Force Base was originally constructed in 1918 as an air base for flight training. The facility was deactivated and reopened on and off from 1922 through 1940. By 1941 the base was utilized for pilot and navigator training, and has remained open through September, 1993. In 1944, the runways were lengthened to handle the B-29 bombers stationed at the Air Base during World War II. For the last fifty years Mather Air Force Base had been the primary training post for the United States Air Force (USAF) and Allied Force pilots. Additional services provided at the base included medical, administrative, personnel, engineering and logistics support.

Existing flight facilities include two parallel runways. The primary runway is 11,301 feet long and 300 feet wide, and the other is 6,040 feet long and 150 feet wide. Both runways are lit and the primary runway is equipped with precision navigation systems for all purpose weather operations. Other runway structures include taxiways, parking aprons, and navigational aids capable of handling the C-5A Galaxy, the largest aircraft used by the Air Force.

In October 1988, the U.S. Congress enacted the first Base Realignment and Closure Act (BRCA). This legislation identified a series of military facilities around the country that were considered in excess of the military's requirements. In California the legislation called for the closure of Mather, Norton, and George Air Force Bases, as well as other military installations. In December 1988, the decision to close Mather Air Force Base was officially announced by the Department of Defense.

Following the base closure announcement, the Sacramento County Board of Supervisors initiated reuse planning activities with the appointment of the Sacramento Area Commission on Mather Conversion and, later, the Mather Internal Study Team. A major element of the various recommended reuse plans included retention of aviation use. In fall 1991, the Board's endorsed comprehensive reuse plan for Mather Airport was forwarded to the Air Force. In March 1993, the Air Force issued a Record of Decision for the disposal of the base. Base aviation facilities were subsequently transitioned over to the County. On May 5, 1995, Mather Airport was officially reopened as a civilian airport.

Future Airport Use

Development of the Mather Airport is expected to include use of the airport by large, heavy, military and civilian transport (described by landed weights in excess of 100,000 pounds) aircraft. Of the approximately 105,500 annual aircraft operations projected for the first year of the airport
operations, 90,000 are from general aviation, 13,500 from government aircraft use and 2,000 are from civilian transport.

Current projections of airport operations extend to 2010, when 162,500 total annual operations are projected. Of the total, 118,000 are expected to come from general aviation, 25,500 from government aircraft and 19,000 from civilian transport. These projections are shown in Figure 3. The buildout level of operations at Mather Airport is assumed to be about 295,000 operations. Full capacity at buildout is not expected to occur until after the post-2025 time period assuming current growth rates.

**Figure 3**

**Forecast of Aviation Activity at Mather Airport**

(Annual Aircraft Operations)

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<td>116,800</td>
<td>139,600</td>
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</table>

Source: Mather Airport Manager

**Traffic Patterns**

Currently, there are limited aviation operations occurring at the airport, however, past operations are described for this analysis. The area around Mather Airport consists of low foothills and flat terrain which creates an excellent and unobstructed view for precision, non-precision instrument and visual approach flying. Due to a prevailing wind from the south, most takeoffs are to the southwest. Mather Airport runways are oriented at a 90 degree angle to both McClellan AFB and Sacramento Executive Airport. When the winds are from the north, the aircraft at these two airports land to the north, while Mather Airport traffic departs to the southwest. This creates a conflict since the departing traffic traverses into the flow of landing traffic. According to Terminal Radar Approach Control Facility (TRACON), these wind conditions occur approximately 20% of the time.

**Accident Rates and Causes**

Areas around airports are exposed to the possibility of aircraft accidents even with well-maintained aircraft and highly trained pilots. Despite stringent maintenance requirements and countless hours of training, history makes it clear that accidents are going to occur.

Airport safety areas are established to minimize the number of people exposed to aircraft crash hazards. This is accomplished by placing restrictions on land uses in various safety areas.

**Military Aircraft Accident Statistics**
Military aircraft accidents differ from commercial air carrier and general aviation accidents because of the variety of aircraft used, the type of missions flown, and the number of training flights. In 1973, the USAF performed a service-wide aircraft accident hazard study in order to identify land near airfields with significant accident potential. The accidents studied occurred within ten nautical miles of airfields and were related to airfield-associated in-flight mishaps. The study reviewed 369 major USAF accidents and found that 61% were related to landing operations and 39% were take-off related. It also found that 70% occurred in daylight and that fighter and training aircraft accounted for 80% of the accidents.

General Aviation Aircraft Accident Statistics

The National Transportation Safety Board (NTSB) maintains extensive data on aviation accidents and their causes. Although the NTSB collects data on all accidents, it is primarily the characteristics of accidents near airports, usually within one mile of the airport that are of greatest concern in land use planning. The NTSB defines accidents as "the occurrences incident to flights in which, as a result of the operation of an aircraft, any person (occupant or non-occupant) receives fatal or serious injury or any aircraft receives substantial damage." Substantial damage is defined as:

- damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component.

Serious injury is defined as any injury which:

- requires hospitalization, commencing within seven days from the date the injury was received;
- results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
- involves lacerations which cause severe hemorrhages, nerve, muscle, or tendon damage;
- involves second- or third-degree burns, or any burns affecting more than five percent of body surface.

Fatal injuries are defined as injuries which result in death within 30 days of the accident.

For general aviation aircraft, accident rates are almost equal between landing and takeoff phases. A study of general aviation accidents (accidents occurring off airport property but within one mile) from 1974-1979 indicated 3,241 accidents related to landing and 3,182 related to takeoff. A significant factor affecting general aviation accidents is pilot error. The NTSB study found the pilot was a related factor in 83% of general aviation accidents. In addition, the NTSB and FAA compiled data regarding accident injury rates from off-airport accidents at public use airports from 1986-1988. The data indicates that .36 off-airport accidents occurred for every 100,000 operations (an operation being either a takeoff or a landing), and that .006 fatal and .004 serious injuries occurred on the ground for every 100,000 operations.

Mather Air Force Base Comprehensive Land Use Plan

The risk of people on the ground being killed or injured by a falling plane is small; however, an aircraft crash is a high consequence event and when a crash does occur, the result is often catastrophic. Because of this, most attempts at setting safety standards on the ground have not attempted to estimate accident probabilities. They have, instead, approached safety standards by determining compatible land uses assuming a crash would occur. Comprehensive land use plans are based on that approach.

The air safety analysis contained in the Mather Air Force Base Comprehensive Land Use Plan (CLUP), January 1987, focused on military aircraft accidents occurring within ten nautical miles of military airfields. In the analysis, safety zones were established to indicate areas which have a greater risk of aircraft accidents and in which land use controls are needed. Safety zones for the
proposed project are discussed below. With development of the Airport, the type of airport use will change from military to general aviation. This change in use requires changes to the size and configuration of the safety zones at Mather Airport as opposed to those currently established by the Mather Air Force Base CLUP.

In some cases, the existing land uses at Mather Airport conflict with the Land Use Compatibility Guidelines for Safety found in the 1987 Mather Air Force Base CLUP (i.e., the location of a hospital in the Overflight Zone). The hospital was an existing land use at Mather Air Force Base at the time of the 1987 CLUP adoption. The CLUP does not retroactively prohibit the continued operation of existing incompatible land uses. It does, however, prohibit their expansion. Also, if an existing incompatible use is destroyed, the CLUP prohibits replacement of the use.

Future development and/or proposed new land uses currently must comply with land use restrictions contained in the 1987 CLUP. Future development and/or new land uses slated for the Mather Airport would be required to comply with the proposed Mather Airport CLUP Update, when adopted. Existing uses would not be required to comply with the new CLUP providing those uses do not expand or change to other incompatible uses under future development.

**Existing Mather Air Force Base CLUP Safety Zones**

Airport Safety Zones designated in the Mather Air Force Base CLUP are the Clear Zone, the Approach-Departure Zone, and the Overflight Zone. The Clear Zone is the area immediately at the end of the runway. Its length and width are defined by the runway classification and type of approach outlined in FAR Part 77. The Approach-Departure is located beyond the Clear Zone and the end of each runway along the primary flight paths. The Overflight Zone is the area typically flown during normal air traffic procedures.

**Clear Zone**

This is the most restrictive safety area. Clear Zones have the highest potential for aircraft accidents, and CLUP land use compatibility guidelines define most land uses to be incompatible within them. Exceptions are uses such as agriculture, open space, and those which do not result in the development of permanent structures.

Within Clear Zone land use should be controlled to restrict the following:

- Any use which would penetrate a height restriction plane established by FAR Part 77.
- Any use which would raise the weather minimums for an existing or planned instrument approach.
- Permanent structures (not necessarily including such items as roads, railroads, or underground vaults).
- Residential development.
- Any use which may result in short or long term concentration of people.
- Hazardous installations such as oil or gas storage facilities.
The Airport Land Use Commission has designated the following airport Clear Zone area for Mather Air Force Base:

- **Primary Runway (large):** An area starting at each end of the runway surface that is 3,000 feet wide, is centered on the extended runway centerline, and extends outward 3,000 feet.

- **Secondary Runway (small):** An area starting at each end of the runway surface that is 2,000 feet wide, is centered on the extended runway centerline, and extends outward 3,000 feet, except for the clear zone at the southwest end of the runway, which extends to the inner end of the primary runway clear zone.

The designated Clear Zone indicates geographic areas in which land uses and population density are restricted to conditions specified by the Airport Land Use Commission. The following generalized land uses are defined as incompatible:

- Permanent structures, not necessarily including such uses as road, railroads or underground vaults.

- Residential development.

- Any use which could attract people.

**Approach-Departure Zone**

The Airport Land Use Commission has designated the following airport Approach-Departure Zone areas for Mather Air Force Base.

- An area 3,000 feet wide and 12,000 feet long, that starts at the outer end of the clear zone, and is centered along the extended centerline of the runway.

The designated Approach-Departure Zone indicates geographic areas in which land uses and population density are restricted to conditions specified by the Airport Land Use Commission.

The following generalized land uses are defined as incompatible:

- Residential development which would result in population density greater than one single-family detached dwelling unit per five acres, except the rebuilding of or minor alteration to existing structures and the construction of new structures on lots created by residential subdivision maps recorded prior to the date this plan is adopted.

- Any use which would result in concentrations of people such as, but not limited to: shopping centers, restaurants, schools, factories, hospitals, office complexes, stadiums, auditoriums, arenas, or recreation facilities.

**Overflight Zone**

This is the least restrictive of the three safety areas. This area should generally coincide with that overflown by local traffic patterns. Within this area, land use should be controlled to restrict, depending on location, any use which would result in large concentrations of people such as stadiums, hospitals or schools.
In addition to the restrictions listed above, the following land uses should be controlled in all safety areas:

- Any use which would direct a steady light or flashing light of white, red, green or amber color toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing at the airport, other than an FAA approved navigational signal light or visual approach slope indicator (VASI).

- Any use which would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following take-off or toward an aircraft engaged in a straight final approach toward a landing at an airport.

- Any use which would generate smoke or which could attract large concentrations of birds, or which may otherwise affect safe air navigation within this area.

Overflight zone dimensions are determined by reviewing the flight patterns for an airfield and developing a zone that will include that land overflown by aircraft in a take-off or landing phase, aircraft using flight paths associated with training touch and go operations, and aircraft maneuvering near the airfield after take-off before landing.

The Airport Land Use Commission has designated the following airport Overflight Zone areas for Mather Air Force Base.

An area enveloping the airfield flight pattern and maneuvering area, constructed by combining two rectangles of the following dimensions.

- The first, with a southeasterly boundary 16,000 feet from and parallel to the extended centerline of the large runway, with a northwest boundary 2,500 feet from and parallel to the extended centerline of the large runway, and with ends connecting these parallel line 34,000 feet from each end of the large runway.

- The second, with a northwesterly boundary 12,000 feet from and parallel to the extended centerline of the small runway and ends 14,000 feet from each end of the small runway connecting the northwest boundary to the large rectangle.

The designated Overflight Zone indicates geographic areas in which land uses and population density are restricted to conditions specified by the Airport Land Use Commission.

The following generalized land uses are defined as incompatible:

- Hospitals
- Stadiums and arenas
- Auditoriums and concert halls
- Outdoor amphitheaters and music shells
- Regional shopping centers
- Jails and detention centers

**Proposed Mather Airport CLUP Update Safety Zones**

The Airport Land Use Commission establishes safety area dimensions for public-use airports.
based upon the standards established by the Airport Land Use Commission Policy Plan, as amended December 1992. As applied to Mather Airport, the safety zones proposed by the Mather Airport CLUP Update are as follows.
The ALUC designates the following airport safety zones for the Mather Airport:

1) Clear Zone.

Runway 4R: The Clear Zone for Runway 4R begins at the primary surface, 200 feet beyond the end of the paved runway surface, is centered along the extended runway centerline, has an inner width of 1,000 feet, extends outward for a length of 1,700 feet, and has an outer width of 1,425 feet.

Runway 22L: The Clear Zone for Runway 22L begins at the end of the primary surface, 200 feet beyond the end of the paved runway surface, is centered along the extended runway centerline, has an inner width of 1,000 feet, extends outward for a length of 2,500 feet, and has an outer width of 1,750 feet.

Runway 4L-22R: The Clear Zones for this runway begin at the end of the primary surface at each runway end, 200 feet beyond the end of the paved runway surface, are centered along the extended runway centerline, have an inner width of 250 feet, extend outward for a length of 1,000 feet, and have an outer width of 450 feet.

2) Approach-Departure Zone.

Runway 4R: The Approach/Departure Zone for this runway begins at the outer end of the Clear Zone, is centered along the extended runway centerline, has an inner width of 1,425 feet, extends outward for a length of 3,400 feet, and has an outer width of 2,275 feet.

Runway 22L: The Approach/Departure Zone for this runway begins at the outer edge of the Clear Zone, is centered along the extended runway centerline, has an inner width of 1,750 feet, extends outward for a length of 5,000 feet, and has an outer width of 3,250 feet.

Runway 4L-22R: The Approach/Departure Zones for this runway begin at the outer end of the Clear Zone at each runway end, are centered along the extended runway centerline, have an inner width of 450 feet, extend outward for a length of 2,000 feet, and have an outer width of 850 feet.

3) Overflight Zone: The Overflight Zone generally coincides with the area overflown by aircraft during normal traffic pattern procedures and coincides with the area under the Horizontal Surface, but outside of the Clear and Approach/Departure Zones. For Mather Field, the perimeter of the Overflight Zone is constructed by swinging arcs of 10,000 foot radii from the center of each end of the primary surface of all runway ends and connecting these arcs by lines tangent to these arcs.

Figure 4 depicts the safety zones established by the Mather Air Force Base CLUP. Figure 5 represents the Safety Zones proposed in the Mather Airport CLUP Update.

**Land Use Compatibility Guidelines for Safety**

Comprehensive Land Use Plans establish Land Use Compatibility Guidelines for Safety which establish the compatibility of proposed land uses. The compatibility of a given land use is determined by locating the specific safety zone which the use falls within, and then consulting the
Guidelines to determine whether the use is compatible within that particular safety zone, incompatible, or compatible subject to specific conditions.

Figure 6 presents the Land Use Compatibility Guidelines for Safety at Mather Airport, as proposed by the Mather Airport CLUP Update. The proposed guidelines are identical to those contained in the existing Mather Air Force Base CLUP.
# Figure 6

**Mather Airport**

**Land Use Compatibility Guidelines for Safety**

<table>
<thead>
<tr>
<th>Land Use Category and (Standard Industrial Classification Code)</th>
<th>Compatibility With</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clear Zone</td>
</tr>
<tr>
<td>Residential</td>
<td></td>
</tr>
<tr>
<td>Single-family detached</td>
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</tr>
<tr>
<td>Two-family dwelling</td>
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<tr>
<td>Multi-family dwelling (3+ families)</td>
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<td>Group quarters &amp; rooming houses (702, 704)</td>
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<td>Mobile home parks or courts (6515)</td>
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<tr>
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<td>Furniture &amp; fixtures (25)</td>
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<td>Paper &amp; allied products (26)</td>
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<td>Printing &amp; publishing (27)</td>
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<td>Chemicals &amp; allied products (28)</td>
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<td>Asphalt paving &amp; misc. petroleum (295, 299)</td>
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<td>Petroleum refining (2911)</td>
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<td>Rubber &amp; plastics (30)</td>
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<td>Stone, clay, glass &amp; concrete products (32)</td>
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<td>Primary &amp; fabricated metals (33, 34)</td>
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<td>Electrical and electronic equipment (36)</td>
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<td>Leather products (31)</td>
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<td>Industrial, commercial &amp; computer equipment (35)</td>
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<td>Photo, optical &amp; medical equipment (38)</td>
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<tr>
<td>Miscellaneous manufacturing (39)</td>
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</tr>
<tr>
<td>Transportation, Communications &amp; Utilities</td>
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</tr>
<tr>
<td>Streets, roads, &amp; highways</td>
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<td>Heavy rail lines: freight &amp; passenger (40)</td>
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<tr>
<td>Light rail lines: passenger (41)</td>
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<td>Trucking &amp; rail freight terminals (42)</td>
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<tr>
<td>Warehousing &amp; storage (422)</td>
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<td>Passenger terminals &amp; stations</td>
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<td>Water transportation: freight &amp; passenger (44)</td>
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<td>Parking lots (752)</td>
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<td>Transportation services (47)</td>
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<td>Radio, TV &amp; telephone (48)</td>
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<td>Courier service (4215)</td>
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<td>Electrical &amp; natural gas generation &amp; switching (491, 492)</td>
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<td>Natural gas &amp; petroleum pipelines &amp; storage (46)</td>
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<td>Sewer treatment plants (4952)</td>
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<td>Sanitary landfills (4953)</td>
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<td>Recycling &amp; transfer facilities (4953)</td>
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<tr>
<td>Hazardous material facilities (4953)</td>
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<td>LAND USE CATEGORY and (Standard Industrial Classification Code)</td>
<td>COMPATIBILITY WITH</td>
</tr>
<tr>
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<tr>
<td></td>
<td>CLEAR ZONE</td>
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<td>WHOLESALE TRADE</td>
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<td>Paints, varnishes &amp; supplies (5198)</td>
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<td>Chemicals &amp; allied products</td>
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<td>Petroleum truck terminals</td>
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<td>Miscellaneous wholesale trade</td>
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<td>RETAIL TRADE</td>
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<td>Department &amp; variety stores (single) (53)</td>
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<tr>
<td>Lumber, building materials &amp; nurseries (521, 526)</td>
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<tr>
<td>Grocery stores &amp; drug stores (54)</td>
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<tr>
<td>Paint, glass, wallpaper &amp; hardware (523, 525)</td>
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<tr>
<td>Auto, truck, boat &amp; RV dealers (55)</td>
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<td>Mobile home dealers (527)</td>
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<td>Auto &amp; truck service stations (554)</td>
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<td>Fuel dealers (598)</td>
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<td>Apparel &amp; shoes (56)</td>
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<td>Home furnishings (57)</td>
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<td>Eating &amp; drinking (58)</td>
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<td>Miscellaneous retail trade (59)</td>
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<td>BUSINESS &amp; PERSONAL SERVICES</td>
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<td>Auto, truck, boat, RV &amp; miscellaneous repair (75, 76)</td>
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<td>Mobile home repair (1521)</td>
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<td>Commercial laundries &amp; cleaning (721)</td>
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<td>Coin-operated laundries (7215)</td>
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<td>Photographers, beauty &amp; barber, shoe repair (722-725)</td>
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<td>Funeral services (726)</td>
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<td>Business services (73)</td>
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<td>Computer programming &amp; data processing (737)</td>
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<td>Travel agencies (4724)</td>
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<td>Legal &amp; engineering (81, 87)</td>
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<td>Banks, credit unions &amp; financial (63, 64, 65)</td>
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<td>Hotels, motels, inns, bed &amp; breakfast (701)</td>
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<td>Business parks &amp; industrial clusters</td>
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<td>Office buildings (offices for rent or lease)</td>
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<td>Business &amp; vocational schools (824, 829)</td>
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<td>Construction businesses (15, 16, 17)</td>
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<td>SHOPPING DISTRICTS</td>
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<td>Neighborhood shopping centers</td>
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<td>Community shopping centers</td>
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<td>Regional shopping centers</td>
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</table>
## Mather Airport Land Use Compatibility Guidelines for Safety

### Land Use Category and Compatibility with (Standard Industrial Classification Code)

<table>
<thead>
<tr>
<th>Land Use Category and</th>
<th>Clear Zone</th>
<th>Approach-Departure Zone</th>
<th>Overflight Zone</th>
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<tbody>
<tr>
<td><strong>Public and Quasi-Public Services</strong></td>
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<td>Post offices (53)</td>
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<td>Government offices (91-96)</td>
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<td>Government social services (83)</td>
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<tr>
<td>Elementary &amp; secondary schools (821)</td>
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<td>Colleges &amp; universities (822)</td>
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<td>Hospitals (806)</td>
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<td>Medical &amp; dental laboratories (807)</td>
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<td>Doctor &amp; dentist offices (801-804)</td>
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<td>Museums &amp; art galleries (84)</td>
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<td>Libraries (823)</td>
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<td>Churches (866)</td>
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<tr>
<td>Cemeteries (6553)</td>
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<td>Jails &amp; detention centers (9223)</td>
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<td>Child care programs (6 or more children) (835)</td>
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<td>Nursing care facilities (805)</td>
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<td><strong>Recreation</strong></td>
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<td>Community-wide &amp; regional parks</td>
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<tr>
<td>Riding stables (7999)</td>
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<td>Open space &amp; natural areas</td>
<td>Yes³, ⁶</td>
<td>Yes², ⁶, ¹²</td>
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<td>Natural water areas</td>
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<td>Recreation &amp; amusement centers (793, 799)</td>
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<td>Physical fitness &amp; gyms (7991)</td>
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<td>Camps, campgrounds &amp; RV parks (703)</td>
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<td>Dance halls, studios &amp; schools (791)</td>
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<td>Theaters - live performance (7922)</td>
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<td>Motion picture theater - single or double (783)</td>
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<td>Motion picture theater complex - 3 or more (783)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Professional sports (7941)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Stadiums and arenas</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Auditoriums, concert halls, amphitheaters</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Fairgrounds and expositions (7999)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Racetracks (7948)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Theme parks</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
FIGURE 6 (CONTINUED)

MATHER AIRPORT
LAND USE COMPATIBILITY GUIDELINES FOR SAFETY

<table>
<thead>
<tr>
<th>LAND USE CATEGORY AND (Standard Industrial Classification Code)</th>
<th>COMPATIBILITY WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLEAR ZONE</td>
</tr>
<tr>
<td>AGRICULTURE AND MINING</td>
<td></td>
</tr>
<tr>
<td>Row &amp; field crops (011, 013, 016)</td>
<td>Yes³,6</td>
</tr>
<tr>
<td>Tree crops (012)</td>
<td>No</td>
</tr>
<tr>
<td>Intensive livestock (021, 024, 027)</td>
<td>No</td>
</tr>
<tr>
<td>Nursery products (018)</td>
<td>No</td>
</tr>
<tr>
<td>Poultry (025)</td>
<td>No</td>
</tr>
<tr>
<td>Pasture &amp; grazing</td>
<td>Yes³,6</td>
</tr>
<tr>
<td>Agricultural services (7)</td>
<td>No</td>
</tr>
<tr>
<td>Mining &amp; quarrying (10, 12, 14)</td>
<td>No</td>
</tr>
<tr>
<td>Oil &amp; gas extraction (13)</td>
<td>No</td>
</tr>
</tbody>
</table>

FOOTNOTES:

1 Single family residential is a compatible land use only if the density is five acres or more per single family residence.

2 Uses compatible only if they do not result in a large concentration of people. A large concentration of people is defined as a gathering of individuals in an area that would result in an average density of greater than 25 persons per acre per hour during any 24 hour period ending at midnight, not to exceed 50 persons per acre at any time.

3 No building, structures, above-ground transmission lines, or storage of flammable or explosive material above ground, and no uses resulting in a gathering of more than 10 persons per acre at any time.

4 No bulk petroleum products or chemical storage.

5 Tour operator passenger facilities not allowed.

6 Uses compatible only if they do not result in a possibility that a water area may cause ground fog or result in a bird hazard.

7 Household hazardous waste facilities operated as part of an integrated waste management program and resulting in only temporary storage of materials is allowed.

8 Uses in buildings must be compatible.

9 Use compatible only if requirements of California Education Code, Sections 39005.7, 81036 and 81038 are fulfilled.

10 No chapels or funeral homes.

11 No club houses, bars, restaurants or banquet facilities. Ancillary uses such as pro shops, snack bars, and specialty food and beverage services are allowed. New course layouts and revisions to existing courses must be reviewed by the ALUC for safety impacts.

12 No high intensity uses or facilities, such as structured playgrounds, ball fields, or picnic pavilions.

13 No uses that would cause electrical interference that would be detrimental to the operation of aircraft or aircraft instrumentation.

14 Use compatible if there will be no on-site employees, and the Federal Aviation Administration has conducted an aeronautical study on the proposal and has concluded that the antenna will not constitute a hazard to air navigation.
IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purpose of this EIR, an impact is considered significant if the proposed project would expose existing or potential land uses defined as being incompatible by the proposed Mather Airport CLUP Update to hazards associated with being located within an incompatible safety zone to a greater risk from aircraft accidents than currently exists.

Methodology

Data for this analysis was summarized from information contained in the Mather Field County-Operated Aviation Facility Draft Environmental Impact Report, prepared for Sacramento County by EIP Associates June, 1994.

Project-Specific Impacts and Mitigation Measures

Impacts

4.1-1 The proposed project would result in exposing existing incompatible land uses within future safety zones to an increased safety hazard due to increased future aircraft operations as compared to current operations. This is considered to be a significant and unavoidable impact.

The Mather Air Force Base Hospital is located within the Overflight Zone as designated in the 1987 Mather Air Force Base CLUP. The hospital was an existing use at the time of the Mather Air Force Base CLUP adoption, and was therefore allowed to remain in operation. The hospital would continue to be exempt from standards contained in the proposed Mather Airport CLUP Update as long as it did not increase in size, or change its use to a new incompatible use.

Because existing uses at a given site are exempt from new CLUP standards, with the exception that they may not expand or be converted to other incompatible uses, all the existing land uses at Mather Air Force Base would be exempt from safety zone standards associated with the CLUP update. Future proposed development would be subject to conformance with the land use compatibility guidelines for safety and population density requirements identified in the proposed Mather Airport Comprehensive Land Use Plan Update. Adoption of the proposed CLUP Update would therefore prevent the creation of new incompatible uses. In addition, redevelopment or changes to existing land uses would be subject to compliance with the proposed Mather Airport Comprehensive Land Use Plan Update.

Mitigation Measures

4.1-1 None available.

Cumulative Impacts and Mitigation Measures

Because impacts associated with airport safety zones are specific to the proposed Mather Airport CLUP Update, there would be no contribution to a cumulative effect. Therefore, no cumulative impacts have been identified.
4.2 NOISE

INTRODUCTION

This section presents a discussion of the noise environment surrounding the Mather Airport, standards of significance, methodology used to assess project impacts, and potential impacts associated with the proposed Mather Airport CLUP Update.

Acoustic Fundamentals

Definition

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (Db) with 0 dB corresponding roughly to the threshold of hearing. Decibels and other technical terms are defined in Figure 7.

Noise Measurements

Most of the sounds that people hear in the environment do not consist of a single frequency, but a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the fact that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-levels measured in the environment and in industry are shown in Figure 8 for different types of noise.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which creates a relatively steady background noise in which no particular source is identifiable.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, Ldn (day/night average sound level), was developed. The Ldn divides the 24-hour day into the daytime of 7:00 A.M. to 10:00 P.M. and the nighttime of 10:00 P.M. to 7:00 A.M. The nighttime noise level is weighted 10 dB higher than the daytime noise level. Ldn is the noise metric adopted by the Environmental Protection Agency.

The Community Noise Equivalent Level (CNEL) is 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. As with Ldn, CNEL adds a penalty weighting to noise occurring between the hours of 10:00 P.M. and 7:00 A.M. CNEL is slightly more restrictive than Ldn, however, because it adds an additional penalty weighting to noise occurring between the hours of 7:00 P.M. and 10:00 P.M.
### DEFINITION OF ACOUSTICAL TERMS

<table>
<thead>
<tr>
<th>TERM</th>
<th>DEFINITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decibel, dB</td>
<td>A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).</td>
</tr>
<tr>
<td>Frequency, Hz</td>
<td>The number of complete pressure fluctuations per second above and below atmospheric pressure.</td>
</tr>
<tr>
<td>A Weighted Sound Level</td>
<td>The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter deemphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.</td>
</tr>
<tr>
<td>L₀₁, L₁₀, L₅₀, L₉₀</td>
<td>The A-weighted noise levels that are exceeded 1%, 10%, 50% and 90% of the time during the measurement period.</td>
</tr>
<tr>
<td>Equivalent Noise Level, Lₑq</td>
<td>The average A-weighted noise level during the measurement period.</td>
</tr>
<tr>
<td>Community Noise Equivalent Level, CNEL</td>
<td>The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 P.M. To 10:00 P.M. And after addition of 10 decibels to sound levels in the night between 10:00 P.M. And 7:00 A.M.</td>
</tr>
<tr>
<td>Day/Night Noise Level, Lₐₙ</td>
<td>The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 P.M. And 7:00 A.M.</td>
</tr>
<tr>
<td>Lₘₐₓ, Lₘᵢₙ</td>
<td>The maximum and minimum A-weighted noise level during the measurement period.</td>
</tr>
<tr>
<td>Ambient Noise Level</td>
<td>The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.</td>
</tr>
<tr>
<td>Intrusive</td>
<td>That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.</td>
</tr>
</tbody>
</table>
### Figure 8

**TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND IN INDUSTRY**

<table>
<thead>
<tr>
<th>At a Given Distance From Noise Source</th>
<th>A-Weighted Sound Level in Decibels</th>
<th>Noise Environments</th>
<th>Subjective Impression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Defense Siren (100')</td>
<td>140</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jet Takeoff (200')</td>
<td>120</td>
<td>Rock Music Concert</td>
<td>Pain Threshold</td>
</tr>
<tr>
<td></td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pile Driver (50')</td>
<td>100</td>
<td>Boiler Room</td>
<td>Very Loud</td>
</tr>
<tr>
<td>Ambulance Siren (100')</td>
<td>90</td>
<td>Printing Press Plant</td>
<td></td>
</tr>
<tr>
<td>Freight Cars (50')</td>
<td>90</td>
<td>Kitchen with Garbage Disposal Running</td>
<td></td>
</tr>
<tr>
<td>Pneumatic Drill</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacuum Cleaner (10')</td>
<td>70</td>
<td>Data Processing Center</td>
<td>Moderately Loud</td>
</tr>
<tr>
<td>Department Store</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Traffic (100')</td>
<td>50</td>
<td>Private Business Office</td>
<td>Quiet</td>
</tr>
<tr>
<td>Large Transformer (200')</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft Whisper (5')</td>
<td>30</td>
<td>Quiet Bedroom</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Recording Studio</td>
<td>Threshold of Hearing</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Figure 9

**SUMMARY OF THE PUBLIC HEALTH EFFECTS OF COMMUNITY NOISE AND THE NOISE LEVELS AT WHICH THEY CAN OCCUR**

<table>
<thead>
<tr>
<th><strong>Noise as a stressor</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased incidence of high blood pressure that leads to increased risk of cardiovascular disease</td>
<td>85 dBA (long term)</td>
</tr>
<tr>
<td>Vasoconstriction begins that can lead to high blood pressure</td>
<td>70 dBA</td>
</tr>
</tbody>
</table>

**Adverse effect on Task Performance**

<table>
<thead>
<tr>
<th><strong>Steady Noise</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>90 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Irregular Noise</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>All levels</td>
<td></td>
</tr>
</tbody>
</table>

**Prenatal and childhood Effects**

<table>
<thead>
<tr>
<th><strong>Increased incidence of low birth weight</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>70 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>High frequency hearing loss in fetuses</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>85 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Increased blood pressure in children</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>75 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Decreased reading ability, auditory discrimination or language development</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>65 dBA (all long term)</td>
<td></td>
</tr>
</tbody>
</table>

**Social Behavior and Mental Health**

<table>
<thead>
<tr>
<th><strong>Decreased helpfulness and social interaction</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>80 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Increased incidence of mental disorders</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>90 dBA</td>
<td></td>
</tr>
</tbody>
</table>

**Sleep disturbance**

<table>
<thead>
<tr>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>35 dBA</td>
</tr>
</tbody>
</table>

**Speech Interference**

<table>
<thead>
<tr>
<th><strong>Less than 5 feet between conversants</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>65 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5 to 12 feet between conversants</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>60 dBA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Over 12 feet between conversants</strong></th>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>55 dBA</td>
<td></td>
</tr>
</tbody>
</table>

**Recreational Hearing Loss**

<table>
<thead>
<tr>
<th><strong>Level</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>85 dBA (long term)</td>
</tr>
</tbody>
</table>

**Source:** The Public Health Effects of Community Noise, Carol S. Pennenga an Raymond M. Manganelli, Rutgers University, New Brunswick, New Jersey. Presented at the 81st Annual Meeting of the Air Pollution Control Association, Dallas, Texas, June 19-24, 1988.
Effects of Noise on People

The effects of noise on people can be listed in three general categories:

1) subjective effects of annoyance, nuisance, dissatisfaction;
2) interference with activities such as speech, sleep, learning; and
3) physiological effects such as startling, hearing loss.

The levels associated with environmental noise, in almost every case, produce effects only in the first two categories. Workers in industrial plants can experience noise in the last category. Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual past experiences with noise. Figure 9 provides an indication of the health effects of community noise and the noise levels at which they can occur.

Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of the existing environment to which one has adapted: the so called "ambient."

With regard to increases in A-weighted noise level, knowledge of the following relationships will be helpful in understanding this report:

- except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived;
- outside of the laboratory environment, a 3 dB change is considered a just perceivable difference;
- a change in level of at least 5 dB is required before any noticeable change in community response would be expected; and
- a 10 dB increase is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

SETTING

Regulatory Background

Federal

The \( L_{dn} \) is an accepted unit for quantifying human annoyance to general environmental noise, including aircraft noise. The Federal Interagency Committee on Urban Noise developed land use compatibility guidelines for noise in terms of \( L_{dn} \) (U.S. Department of Transportation, 1980).

The U.S. Department of Housing and Urban Development (HUD) has set an \( L_{dn} \) of 45 as its goal for interior noise in residential units built with HUD funding.

State of California

In order to limit population exposure to physically and/or psychologically damaging noise levels, the State of California has established standards to control noise. Based on studies of noise, the State of California has established noise standards in the California Code of Regulations, Title 21, Subchapter 6. These standards designate the Community Noise Equivalency Level (CNEL) as the noise rating method to be used at airports in California. For land uses within the noise contour of
the state mandated criteria, 65 dB CNEL, the State has deemed the following land uses to be incompatible:

1) Residential dwellings
2) Public and private schools
3) Hospitals and convalescent homes
4) Churches, synagogues, temples, and other places of worship

Title 24 of the California Administrative Code establishes standards governing interior noise levels that apply to all new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than detached single-family residential units in California. These standards require that acoustical studies be performed prior to construction at building locations where the existing $L_{dn}$ exceeds 60 dBA. Such acoustical studies are required to establish mitigation measures that will limit maximum $L_{dn}$ noise levels to 45 dBA in any inhabitable room.

**Historical Noise Conditions**

Historically, noise at Mather Airport has occurred primarily due to aircraft engine warmup, maintenance and testing, taxiing, takeoff, approach, and landing. The preclosure noise contours for aircraft noise at Mather Airport are shown in Figure 10. These contours were contained in the Mather Air Force Base Comprehensive Land Use Plan and were computed using the USAF’s Noise Exposure Model (NOISEMAP). The NOISEMAP model is used by the Department of Defense in determining noise exposure resulting from military and civilian aircraft operations and is an FAA-approved model. Input data to the model include information on aircraft types; runway use; runup locations; takeoff and landing flight tracks; aircraft altitude, speed, and engine power settings; and number of daytime (7:00 A.M. to 10:00 P.M.) and nighttime (10:00 P.M. to 7:00 A.M.) operations.

**Existing Aircraft Operations**

Currently, limited aircraft operations occur at Mather Airport. The National Guard, County Sheriff Department, California Department of Forestry, Bureau of Land Management and the United States Forest Service all presently use Mather Airport. As of September 1995, the National Guard had 37 helicopters based at Mather, the Sheriff Department had five based aircraft, four of them helicopters, the Department of Forestry had 12 aircraft, including 2 helicopters, the Bureau of Land Management had 1 aircraft and the forest service based 1 aircraft at the airport. During September, there were 100 aircraft operations at the airport. Of these, 55 were touch and go, 30 were tenant and 15 were transient. The airport is estimating that there will be approximately 35,000 total annual operations for the year.

**Land Use Compatibility Guidelines for Noise**

As for safety, Comprehensive Land Use Plans establish Land Use Compatibility Guidelines for Noise which establish the compatibility of proposed land uses. The compatibility of a given land use is determined by locating the specific noise contour which the use falls within, and then consulting the Guidelines to determine whether the use is compatible within that particular noise contour, incompatible, or compatible subject to specific conditions.

Figure 11 presents the Land Use Compatibility Guidelines for Noise at Mather Airport, as proposed by the Mather Airport CLUP Update. The proposed guidelines are identical to those contained in the existing Mather Air Force Base CLUP.
FIGURE 11
MATHER AIRPORT
LAND USE COMPATIBILITY GUIDELINES FOR NOISE

<table>
<thead>
<tr>
<th>LAND USE CATEGORY</th>
<th>(Standard Industrial Classification Code)</th>
<th>COMPATIBILITY WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-65 CNEL</td>
<td>65-70 CNEL</td>
</tr>
<tr>
<td>RESIDENTIAL 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-family detached</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Two-family dwelling</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Multi-family dwelling (3+ families)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Group quarters &amp; rooming houses (702, 704)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Mobile home parks or courts (6515)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>MANUFACTURING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; kindred products (20)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Textiles &amp; apparel (22, 23)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Transportation equipment (37)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lumber &amp; wood products (24)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Furniture &amp; fixtures (25)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Paper &amp; allied products (26)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Printing &amp; publishing (27)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Chemicals &amp; allied products (28)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Asphalt paving &amp; misc. petroleum (295, 299)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Petroleum refining (2911)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rubber &amp; plastics (30)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Stone, clay, glass &amp; concrete products (32)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Primary &amp; fabricated metals (33, 34)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Electrical &amp; electronic equipment (36)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Leather products (31)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Industrial, commercial &amp; computer equipment (35)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Photo, optical &amp; medical equipment (38)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Miscellaneous manufacturing (39)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>TRANSPORTATION, COMMUNICATIONS &amp; UTILITIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streets, roads &amp; highways</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Heavy rail lines: freight &amp; passenger (40)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Light rail lines: passenger (41)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Trucking &amp; rail freight terminals (42)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Warehousing &amp; storage (422)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Passenger terminals &amp; stations</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Water transportation: freight &amp; passenger (44)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Parking lots (752)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Transportation services (47)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Radio, TV &amp; telephone (48)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cellular radio transmission antenna (4812)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Courier service (4215)</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Electrical &amp; natural gas generation &amp; switching (491, 492)</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Natural gas &amp; petroleum pipelines &amp; storage (46)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Water treatment plants (494)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sewer treatment plants (4952)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sanitary landfills (4953)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Recycling &amp; transfer facilities (4953)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hazardous material facilities (4953)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
FIGURE 11 (CONTINUED)

<table>
<thead>
<tr>
<th>LAND USE CATEGORY and (Standard Industrial Classification Code)</th>
<th>COMPATIBILITY WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-65 CNEL</td>
</tr>
<tr>
<td><strong>WHOLESALE TRADE</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>Paints, varnishes &amp; supplies (5198)</td>
<td>Yes</td>
</tr>
<tr>
<td>Chemicals &amp; allied products (516)</td>
<td>Yes</td>
</tr>
<tr>
<td>Petroleum terminals &amp; wholesalers (517)</td>
<td>Yes</td>
</tr>
<tr>
<td>Miscellaneous wholesale trade (50, 51)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>RETAIL TRADE</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>Department &amp; variety stores (single) (53)</td>
<td>Yes</td>
</tr>
<tr>
<td>Lumber, building materials &amp; nurseries (521, 526)</td>
<td>Yes</td>
</tr>
<tr>
<td>Grocery &amp; drug stores (54)</td>
<td>Yes</td>
</tr>
<tr>
<td>Paint, glass, wallpaper &amp; hardware (523, 525)</td>
<td>Yes</td>
</tr>
<tr>
<td>Auto, truck, boat &amp; RV dealers (55)</td>
<td>Yes</td>
</tr>
<tr>
<td>Mobile home dealers (527)</td>
<td>Yes</td>
</tr>
<tr>
<td>Auto &amp; truck service stations (554)</td>
<td>Yes</td>
</tr>
<tr>
<td>Fuel dealers (598)</td>
<td>Yes</td>
</tr>
<tr>
<td>Apparel &amp; shoes (56)</td>
<td>Yes</td>
</tr>
<tr>
<td>Home furnishings (57)</td>
<td>Yes</td>
</tr>
<tr>
<td>Eating &amp; drinking (58)</td>
<td>Yes</td>
</tr>
<tr>
<td>Miscellaneous retail trade (59)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>BUSINESS &amp; PERSONAL SERVICES</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>Auto, truck, boat, RV &amp; miscellaneous repair (75, 76)</td>
<td>Yes</td>
</tr>
<tr>
<td>Mobile home repair (1521)</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial laundries &amp; cleaning (721)</td>
<td>Yes</td>
</tr>
<tr>
<td>Coin-operated laundries (7215)</td>
<td>Yes</td>
</tr>
<tr>
<td>Photographers, beauty &amp; barber, shoe repair (722, 725)</td>
<td>Yes</td>
</tr>
<tr>
<td>Funeral services (726)</td>
<td>Yes</td>
</tr>
<tr>
<td>Business services (73)</td>
<td>Yes</td>
</tr>
<tr>
<td>Computer programming &amp; data processing (737)</td>
<td>Yes</td>
</tr>
<tr>
<td>Travel agencies (4724)</td>
<td>Yes</td>
</tr>
<tr>
<td>Legal &amp; engineering (81, 87)</td>
<td>Yes</td>
</tr>
<tr>
<td>Banks, credit unions &amp; financial (63, 64, 65)</td>
<td>Yes</td>
</tr>
<tr>
<td>Hotels, motels, inns, bed &amp; breakfast (701)</td>
<td>Yes</td>
</tr>
<tr>
<td>Business parks &amp; industrial clusters</td>
<td>Yes</td>
</tr>
<tr>
<td>Offices for rent or lease</td>
<td>Yes</td>
</tr>
<tr>
<td>Business &amp; vocational schools (824, 829)</td>
<td>Yes</td>
</tr>
<tr>
<td>Construction businesses (15, 16, 17)</td>
<td>Yes</td>
</tr>
<tr>
<td>Miscellaneous personal services (729)</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>SHOPPING DISTRICTS</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>Neighborhood shopping centers</td>
<td>Yes</td>
</tr>
<tr>
<td>Community shopping centers</td>
<td>Yes</td>
</tr>
<tr>
<td>Regional shopping centers</td>
<td>Yes</td>
</tr>
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</table>
FIGURE 11 (CONTINUED)

MATHER AIRPORT
LAND USE COMPATIBILITY GUIDELINES FOR NOISE

<table>
<thead>
<tr>
<th>LAND USE CATEGORY and (Standard Industrial Classification Code)</th>
<th>COMPATIBILITY WITH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-65 CNEL</td>
</tr>
<tr>
<td>PUBLIC AND QUASI-PUBLIC SERVICES</td>
<td></td>
</tr>
<tr>
<td>Post Offices (53)</td>
<td>Yes</td>
</tr>
<tr>
<td>Government offices (91-96)</td>
<td>Yes</td>
</tr>
<tr>
<td>Government social services (83)</td>
<td>Yes</td>
</tr>
<tr>
<td>Elementary &amp; secondary schools (821)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Colleges &amp; universities (822)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Hospitals (806)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Medical &amp; dental laboratories (807)</td>
<td>Yes</td>
</tr>
<tr>
<td>Doctor &amp; dentist offices (801-804)</td>
<td>Yes</td>
</tr>
<tr>
<td>Museums &amp; art galleries (84)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Libraries (823)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Churches (866)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Cemeteries (6553)</td>
<td>Yes</td>
</tr>
<tr>
<td>Jails &amp; detention centers (9223)</td>
<td>Yes</td>
</tr>
<tr>
<td>Child care programs (6 or more children) (835)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Nursing care facilities (805)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>RECREATION</td>
<td></td>
</tr>
<tr>
<td>Neighborhood parks</td>
<td>Yes</td>
</tr>
<tr>
<td>Community-wide &amp; regional parks</td>
<td>Yes</td>
</tr>
<tr>
<td>Riding stables (7999)</td>
<td>Yes</td>
</tr>
<tr>
<td>Golf courses (7992)</td>
<td>Yes</td>
</tr>
<tr>
<td>Open space &amp; natural areas</td>
<td>Yes</td>
</tr>
<tr>
<td>Natural water areas</td>
<td>Yes</td>
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<tr>
<td>Recreation &amp; amusement centers (793, 799)</td>
<td>Yes</td>
</tr>
<tr>
<td>Physical fitness &amp; gyms (7991)</td>
<td>Yes</td>
</tr>
<tr>
<td>Camps, campgrounds &amp; RV parks (703)</td>
<td>Yes</td>
</tr>
<tr>
<td>Dance halls, studios, schools (791)</td>
<td>Yes</td>
</tr>
<tr>
<td>Theaters - live performance (7922)</td>
<td>Yes(^3,4,5)</td>
</tr>
<tr>
<td>Motion picture theater - single or double (783)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Motion picture theater complex - 3 or more (783)</td>
<td>Yes(^3,4)</td>
</tr>
<tr>
<td>Professional sports (7941)</td>
<td>Yes</td>
</tr>
<tr>
<td>Stadiums and arenas</td>
<td>Yes</td>
</tr>
<tr>
<td>Auditoriums, concert halls, amphitheaters</td>
<td>Yes(^3,4,5)</td>
</tr>
<tr>
<td>Fairgrounds and expositions (7999)</td>
<td>Yes</td>
</tr>
<tr>
<td>Racetracks (7948)</td>
<td>Yes</td>
</tr>
<tr>
<td>Theme parks</td>
<td>Yes</td>
</tr>
</tbody>
</table>
FOOTNOTES:

1. Caretaker residences are a compatible use within all CNEL ranges, provided that they are ancillary to the primary use of a property, intended for the purpose of property protection or maintenance, and subject to the condition that all residential units be designed to limit intruding noise such that interior noise levels do not exceed 45 CNEL, with windows closed, in any habitable room.

2. Second residential units are a compatible use within all CNEL ranges, subject to the condition that the proposed second unit be consistent with the provisions of Sections 65852.1 and 65852.2 of the California Government Code.

3. Measures to achieve an interior noise level of 50 CNEL must be incorporated into the design and construction of portions of buildings where the public is received, office areas and other areas where people work or congregate.

4. Measures to achieve an interior noise level of 45 CNEL must be incorporated into the design and construction of all noise sensitive areas including, but not limited to, rooms designed for the purpose of sleep, libraries, churches, and areas intended for indoor entertainment events.

5. Only indoor uses permitted.
IMPACTS AND MITIGATION MEASURES

Standards of Significance

Noise impacts resulting from the proposed Mather Airport CLUP Update are assessed by the following criteria. For the purpose of this EIR, an impact is considered significant if the proposed project would:

- expose existing residential uses to increased aircraft noise levels which exceed the levels identified as compatible in the Land Use Compatibility Guidelines for Noise (Figure 11).
- expose existing non-residential uses to increased aircraft noise which exceed the levels identified as compatible in the Land Use Compatibility Guidelines for Noise (Figure 11).

Methodology

The noise contours proposed for adoption by the Mather Airport CLUP Update are those certified by the Sacramento County Board of Supervisors in the Mather Field County-Operated Aviation Facility Final Environmental Impact Report. These noise contours are illustrated in Figure 12 and reflect complete airport buildout conditions. The FAA's Integrated Noise Model (INM) Version 3.9 computer program was used to perform calculations and produce these CNEL contours. The noise contours were computed for the maximum aircraft operations conditions of the proposed project. Specific variables in the noise modelling effort include aircraft activity levels, aircraft types, time of day of operations, flight tracks and flight procedures in use, among others. The aircraft activity levels, types and operations data were taken from the Mather Air Force Base Conversion Study Technical Report No. 2, July 2, 1990, prepared by Hodges and Shutt. The flight track and procedure data also came from this report.

The CNEL contours depend on such factors as the number of operations, aircraft type mixes, operation times, flight tracks, and the acoustical and performance characteristics of the aircraft modeled. In view of these uncertainties, CNEL mapping was developed as a tool to assist in land use planning around airports.

Project-Specific Impacts and Mitigation Measures

Impacts

4.2-1 Operation of the Mather Airport would generate aircraft noise which would expose existing incompatible residential and commercial uses to increased levels of aircraft noise as compared to current levels. This is considered to be a significant and unavoidable impact.

When comparing the projected buildout aircraft noise levels for Mather Airport (Figure 12) to the 1987 Mather Air Force Base CLUP noise contours (Figure 10), the reduction in aircraft noise in all areas within and surrounding the project area is apparent. For example, during full operation of Mather Air Force Base, existing homes located along Jackson Road between Mayhew Road and Bradshaw Road were exposed to noise levels of approximately 80 Ldn (see Figure 10). Operation of the proposed project would expose these same residents to aircraft noise levels less than 70 CNEL as shown on Figure 12.
Operation of the Mather Airport would result in aircraft noise impacts in the vicinity of the airport. Figure 12 presents the noise contours generated by buildout of the Mather Airport. The contours generally align in a southwest-northeast direction along Runway 22L-04R. As seen in Figure 12, existing residential areas in the Rosemont and Rancho Cordova communities would not be affected by aircraft noise levels above 65 CNEL. However, operation of the Mather Airport would produce aircraft noise levels above 65 CNEL in several existing rural residential areas outside the perimeter of the airport, (southwest of Runway 22L-04R), and noise levels above 70 CNEL in existing commercial areas northeast of Runway 22L-04R. Exposure to exterior noise levels above 65 CNEL is incompatible with the proposed Mather Airport Land Use Compatibility Guidelines for Noise (see Figure 11).

There would be approximately two dozen existing residential units exposed to aircraft noise levels above 65 CNEL as shown in the proposed project noise contour map (see Figure 12). Homes identified as being exposed to aircraft noise levels above 65 CNEL are located on: Mayhew Road near Morrison Creek; Mayhew Road between Morrison Creek and Jackson Highway; the southern end of Newton Drive north of Fruitridge Road; Jackson Road between Mayhew Road and Morrison Creek; Bradshaw Road between Farm Lane and Morrison Creek; Farm Lane; and on Happy Lane adjacent to Mather Field Road. Commercial areas potentially affected by aircraft noise levels above 70 CNEL are located northeast of Mather Airport.

Future development around the airport would have to be consistent with the Land Use Compatibility Guidelines for Noise (Figure 11) contained in the proposed Mather Airport CLUP Update. Therefore, future residential, commercial, and other development would only be allowed within acceptable or conditionally acceptable CNEL contours as defined in Figure 11. Therefore, there would be no significant impact on future development due to aircraft noise as a result of airport operations. However, existing residential and commercial uses would still be exposed to significant exterior noise levels. Interior noise levels can be mitigated to a less-than-significant level by providing exterior to interior noise reduction mitigation to 45 Ldn for habitable space. Implementation of this mitigation measure is not, however, within the authority of the ALUC. Any noise insulation of these uses would have to be undertaken by Sacramento County. Exterior noise levels cannot be mitigated, therefore, this impact is still considered significant and unavoidable.

Mitigation Measures

4.2-1 Although the proposed CLUP acknowledges that changes in the operations of Mather Airport reduces noise impacts on existing residential uses, Sacramento County should consider testing existing residential uses located within the 65 CNEL noise contour proposed by the Mather Airport CLUP Update to determine if interior noise levels would exceed 45 CNEL in habitable spaces. Where this level is found to be exceeded, Sacramento County should consider implementing a program to pay for all or a portion of noise reduction measures for existing residential structures to reduce interior noise levels to 45 CNEL.

This is considered to be a significant and unavoidable impact.

Cumulative Impacts and Mitigation Measures

Because impacts associated with airport noise contours are specific to the proposed Mather Airport CLUP Update, there would be no contribution to a cumulative effect. Therefore, no cumulative impacts have been identified.
4.3 GROWTH INDUCEMENT

INTRODUCTION

This section addresses the potential growth inducing issues related to the adoption of the proposed Mather Airport CLUP Update.

SETTING

Existing Adjacent Land Uses

Existing developed uses in the vicinity of Mather Field include a variety of residential, commercial, research and development, light industrial, and undeveloped uses, ranging from urbanized areas to rural residential lands and agricultural open space. Existing developed adjacent land uses are depicted in Figure 13. Areas to the west of the base primarily include light industrial and research and development uses with some agricultural land. North of the base, the existing Rancho Cordova community contains commercial, residential, research and development and related uses.

There is strip commercial development along Folsom Boulevard and Mather Field Drive, and commercial development located at the interchanges along U.S. Highway 50. Active gravel mining and research and development occur to the southwest and to the northeast of the base. Lands east and south of the base are mostly agricultural (developed with ranchettes) or undeveloped vacant lands. The ranchettes are typically on 5-acre parcels with an on-site residence, septic system, well, and hobby farming. Mather Field is bordered on the east by the Folsom south canal.

The Sacramento County General Plan Land Use Element contains the County’s adopted land use designations for the areas around the Airport. These designations establish the pattern of future development in the airport vicinity, as determined by the County. Figure 14 depicts the existing Sacramento County general Plan Land Use Element Land Use Diagram for the area around the airport. Figure 15 is the Land Use Diagram key for Figure 14.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purpose of this EIR, an impact is considered significant if the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Project-Specific Impacts and Mitigation Measures

Impacts

4.3-1 The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those land uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update. This has the potential to result in the development of additional residential,
Figure 13

Existing Adjacent Land Uses

SOURCE: Mather Field County-operated Aviation Facility Final EIR, Sacramento County Department of Environmental Review and Assessment. September, 1994.
Sacramento County
General Plan
Land Use Element
Land Use Diagram
(Key on next page)
Figure 15

Land Use Diagram Key

GENERAL PLAN
LAND USE DIAGRAM
DECEMBER 15, 1993
SACRAMENTO COUNTY, CALIFORNIA

RESIDENTIAL

- AGRICULTURAL-RESIDENTIAL (1-10 ac/du)
- LOW DENSITY RESIDENTIAL (1-12 du/ac)
- MEDIUM DENSITY RESIDENTIAL (13-30 du/ac)
- HIGH DENSITY RESIDENTIAL (31-50 du/ac)

TRANSIT-ORIENTED DEVELOPMENT

- URBAN TRANSIT-ORIENTED DEVELOPMENT
- NEIGHBORHOOD TRANSIT-ORIENTED DEVELOPMENT

COMMERICAL & INDUSTRIAL

- CORE AREA
- COMMERCIAL & OFFICE
- INTENSIVE INDUSTRIAL
- EXTENSIVE INDUSTRIAL

PUBLIC & QUASI-PUBLIC

- PUBLIC & QUASI-PUBLIC

COMBINING LAND USES

- AGGREGATE RESOURCE AREA
- RESOURCE CONSERVATION AREA

OPEN SPACE

- RECREATION
- AGRICULTURAL-URBAN RESERVE
- NATURAL PRESERVE
- AGRICULTURAL CROPLAND
- GENERAL AGRICULTURE (20 ac)
- GENERAL AGRICULTURE (80 ac)
- URBAN DEVELOPMENT AREA
- AGRICULTURAL-RECREATION RESERVE

- HIGH SCHOOLS
- PARK SITES
- URBAN SERVICE BOUNDARY
- MEDICAL (HOSPITALS)
- URBAN STREAM CORRIDOR
- TRANSFER STATION
- LANDFILL
- CLOSED LANDFILL
- HAZARDOUS WASTE
commercial or industrial uses around the airport which are not currently allowed. This is considered to be a significant and unavoidable impact.

Mitigation Measures

4.3-1 None Available.

The noise and safety planning boundaries proposed by the CLUP Update are smaller in dimension than are the existing Mather Air Force Base CLUP planning boundaries for noise and safety. Figure 16 depicts the safety planning boundaries adopted by the existing Mather Air Force Base CLUP, Figure 17 shows the safety planning boundaries proposed by the CLUP Update, Figure 18 illustrates the noise planning boundaries adopted by the existing Mather Air Force Base CLUP, Figure 19 depicts the noise planning boundaries proposed by the CLUP Update. Land uses currently located within the existing planning boundaries but outside of the proposed planning boundaries that are defined as incompatible uses by the existing CLUP would no longer be incompatible under the proposed CLUP Update.

The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update. The potential exists, therefore, for the development of additional residential, commercial or industrial uses which could foster additional economic or population growth in areas around the airport.

For any additional growth around the airport to occur other than that currently planned, Sacramento County would have to adopt changes to its existing general plan land use and zoning designations. Adoption of a CLUP by an Airport Land Use Commission does require the affected jurisdiction to ensure that its land use regulations are consistent with the ALUC adopted planning boundaries and land use compatibility guidelines around an airport. In this case, however, adoption of the CLUP Update by the ALUC would not require Sacramento County to modify its existing general plan land use and zoning designations, since these regulations are already consistent with the CLUP Update.

The County took action following ALUC adoption of the existing CLUP to achieve consistency between its land use regulations and the CLUP. The noise and safety planning boundaries proposed by the CLUP Update are smaller than, and entirely contained within, the existing Mather Air Force Base CLUP planning boundaries for noise and safety. Changes by the County to existing land use or zoning designations on any specific parcels of land would therefore not be required, since these designations are currently consistent with the planning boundaries proposed by the CLUP Update. This is atypical of most situations when a CLUP is updated to reflect changes in noise or safety areas around an airport. Generally, these changes result in new planning boundaries which are larger than previous ones, and usually require action on the part of a jurisdiction to modify affected land use regulations to achieve consistency with the updated CLUP.

While ALUC adoption of the CLUP Update will not require the County to change existing land use or zoning designations on any specific parcels of land, the reduction in noise and safety planning boundary dimensions would remove a barrier to development should the County decide on its own to change existing land use or zoning designations on land currently located within the existing CLUP planning boundaries but outside of the proposed planning boundaries. ALUC law does permit a jurisdiction to approve projects consisting of 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 which are incompatible with an adopted CLUP. Such approval can only occur, however, if the jurisdiction takes formal action to overrule the ALUC CLUP by a two-thirds vote of its governing body following a public hearing, and adopts specific findings that the proposed action is consistent with the purposes of ALUC law.
ALUC adoption of the CLUP Update would effectively make those land uses that are currently defined as incompatible uses within existing CLUP planning boundaries compatible uses if they are located outside of the proposed CLUP Update planning boundaries. The requirement for the County to take formal action to overrule the CLUP when adopting the land use entitlements referred to above would therefore be eliminated for uses within this area. This removal of a potential constraint to development is considered a significant and unavoidable impact which can not be mitigated.

**Cumulative Impacts**

Because growth inducing impacts associated with the project are specific to the proposed Mather Airport CLUP Update, there would be no contribution to a cumulative effect. Therefore, no cumulative impacts have been identified.
5. STATUTORILY REQUIRED SECTIONS
5.1 CUMULATIVE IMPACTS

The CEQA Guidelines (Section 15130) require a discussion of potential cumulative impacts, when identified, that could result from a proposed project in conjunction with other projects in the vicinity. Cumulative impacts occur when two or more individual effects together create a considerable environmental impact, or compound or increase other environmental impacts.

No cumulative impacts resulting from the adoption of the proposed CLUP Update were identified.
5.2 GROWTH-INDUCING IMPACTS

In order to comply with CEQA, a Draft EIR must discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126(g)).

A project could induce growth by lowering or removing the barriers to growth, such as providing water service to an area, or by creating an amenity that attracts new population or economic activity. The growth inducing potential of a project would generally be considered to have significant impact if the project either induced growth or created the capacity for growth above and beyond the levels permitted by public planning policies or recommended by independent projections. However, a project's growth-inducing potential does not automatically result in growth. Whether it be a portion of projected growth or an actual exceedance of the projected growth levels. Growth at the local level is fundamentally controlled by the land use policies local municipalities or counties, which are determined by the local politics in each jurisdiction. Growth inducing potential or pressure, created by economic conditions, is transformed into actual growth only by decision makers.

Under CEQA, it must not be assumed that growth is necessarily detrimental, beneficial, or of insignificant consequence. Induced growth is considered a significant impact only if it directly (or indirectly) affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment.

The proposed project essentially consists of a modification of the height, noise and safety planning boundaries around the airport. Adoption of the proposed Mather Airport CLUP Update would require that Sacramento County to ensure that its land use regulations are consistent with the new ALUC planning boundaries around the airport. It is assumed that existing County land use regulations are consistent with the existing Mather Air Force Base CLUP.

The noise and safety planning boundaries proposed by the CLUP Update are smaller in dimension than are the existing Mather Air Force Base CLUP planning boundaries for noise and safety. Land uses currently located within the existing planning boundaries but outside of the proposed planning boundaries that are defined as incompatible uses by the existing CLUP would no longer be incompatible under the proposed CLUP Update. The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update. The potential exists, therefore, for the development of additional residential, commercial or industrial uses which could foster additional economic or population growth in areas around the airport. The requirement for the County to take formal action to overrule the CLUP when adopting specific types of land use entitlements would therefore be eliminated for uses within this area.

The growth-inducing aspects of the proposed project were discussed in more detail in Chapter 5.2 of this EIR, beginning on page 43.
5.3 IRREVERSIBLE CHANGES TO THE ENVIRONMENT

CEQA Guidelines mandate that a Draft EIR must address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126(f) and 15127). An impact would fall into this category if:

- the project would involve a large commitment of nonrenewable resources.
- the primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area).
- the project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project.
- the phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them.

The proposed project consists of modifications to the height, noise and safety planning boundaries established by the existing Mather Air Force Base CLUP. It will not result in a large commitment of nonrenewable resources, primary or secondary impacts committing future generations to similar uses, irreversible damage to natural resources, or the consumption of natural resources. The proposed project will, therefore, not result in any significant irreversible changes to the environment.
5.4 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

According to CEQA Guidelines [Section 15126, subd. (b); Section 21000, subd. (b).], a Draft EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented. It has been determined that either no mitigation or only partial mitigation is feasible, without imposing an alternative design on the project.

The following is a list of the impacts of the proposed found to be significant and unavoidable.

4.1 Public Safety

4.1-1 The proposed project would result in exposing existing incompatible land uses within future safety zones to an increased safety hazard due to increased future aircraft operations as compared to current operations. This is considered to be a significant and unavoidable impact.

4.2 Noise

4.2-1 Operation of the Mather Airport would generate aircraft noise which would expose existing incompatible residential and commercial uses to increased levels of aircraft noise as compared to current levels. This is considered to be a significant and unavoidable impact.

4.3 Growth Inducement

4.3-1 The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update. This has the potential to result in the development of additional residential, commercial or industrial uses around the airport which are not currently allowed. This is considered to be a significant and unavoidable impact.
6. ALTERNATIVES ANALYSIS

INTRODUCTION

In accordance with the CEQA Guidelines, a Draft EIR must describe reasonable range of alternatives to the proposed project. The comparative merits of these alternatives must be described and evaluated. Section 15126 (d) of the Guidelines state:

"(1) If there is a specific proposed project or a preferred alternative, explain why the other alternatives were rejected in favor of the proposal if they were considered in developing the proposal.

(2) The specific alternative of "no project" shall also be evaluated along with the impact. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

(3) The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

(4) If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed but in less detail than the significant effects of the project as proposed.

(5) The range of alternatives required in an EIR is governed by "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation. An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Analysis

Four alternatives were investigated as part of the EIR, and include:

1. The No Project Alternative, which assumes that the ALUC does not adopt the Mather Airport CLUP Update. This would leave the existing Mather Air Force Base CLUP in effect as the ALUC plan which establishes land use compatibility surrounding the airport.

2. The ALUC Policy Plan Alternative, which assumes that the ALUC does not adopt the Mather Airport CLUP Update and, further, rescinds the existing Mather Air Force Base CLUP. The ALUC Policy Plan, by default, would then become the document which establishes planning boundaries and land use compatibility guidelines for land uses around the airport.

3. The More Restrictive Mather Airport CLUP Update Alternative, which assumes planning boundaries and/or land use compatibility guidelines which are more restrictive than those proposed in the Mather Airport CLUP Update.
4. The **Less Restrictive Mather Airport CLUP Update Alternative**, which assumes planning boundaries and/or land use compatibility guidelines which are less restrictive than those proposed in the Mather Airport CLUP Update.

**Alternatives Evaluation**

The alternatives evaluations contained in this chapter are organized into the following sections:

**Description of the Alternative**

This section provides a brief description of the alternative under consideration.

**Environmental Impacts**

This section analyzes the impacts of the four alternatives to the proposed project. Figure 20 summarizes the overall level of significance of the general impacts that would result from adoption of the proposed project and the alternatives.

**Relationship of the Alternative to Project Objective**

This section discusses the relationship of each alternative to the objective of the project, and evaluates whether the alternative has the potential to reduce adverse impacts compared to the proposed project. The objective of the Airport Land Use Commission is to update the existing Mather Air Force Base Comprehensive Land Use Plan to reflect the Base's conversion to a public-use, general aviation airport using the standards adopted in the Airport Land Use Commission Policy Plan, as amended December 1992. The Policy Plan establishes standards for determining planning boundaries for height, noise and safety around public-use airports, and also establishes land use compatibility criteria.

**NO PROJECT ALTERNATIVE**

**Description**

The No Project Alternative assumes that the ALUC does not adopt the Mather Airport CLUP Update. This would leave the existing Mather Air Force Base CLUP in effect as the ALUC plan which establishes planning boundaries for height, noise and safety, as well as land use compatibility surrounding the airport.

**Environmental Impacts**

**Public Safety**

The No Project Alternative would not result in changes to existing airport safety zones. The existing safety zones, which include the Clear Zones Approach-Departure Zones and Overflight Zone, are significantly larger in size than those proposed in the Mather Airport CLUP Update, and therefore subject a much greater area to land use restrictions. For the purposes of this analysis, it is assumed that since a larger safety area will contain a greater amount of land, it will also contain a greater number of existing incompatible land uses than would a smaller safety area. This alternative would therefore result in a greater number of existing incompatible uses exposed to an increased safety hazard, due to increased future aircraft operations as compared to current operations, than would the proposed project.
Noise

The No Project Alternative would not result in any changes to the existing noise contours established by the Mather Air Force Base CLUP. As with the airport safety areas, the existing noise contours are significantly larger in size than those proposed in the Mather Airport CLUP Update, and therefore subject a much greater area to land use restrictions. This alternative would therefore result in a greater number of existing incompatible uses exposed to increased future aircraft noise levels than would the proposed project.

Growth Inducement

The No Project Alternative would not result in a change to the existing CLUP, and would therefore not have the potential to be growth inducing.

Relationship of the Alternative to Project Objective

The height, noise and safety planning boundaries established by the Mather Air Force Base CLUP are based upon Mather's previous use as a Strategic Air Command base and bear no relationship to the airport's existing use as a public-use facility. Continued use of the military airfield planning boundaries may be contrary to ALUC law, which requires an ALUC to prepare a CLUP for all public airports within its jurisdiction. In addition, continued use of these planning boundaries would also be inconsistent with the adopted ALUC Policy Plan which establishes height, noise and safety planning boundaries for public-use airports. Implementation of the No Project Alternative would therefore not meet the stated objective of the project, which is to update the existing Mather Air Force Base CLUP to reflect the Base's conversion to a public-use, general aviation airport using the standards adopted in the ALUC Policy Plan, as amended December 1992.

ALUC POLICY PLAN ALTERNATIVE

Description

The ALUC Policy Plan Alternative assumes that the ALUC does not adopt the proposed Mather Airport CLUP Update and, further, rescinds the existing Mather Air Force Base CLUP. The ALUC Policy Plan, by default, would then become the document which establishes height, noise and safety planning boundaries as well as land use compatibility guidelines for land uses around the airport. Since the Mather Airport CLUP Update is based upon the standards contained in the ALUC Policy Plan, planning boundaries and land use compatibility guidelines are assumed to be similar between the two documents.

Environmental Impacts

Public Safety

Impacts related to public safety would be similar to those of the proposed project with this alternative.

Noise

Impacts related to noise would be similar to those of the proposed project with this alternative.
Growth Inducement

Impacts related to Growth Inducement would be similar to those of the proposed project with this alternative.

Relationship of the Alternative to Project Objective

It is ALUC policy to prepare individual CLUPs for each public-use airport within the region, as opposed to developing a single policy document establishing compatibility standards for all airports. The Airport Land Use Commission has adopted the ALUC Policy Plan to serve as an interim document, establishing planning boundaries for height, noise and safety, as well as land use compatibility guidelines, for land uses around airports until such time as individual CLUPs can be prepared. While use of the ALUC Policy Plan to establish airport planning boundaries and land use compatibility guidelines at Mather Airport may technically satisfy the requirements of ALUC law, it would not be consistent with the ALUC’s policy to prepare individual CLUPs for each public-use airport within the region. Height, noise and safety planning boundary maps applying ALUC Policy Plan standards to Mather Airport would still also have to be prepared. Implementation of the ALUC Policy Plan Alternative would therefore not meet the stated objective of the project.

MORE RESTRICTIVE MATHER AIRPORT CLUP UPDATE ALTERNATIVE

Description

The More Restrictive Mather Airport CLUP Update Alternative assumes ALUC adoption of safety areas and/or land use compatibility guidelines for safety which are more restrictive than those proposed in the Mather Airport CLUP Update, but less restrictive than those established by the existing Mather Air Force Base CLUP. This could include either larger Clear Zone, Approach-Departure Zone or Overflight Zone areas, or safety zones having the same dimensions as the proposed project, but with more restrictive land use compatibility guidelines for safety. This alternative could also include both larger safety areas and more restrictive safety guidelines. Noise contour dimensions would not change under this alternative, since the proposed project’s noise contour dimensions have been established based upon a set of airport build-out assumptions which would not be altered by any of the project alternatives. The land use compatibility guidelines for noise under this alternative are, however, assumed to be more restrictive than those of the proposed project.

Environmental Impacts

Public Safety

Public safety impacts of this alternative would be similar to those of the No Project Alternative. Since this alternative would result in either larger safety zones, more restrictive land use compatibility guidelines, or both, as compared to the proposed project, it is assumed that this alternative would contain a greater number of existing incompatible land uses than would the proposed project. This alternative would therefore expose a greater number of existing incompatible uses to an increased safety hazard, due to increased future aircraft operations as compared to current operations, than would the proposed project.

Noise

The noise impacts of this alternative would also be similar to those of the No Project Alternative, since the adoption of more restrictive land use compatibility guidelines for noise are assumed to result in the
creation of a greater number of existing incompatible land uses than would occur under the proposed project. This alternative would therefore expose a greater number of existing incompatible uses to increased future aircraft noise levels than would the proposed project. For the same reason, this alternative would also expose a greater number of existing incompatible uses to increased future cumulative aircraft and traffic noise levels than would the proposed project.

Growth Inducement

The More Restrictive Mather Airport CLUP Update Alternative has the potential to have growth inducing impacts when compared to the proposed project. This alternative proposes noise and safety planning boundaries and/or land use compatibility guidelines that are more extensive than the proposed project, and would therefore result in a greater area of currently vacant land being unavailable for future residential development. If this results in the need for Sacramento County to rezone land currently designated for open space or agricultural use to residential to ensure a sufficient amount of vacant residential land to accommodate planned residential growth, then implementation of this alternative could be considered growth inducing. It is not anticipated, however, that the County would need to rezone any land from open space or agricultural land use designations to accommodate future planned residential growth.

Relationship of the Alternative to Project Objective

The planning boundaries and land use compatibility guidelines proposed in the Mather Airport CLUP Update are based upon the standards previously established by the ALUC Policy Plan. The ALUC Policy Plan represents the ALUC's official determination of the appropriate planning boundaries and land use compatibility criteria to be used for noise and safety planning purposes around the region's airports. Since the proposed Mather Airport CLUP Update is based upon the standards established by the ALUC Policy Plan, the selection of planning boundaries and/or land use compatibility guidelines which are more restrictive would have to be based upon something other than ALUC Policy Plan standards. Implementation of the More Restrictive Mather Airport CLUP Update Alternative would be inconsistent with the adopted ALUC Policy Plan, and would therefore not meet the stated objective of the project.

LESS RESTRICTIVE MATHER AIRPORT CLUP UPDATE ALTERNATIVE

Description

The Less Restrictive Mather Airport CLUP Update Alternative assumes ALUC adoption of planning boundaries and/or land use compatibility guidelines which are less restrictive than those proposed in the Mather Airport CLUP Update. This could include either smaller Clear Zone, Approach-Departure Zone or Overflight Zone areas, or safety zones having the same dimensions as the proposed project, but with less restrictive land use compatibility guidelines for safety. This alternative could also include both smaller safety areas and less restrictive safety guidelines. Noise contour dimensions would not change under this alternative, but the land use compatibility guidelines for noise under this alternative are assumed to be less restrictive than those of the proposed project.

Environmental Impacts

Public Safety

Since this alternative would result in either smaller safety zones, less restrictive land use compatibility guidelines for safety, or both, as compared to the proposed project, the assumption is that it would contain fewer existing incompatible land uses than would the proposed project. This alternative would
therefore expose a lesser number of existing incompatible uses to an increased safety hazards than would the proposed project.

**Noise**

Since the adoption of less restrictive land use compatibility guidelines for noise are assumed to result in the creation of fewer existing incompatible land uses than would occur under the proposed project, this alternative would therefore expose a lesser number of existing incompatible uses to increased future aircraft noise levels than would the proposed project. For the same reason, this alternative would also expose fewer existing incompatible uses to increased future cumulative aircraft and traffic noise levels than would the proposed project.

**Growth Inducement**

This alternative has the potential to be growth inducing when compared to the proposed project. Smaller noise and safety planning boundaries and/or less restrictive land use compatibility guidelines could be considered a removal of a constraint to growth and development for those uses defined by the proposed project as incompatible, but compatible under this alternative.

**Relationship of the Alternative to Project Objective**

As with the More Restrictive Mather Airport CLUP Update Alternative, the selection of planning boundaries and/or land use compatibility guidelines which are less restrictive than those proposed in the Mather Airport CLUP Update would have to be based upon something other than ALUC Policy Plan standards. Implementation of the Less Restrictive Mather Airport CLUP Update Alternative would therefore also not meet the stated objective of the project.

**ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives which are evaluated. The No Project Alternative is the environmentally superior alternative, since it best meets the stated purpose of State ALUC law. The purpose of ALUC law 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 No Project Alternative, consisting of the existing Mather Air Force Base CLUP, establishes the most extensive noise and safety planning boundaries of all of the alternatives, including the proposed project. Adoption of any of the other alternatives would result in less extensive planning boundaries, and would therefore potentially expose a greater number of people to noise and safety impacts.

CEQA Section 15126(d)(2) requires that if the environmentally superior alternative is the No Project Alternative, an EIR shall identify another alternative as environmentally superior. Therefore, the More Restrictive Mather Airport CLUP Update Alternative is the environmentally superior alternative. In this case, the More Restrictive Mather Airport CLUP Update Alternative would result in adoption of more stringent planning boundaries or land use compatibility standards than any project alternative other than the No Project Alternative.
### Figure 20
SUMMARY OF EVALUATION OF ALTERNATIVES
(Comparison of Impacts with Proposed Project)

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Proposed Project</th>
<th>No Project Alternative</th>
<th>ALUC Policy Plan Alternative</th>
<th>More Restrictive Mather Airport CLUP Update Alternative</th>
<th>Less Restrictive Mather Airport CLUP Update Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Safety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure of existing incompatible land uses within proposed safety zones to an increased safety hazard compared to current operations.</td>
<td>SU</td>
<td>+</td>
<td>0</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Noise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure of existing incompatible land uses to increased aircraft noise compared to current levels.</td>
<td>SU</td>
<td>+</td>
<td>0</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Growth Inducement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The reduction in CLUP planning boundary size could be considered a removal of a constraint to growth and development for those uses currently defined by the CLUP as incompatible, but which would be compatible under the proposed CLUP Update.</td>
<td>SU</td>
<td>-</td>
<td>0</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Key: 
- = Decrease in Impacts  
+ = Increase in Impacts  
0 = No change in Impacts  
SU = Significant and unavoidable
7. BIBLIOGRAPHY


8. REPORT PREPARATION AND PERSONS CONTACTED

REPORT PREPARATION

Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

Executive Director
Director of Aviation, Ridesharing and Communications
EIR Preparation

Michael Hoffacker
Peter Hill
David Boyer

PERSONS CONTACTED

Larry Kozub
Manager, Mather Airport
APPENDIX A

NOTICE OF PREPARATION/INITIAL STUDY
NOTICE OF PREPARATION

MATHER AIRPORT COMPREHENSIVE
LAND USE PLAN UPDATE
ENVIRONMENTAL IMPACT REPORT

TO: ALL INTERESTED AGENCIES
AND PERSONS

DATE: March 15, 1996

FROM: AIRPORT LAND USE COMMISSION
3000 S STREET, SUITE 300
SACRAMENTO, CA 95816
(916) 457-2264

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

The Airport Land Use Commission (ALUC) of Sacramento, Sutter, Yolo and Yuba Counties will be the Lead Agency in the preparation of an environmental impact report for the Mather Airport Comprehensive Land Use Plan Update. The ALUC needs to know your views as to the scope and content of the environmental information to include in the EIR.

A copy of the Initial study is attached which includes the project description, location and probable environmental effects.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice.

Please send your response to David Boyer through any of the following methods:

<table>
<thead>
<tr>
<th>By Mail</th>
<th>By Fax</th>
<th>Through the Bulletin Board Service</th>
<th>Through the Internet</th>
</tr>
</thead>
</table>
| David Boyer, Associate Planner
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816 | (916) 457-3299 | Dial into the BBS at (916) 457-0660, and leave a message for "Dave Boyer" in the Message Menu | dboyer@sacog.org |

If you represent a public agency, private company or other entity, please indicate the name of a contact person within your agency.

DATE: 3/15/96

SIGNATURE: Executive Director

TITLE:
INITIAL STUDY

FOR THE

MATHER AIRPORT
COMPREHENSIVE LAND USE PLAN UPDATE

March 15, 1996
PROJECT LOCATION

The project includes Mather Airport and the area around the airport overflown by aircraft using the runways. Mather Airport is located in the central portion of Sacramento County, approximately one-half mile south of Highway 50 at Mather Field Road, and approximately 12 miles east of downtown Sacramento.

PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

The project consists of an amendment to the Mather Air Force Base Comprehensive Land Use Plan (CLUP) to reflect Mather's conversion from an Air Force Base to a public-use airport. Specifically, the amendment would modify the height, noise and safety planning areas contained in the CLUP.

Planning Boundaries for Height: Planning boundaries for height in the CLUP are based upon a series of imaginary surfaces established by the Federal Aviation Administration (FAA) in Federal Aviation Regulations Part 77 - Objects Affecting Navigable Airspace. Proposed structures penetrating these surfaces are considered by the FAA to have the potential to constitute a hazard to air navigation, unless the FAA has performed an aeronautical study which has determined that the proposal does not present a hazard. The CLUP defines these imaginary surfaces as they relate to the airport, and deem proposed structures which penetrate them to be incompatible uses, unless the FAA has performed an aeronautical study and determined that the project does not constitute a hazard.

The proposed planning boundaries for height at Mather Airport are depicted in a general manner in Map 1.

Planning Boundaries for Noise: The ALUC has adopted the Community Noise Equivalent Level (CNEL) as the noise rating method for use in promoting noise compatibility around the airport. CNEL is the noise standard developed by the State for use in airport noise planning. It consists of a weighted average of daytime and night-time sound levels, with night-time noise being weighted more heavily to account for the lower tolerance of people to noise during those hours.

CNEL is graphically illustrated as a contour surrounding the airport consisting of points of identical noise levels connected together. Noise contours are usually prepared in increments five decibels apart, most often ranging from 60 CNEL to 85 CNEL. The higher the CNEL number, the higher the noise level. For the purpose of noise planning, the CLUP use noise contours based upon the estimated long-range operation of an airport, if such information exists. The planning boundary incorporated into the CLUP actually consists of a series of multiple contours, each having separate land use compatibility standards.

The proposed planning boundaries for noise at Mather Airport are depicted in Map 2.

Planning Boundaries for Safety: Safety areas are divided into three basic zones, referred to as Clear Zones, Approach-Departure Zones, and Overflight Zones. The size and dimensions
Figure 1

EXAMPLE OF PART 77 CIVIL AIRPORT IMAGINARY SURFACES

Isometric View
of these zones vary based upon the type of aircraft using a particular airport, the type of instrumentation present, and whether the airport is civilian or military.

1) **Clear Zones**: Clear zone areas begin 200 feet beyond each runway end at civilian airports. They then extend outward for a specific distance depending on the airport type. Clear zones have the highest potential for aircraft accidents and the CLUP land use compatibility guidelines define most land uses to be incompatible within them. Exceptions are uses such as agriculture, open space, and those which do not result in the development of permanent structures.

2) **Approach-Departure Zones**: Approach-Departure Zones begin at the point where Clear Zones end, and extend outward for a specific distance depending upon airport type. The CLUP land use compatibility guidelines are generally less restrictive in this area than in Clear Zones, with many low-intensity uses permitted. Uses attracting large numbers of people are generally defined as being incompatible within this area, as is concentrated residential development.

3) **Overflight Zone**: Overflight Zones are the least restrictive safety area and generally coincide with the area outside of Clear Zones and Approach-Departure Zones which is overflown by aircraft during normal traffic pattern procedures. Most uses are defined by the CLUP land use compatibility guidelines as being compatible within this zone, with the exception of uses attracting very large concentrations of people.

It should be noted that the land use compatibility standards for Height, Noise, and Safety only apply to proposed new uses. Pre-existing land uses are not subject to ALUC authority unless they are damaged or are proposed for change.

The proposed planning boundaries for safety at Mather Airport are depicted in Map 3.

**PROJECT CONSISTENCY WITH EXISTING ZONING, PLANS AND LAND USE CONTROLS**

Adoption of the proposed project by the ALUC would result in new height, noise and safety planning boundaries being established for the determination of land use compatibility around the airport. Since these new planning boundaries would differ from those currently established by the existing Mather Air Force Base Comprehensive Land Use Plan, it is likely that the County of Sacramento will need to modify its existing land use regulations to achieve consistency with the updated CLUP.

ALUC adoption or amendment of a CLUP sets in motion a 180 day period under the provisions of ALUC law, within which each city or county with jurisdiction over a geographic area subject to the plan must take one of two following possible actions:

1) The first option is to amend its General Plan and other land use controls and regulations, where necessary, to be consistent with the plan.
2) The second option, if the city or county does not concur with provisions of the plan, is to overrule any portion of the plan with which it does not agree. The overruling must, however, be by a two-thirds vote of the governing body and must be based on written and adopted findings that the action to overrule is consistent with Section 21670 of the California Public Utilities Code.

DISCUSSION OF ENVIRONMENTAL EVALUATION

Environmental Impacts Found to be Potentially Significant

1. Noise

The proposed project would result in future airport noise contours more extensive than those reflecting current operations at Mather Airport. The result would be the additional exposure of people and structures to airport noise levels greater than which currently exits.

2. Risk of Upset and Human Health

Proposed airport operations in the future will be more extensive than current levels, exposing greater numbers of people and property to the potential of aircraft accidents. Also, in the event of an aircraft accident, the potential for an explosion or release of hazardous substances exists.

Environmental Impacts Found Not to be Significant

1. Earth, Air, Water, Plant Life, and Natural Resources

The project is not a construction project and does not result in approval of a construction project. The project will not result in any change in the earth and thus, will result in no unstable earth conditions, no earth disruption, no change in ground surface, no destruction of any geologic feature, no increase in soil erosion, no siltation to stream beds, and no increase in exposure of people to geological hazards.

Because the project does not approve construction, it will not change air emissions, result in odors, or alter air movement. The project will have no effect on water, water currents, runoff, discharge to surface waters, change in ground water, or exposure of people to floods.

Because the project contains no physical change, the project will result in no change in plant life, animal life, or natural resources.

Overall, because the project makes land use compatibility more stringent, implementation of the Guidelines by local government may have a tendency to reduce the potential for physical change.
2. **Light and Glare**

The project will result in no increase in light glare because it does not approve construction or addition of any light sources.

3. **Transport and Circulation, Public Services, Energy, and Utilities**

The project does not include any physical construction and will not result in approval or denial of any physical change in the designated safety areas. The project will result in no new roads, parking facilities, or changes in circulation. It will not cause alterations to existing rail or air traffic.

Because the ALUC has no authority over operations at an airport, the project will have no effect on air traffic or flight operations. It will also have no effect on based aircraft, aircraft types using various airports, or flight tracks used by based, itinerant, or scheduled aircraft.

The project will have no effect on any public service, since it results in no construction. No increased or altered public service demands will result from the project because the project contains nothing that would cause such a change.

No increase in energy use or utility service will be caused by the project because the project does not approve or include any expansion of any physical structure that would require such an increase.

4. **Aesthetics, Recreation and Cultural Resources**

No views will be obstructed and the existing aesthetics of the area affected by the project will not be changed in any way. Because there is no physical change to the area affected by the project, no new recreation service will be required and existing recreation services will be unaffected.

Once again, because there is no physical construction or alteration to the project area, no cultural resources will be affected. There will be no effect on existing religious uses within the area because the ALUC law does not include any authority to develop retroactive guidelines that would affect existing uses.

5. **Land Use, Population and Housing**

The project provides guidelines for land use compatibility which may or may not be accepted by affected cities and counties. Because the ALUC has no authority to implement the Guidelines, the project will not result in a substantial alteration of the present or planned land use in the area.

The project has no way of altering population distribution, density, or growth rate because it does not cause or approve any physical change in the area. Also, since the physical area will not be changed by the project, the project will not create additional demands for housing or affect existing housing.
ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of Proponent: Airport Land Use Commission for Sacramento, Sutter, Yolo and Yuba counties.

2. Address and Phone No. of Proponent:

3000 S Street, Suite 300
Sacramento, CA 95816
(916) 457-2264

3. Date of Submission: 3/15/96

4. Name of Proposal: Mather Airport Comprehensive Land Use Plan Update

B. ENVIRONMENTAL IMPACTS

(Explanation of all "yes" and "maybe" answers are attached)

1. **Earth** - Will the proposal result in:

   a. Unstable earth conditions or changes in geologic substructures?  
      | Yes | Maybe | No |
      |-----|-------|----|
      |     |       | X  |

   b. Disruptions, displacements, compaction or overcovering of the soil?  
      | Yes | Maybe | No |
      |     |       | X  |

   c. Change in topography or ground surface relief features?  
      | Yes | Maybe | No |
      |     |       | X  |

   d. Destruction, covering or modification of any unique or geologic or physical features?  
      | Yes | Maybe | No |
      |     |       | X  |

   e. Any increase in wind or water erosion of soils, either on or off the site?  
      | Yes | Maybe | No |
      |     |       | X  |

   f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?  
      | Yes | Maybe | No |
      |     |       | X  |

   g. Exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?  
      | Yes | Maybe | No |
      |     |       | X  |
2. **Air** - Will the proposal result in:
   
   a. Substantial air emissions or deterioration of ambient air quality?  
      -  
      -  
      X
   
   b. The creation of objectionable odors?  
      -  
      -  
      X
   
   c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?  
      -  
      -  
      X

3. **Water** - Will the proposal result in:
   
   a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?  
      -  
      -  
      X
   
   b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?  
      -  
      -  
      X
   
   c. Alterations to the course or flow of flood waters?  
      -  
      -  
      X
   
   d. Change in the amount of surface water in any water body?  
      -  
      -  
      X
   
   e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?  
      -  
      -  
      X
   
   f. Alteration of the direction or rate of flow of ground waters?  
      -  
      -  
      X
   
   g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?  
      -  
      -  
      X
   
   h. Substantial reduction in the amount of water related hazards such as flooding or tidal waves?  
      -  
      -  
      X
   
   i. Exposure of people or property to water related hazards such as flooding or tidal waves?  
      -  
      -  
      X
4. **Plant Life** - Will the proposal result in:
   a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)? Yes
   b. Reduction of the number of an unique, rare or endangered species of plants? Yes
   c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species? Yes
   d. Reduction in acreage of any agricultural crop? Yes

5. **Animal Life** - Will the proposal result in:
   a. Change in the diversity of species, or numbers of any species of animals, birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)? Yes
   b. Reduction of the number of any unique, rare or endangered species of animals? Yes
   c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals? Yes
   d. Deterioration to existing fish or wildlife habitat? Yes

6. **Noise** - Will the proposal result in:
   a. Increases in existing noise levels? Yes
   b. Exposure of people to severe noise levels? Yes

7. **Light and Glare** - Will the proposal produce new light or glare? Yes

8. **Land Use** - Will the proposal result in a substantial alteration of the present or planned land use of an area? Yes
9. **Natural Resources** - Will the proposal result in:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
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<tbody>
<tr>
<td>a. Increase in the rate of use of any natural resources?</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>b. Substantial depletion of any non-renewable natural resource?</td>
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<td>X</td>
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10. **Risk of Upset** - Will the proposal involve:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
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<tbody>
<tr>
<td>a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>b. Possible interference with an emergency response plan or an emergency evacuation plan?</td>
<td></td>
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<td>X</td>
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</table>

11. **Population** - Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
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<td></td>
<td></td>
<td></td>
<td>X</td>
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12. **Housing** - Will the proposal affect existing housing, or create a demand for additional housing?  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>X</td>
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</table>

13. **Transportation/Circulation** - Will the proposal result in:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Generation of substantial additional vehicular movement?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b. Effects on existing parking facilities, or demand for new parking?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>c. Substantial impact upon existing transportation systems?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>d. Alterations to present patterns of circulation or movement of people and/or goods?</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>e. Alterations to waterborne, rail or air traffic?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?</td>
<td></td>
<td></td>
<td>X</td>
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</table>
14. **Public Services** - Will the proposal have an effect upon, or result in a need for, new or altered governmental services in any of the following areas:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>no</th>
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<tbody>
<tr>
<td>a. Fire protection?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b. Police protection?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>c. Schools?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>d. Parks or other recreational facilities?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>e. Maintenance of public facilities, including roads?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>f. Other governmental services?</td>
<td></td>
<td></td>
<td>X</td>
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</table>

15. **Energy** - Will the proposal result in:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>no</th>
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</thead>
<tbody>
<tr>
<td>a. Use of substantial amounts of fuel or energy?</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?</td>
<td></td>
<td></td>
<td>X</td>
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</tbody>
</table>

16. **Utilities** - Will the proposal result in a need for new systems, or substantial alterations to the following utilities:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Maybe</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Power or natural gas?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b. Communications systems?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>c. Water?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>d. Sewer or septic tanks?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>e. Storm water drainage?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>f. Solid waste and disposal?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
17. **Human Health** - Will the proposal result in:

a. Creation of any health hazard or potential health hazard (excluding mental health)?

b. Exposure of people to potential health hazards?

18. **Aesthetics** - Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?

19. **Recreation** - Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?

20. **Cultural Resources**

   a. Will the proposal result in the alteration of or destruction of a prehistoric or historical building, structure, or object?

   b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?

   c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?

   d. Will the proposal restrict existing religious or sacred uses within the potential impact area?

21. **Mandatory Findings of Significance**

   a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-time impact on the environment is one which occurs in a relatively brief definitive period of time while longterm impacts will endure well into the future.)

   Yes  Maybe  No

   X

C. DISCUSSION OF ENVIRONMENTAL EVALUATION  (See attached)

D. DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

By:  
AIRPORT LAND USE COMMISSION  

Date  
3/15/96
APPENDIX B

RESPONSES TO NOTICE OF PREPARATION AND COMMENTS ON RESPONSES
DATE: March 21, 1996
TO: Reviewing Agencies
RE: MATHER AIRPORT COMPREHENSIVE LAND USE PLAN
SCH# 96032105

Attached for your comment is the Notice of Preparation for the MATHER AIRPORT COMPREHENSIVE LAND USE PLAN draft Environmental Impact Report (EIR).

Responsible agencies must transmit their concerns and comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

DAVID BOYER
AIRPORT LAND USE COMMISSION
3000 S STREET, SUITE 300
SACRAMENTO, CA 95816

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Kristen Derscheid at (916) 445-0613.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Attachments

cc: Lead Agency
Comment letter 1: Office of Planning and Research

The comment is noted regarding the ALUC's compliance with the State Clearinghouse review requirements for environmental documents.
March 27, 1996

David Boyer, Associate Planner
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento CA 95816

SUBJECT: Mather Airport Comprehensive Land Use Plan Update

Dear David:

The Folsom Cordova Unified School District would like the following two issues to be addressed in the draft EIR for the above project:

The Noise and Safety impacts to the two school sites that exist at Mather.

Thank you for the opportunity to respond.

Sincerely,

Cathy Allen
Facilities Planner
Comment letter 2: Folsom Cordova Unified School District

The two schools that exist on former Mather Air Force Base property have been conveyed to the Folsom Cordova Unified School District. The Mather Heights Elementary School and the Kitty Hawk Elementary School are located within the former Base housing area. Their locations are shown in the attached Figures B-1 and B-2. Both schools are existing uses, and as such, are not affected by the proposed CLUP update unless they plan to increase in capacity by one-third or more. If either school were to propose an expansion of one-third or more, such expansion would be consistent with both the safety and noise standards proposed by the CLUP Update. As Figure B-1 depicts, both schools are located within the Overflight Zone. The CLUP Update defines elementary and secondary schools as compatible uses within the Overflight Zone, provided the requirements of California Education Code Sections 39005.7, 81036, and 81038 are fulfilled.

As Figure B-2 shows, both schools are located outside of any of the proposed airport noise contours, and are therefore compatible with the noise standards proposed by the CLUP Update.
Letter 3

SACRAMENTO COUNTY FIRE PROTECTION DISTRICT

DIRECTORS:
Ronald L. Allen
Edwin R. Butler
Gregory A. Granados
William Meehan
Dean O’Brien
James C. Shelby
Leslie D. Wolff

March 29, 1996

CHIEF:
James E. Emerson

David Boyer, Associate Planner
Airport Land Use Commission
3000 “S” Street, Suite 300
Sacramento, California 95816

Dear Mr. Boyer:

The Sacramento County Fire Protection District (SCFPD) is in receipt of your notice of preparation of a draft Environmental Impact Report (EIR) for the Mather Airport Comprehensive Land Use Plan Update. Our staff has reviewed the document and submits the following comments for the record and for your consideration:

1. We are in agreement with the finding under the “Risk of Upset and Human Health” (Page 6, #2 of the “Discussion of Environmental Evaluation” and #10 on Page 11 of the “Environmental Checklist”) that the proposed airport operations will be more extensive than existing levels, and, therefore, the risk of a potential aircraft accident with the possibility for explosion and/or the release of hazardous materials is increased.

2. We take exception, however, to the findings of a negative impact for the areas of “Water” (Page 6, #1 of the “Discussion of Environmental Evaluation,” #3e and 3i on Page 9 of the “Environmental Checklist”) and “Public Services” (Page 7, #3 of the “Discussion of Environmental Evaluation” and #14 on Page 12 of the “Environmental Checklist”).

3. Basically, the finding under “Risk of Upset” that there may be an increased risk of an aircraft accident with resulting increased possibility of an explosion and/or hazardous materials release is inconsistent and incompatible with the findings of a negative impact on the need for new or altered fire protection services or the increased possibility of a toxic substance (e.g., large quantities of aviation fuel) leaking into surface waters and creating an exposure hazard to persons downstream.

4. This agency informs you that it has already had a significant impact placed upon it by virtue of efforts we have made to date, and are continuing to make, in the areas of training, response procedures, equipment, etc., to meet the anticipated increased risk of an aircraft accident at Mather. As the scope of airport operations increases, so does the attending need for enhanced operational capability.
5. Running east to west along virtually the entire southern border of the airport’s main runway (see enclosed map) is the Morrison Creek. This creek is a major water run off conduit that transports excess surface water through the communities of Florin and Elk Grove, passing, in the process, through many residential areas, as it winds its way to the Delta.

A significant aircraft incident, such as an aircraft skidding off the runway and breaking open a fuel cell, could well result in the discharge of a large quantity of aviation fuel (or other hazardous substances) that would likely eventually make its way into the Morrison Creek or other tributaries and would then pose a significant downstream exposure to both people and the environment.

In conclusion, we feel that the finding in the draft EIR document for Mather is accurate in identifying a possible increased “Risk of Upset,” leading to an increased possibility of explosion and/or hazardous materials release. However, you cannot have a finding of such an increased risk without a corresponding acknowledgment of an increased risk to downstream persons and the environment and a corresponding increased impact on the fire agency tasked with the legal responsibility to respond and mitigate the emergency.

Your contact person in our agency for future communications on this subject is Assistant Fire Chief Mark Meaker (636-1879, office, or 537-0610, pager).

Your consideration and inclusion of our feedback in the EIR is greatly appreciated.

Cordially,

James E. Emerson
Fire Chief

cc: Larry Kozub, Mather Airport Manager
SCFPD Staff
Sacramento City Fire Chief Gary Costamagna
Comment Letter 3: Sacramento County Fire Protection District

The concerns of the Sacramento County Fire Protection District relate to impact on their operations in the event of an aircraft accident occurring. These concerns include the impact on fire protection resources to respond to and mitigate the effects of an accident. ALUC staff contacted fire district personnel to determine the nature of these impacts, and necessary mitigation measures. It was concluded that the impact on fire protection services of an aircraft accident is a direct result of the operation of Mather Airport, not the adoption of the proposed CLUP Update. The risk of an aircraft accident is a result of the operation of Mather as an airport, and the risk increases as the level of aircraft operations increases. The ALUC has no authority over the operation of an airport. This authority rests with Sacramento County. Adoption of the proposed CLUP Update will not affect the level of airport activity, or the associated aircraft accident risk.

The Sacramento County Fire Protection District provided the following information regarding the impacts of increased levels of operations on fire protection services and on water contamination. Measures which would help to mitigate these impacts was also provided by the District, and is included. It should be noted that inclusion of the following information in this comments to responses to the Notice of Preparation does not imply that the proposed CLUP Update will result in the impacts identified by the fire district.

FIRE PROTECTION

The Sacramento County Fire Protection District and The Florin Fire Protection District provide emergency medical, advanced life support, rescue and fire protection services to the urban and rural areas on and around Mather Airport. The Airport is located almost entirely within the boundaries of the Sacramento County Fire Protection District.

The Sacramento County Fire Protection District’s service area encompasses about 130 square miles, and includes Rancho Cordova, Rosemont, Citrus Heights, Orangevale, Foothill Farms, Fair Oaks, Antelope, North Highlands, Auburn Boulevard, and surrounding farm areas to the southeast and east of the airport. The District operates 20 stations throughout their area and serves approximately 375,000 people.

Operation of the Mather Airport would increase the demand for fire protection and emergency services within the planning boundaries established by the proposed Mather Airport CLUP Update, as the potential risk of an aircraft accident increases due to increased future aircraft operations as compared to current operations.

While operating as an Air Force base, fire protection service at the airport was supplied by an on-base fire department operated by the Air Force. The on-base fire department was eliminated when Base closure occurred. The Sacramento County Fire Protection District is currently providing all fire protection to the airport from off-site locations.

As the number of aircraft operations at Mather Airport increases, so does the potential risk of an aircraft accident. In the event of an accident, either on or off-airport, there is the possibility of an explosion and/or resulting release of toxic materials. Therefore, as the risk of an aircraft accident increases, there is a corresponding increased impact on fire protection resources to respond and mitigate any such emergency. Specifically impacted would be the ability of the fire districts to provide emergency medical, advanced life support, rescue and fire protection services.

The Sacramento County Fire Protection District Operations Division has verified that substantial
efforts have been, or are currently being, implemented to mitigate at least part of the increased impact on the District. These efforts include, but are not limited to, the following:

- preparation and implementation of the necessary run zone dispatch programming,
- preparation and implementation of the necessary tactical response plans and related letter of agreement with the Sacramento County Department of Airports,
- development and placement of aircraft technical reference binders in response apparatus,
- development and implementation of field exercises to test use of the response plans and reference guides, and
- development and conducting of "Fire Control 5" classes for appropriate response personnel within the District to provide the necessary classroom-theoretical background training in aircraft fire/crash/rescue response to supplement field training.

Mitigation Measures

The Sacramento County Fire Protection District recommended implementation of the following measures to help mitigate the impact of airport operations on their services. These measures may include, but not be limited to, the following:

- A fire protection presence located on-site at the airport. The nature and number of necessary fire protection resources shall be determined by the Sacramento County Fire Protection District, in consultation with the Sacramento County Department of Airports.
- The provision of appropriate aircraft crash response apparatus and/or equipment enhancements, as determined by the Sacramento County Fire Protection District, in consultation with the Sacramento County Department of Airports.
- Continuation of joint training efforts between the Sacramento International Airport Fire Department and the Sacramento County Fire Protection District.

Implementation of the above measures would significantly reduce the impact on fire protection resources, but the impact would remain significant and unavoidable.

RISK OF UPSET-WATER CONTAMINATION

Mather Airport is located in the Morrison Creek Drainage Watershed. The predominant natural drainage pattern in the Morrison Creek Drainage Watershed is southwesterly along Morrison Creek. Natural surface drainage flow on Mather Airport has been altered by construction of the airport. The eastern edge of the airport is bordered by the Folsom South Canal, an artificial concrete-lined aqueduct which transports water from the Nimbus Dam on the American River.

Morrison Creek, and its ephemeral tributary drainage, traverses the airport in a northeast to southwest direction. Morrison Creek is an intermittent stream which has been dammed in the northeastern corner of the former Base property to form Mather Lake. Morrison Creek flows through the Florin and Meadowview communities, until ultimately joining the Sacramento River south of the Pocket area.

Increased potential for aircraft accidents due to increased future operations increases the potential
for the discharge of aviation fuel or other toxic or hazardous substances into surface waters, resulting in water contamination and an associated risk to people residing or working adjacent to the affected waterways. This is considered to be a significant and unavoidable impact.

As the number of aircraft operations at Mather Airport increases, so does the potential risk of an aircraft accident. In the event of an accident, either on or off-airport, there is the possibility of an explosion and/or resulting release of toxic or hazardous materials. Should any of these materials find their way into Morrison creek or its tributaries, people residing or working adjacent to these waterways could be exposed to these toxic or hazardous materials. This event would be considered a Hazardous Materials Emergency by Sacramento County.

Sacramento County's response to hazardous materials emergencies is governed by the procedures outlined in the Sacramento County Hazardous Material Incident Area Plan (1995). Response would occur under a unified command system managed by the Sacramento County Sheriffs Department. Affected fire and law enforcement would likely be mobilized, and include any fire districts having jurisdiction, local law enforcement agencies with jurisdiction, the Hazardous Materials Division of the Sacramento County Environmental Management Department, and the Sacramento City Fire Department Hazardous Material Response Team. The California Department of Fish and Game would also likely be involved.

Response by these agencies could include the evacuation of areas immediately adjacent to affected waterways, and placement of containment systems such as underflow dams and use of imbibber materials and/or similar devices. The contaminants would then need to be removed and subsequently transported to a Class I disposal site.
April 15, 1996

David Boyer, Associate Planner
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

RE: Notice of Preparation of Draft EIR
Mather Airport Comprehensive Land Use Plan Update

Dear Mr. Boyer:

El Dorado County has concerns and would like to comment on the Notice of Preparation for the Draft EIR for the Mather Airport Comprehensive Land Use Plan Update.

Enclosed in your Notice of Preparation is the Buildout Aircraft Noise Contour Map from the Mather Field County-operated Aviation Facility Final EIR, Sacramento County Department of Environmental Review and Assessment dated September 1994 (Figure 2). This contour map is based upon a flat surface. The flight path for cargo planes descending into Mather Airport is directly over the community of El Dorado Hills in El Dorado County. This contour map does not take into consideration the elevation and topography of El Dorado Hills. The highest elevation point directly in the flight path chosen by Mather over El Dorado Hills is approximately 1,100 feet above sea level (not including structures). The minimum altitude of the cargo planes is to be 3,000 feet above sea level. Based upon this information, the Environmental Impact Report should address the following health and safety issues:

1. Noise impacts to residents in El Dorado Hills.
2. Safety impacts to residents and schools in El Dorado Hills.
3. Alternatives to the selected flight path.
4. Mitigation measures and funding mechanisms to ensure the cargo plane flights will not adversely impact residents in El Dorado County.
Thank you very much for responding to our concerns. If you have any further questions, please call me at (916) 621-5355.

Sincerely,

[Signature]

Conrad B. Montgomery
Planning Director

CBM:jcb
Comment Letter 4: Conrad Montgomery

ALUC staff requested a response to the letter from Conrad Montgomery from Mather Airport staff. The response, from Larry E. Kozub, Mather Airport Manager, is attached and begins on page B-25. The ALUC staff response is as follows:

Response to Question #1: Noise Impacts to Residents in El Dorado Hills

The Integrated Noise Model used to develop the noise contours certified by Sacramento County and proposed for adoption in the CLUP Update did not allow terrain variations to be used as an input, but assumed a flat plain around the airport. The commenter asks whether El Dorado Hills residents could be impacted by significant aircraft noise levels (i.e., the 65 CNEl noise contour) if the elevation of the El Dorado Hills community is factored into the noise analysis.

The noise contours proposed for adoption in the CLUP Update were originally prepared for Sacramento County by P&D Aviation. The then current version of the Federal Aviation Administration's Integrated Noise Model (INM), Version 4.10, was used to develop the noise contours. ALUC staff contacted P&D Aviation to determine whether factoring in the elevation of the El Dorado Hills area could potentially result in the exposure of portions of the community to noise levels of 65 CNEl or above. After performing an analysis of the potential aircraft noise exposure to residents, P&D Aviation concluded that, even assuming an elevation of 1,200 feet (slightly higher than the highest El Dorado Hills elevation), that this area is clearly well outside of the 65 CNEl contour, and most probably also outside of the 60 CNEl noise contour.

This conclusion is based upon the fact that, assuming a very conservative 3° approach profile, the outer edge of the 65 CNEl noise contour is located 767 feet above ground level (AGL). In order for the El Dorado Hills community to be impacted by the 65 CNEl contour, the altitude above ground level of aircraft over the El Dorado Hills must match that of aircraft at the location of the outer edge of the 65 CNEl contour. This means that aircraft would have to fly over the highest point of the El Dorado Hills at 767 AGL for residents to be impacted.

Assuming that the highest point in the Hills is 1,200 feet, this would mean that aircraft would have to be flying at an elevation of 1,976 feet above this point for the top of Hills to be impacted by the 65 CNEl noise contour. Assuming a 3° approach profile, aircraft would be at an altitude of 3,621 feet over this point, well above the 1,967 foot impact area. In reality, aircraft on approach will probably be at a much higher altitude than the assumed 3° profile. Aircraft on departure are expected to be at an even higher elevation.

It is clear from the P&D Aviation analysis that the El Dorado Hills community is well outside of the area projected to be located within the 65 CNEl noise contour. P&D Aviation's analysis is attached.

Response to Question #2: Safety Impacts to Residents and Schools in El Dorado Hills

The airport safety areas proposed by the CLUP Update do not extend into El Dorado County, as shown on page 23 of this Draft EIR in Figure 5, Airport Safety Zones. There is, therefore, no safety impact to residents and Schools in the El Dorado Hills community.

Response to Question #3: Alternatives to the Selected Flight Path

The selection of aircraft flight tracks for aircraft using Mather Airport is the responsibility of
Sacramento County, which is the airport operator, in coordination with the Federal Aviation Administration. The determination of airport flight track locations has already been made by the County and the FAA. The impacts resulting from operation of the airport by Sacramento County were the subject of a previous EIR, the Mather Field County-Operated Aviation Facility Final Environmental Impact Report, prepared by EIP Associates, September 1994.

The project this Draft EIR focuses on is the proposed update of the Mather Airport CLUP, consisting of the adoption of new airport planning boundaries for height, noise and safety, as well as the adoption of land use compatibility guidelines for height noise and safety. The ALUC has no authority over the operation of the airport, and thus no control over aircraft flight tracks. The analysis of alternative flight tracks other than those previously selected by the agencies having the authority to do so is, therefore, not appropriate for discussion in this EIR.

**Response to Question #4: Mitigation Measures and Funding Mechanisms to Ensure That Cargo Plane Flights Will Not Adversely Impact Residents in El Dorado County.**

Staff is not certain what potential impacts to El Dorado County residents from cargo plane flights the commenter is referring to. If the impact is noise, the response to commenter's question number 1 above clearly indicates that there will not be a noise impact to El Dorado County residents. No noise mitigation is necessary. Cargo plane flights were assumed as an input to the calculation of the airport noise contours proposed for adoption by the CLUP Update.

Again, the ALUC has no authority over airport operations, and thus cannot approve any mitigation measures or funding mechanisms related to cargo operations. This authority rests solely with Sacramento County.
April 29, 1996

Mr. Dave Boyer  
Associate Planner  
SACOG  
Suite 300  
3000 S Street  
Sacramento, CA 95816

RE: Effect of Rising Terrain on Mather Airport Noise Contours

Dear Mr. Boyer:

This is in response to your request for information concerning the effect of rising terrain to the east of Mather Airport on the CNEL 65dB noise contour used by SACOG in the development of its comprehensive land use plan (CLUP) for the airport.

I understand this request to be based on the fact that aircraft noise complaints have been received from El Dorado County residents living in an area approximately 11 nautical miles (67,200 feet) from the nearest runway end at Mather Airport. The residents believe that because their neighborhood (El Dorado Hills) is located at or about 1,200 feet above sea level, the CNEL 65db noise contour should include their location, which in turn, would make them a "noise impacted" area. This is based on the assumption that the FAA's Integrated Noise Model, Version 4.10 (INM 4.10)—the noise model originally used to develop the contour—does not contain an algorithm for terrain variations, i.e., it assumes a flat plain around the airport being modeled. The latter assumption is correct, but the conclusion drawn from it is not.

The explanation of why the El Dorado Hills residents would not be subject to cumulative aircraft noise exposure levels of CNEL 65dB or above is relatively simple, and does not require additional noise modeling with a more sophisticated (i.e., terrain sensitive) model such as the INM 5.0. The attached diagram (Figure 1) shows the relationship between the airport, the CNEL 65db noise contour, and the El Dorado Hills area with respect to typical approach and departure profiles at Mather Airport.

From the diagram it can be determined that the distance from the runway end to the projected CNEL 65dB airport noise contour is 15,600 feet. The elevation at this point is 150 feet above sea level, or about 50 feet higher than the runway end. This 50-foot difference is inconsequential (i.e., less than 1dB) in terms of the location of the contour (the model itself is considered accurate to within only 1.5 dB). The Eldorado Hills area is another 51,600 feet beyond the CNEL 65dB noise contour, but is only 1,100 feet higher than the runway end. In order for the higher terrain in the El Dorado hills area to be subject to the CNEL 65dB noise contour it would have to have the same...
geometrical relationship to the aircraft overhead as is the case at the CNEL 65dB contour (i.e., the same vertical distance from the aircraft to the ground at both points).

From the diagram, and assuming a standard 3-degree approach path, it can be determined that aircraft on approach to Runway 22L would pass over the location of the CNEL 65dB noise contour at an altitude of approximately 917 feet above sea level (767 feet above ground level). At a distance of 67,200 feet from the runway end, an aircraft on approach to Runway 22L at Mather Airport should be well-above the 3-degree glide slope for the runway. However, assuming a 3-degree approach, the aircraft would be at an altitude of about 3,621 feet above sea level (or about 2,421 feet above ground level (AGL) as it passes over El Dorado Hills. This is over three times the altitude of aircraft approaching Mather Airport at the location of the CNEL 65dB noise contour. In which case, the effect of the higher terrain at the El Dorado Hills location would not result in a cumulative noise value in excess of CNEL 60dB.

The effect of rising terrain on takeoff CNEL values can similarly be estimated from the INM departure profiles. For example, at the location of the CNEL 65dB noise contour the altitude of a Boeing 757 departing on Runway 4R (11,300 feet long) would be approximately 2,900 feet above sea level (2,750 feet above ground level). Over the El Dorado Hills area, the aircraft would be at an altitude of about 8,600 feet above sea level (or 7,400 feet above ground level). This is approximately 2.7 times the altitude at the CNEL 65dB noise contour. For all Runway 4R departures over the area, the likely result would be a CNEL value of less than 60dB in the area of El Dorado Hills, even with the 1,100 elevation differential between the airport and the residential community.

Mr. Boyer, I hope that this information is sufficient to satisfy your concerns. Please call me if you have any questions.

Sincerely,

P&D Aviation
A division of P&D Consultants, Inc.

Michael R. McClintock, AICP
Associate Vice President
FIGURE 1
EFFECT OF RISING TERRAIN
ON MATHER AIRPORT
CNEL 65dB NOISE
CONTOUR AT EL DORADO
HILLS

IN ORDER FOR EL
DORADO HILLS TO BE
SUBJECT TO A CUMULATIVE
NOISE LEVEL OF CNEL 65dB,
THE ALTITUDES ABOVE
GROUND LEVEL(AGL) OF
AIRCRAFT OVER EL DORADO
HILLS (B) MUST MATCH THOSE
AT LOCATION OF EXISTING
CNEL 65dB NOISE CONTOUR
(A) FOR BOTH TAKEOFF
AND APPROACH.
May 28, 1996

Dave Boyer  
SACOG/ALUC  
3000 S Street, Suite 300  
Sacramento, CA 95816  

SUBJECT:  CNEL EVALUATION FOR EL DORADO HILLS

Dear Dave:

I have reviewed the letter report “Effect of Rising Terrain on Mather Airport Noise Contours” prepared for you by Mr. Mike McClintock of P&D Aviation. This is a good report and substantiates the position the Department of Airports has taken in the past on this issue. The only comment I would have is that the analysis presented in the letter report assumes, without stating so, that the base 65-CNEL contour labeled as “point A” reflects a traffic volume of approximately 294,600 operations as presented in Table 4.4-8 of the Mather Field County-Operated Aviation Facility EIR. Both current year and 20-year projected traffic volumes are significantly less.

Larry E. Kozub, Manager  
Mather Airport

cc:  Tom Engel
April 22, 1996

David Boyer, Associate Planner
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

RE: Notice of Preparation of Draft EIR
Mather Airport Comprehensive Land Use Plan Update

Dear Mr. Boyer,

Enclosed are copies of materials relating the Mather Airport noise issue including letters of correspondence between El Dorado and Sacramento Counties. Please include them as back up materials for the Environmental Impact Report.

I have some concerns that should be addressed in the NOP:

1. Please show the extended flight plan or paths proposed which would be over El Dorado County.

2. Please provide consistencies between the effects of the CLUP and surrounding land use designations in the region including Sacramento County and El Dorado County.

Sincerely,

[Signature]

William "Sam" Bradley
Supervisor, District I

Enclosures
Comment Letter 5: William S. Bradley

The materials enclosed with the comment letter from William S. Bradley relate to the operation of Mather Airport by Sacramento County rather than environmental issues related to the adoption of the Mather Airport CLUP Update. The material consists primarily of various letters of correspondence between El Dorado County and Sacramento County officials and staff members. Due to the length of this material, it is not included here, but is available for review at the SACOG offices upon request.

ALUC staff requested a response to the letter from William S. Bradley from Mather Airport staff. The response, from Larry E. Kozub, Mather Airport Manager, is attached and begins on page B-25. The ALUC staff response is as follows:

Response to Question #1: Please Show Extended Flight Paths Proposed Which Would be Over El Dorado County.

The CLUP Update does not propose flight paths for aircraft utilizing the airport. As indicated in the responses to the previous letter, the determination of airport flight track locations has already been made by the County and the FAA. The impacts resulting from operation of the airport by Sacramento County were also the subject of a previous EIR. The location of these flight tracks over El Dorado County is depicted in the following Figure B-3.

Response to Question #2: Please Provide Consistencies Between the Effects of the CLUP and Surrounding Land Use Designations in the Region including Sacramento County and El Dorado County.

Adoption of the CLUP Update by the ALUC would require Sacramento County to ensure that its land use regulations are consistent with the ALUC adopted planning boundaries and land use compatibility guidelines around an airport. It is not expected, however, that adoption of the CLUP Update by the ALUC would require Sacramento County to modify any of its existing general plan land use and zoning designations, since these regulations are already consistent with the CLUP Update.

The County took action following ALUC adoption of the existing Mather Air Force Base CLUP to achieve consistency between its land use regulations and the CLUP. The noise and safety planning boundaries proposed by the CLUP Update are smaller than, and entirely contained within, the existing Mather Air Force Base CLUP planning boundaries for noise and safety. Changes by the County to existing land use or zoning designations on any specific parcels of land are, therefore, not expected to be required, since these designations are currently consistent with the planning boundaries proposed by the CLUP Update.

This is atypical of most situations when a CLUP is updated to reflect changes in noise or safety areas around an airport. Generally, these changes result in new planning boundaries which are larger than previous ones, and usually require action on the part of a jurisdiction to modify affected land use regulations to achieve consistency with the updated CLUP. In any event, it is the responsibility of Sacramento County to analyze the consistency of their land use designations with the CLUP Update following its adoption by the ALUC. Any potential inconsistencies would subsequently have to be addressed by the County.

Since the proposed CLUP Update planning boundaries do not extend into El Dorado County, there are no inconsistencies between it and El Dorado County Land Use Designations.
Figure B-3
Mather Airport Flight Tracks
Extending Over El Dorado County
April 29, 1996

Larry Kozub
Manager
Mather Airport
3745 Whitehead Street
Mather, CA 95655

Dear Mr. Kozub:

Airport Land Use Commission staff have received two letters in response to the Notice of Preparation of a Draft EIR for the Mather Airport Comprehensive Land Use Plan (CLUP) Update which request that the EIR address noise and safety impacts to the El Dorado Hills community in El Dorado County. The first letter from Conrad Montgomery, El Dorado County Planning Director, requests that the EIR address noise impacts to El Dorado Hills residents, alternatives to selected aircraft flight tracks, and mitigation measures to ensure cargo operations will not adversely impact residents. His assertion is that the noise contours prepared by Sacramento County and proposed for adoption in the CLUP Update do not take into consideration the elevation and topography of the El Dorado Hills community. The second letter from William Bradley, El Dorado County Supervisor, requests that the EIR show the Mather aircraft flight tracks which cross over El Dorado County.

These letters are attached. Please provide us with a response to Mr. Conrad's letter. Also, please provide a map depicting Mather Airport aircraft flight tracks which extend over the El Dorado Hills community area. The aircraft flight track map previously provided to us does not include this area.

Please call me at 457-2264 if you have any questions regarding this matter.

Sincerely,

DAVID R. BOYER
Associate Planner

Enclosures

S:\\SHARED\PROJECT\AL\COLETTES: KOZUB.WPD

3000 'S' Street, Suite 300, Sacramento, California 95816
Phone: (916) 457-2264  FAX: (916) 457-3299

B-24
May 28, 1996

Dave Boyer, Associate Planner
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

SUBJECT: MATHER AIRPORT CLUP
N.O.P. FOR DRAFT EIR

Dear Mr. Boyer:

I have reviewed the comments you have received from El Dorado County. The issues raised in Mr. Montgomery's letter and Supervisor Bradley's letter are identical to the issues presented to County of Sacramento Department of Airports on several occasions by Supervisor Bradley and residents of the El Dorado Hills community.

Conrad Montgomery, Planning Director, County of El Dorado:

1. Noise impacts to residents in El Dorado Hills.

   All required noise studies have been completed. These studies were completed in accordance with California Environmental Quality Act requirements and with State and federal noise regulations and standards. There is no noise exposure exceeding State standard 65-CNEL in El Dorado Hills.

2. Safety impacts to residents and schools in El Dorado Hills.

   The El Dorado Hills residential area lies outside of the ALUC defined safety areas around Mather Airport.

   State of California regulations require review of school sites within two (2) miles of an airport. There are no El Dorado schools within two miles of the airport. The California Department of Transportation, Division of Aeronautics is the review authority. It is the school district's responsibility to notify the Division of Aeronautics regarding school sites.
3. Alternatives to selected flight path.

The Federal Aviation Administration defines the instrument approach flight procedures for all airports.

4. Mitigation measures and funding mechanisms to ensure the cargo plane flights will not adversely impact residents in El Dorado County.

Aircraft operations at Mather Airport are in compliance with all applicable state and federal regulations. If, in the future, it is shown that Mather Airport does not meet federal or state noise regulations, the County may consider a variety of possible noise mitigation measures including, but not limited to, airport use restrictions or noise insulation of homes. There are no funds currently identified for noise mitigation actions at Mather Airport. Future funding sources for noise mitigation, if ever required, would come from airport user fees or possibly from FAA grants.

William “Sam” Bradley, Supervisor, District I, County of El Dorado:

1. Show extended flight paths over El Dorado County.

   a) Contact the FAA SACRAMENTO TRACON facility for graphic representations of approach and departure flight paths over the county-wide area of El Dorado County.

   b) The attached instrument approach plate for the VOR/DME approach for Runway 22L at Mather Airport depicts an extended runway centerline radial from the Sacramento VOR navigational facility extending more than 10 miles northeast of the airport. Although most aircraft will intercept this navigational signal at less than 10 miles from the airport, this exhibit shows that a straight-in approach to Runway 22L could be initiated along the extended runway centerline well within El Dorado County. The soon to be published ILS approach to Runway 22L at Mather Airport will have similar characteristics.

   Larry E. Kozub, Manager
   Mather Airport
VOR/DME or GPS RWY 22L

SACRAMENTO/MATHER FIELD (MHR)
SACRAMENTO, CALIFORNIA

SW-2, 30 MAR 1995

SACRAMENTO APP CON
127.4 317.5

SW-2,30
MAR
1995

When local altimeter setting not received, use McClellan
AFB altimeter setting minimums.

Missed Approach:
Climbing left turn to 3000 via
heading 090° and SAC R-058
in COSKA W/SAC 21.2 DME
and held.

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McClellan AFB Altimeter Setting Minimums

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Circling not authorized north of Runway 4L-22R, V△NA

VOR/DME or GPS RWY 22L

28°32'N-121°18'W
SACRAMENTO, CALIFORNIA

SACRAMENTO/MATHER FIELD (MHR)

247

SW-2, 30 MAR 1995

B-27
SECTION II

COMMENTS AND RESPONSES
LIST OF AGENCIES AND PERSONS COMMENTING

LETTER 1  Thomas P. Engel  
Director of Airports  
County of Sacramento  
Department of Airports  
July 25, 1996

LETTER 2  Tara Mc Cann  
Community Enhancement Advisory Committee  
c/o Subcommittee on Mather Aviation Activity over EDH  
July 29, 1996

LETTER 3  David A. Storer, AICP  
Planning, Inspections & Permitting Director  
City of Folsom  
Planning Department  
August 5, 1996

LETTER 4  Thomas W. Hutchings  
Director  
County of Sacramento  
Planning and Community Development Department  
August 5, 1996

LETTER 5  Antero A. Rivasplata  
Chief, State Clearinghouse  
State of California  
Governor's Office of Planning and Research  
August 5, 1996

OTHER COMMENTS RECEIVED

Bob Swenson  
Tara Mc Cann  
Suzanne Curry  
Mary Dell Henderson  
Ken Earle  
M. R. Peters  
Paul Raveling
COMMENTS AND RESPONSES
Peter Hill  
Sacramento Airport Land Use Commission  
3000 S Street, Suite 300  
Sacramento, CA 95816  

SUBJECT: DRAFT MATHER AIRPORT COMPREHENSIVE LAND USE PLAN  
AND DRAFT ENVIRONMENTAL IMPACT REPORT

Dear Mr. Hill:

The Department of Airports has further reviewed the Draft Mather Airport Comprehensive Land Use Plan (CLUP) and Draft Environmental Impact Report (DEIR) and offer the following supplemental comments to those previously submitted:

The Draft Mather CLUP employs the standard height, safety and noise compatibility boundary definitions as may be found in other typical CLUP documents prepared by SACOG/ALUC. Although these boundary definitions define a legal and defensible “compatibility” area, the Department believes that these boundaries do not adequately address the criteria of “orderly growth and development of the airport.”

Height, safety and noise issues are directly related to aircraft operations and the associated aircraft arrival and departure flight tracks. For illustrative purposes, flight track drawings are prepared to show “typical” aircraft movement areas over the ground. In reality, all aircraft do not follow these tracks over the ground in every instance. The CLUP overflight zone recognizes this situation by defining compatibility guidelines for safety and height that apply throughout the overflight zone and not within any one selected flight track. The same philosophy should apply to the single event and/or cumulative noise impact areas.

As you are aware, the Community Noise Equivalent Level (CNEL) noise description methodology represents an annualized daily average noise exposure. The CNEL is the accepted methodology for measuring noise exposure and is the best tool we have to gauge areas of aircraft noise impact. However, it is also recognized that the noise contour line cannot be used as a fixed ground reference because the real time noise exposure varies day to day. Past experience at Sacramento Executive Airport and Sacramento International Airport has shown that there is a demonstrated need to protect citizens from aircraft impacts beyond the conventional overflight zone/65-CNEL boundaries. While a noise complaint lodged by a citizen residing outside the graphic 65-CNEL boundary might not be considered as being within an incompatible noise area, it is nevertheless a valid noise complaint and must be addressed. Operational restrictions have been placed on airports because a significant
number of people complained about aircraft overflights, even though the noise exposure was less than the standard 65-CNEL.

There are but three options to this type of situation; ignore the complaint area because it is "compatible", remove the noise source or remove the noise receptor. The first is not politically possible or desirable. The second, if applied to Mather, would not allow the airport to achieve the stated goals of economic reuse. The third could be achieved for Mather, to a large degree, by preventing the receptor from being established in the first place, that is, by identifying an area that can reasonably be expected to experience aircraft overflights and that may cause significant or numerous complaints and then design criteria to prohibit new residential development in those areas.

It is recommended that a forth CLUP compatibility area or environs zone be defined that speaks to the preservation of airport development and operational flexibility. A criteria should be established which could reasonably protect citizens from potential nuisance and noise complaint situations around Mather Airport. This environs zone should be linked to both the overflight zone and anticipated aircraft arrival and departure characteristics, including noise exposure. There are several possible ways to define and depict an appropriate environs area. It is requested that SACOG meet with County Planning Department staff to develop dimensional and land use guideline criteria for this new compatibility zone. Larry Kozub, Mather Airport Manager, has advocated this approach in the past and I, as Director of Airports, strongly concur. It is the department’s belief that unless such an environs zone can be established, the full and ultimate potential of Mather Airport may not be realized.

I look forward to hearing back from you regarding this most important issue.

Sincerely,

Thomas P. Engel
Director of Airports

TPE:lek/l

cc: Members, Board of Supervisors
    Robert Thomas
    John O'Farrell
    Tom Hutchings
    Bob Ryan
    Dick Dyer
    Larry Kozub
    Jim Humphries
Comment Letter 1: County of Sacramento Department of Airports

Response:

The commenter requests that an additional planning boundary be added to the proposed Mather Airport Comprehensive Land Use Plan (CLUP) Update, within which development would be restricted to reduce the potential for future airport-related noise complaints. The comment appears to be directed to the CLUP Update, rather than the Draft EIR. The planning boundaries proposed by the CLUP Update are based upon the full build-out of the airport operating at maximum capacity, and it is therefore ALUC staff's opinion that these proposed planning boundaries adequately address the orderly growth and development of the airport.
LETTER 2

Community Enhancement Advisory Committee
c/o Subcommittee on Mather Aviation Activity over EDH
Tara McCann, chairperson
1021 Harvard Way
El Dorado Hills, Ca. 95762

Date: July 12, 1996

Sacramento Area Council of Governments
David Boyer, Associate Planner
3000 "S" Street, Suite 300
Sacramento, CA. 95816

RE: Draft EIR Mather Airport CLUP

Dear Mr. David Boyer,

The Notice of Completion of the Draft Environmental Impact Report For the Mather Airport Comprehensive Land Use Plan has been sent to our El Dorado County Planning Department for review and comment. On behalf of the residents and businesses we represent on the Western Slope of El Dorado County we are making the following comments.

We have been trying to work out a solution to the airport noise concerns over El Dorado Hills with the proprietor of the project, Sacramento County Board of Supervisors, since April of 1995. One of the last letters we received was from Tom Engle, Director of Airports to Muriel Johnson, Sacramento Board of Supervisor, in response to our requests of the changes to the flight plan that we feel would mitigate the noise nuisance generated by the air cargo activity over El Dorado Hills. This letter stated the reason for not accepting our revisions to the flight plan was that it would take 5 months to a year to restructure the ILS approach and that it would significantly delay the introduction of air cargo operations at Mather.

Through letters and phone calls to Larry Kuzob, the airport manager, the proprietor of the airport, Sacramento County B.O.S. is fully aware that the air cargo activity is now generating significant and avoidable noise over the El Dorado Hills Community. It is through this Environmental Document Processes that SACOG acting in its capacity as the Airport Land Use Commission (ALUC) is the "lead agency" for the project and as such has the responsibility for approving the project. As part of that responsibility as stated in the scope of the EIR SACOG is to identify the potential significant effects of the proposed project on the environment and to indicate the manner in which those significant effects can be mitigated or avoided. There now exists significant documentation to identify the impact of a noise nuisance. There also exists our proposed mitigation to the significant impact that were extensively researched on the viability of practical implementation. It was concluded by experts we had consulted with in the aviation field that these proposed changes to the flight pattern over our community were in fact doable and in the minor category as far as changes to the
navigational aids on ILS approach. It is SACOG's responsibility to identify significant effects, to identify alternatives to the project, and to consider the information generated from the EIR process and respond to each significant effect. No where does it state that because we are in another county we are not afforded the protection and responsibilities of the CEQA guidelines.

Our community has spent over a year researching possible means to minimize the significant effect of the noise generated by the air cargo activity. We have consulted with aviation experts and FAA. Our proposed changes to the flight pattern are viable and reasonable. We feel SACOG would be negligent in not giving consideration to our proposals of mitigating the noise impact. As CEQA guidelines state the basic content of an EIR must include a description of the environmental setting, and environmental impact analysis, mitigation measures, and alternatives.

As it states the focus of this EIR is Noise and the Effects to Public Health and Safety generated by implementing the proposed project. We are contending that the overflight of projected 162,500 operations anticipated for the year 2010 and 295,000 operations at build out are incompatible with existing land uses here on the western slope of El Dorado Hills. The Minimum Terrain Altitude for flights on approach to Mather over El Dorado Hills is published as 2500 feet above Mean Sea Level, (see attached exhibit A). If you subtract the topographic altitude of El Dorado Hills of 1100 feet as published on USGS topo quadrangle maps you have large air cargo jets going over the top of residences at 1400 feet above them not at the 2400 feet that P&D aviation proposes in their letter dated April 29th, 1996.

On April 15th El Dorado County Planning Department sent you a letter asking that the EIR address noise, safety and alternatives to flight pattern. Your response back (page B-15 of the Draft EIR Mather Airport CLUP) states that the noise contours proposed for adoption in the CLUP update were originally prepared for Sacramento County by P&D Aviation using the then current Version 4.1. When in fact published in the EIR dated 1994 Version 3.9 was cited. I have not seen any noise contours generated by a version 4.1. Additionally there are some inaccuracies in P&D's analysis that should be brought to your attention since your response was based solely on this analysis. P&D's analysis of a 3 degree glide slope on decent that the highest point above ground level (AGL) which would be at the outer edge of the 65 CNEL contour would be at an elevation of 917 ft (AGL). First of all a basic math error here as follows:

817 subtract 150 feet terrain elevation gives you an altitude difference of 667 feet. Not 767 feet above terrain. P&D also states that the distance from the end of the runway to the edge of the projected 65db noise contour is 15,600 feet (2.95 miles). This is true for scaling off the noise contour sheet that was included in this Draft EIR on page 41 only, but not for any other map. If you use any other map and scale it off including USGS published maps you get 24,252 feet (4.6 miles) from the end of the runway to the outer edge of the 65CNEL contour as is shown where it intersects
White Rock Road. This would put the elevation of the outer limit of the 65CNEL contour at 1270 feet approximately. This is well above the 817 feet calculated using the incorrect map scale.

Going back to the minimum terrain altitude of 2500 feet subtracting 1100 feet to get 1400 feet above ground level (AGL) on a 3 degree glide slope using a flat plane projection (or consistent datum) for a 1400 feet elevation above datum would calculate out to be 5 miles from intercept. As you can see from the published Noise Contours generated by computer INS model 3.7 that 5 miles is very close to the outer boundary of the 65CNEL contour and this is using a grossly overly conservative model which averages the input over nonrepresentative aircraft characteristics and time intervals. This irrefutable factual information has been available to you and reinforces our contention that we are significantly affected to the level that would warrant mitigation measures. Your main response to us here in El Dorado Hills is that since we are not in either Sacramento, Sutter, Yolo or Yuba counties and that we are out of the very restrictive noise and safety planning boundary that SACOG has no responsibility in addressing a very significant impact to our community due to a project originating in Sacramento County. We are also contending that the noise and safety planning boundary that has been identified in this EIR is not representative of the boundaries that would be significantly affected as can be factually shown with data submitted by Sacramento County’s Consultant P&D Aviation. We ask that SACOG

1. Include the areas in El Dorado County that would be affected by significant noise levels in the planning boundary as can be shown in our mathematical calculations above relative to the published noise model.

2. Include in the EIR Mather Airport CLUP the discussion of alternatives we have proposed. As it states on page 58 of the Alternative Analysis section, #3 "Even if these alternatives would impede to some degree the attainment of the project’s objectives, or would be more costly.

3. We have proven that the noise contours based on FAA computer program INM version 3.9 is outdated and non-representative for actual conditions. We are asking that Sacramento County provide an accurate and representative noise study based on the updated model which takes into consideration differences in topographic elevations. We ask that the model use input representative of the actual time intervals and aircraft characteristics.

4. In the Draft EIR several persons comments were not included in the comment section. We are asking that a list of agencies and persons commenting be published in this document and that all our comments be included and responded to, as was done in the EIR Mather Field County Operated Aviation Facility dated September 1994.
5. We are asking that SACOG provide us with the FAA version 4.1 computer model and the variables that were imputed into the model to produce the results.

Tara McCann, CEAC Subcommittee Chairperson

CC: Sam Bradley, ED County B.O.S.
    Raymond Nutting, ED County B.O.S.
    Mark Nielsen, ED County B.O.S.
    Walter Shultz, ED County B.O.S.
    John Upton, ED County B.O.S.
    Muriel Johnson, Sac. Co. B.O.S.
    Don Nottoli, Sac. Co. B.O.S.
    Dave Cox, Sac. Co. B.O.S.
    Illa Collin, Sac Co. B.O.S.
    Rodger Dickenson, Sac CO. B.O.S.
    Michael Hoffacker, Executive Director SACOG
    Peter Hill, Director of Aviation
    Conrad Montgomery, ED Co. Planning Director
    Thomas Engle, Director of Airports
    Andrew Reed, Sierra Planning Organization
    Dan Batliner, Air Traffic Manager - FAA
    Alan Tubbs, Operations Manager Airborn Express - Mather
    Brian Reed, Operation Manager DHL
    Mike La Madrid, United Parcel Operations Manager
    Operations Manager, Federal Express
Comment Letter 2: Community Enhancement Advisory Committee, c/o Subcommittee on Mather Aviation Activity Over EDH

Response to comment 2-1:

Commentor asserts that the CLUP Update creates a significant noise impact on existing residents and businesses located in the El Dorado Hills community, due to the operation of aircraft utilizing the Mather Airport. The commentor states that the EIR should consider the measures proposed by the Committee to mitigate the noise impact. The proposed mitigation is to modify the established flight tracks for aircraft utilizing the airport so as to shift operations away from the El Dorado Hills community.

The Draft EIR did analyze the noise impact of the CLUP Update on the El Dorado Hills area, and concluded that the proposed project does not create a significant noise impact. The standards of significance on page 40 of the Draft EIR state that noise impacts would be considered significant if existing residential or existing non-residential uses would be exposed to aircraft noise levels exceeding those established by the Land Use Compatibility Guidelines for Noise proposed by the CLUP Update. The guidelines establish residential uses as being incompatible within the 65 CNE contour and above. Most non-residential uses are generally not defined by the guidelines as being incompatible unless located in noise contours of 70 CNE or above. The noise contours proposed for adoption by the CLUP Update are depicted in the Draft EIR as Figure 12 on page 41. The proposed 65 CNE contour, as well as the 60 CNE contour, end in Sacramento County west of the Sacramento County/El Dorado County boundary and do not include the El Dorado Hills area.

A response received on the Notice of Preparation for the Draft EIR from Conrad Montgomery, El Dorado County Planning Director, requested information regarding the impact of the proposed noise contours on El Dorado Hills residents, taking into consideration the highest elevation of the terrain under the aircraft flight tracks (see Draft EIR pages B-13 to B-14). The noise contours proposed for adoption in the CLUP Update were originally prepared for Sacramento County by P&D Aviation. The then current version of the Federal Aviation Administration's Integrated Noise Model (INM), was used to develop the noise contours. ALUC staff contacted P&D Aviation to determine whether factoring in the elevation of the El Dorado Hills area could potentially result in the exposure of portions of the community to noise levels of 65 CNE or above. After performing an analysis of the potential aircraft noise exposure to residents, P&D Aviation concluded that, even assuming an elevation of 1,200 feet (slightly higher than the highest El Dorado Hills elevation), that this area is clearly well outside of the 65 CNE contour, and most probably also outside of the 60 CNE noise contour (see Draft EIR pages B-17 to B-18).

Since the El Dorado Hills community is located well outside of the 65 CNE noise contour proposed for adoption by the CLUP Update, even factoring in the highest elevation of the area, the project will not create a noise impact on existing residents and businesses located in the El Dorado Hills community. Since The draft EIR has concluded that the CLUP Update will not create a significant noise impact on the El Dorado Hills community, no mitigation is required.

Response to comment 2-2:

The term "Minimum Terrain Altitude" is incorrect. The correct term is Minimum Vectoring Altitude (MVA). As used by the FAA, this is the minimum, or lowest, altitude at which aircraft may be expected to fly over a given area when under a positive radar control. The P&D Aviation analysis used a standard 3° approach profile, which is assumed to be more representative of the majority of aircraft approaches than is the Minimum Vectoring Altitude.
Even assuming that all aircraft approach at the FAA Minimum Vectoring Altitude of 2,500 feet, the P&D Aviation analysis would indicate that a site in the El Dorado Hills located at an elevation of 1,100 feet would still not be impacted by the 65 CNEL noise contour. As the analysis shows, for an area to be impacted by the 65 CNEL noise contour, aircraft would have to be flying at a minimum of 767 feet above the highest elevation. This means that at an elevation of 1,100 feet, an aircraft would have to be flying at a minimum altitude of 1,867 feet. At a minimum altitude of 2,500 feet, aircraft would still be flying at an altitude 633 feet above this point. However, the fact is that aircraft do not regularly fly at the Minimum Vectoring Altitude. The Minimum Safe Altitude (MSA) for the El Dorado Hills area, as published by the FAA, is 3,100 feet and the Minimum Approach Altitude is 3,500 feet.

Response to comment 2-3:

Commentor is correct, Version 3.9 of the FAA's Integrated Noise Model, not Version 4.10, was used to generate the noise contours proposed for adoption by the CLUP Update. The differences between these two versions are minor however, and the dimensions of the airport noise contours if they were to run using Version 4.10 would be virtually identical to the existing contours generated by Version 3.9.

Response to comment 2-4:

The commentor refers to a basic math error in the P&D Aviation analysis referred to above. The P&D analysis assumes that with a 3° approach profile, and with the outer edge of the 65 CNEL noise contour being located approximately 15,600 feet east of the eastern runway end, that the altitude where the approach profile intersects the outer edge of the 65 CNEL contour is 917 feet, or 767 feet above ground level. The commentor indicates that the correct altitude at this point should be 817 feet, or 667 feet above ground level. This would in fact be correct if the runway elevation were at sea level (0 elevation), but since the runway elevation is approximately 100 feet, the P&D analysis is correct.

Response to comment 2-5:

The P&D Aviation analysis correctly indicates that the distance from the end of the runway to the edge of the projected 65 CNEL noise contour is 15,600 feet (2.95 miles). The commentor apparently has confused the proposed 60 CNEL noise contour with the 65 CNEL contour. The 60 CNEL contour is in fact located where the commentor says the 65 CNEL contour is located.

Response to comment 2-6:

As noted in the response to comment number 2-2, the term "Minimum Terrain Altitude" is incorrect, and should be "Minimum Vectoring Altitude". Also noted is the fact that planes do not regularly fly at the Minimum Vectoring Altitude of 2,500 feet, but rather above the Minimum Approach Altitude of 3,500 feet.

As discussed in the response to comment number 2-5, the outer boundary of the 65 CNEL noise contour is located approximately 2.95 miles east of the runway end, not 5 miles.

Response to comment 2-7:

As the Airport Land Use Commission for the Counties of Sacramento, Sutter, Yolo and Yuba, the responsibility of our agency for airport land use planning is limited to those four counties and to the cities contained within them. The noise contours proposed for adoption by the CLUP Update do not extend into El Dorado County. Even if they did, however, our agency would not have the legal authority to adopt them as a noise planning boundary for the purpose of establishing
compatible land uses within El Dorado County. This authority would rest with the Sierra Planning Organization, which operates as the ALUC for El Dorado County. Copies of both the CLUP Update and the CLUP Update EIR have been provided to the Sierra Planning Organization.

Response to comment 2-8:

The modification of existing flight tracks relates to the operation of the airport, not to the proposed project. The purpose of the CLUP Update is to establish planning boundaries around the airport for height, noise and safety and to establish guidelines defining compatible uses within these boundaries. The Draft EIR currently considers and analyzes the full range of alternatives to the proposed project. Since the modification of existing flight tracks does not relate to the project being analyzed by this EIR, there is no basis for including flight track modifications as a project alternative.

Response to comment 2-9:

As indicated in Response to Comment 2-3, if airport noise contours were generated using Version 4.10 of the INM, they would not differ from the existing contours generated by INM Version 3.9. Also, as discussed in Response to Comment 2-1, the El Dorado Hills community would still not be exposed to airport noise levels exceeding 65 CNEL when the elevation of the terrain is taken into consideration.

Response to comment 2-10:

All comments received on the Draft EIR are included in this Final EIR document. A number of letters were received from El Dorado Hills residents during the Draft EIR comment period which did not comment on the EIR, but which asked the ALUC to modify airport flight tracks, an action which it has no authority to do. While they did not comment specifically on the Draft EIR, these letters are included along with their responses by ALUC staff, since they relate to the Mather Airport and were received during the Draft EIR comment period.

Response to comment 2-11:

The Integrated Noise Model (INM) can be ordered directly from the Federal Aviation Administration. The FAA's phone number for INM ordering purposes is (408)736-2822.

The noise contours proposed for adoption by the CLUP Update were originally prepared for the Sacramento County Department of Environmental Review and Assessment by P&D Aviation for the Mather Field County-Operated Aviation Facility Draft Environmental Impact Report (June 1994). The commenter should contact the Sacramento County Department of Environmental Review and Assessment to obtain the INM inputs used to generate the noise contours.
CITY OF FOLSOM
Planning Department
50 Natoma Street
Folsom, California 95630

August 5, 1996

David Boyer, Associate Planner
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

RE: DRAFT EIR
MATHER AIRPORT COMPREHENSIVE LAND USE PLAN UPDATE

Dear Mr. Boyer:

The City of Folsom appreciates the opportunity to comment on the Draft EIR for the Mather Airport Comprehensive Land Use Plan Update, and offers the following:

The City has received an Aircraft Flight Tracks Map, P & D Aviation 3-15-93, that shows the flight path for cargo planes arriving and departing into Mather Airport. The flight paths, 22LD1 (Roseville), 22LA1, 04LD1, and 04RD2 are directly over the City of Folsom. Based upon this information, the Final Environmental Impact Report should address the following health and safety issues, and provide relevant mitigation:

1. Noise impacts to residents in the City of Folsom (perhaps based on a standard other than the CNEL, which is a 24-hour "averaging" metric.)

2. Safety impacts to residents and schools in the City of Folsom.

Again, thank you for giving us the opportunity to respond to the Draft EIR. Please provide me a copy of the FEIR when available, and notice of hearings regarding certifications. If you have any further questions, please call me at (916) 355-7214.

Sincerely,

David A. Storer, AICP
Planning, Inspections & Permitting Director

cc: Councilmember Tom Aceituno

mt: dasboyer.11r
Comment Letter 3: City of Folsom Planning Department

Response to comment 3-1:

The airport noise contours proposed for adoption by the CLUP Update do not extend into the City of Folsom, as shown on page 41 of the Draft EIR in Figure 12. There is, therefore, no noise impact to residents in the City of Folsom.

Response to comment 3-2:

The airport safety zones proposed for adoption by the CLUP Update, shown on page 23 of the Draft EIR in Figure 5, also do not extend into the City of Folsom. As a result, there is no safety impact to City of Folsom residents and schools.
August 5, 1996

Peter Hill
Sacramento Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

SUBJECT: MATHER AIRPORT DRAFT ENVIRONMENTAL IMPACT REPORT

Dear Mr. Hill,

The Department of Planning and Community Development has reviewed the Mather Airport Draft Environmental Impact Report (DEIR). Page 12 of the DEIR describes project alternatives including the “more restrictive” alternative. In light of comments made by the Board of Supervisors at its July 31, 1996, workshop on the Mather CLUP, we request that the “more restrictive” alternative be clarified to include the specific options of a prohibition of residential uses above 60 CNEL. We also request that the evaluation of impacts from this alternative be expanded in order to provide a basis for the Board of Supervisors’ consideration of this alternative when it undertakes its obligation to bring the County General Plan into conformance with the new Mather CLUP.

Thank you for the opportunity to comment on this DEIR. If you have any questions, contact Rob Burness at 440-6141.

Sincerely,

Thomas W. Hutchings
Director
Comment Letter 4: County of Sacramento Planning and Community Development Department

Response to comment 4-1:

The More Restrictive Mather Airport CLUP Update Alternative analyzed in the Draft EIR would in fact include as an option adoption by the ALUC of the 60 CNEL noise contour for the purposes of restricting future residential development.

Response to comment 4-2:

The commenter requests that the More Restrictive Mather Airport CLUP Update Alternative be expanded in order to provide additional information for consideration by the Sacramento County Board of Supervisors of a restriction on residential land uses within the 60-65 CNEL noise contour. Consideration of this restriction could occur when the Board takes action to ensure compatibility between the CLUP update and County Land use regulations.

The Draft EIR analyzes a reasonable range of project alternatives, including the No Project Alternative, the ALUC Policy Plan Alternative, the More Restrictive Mather Airport CLUP Update Alternative, and the Less Restrictive Mather Airport CLUP Update Alternative. ALUC staff believe that the More Restrictive Mather Airport CLUP Update Alternative discussion includes sufficient information to allow the ALUC, as lead agency, and Sacramento County to make a meaningful evaluation, analysis and comparison of this particular alternative with respect to the proposed project. There is, therefore, no need to expand the discussion.

ALUC law requires the Sacramento County Board of Supervisors to take action to ensure that County land use regulations are consistent with the CLUP Update following its adoption by the ALUC. The County, through its land use regulatory process, has the authority to adopt land use regulations around Mather Airport which are more restrictive than those adopted by the ALUC in the CLUP Update. Should the County wish to consider restricting residential land uses within the 60-65 CNEL noise contour when it takes action to ensure consistency between the CLUP update and County Land use regulations, it, as lead agency for this decision, would be responsible for preparing the appropriate environmental analysis at that time.
August 5, 1996

DAVID BOYER  
AIRPORT LAND USE COMMISSION  
3000 S STREET, SUITE 300  
SACRAMENTO, CA 95816

Subject: MATHER AIRPORT COMPREHENSIVE LAND USE PLAN SCH #: 96032105

Dear DAVID BOYER:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call Kristen Derscheid at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

ANTERO A. RIVASPLATA  
Chief, State Clearinghouse
NOTICE OF COMPLETION

State of California
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

SCH #: 6608821605

Project Title: Draft Environmental Impact Report - Mather Airport Comprehensive Land Use Plan Update.

Project Location: The project includes Mather Airport and the area around the airport overflown by aircraft using the airport's two runways. Mather Airport is located in the central portion of Sacramento County, approximately one-half mile south of Highway 50 at Mather Field Road, and approximately 12 miles east of downtown Sacramento.

Description of Project: The project consists of an update to the existing Mather Air Force Base Comprehensive Land Use Plan to reflect the Base's conversion to a public-use, general aviation airport. The proposed Mather Airport Comprehensive Land Use Plan Update establishes planning boundaries for the airport for height, noise, and safety. The Comprehensive Land Use Plan Update also establishes guidelines that define the compatibility of future land uses within each planning boundary.

Lead Agency: Airport Land Use Commission for Sacramento, Sutter, Yolo and Yuba Counties.

Address Where Copy of EIR is Available:
Airport Land Use Commission
3000 S Street, Suite 300
Sacramento, CA 95816

Review period: June 20 - August 5, 1996.

Contact Person: David Boyer
Phone: (916) 457-2264.

Please note SCH Number on all Comments

Please forward late comments directly to the Lead Agency

AQMD/APCD - (Resources: 922)
Comment Letter 5: Governor's Office of Planning and Research

Response to comment:

The comment is regarding the ALUC's compliance with the State Clearinghouse review requirements for draft environmental documents. No response required.
ADDITIONAL LETTERS RECEIVED

A number of letters were received from El Dorado Hills residents during the Draft EIR comment period which did not comment on the EIR, but which asked the ALUC to modify airport flight tracks, an action which it has no authority to do. While they did not comment specifically on the Draft EIR, these letters are included as follows along with their responses to the authors by ALUC staff, since they relate to the Mather Airport and were received during the Draft EIR comment period.
Dave Boyer  
Associate Planner Airforce  
Land Use Commission  
3000 S. Street  
Suite 300  
Sacramento, Ca., 95816

Dear Dave,

I am writing this letter to express my concern over the increased noise due to aircraft flying at low altitudes over my home in El Dorado Hills. This increasing nuisance is directly connected to the growing role of Mather Air Base operating as an air cargo base.

I called a Christine Kelley (Airport Operations) on 5/13 to complain about a large, low flying, noisy aircraft that came over my home at 7:42AM. My neighbor (Dan McPeak) and I had to stop our conversation as our voices were drowned out by the roar of the aircraft engines. She said she would “speak to the pilot” ... right!

I can’t believe that a full environmental impact study was ever completed with any accuracy (either on the noise impact to El Dorado County or the toxicity around or under the airbase). I don’t intend to sit still while my home, my neighborhood and the community suffers the impending doom to their real estate and quality of life due to lack of planning and communication.

Regards,

Bob Swenson  
3368 Ridgeview Drive  
El Dorado Hills, Ca., 95762
aircraft altitude of 3621 feet 12.7 nautical miles from the end of the runway over El Dorado Hills. Two points here, my calculations show that at 11 nautical miles at 3 degrees the aircraft would be at 3043 feet MSL, approximately 1800 feet above the ridgeview area and second point the FAA has told and given us supporting documentation that when aircraft are flying minimum terrain altitudes the large air cargo aircraft can be as low as 2500 feet (MSL) this is only a 1300 feet difference in altitude. Sacramento County's noise studies show considerable noise generated to register 65db at an altitude difference of 767 feet. The consultant goes on to state "In order for the higher terrain in the El Dorado Hills area to be subject to the CNEL 65db noise contour it would have to have the same geometrical relationship to the aircraft overhead as is the case at the CNEL 65db contour."

To restate the case in point when air cargo planes are flying at minimum terrain altitudes they will be flying an altitude difference of 1300 feet over El Dorado Hills. The noise contour consultant stated an altitude difference of 767 feet to register the CNEL 65db. This is only 533 feet higher than the CNEL 65db cut off datum that aircraft will be flying over El Dorado Hills. How can Sacramento County say that because aircraft will be approximately 500 feet higher than the 55db cut off datum that we will not experience significant noise impacts. I can tell you already that I am experiencing significant noise levels generated from the air cargo aircraft. The most recent being on Monday May 13, a large unmarked off white commercial aircraft flew over our house at 8 am on approach to Mather. The aircraft was quite low and quite loud, I estimated the aircraft to be at approximately 1000 feet over the tops of the residences. The air traffic has been minimal so far but my concern as well as many other residents here in El Dorado Hills is that Sacramento County is aggressively pursuing many air cargo companies to operate at the Mather airport facility and is advertising the facility as a world wide hub. Sacramento County has stated publicly that they followed all guidelines and done everything they were required to do. We are saying maybe they haven't done enough. We are now beginning to experience the low flying aircraft and the noise they generate. The Draft Mather Airport CLUP estimate that during the period of 1995 and 2010 civilian transport operations will increase to 19,000. We know now that the large aircraft on approach to Mather that many of us have now experienced over the last few months will devastate our community by the considerable noise impacts they generate we are asking that SACAG include us in their planning area generate by this project and not disclude us merely because we are separated by a county line. We are asking that SACAG afford us the right to the protection of public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise.

Sincerely,

Tara McCann
June 20, 1996

Tara McCann
1131 Turquoise Way
El Dorado Hills, CA 95762

Dear Ms. McCann:

Thank you for your letter faxed to me on 5/31/96 commenting on the Draft Mather Airport Comprehensive Land Use Plan (CLUP) Update. In response to your request that the CLUP Update include the El Dorado Hills community within the airport noise planning boundary proposed for adoption by the CLUP, I must reemphasize the fact that our agency has no legal authority to adopt CLUP planning boundaries or land use compatibility guidelines for any jurisdiction other than those served by the Airport Land Use Commission for Sacramento, Sutter, Yolo and Yuba Counties.

As the Airport Land Use Commission (ALUC) for the Counties of Sacramento, Sutter, Yolo and Yuba, our responsibility for airport land use planning is limited to those four counties and to the cities contained within them. The noise contours proposed for adoption by the CLUP Update do not extend into El Dorado County. Even if they did, however, our agency would not have the legal authority to adopt them as a noise planning boundary for the purpose of establishing compatible land uses within El Dorado County. This authority would rest with the Sierra Planning Organization, which operates as the ALUC for El Dorado County.

With regards to the impact of the operation of Mather Airport on the El Dorado Hills community, ALUCs do not have any authority over the operation of an airport. In fact, ALUC law expressly prohibits ALUCs from having any such authority. The sole authority for the operation of Mather Airport rests with the operator of the airport, which is Sacramento County. Decisions regarding use of airspace by aircraft operating out of the Mather Airport are the responsibility of Sacramento County, in coordination with the Federal Aviation Administration.

Comments regarding the operation of Mather Airport, including noise complaints related to aircraft utilizing the airport, should be directed to Sacramento County Department of Airports staff, at the following address:

Larry Kozub
Manager, Mather Airport
Mather Airport
3745 Whitehead Street
Mather, CA 95655
Phone: 855-5577

3000 'S' Street, Suite 300, Sacramento, California 95816
Phone: (916) 457-2264
A copy of your letter has been forwarded to both the Sierra Planning Organization and the Sacramento County Department of Airports. Please feel free to call me at 457-2264 if you have any further questions regarding this matter.

Sincerely,

[Signature]

DAVID R. BOYER
Associate Planner

cc: Larry Kozub, Manager, Mather Airport
    Andrew Reed, Planner, Sierra Planning Organization

S:\\PROJECT\DOCUMENTS\LETTERS\MCCANN.WPD
Dear Mr. Boyer,

I am writing to you because of a recent article I read in our local paper, Village Life, regarding Mather Airport. Specifically I wanted to urge you to consider El Dorado Hills in the environmental EIR being updated. Residents of Ridgeview Village live in a unique topographical area because our village literally juts up to an altitude of 1000’ from other low lying areas. From my deck I look directly at the runway at Mather airport 13.5 miles away. The noise impact from the reopened airport has, fortunately, not been frequent enough to be an everyday problem, however, noise from the occasional low flying aircraft has been significant. We have been awakened in the pre-dawn hours on two occasions by low flying aircraft. On other occasions when aircraft have passed over my home the noise has been such that the house rattled and any conversation was impossible. While these instances are nominal my concern is that in the future as airport use becomes heavier, these low flying aircraft will cause noise disturbances more frequently.

What I find most frustrating about the flight path for aircraft descending into Mather is that if the path were just one mile to south of where it is now, it would lead over an area that is 400 feet lower than our residential area, an area comprised of empty spaces and light industry, on the south side of Highway 50. It seems to me that to adjust to flight path by just one mile, to an area where it would have no impact (except of course for the grazing cows), would be desirable to airport managers wary of noise complaints and residents who have to deal with the aircraft noise. That sounds like a “win-win” situation to me.

I am all for promoting Sacramento as a major metropolitan community with two worthy airports, but not at the cost of my own sanity, which I will lose if the use of the airfield approaches anything close to what we had to endure up here when the airport was being used by the Air Force. That was a nightmare. Air Force aircraft would fly so low over homes that it felt like an earthquake zone. It seems like it would be so easy to avoid that happening again by moving the flight path just a little.

Thank you for your time Mr. Boyer.

Sincerely,

Suzanne Curry
July 9, 1996

Suzanne Curry
3583 Rocky Ridge Road
El Dorado Hills, CA 95762

Dear Ms. Curry:

Thank you for your letter dated July 8, 1996, expressing your concerns regarding aircraft noise generated by aircraft operating out of the Mather Airport. As the Airport Land Use Commission (ALUC) for the Counties of Sacramento, Sutter, Yolo and Yuba, our responsibility under ALUC law is to adopt Comprehensive Land Use Plans (CLUPs) for all public use airports located within those four counties. We have no airport land use planning authority for areas outside of these four counties. CLUPs seek to establish height, noise and safety planning boundaries around airports, as well as land use compatibility guidelines which determine the compatibility of land uses proposed for development within these planning boundaries.

As you know, we are currently in the process of updating the existing Matter Air Force Base CLUP to reflect the Base's conversion to a public-use airport, and have prepared a companion Environmental Impact Report on the CLUP update. ALUC law requires that ALUCs base their CLUPs on either a long-range master plan or an airport layout plan, as determined by the Aeronautics Program of the State Department of Transportation. ALUCs are therefore dependent upon the long-range plans for an airport, as developed by the airport operator and determined by the State Aeronautics Program, as the basis for CLUP preparation.

ALUCs do not, however, have any authority over the operation of an airport. In fact, ALUC law expressly prohibits ALUCs from having any such authority. The sole authority for the operation of Mather Airport rests with the operator of the airport, which is Sacramento County. Decisions regarding use of airspace by aircraft operating out of the Mather Airport are the responsibility of Sacramento County, in coordination with the Federal Aviation Administration. Any noise complaints related to aircraft utilizing the airport should be directed to Sacramento County Department of Airports staff at 855-5577.

A copy of your letter has been forwarded to the Sacramento County Department of Airports. Please feel free to call me at 457-2264 if you have any further questions regarding this matter.

Sincerely,

DAVID R. BOYER
Associate Planner

cc: Larry Kozub: Manager, Mather Airport

3000 'S' Street, Suite 300, Sacramento, California 95816

Phone: (916) 457-2264
FAX: (916) 457-3299
David Boyer  
SACOG, 3000 St.; Ste. 300  
Sacramento, Ca. 95816  

Re: Flight Plan to Mather Airport  

Dear Mr. Boyer,

I live in Ridgeview Village Estates on Crestline Court approximately 2 miles north of Hwy. 50. The air cargo planes which land at Mather Field were originally scheduled to parallel Hwy. 50 for their approach to the field. The planes are approaching by flying southwest directly over residential areas at the end of Crestline Court where I live (see attached map). The effect of the plane noise is intensified due to the reverberation of the engine noise across the foothills. The area topography needs to be taken into consideration since it results in a magnified noise level.

The planes could be re-routed to parallel Hwy. 50 on the south side of the freeway which is less developed and is primarily industrial area and vacant land. Adjustment of the flight plan would have no adverse effect on the economic advantage which the use of Mather Field brings to Sacramento County. It is a practical solution which would show a willingness to work with El Dorado County and a respect for the residents of this county.

I urge you to modify the flight plan at this time before Mather Airport becomes even busier.

Thank you for your consideration in this matter. If you have any further questions, please call me at 739-0758.

Sincerely,

Mary Dell Henderson

cc: Sacramento County Supervisors  
Conrad Montgomery, Planning Director Sacramento County  
Tom Engel, Director of Airports for Sacramento County  
El Dorado County Supervisor Sam Bradley
July 13, 1996

David Boyer
SACOG
3000 S Street, Suite 300
Sacramento, CA 95816

Dear Mr. Boyer,

I have been following the discussions over the location of the flight paths leading to Mather Field.

There are several things that concern me. Some of the information I have read seems to say that in the analysis of noise levels, the true contours of the area, that is the local topography, has not been fully considered. It does not take a lot of vision or expensive consultants to realize that within the area loosely defined as El Dorado Hills, the elevation varies considerably. Is the decibel monitoring done in a manner that recognizes the actual elevations?

Estimates of annual takeoffs and landings for the year 2000 is 162,800. That is an average of 320 a day or 13 an hour. Since some days will have less traffic than others, and some hours will see lighter traffic, the peak hours of operation could be as close as 2 minutes between flights. I hope that such a tremendous concentration of large aircraft gets a very detailed study and that the flight paths are very carefully considered.

It seems inconsistent with logic that adjustments to the approach vectors cannot be made to put the approaching aircraft paths closer to an existing transportation corridor (Hiway 50) already subjected to related noise and which is at a lower elevation. I do not expect the aircraft vectors to include a sharp bank in the last few miles of approach, but a minor adjustment of a few degrees in the last few miles of the approach is reasonable. If you extend this changed vector (run a back azimuth) out 8-12 miles, it can make a lot of difference in the foothills area and allow the approach to be over a lower elevation and follow the Hiway 50 corridor.

A quick look at SFO and LAX shows a usage of natural terrain (the Bay and the ocean) to mitigate noise problems. And, I think a decision to utilize an approach path over the lowest possible elevation is a similarly wise choice here.

Sincerely,

Ken Earle
3148 Fairchild Dr
El Dorado Hills, CA 95762

cc: Sam Bradley, El Dorado County Board of Supervisors
July 17, 1996

Ken Earle
3148 Fairchild Drive
El Dorado Hills, CA 95762

Dear Mr. Earle:

Thank you for your letter dated July 13, 1996, expressing your concerns regarding aircraft noise generated by aircraft operating out of the Mather Airport. As the Airport Land Use Commission (ALUC) for the Counties of Sacramento, Sutter, Yolo and Yuba, our responsibility under ALUC law is to adopt Comprehensive Land Use Plans (CLUPs) for all public use airports located within those four counties. We have no airport land use planning authority for areas outside of these four counties. CLUPs seek to establish height, noise and safety planning boundaries around airports, as well as land use compatibility guidelines which determine the compatibility of land uses proposed for development within these planning boundaries.

We are currently in the process of updating the existing Mather Air Force Base CLUP to reflect the Base’s conversion to a public-use airport. ALUC law requires that ALUCs base their CLUPs on either a long-range master plan or an airport layout plan, as determined by the Aeronautics Program of the State Department of Transportation. ALUCs are therefore dependent upon the long-range plans for an airport, as developed by the airport operator and determined by the State Aeronautics Program, as the basis for CLUP preparation.

ALUCs do not, however, have any authority over the operation of an airport. In fact, ALUC law expressly prohibits ALUCs from having any such authority. The sole authority for the operation of Mather Airport rests with the operator of the airport, which is Sacramento County. Decisions regarding use of airspace by aircraft operating out of the Mather Airport are the responsibility of Sacramento County, in coordination with the Federal Aviation Administration. Any noise complaints related to aircraft utilizing the airport should be directed to Sacramento County Department of Airports staff at 855-5577.

A copy of your letter has been forwarded to the Sacramento County Department of Airports. Please feel free to call me at 457-2264 if you have any further questions regarding this matter.

Sincerely,

[Signature]

DAVID R. BOYER
Associate Planner

cc: Larry Kozub: Manager, Mather Airport

[Shared project URL]
Yes, I do not like the aircraft noise. I live in Lidgerwood and we've notice a difference since Mathes left close to home here since 1979.

I see no reason that they can't fly over to the Earth of Aug 50.

Thank you

M. R. Peters
David Boyer  
SACOG  
3000 S St., Suite 300  
Sacramento, CA 95816

July 17, 1996

Dear Mr. Boyer,

In response to Ross Farrow's recent article titled "Airport noise sparks anger in El Dorado Hills" I'm forwarding a copy of a letter that I mailed to Sam Bradley last December. I don't have an address for Tara McCann or CEAC, but Sue Olmstead had told me several months ago that she was forwarding that letter to them. Since I haven't heard from them I assume that either the letter didn't reach them or they chose not to respond to it.

A bullet-list summary of the content of my response is:

- Assuring that El Dorado Hills is reasonably free from noise is appropriate.
- I don't perceive the same level of impact that Ms. McCann and CEAC apparently do from air freighter approaches to Mather. Frankly I perceive more noise from cars, trucks, and lawnmowers than from approaches by aircraft which comply with FAR 36 Stage 3 noise levels.
- Changes to Mather approach procedures may well be appropriate, but we should assure that these changes do not incur risk to public safety.

If you would like to contact me by phone, you can reach me at these numbers:

Daytime, Monday - Thursday: (415) 506-8393  
Evening, Monday - Wednesday: (415) 593-0464  
Home, Friday - Sunday: (916) 933-5826

Sincerely,

Paul Raveling
District 1 Supervisor Sam Bradley
El Dorado County Board of Supervisors
330 Fair Lane
Placerville, CA 95667

December 20, 1995

Dear Sam & Sue,

This concerns the current issue of noise over El Dorado Hills from air freight operations at Mather. I attended the portion of the December 12 meeting that concerned this, and decided to write after reading the coverage in Sunday’s neighbors section, headlined “Residents rise in anger over Mather flight path”.

If I can obtain some additional information I’ll probably agree with the proposed MOU. In any case I think this is a question that calls for reason, not anger, and the presentation at the December 12 meeting left me with far more questions than answers. The presentation also gave me an impression that the group involved may not be sufficiently knowledgeable about aviation-related matters, including a few elements of physics.

I agree with a goal of eliminating unnecessary noise in El Dorado Hills. I live in Waterford, and Mather’s former military operations sometimes brought jets directly over my house. These included B-52’s, KC-135’s, T-38’s, F-111’s, and U-2’s. Most of them overflew our house at altitudes between 1,000 and 3,000 feet agl, though I’m fairly sure that one particular U-2 approach was about 800 feet agl. I have reasonable confidence in these altitude estimates based on my experience as a sailplane pilot.

Of these aircraft only the B-52’s presented a noise level that would clearly be objectionable. The other military aircraft could have become annoying to varying degrees if, and only if, their low approaches were frequent rather than occasional. As it was, their noise was not a problem for my wife or myself.

Some points made in the December 12 meeting are at best questionably applicable to air freight operations and, could use of these in discussions with other agencies could give the appearance suggested by one speaker of a “knee-jerk reaction”. Here’s a short summary:

- Using B-52 noise as a basis for comparison: B-52’s in use in recent years are G and H models, powered by 8 old technology turbofan engines, and using a relatively draggy airframe designed in about 1950. These are much louder than current freighters, most of which use four newer technology high bypass turbofans. I believe that all freighters that would use Mather comply with FAR 36 Stage 2 noise limitations, and an increasing proportion comply with FAR 36 Stage 3 noise levels as older aircraft are retired.

- Reference to takeoff noise as a standard for minimum approach altitude: At the meeting Ms. McCann suggested that takeoff noise for an aircraft departing from Mather and overflying El Dorado Hills at 5,000 feet or more was excessive. Aircraft operating at climb power, usually accelerating to a speed near 275 knots, produce far more noise than an aircraft on approach and slowing to 150 knots or less.

Approach and departure noise abatement necessarily are separate issues. Surface wind conditions at Mather very rarely require eastbound departures toward El Dorado Hills, and it should be easier to modify departure paths than approach paths to facilitate noise abatement. We should not ignore takeoff noise, but I think approach noise is the main issue.

- You compared an approach altitude of 1700 feet agl to the length of two football fields. I don’t understand this allusion, since football fields are 300 feet long. A more correct comparison would be to the length of 6 football fields, and I worry that people in other agencies could interpret such allusions as signs of prejudice rather than reason.
• The proposed solution for noise abatement on approaches is a dog-leg approach path, minimum altitude standards over El Dorado Hills, and requirement of low-drag configurations on approach. The latter two procedures are mutually contradictory to a large extent. In order to perform a steep approach it is necessary to configure the aircraft in a high-drag configuration, typically with landing gear, flaps, slats, and flight spoilers deployed and power set at flight idle.

I have a number of questions based on the proposed approach plan and circumstances relevant to it. These involve questions of air safety and public safety as well as noise:

• It appears that the distance is about 10 nautical miles from El Dorado Hills to northeast threshold of Mather's longer runway. What is the distance to the proposed point at which aircraft would turn from the initial dogleg to the final approach heading? Does this point offer sufficient distance on final approach to permit a freighter capture both the localizer and glide slope and stabilize its approach in IFR conditions?

• What nav aids are in service at Mather for instrument approaches? Specifically, is it equipped for ILS (precision) approaches? If so, where is the outer marker?

• For the dogleg approach, what nav aids would be used to guide the initial segment of the approach?

• Is FAA certification of a GPS instrument approach a viable possibility? If so, does Mather already have a ground station to support DGPS navigation, which would offer the precision needed for IFR approaches?

• Isn't there a risk of traffic conflicts between aircraft on airway V6 and freighters that might overshoot the dogleg's final approach turnpoint? (V6 runs between Sac Exec and Reno, nearly paralleling Mather's final approach; the portion of V6 that passes over El Dorado Hills currently is in Class E airspace. The dogleg would increase separation between the Mather approach at El Dorado Hills while also placing freighters on a heading converging toward V6.)

• Would the revised approach (with dogleg) produce conflicts with general aviation traffic operating from the Cameron Park and Placerville airports?

• Airspace surrounding Sac Metro and McClellan AFB currently is Class C, and my March 30 sectional shows Mather included below the portion centered on McClellan. How will this change to accommodate freight operations at Mather?

• Would the dogleg approach require changes in area-wide IFR traffic routing?

• Has a two-segment approach (steeper initial glideslope) been considered to assure that aircraft cross El Dorado Hills at or near a flight idle power setting? (My guess is that the VFR floor of 5,000 feet over El Dorado Hills already requires such an approach.)

Again, I agree with the objective of keeping El Dorado Hills quiet, but would like to be sure that public policy is based on clear understanding of all issues involved, including air safety and public safety. My main safety concerns are to assure adequate traffic separation, especially between general aviation aircraft and freighters, since the freighters are much faster and have much more limited maneuverability. A secondary safety concern is to assure that freighters have adequate distance available to stabilize on final approach in their landing configuration in IFR conditions.

If you or the group sponsoring the MOU proposal would like to contact me by phone, my weekday work phone is (415) 506-8393 and my weekend home phone is (916) 933-5826. Thanks for your attention and for your concern for our community!

Sincerely,

Paul Raveling
SACRAMENTO AREA COUNCIL OF GOVERNMENTS

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