Appendix A

Notice of Preparation

NOTICE OF PREPARATION OF
A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR)
AND NOTICE OF PUBLIC SCOPING MEETING
FOR THE
STANISLAUS COUNTY GENERAL PLAN UPDATE
AND STANISLAUS COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

Date: April 29, 2014

The County of Stanislaus (County) will be the Lead Agency under the California Environmental Quality Act (CEQA) for preparation of an Environmental Impact Report (EIR) for the proposed 2014 updates of the General Plan and Airport Land Use Compatibility Plan (ALUCP) (hereafter referred to as "Project") The purpose of this Notice of Preparation is to solicit comments from public agencies and interested parties on the proposed scope and content of the Draft EIR for the project. The proposed Project, its location, and potential environmental effects are summarized below.

Written comments should be submitted at the earliest possible date, but not later than June 6, 2014. Keep in mind that there will be another opportunity to submit detailed comments when the Draft EIR is released for public review. Submittal of electronic copies of comments in MS Word format is appreciated. Please mail or send your comments to:

Kristin Doud, Associate Planner
Stanislaus County
Planning and Community Development Department
1010 10th Street, Suite 3400
Modesto, CA 95354
doudk@stancounty.com

Scoping Meeting On May 19, 2014, the County will conduct two "scoping meetings" on the EIR to provide additional information and to receive verbal and written input from agencies and the public. The scoping meeting for Responsible and Trustee agencies, and other interested agencies will take place at 3 p.m. The scoping meeting for the general public will follow, at 6 p.m. The scoping meetings will include a brief overview of the Project to provide attendees context for environmental concerns, followed by the opportunity to provide comments on what should be included in the EIR to be prepared for the Project. The scoping meetings will be held at the following locations:

Agencies
Harvest Hall (Room DE)
3800 Cornucopia Way
Modesto, CA

Date and Time: May 19, 2014, 3:00 p.m.

General Public
Harvest Hall (Room DE)

3800 Cornucopia Way
Modesto, CA

Date and Time: May 19, 2014 6:00 p.m.

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Project Location

The proposed 2014 General Plan Update will apply county-wide, with the exception of the incorporated cities and state or federal lands. The County is illustrated in Figure 1.

The Stanislaus County ALUCP contains the individual Compatibility Plan for three airports in Stanislaus County: The Modesto City-County Airport, the Oakdale Municipal Airport, and the former Crows Landing Air Facility. Geographically, the ALUCP pertains to portions of unincorporated areas within Stanislaus County, together with portions of the cities of Modesto, Oakdale, Ceres, and Patterson. Special districts, school districts, and community college districts within those jurisdictions are also subject to the provisions of the ALUCP. The proposed ALUCP will incorporate the existing Compatibility Plan for the Crows Landing Air Facility, which is being updated under a separate process.

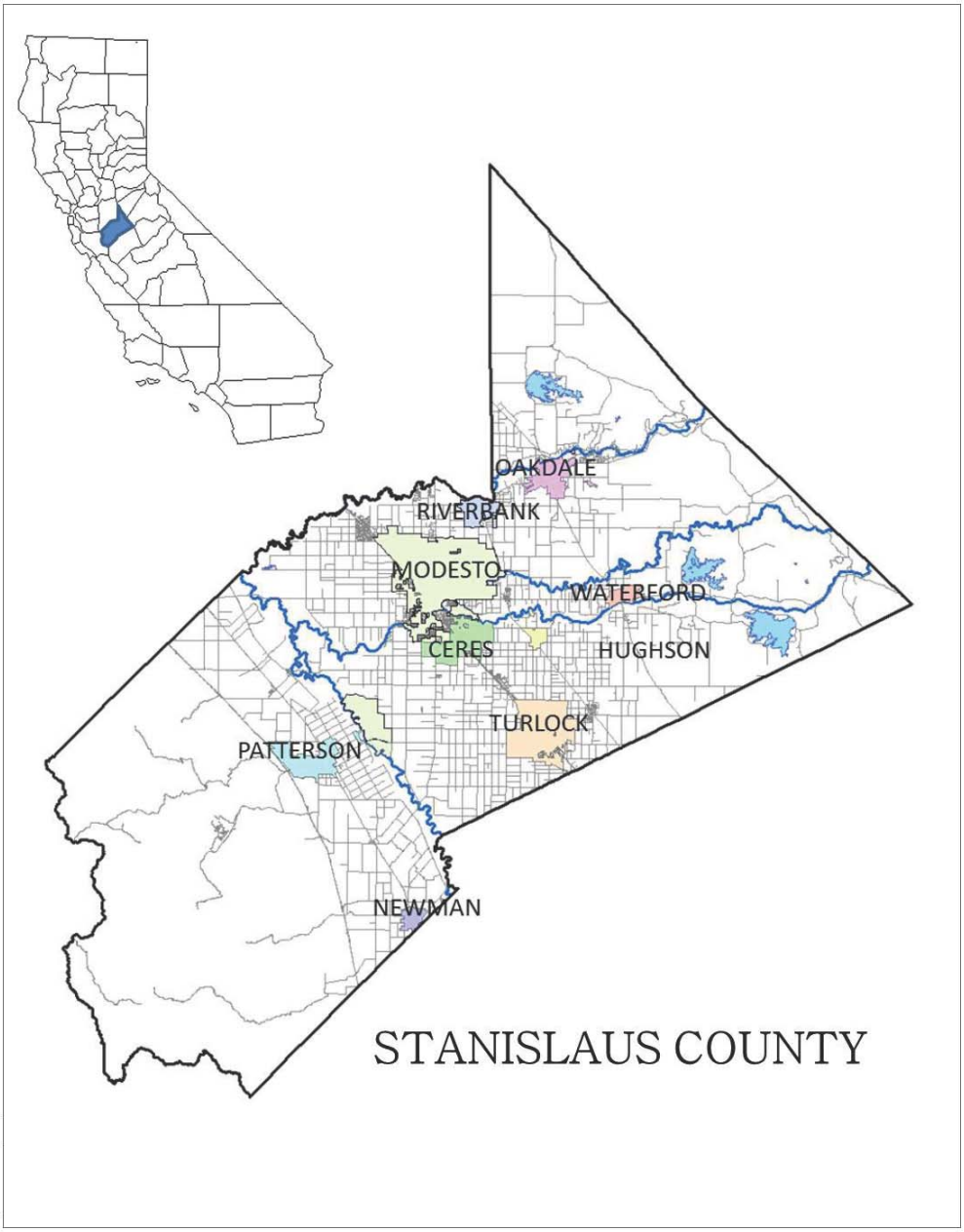

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Figure 1
Stanislaus County

2014 General Plan Update

California Government Code Section 65300 requires every city and every county throughout California to develop and adopt a comprehensive, long-term general plan to guide physical development within that jurisdiction. The general plan elements should be comprised of "integrated, internally consistent and compatible" policy objectives. The general plan must include seven mandatory elements including: Land Use, Circulation, Housing, Open Space, Conservation, Safety, and Noise. Each jurisdiction may opt to include additional elements as needed.

Stanislaus County adopted the most recent comprehensive update to its General Plan in 1994. The General Plan combines the required Open Space and Conservation Elements due to their interrelated content. It also includes one optional element, the Agricultural Element.

The proposed update of the General Plan has a 20-year planning horizon (to 2035) and utilizes the population projections adopted by the Stanislaus Council of Governments (StanCOG) for the 2014 Regional Transportation Plan/Sustainable Communities Strategy. The update does not include any changes in Land Use map designations, but rather is a 'clean up' of the General Plan to incorporate changes in state law, code, and local standards. The update also includes revisions to General Plan language and some new goals/policies/implementation measures designed to enhance and support existing goals/policies/implementation measures. The 2014 General Plan Update is limited to revisions to the following elements:

- Land Use
- Circulation
- Conservation/Open Space
- Noise
- Safety

The current Housing Element, originally adopted in 1992, had a major update/certification in 2012 and the Agricultural Element, originally adopted in 1992, had a major update in 2007. These elements are being updated through separate processes that are not part of the 2014 General Plan Update.

A number of legislative changes that have occurred since the last update to the general plan are being integrated into the 2014 General Plan Update including:

- 2003 Assembly Bill (AB) 170– Air quality and land use
- 2003 AB 32 - Greenhouse gas reduction
- 2007 Senate Bill (SB) 375 – Sustainable Communities Strategy
- 2007 AB 162/SB/AB 5 – 200-Year floodplain protection
- 2011 AB 359 – Groundwater recharge mapping
- 2011 SB 244 – Disadvantaged communities

- 2011 AB 26 – Dissolution of Redevelopment Agencies

In addition to changes addressing agency names/organizational structures/responsibilities, changes to local codes, standards, and management plans, minor language and formatting revisions, and Airport Land Use Compatibility Plan consistency, below is a summary of the changes that are proposed in the 2014 General Plan Update:

Land Use Element

A number of changes in the Land Use Element centering on unincorporated communities are being proposed, including:

- Updating language to reflect the elimination of California redevelopment agencies; however, the General Plan still recognizes the need for "redevelopment" in the context of upgrading existing community infrastructure through the renovation of existing development and new infill development;

- Strengthening the need for adequate service (e.g. water and sewer) capacity for new development;

- Adding policy language to encourage new development to be designed to allow for the upgrading of services;

- Adding policy language to encourage unincorporated communities to establish "self-help" programs (such as assessment districts); and

- Including an assessment of the infrastructure needs of "disadvantaged communities" (to be incorporated with the General Plan Update draft that will be released with the draft EIR).

In addition, policies have been revised and added to:

- Support efforts to direct economic development and job creation centers towards cities, while also considering approval of centers in unincorporated areas of unique character and proximity to transportation infrastructure and to encourage reuse of the Crows Landing Air Facility as a regional jobs center;

- Require effective levels of public service (water and wastewater) for development;

- Encourage coordination with cities in identifying opportunities to develop uniform development standards within city spheres of influence and along major county-defined gateways to cities;

- Requiring discretionary development projects that are located outside the sphere of influence of cities, but within one mile of a city's adopted sphere of influence boundary and within a city's adopted general plan area, to be referred to that city for consideration. However, the County maintains its authority over discretionary actions;

- Encourage County participation in developing a county-wide growth management strategy;

- Promote and protect healthy living environments and to encourage development that:
    - decreases air and water pollution
    - reduces the consumption of natural resources and energy
    - increases the reliability of local water supplies
    - facilitates alternative modes of transportation
    - promotes active living
- Promote the extension of public transportation systems and efforts to improve the siting of local health care options.

In addition, clarifying language has been added to the Salida Community Plan section of the Land Use Element to reflect the Salida Area Planning, Road Improvement, Economic Development, and Farmland Protection Initiative's 2007 date of adoption and term limits, and to clarify the process for making amendments to the Initiative.

Circulation Element

The Circulation Element has been amended to include new "Road Classifications" consistent with the United States Department of Transportation, Federal Highway Administration's (FHWA) naming standard and to incorporate changes to the right-of-way standards to allow Public Works more discretion in constrained rights-of-way. The Standard Specifications for each of the new road classifications will be updated as part of the Environmental Review, as necessary.

Policies have also been added to encourage development with multiple points of ingress and egress to aid in traffic flow and pedestrian accessibility, to encourage alternatives to on-site parking standards, including shared driveways and reciprocal access agreements, and to encourage development that provides a safe, comprehensive, and coordinated transportation system that includes a broad range of transportation modes.

Conservation and Open Space Element

Implementation measures have been revised and added to the Conservation and Open Space Element to encourage the establishment of scenic corridors, riparian habitat/vernal pool mitigation, the development of resort services in recreation areas, landfill waste material diversion, and to meet the requirements of AB 359 (2011) which requires jurisdictions to map groundwater recharge areas.

Revisions have been incorporated to specifically reduce conflicts between habitat areas and Airport Influence Zones for consistency between the General Plan and ALUCP.

Implementation measures have been incorporated to support the development and implementation of water management strategies through monitoring, coordinated data collection, promoting of water resource management tools, and supporting the formation of water management plans.

Noise Element

The Noise Element has been revised to aid in the enforcement of the Noise Ordinance and to ensure consistency between the Noise Element, the Noise Ordinance, and the updated ALUCP.

Safety Element

The Safety Element has been revised to reflect flood protection legislation affecting development of urban areas within the 200-year flood plain. Policy and implementation measures supporting safety hazard overlay zones and air strip easements have also been added.

Background information for each of the General Plan Elements affected by this 2014 General Plan Update is provided in the Stanislaus County General Plan - Support Documentation which will be updated as part of the EIR preparation. The current Support Document is available on-line: http://www.stancounty.com/planning/pl/general-plan.shtm

Airport Land Use Compatibility Plan (ALUCP) Update

The update to the General Plan is taking place in conjunction with an update to the County's ALUCP. The ALUCP protects public health, safety and welfare by: ensuring orderly expansion of airports; and adopting land use measures to minimize public exposure to noise and safety hazards within areas around public airports to the extent that the areas are not already devoted to incompatible uses. The ALUCP provides polices/plans for each public use airport (separate plans). Policies of the ALUCP have been coordinated with General Plan policy. The ALUCP update addresses land uses/changes around each airport and provides a 20-year planning horizon; using the pertinent Airport Layout Plan (ALP), Master Plan, or airport diagram as a foundation.

Level of Detail for the Environmental Analysis in the Draft EIR

The EIR will analyze the reasonably foreseeable direct and indirect physical environmental effects that could result from implementation of the proposed 2014 General Plan and ALUCP Updates. Because no specific development projects are being proposed, the analysis will not be parcel-specific.

Scope of the EIR– Potential Significant Effects

The following list of potentially significant effects is not intended to be comprehensive. The Draft EIR may address additional impacts as a result of the comments received on the Notice of Preparation, the scoping meetings, or new information.

Potentially Significant Impacts to be Addressed in the EIR

At this time, the following issues are anticipated to be addressed in the EIR.

- Aesthetics
- Agriculture Resources
- Air Quality
- Biological Resources

- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Groundwater Supply
- Land Use/Planning
- Noise
- Population/Housing
- Public Services, Utilities/Service Systems
- Transportation/Traffic

Less Than Significant Impacts That Will Not Be Addressed in the EIR

Based on a preliminary consideration of the 2014 General Plan and ALUCP Updates, the County believes that the proposed Updates will have a less than significant impact or no impact on the CEQA issue areas identified below. This is a preliminary determination only and does not preclude the County from making a different determination upon further analysis.

The primary reasons for these preliminary determinations are as follows:

- Geology/Soils. None of the proposed changes in General Plan policy will result in an increased risk from geologic hazards in that no reduction in safeguards are proposed.
- Mineral Resources. None of the proposed changes in General Plan policy will substantively change mineral resource designations or the regulation of mineral resource recovery.

Alternatives to be addressed in the EIR

In accordance with Section 15126.6 of the State CEQA Guidelines, an EIR must "describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most the basic objectives of the Project, but would avoid or substantially lessen any of the significant effects of the Project, and evaluate the comparative merits of the alternatives." The State CEQA Guidelines also require that the EIR evaluate a No Project Alternative.

No alternatives have been selected at the present time. The EIR will evaluate a reasonable range of alternatives, selected by an alternatives screening analysis consistent with the provisions of Section 15126.6. If there are any potential alternatives rejected from further analysis in the EIR, the EIR will explain the reasons for their rejection.

The alternatives analysis may, in addition to the No Project Alternative, consider one or more of the reduced intensity alternatives for further development and analysis in the EIR. The selected alternatives will be analyzed at a qualitative level of detail for comparison against the impacts identified for the proposed Project, consistent with the requirements of CEQA. Because this is a county-wide project, no alternative will be analyzed that is outside the County.

Requests for Additional Information

If you have any questions, please contact Kristin Doud at the Stanislaus County Planning and Community Development Department at the address above, or by telephone at (209) 525-6330.

Copies of this notice will also be available at the public scoping meetings. The full text of the proposed changes are available from the Planning and Community Development Department and available online at: at www.stancounty.com/planning/.

Appendix B

Proposed Updated Text to the Stanislaus County General Plan and Airport Land Use Compatibility Plan

Note to Readers:

Appendix B of this Draft EIR contains an abbreviated version of the proposed General Plan update. For a full version, please visit the County's general plan website at: http://www.stancounty.com/planning/pl/act-proj/gp-update.shtm

A copy is also available for review at:

Stanislaus County Planning and Community Development
1010 Tenth Street, Suite 3400
Modesto, CA 95354

Chapter One

LAND USE ELEMENT

INTRODUCTION ~~AUTHORITY~~

The Land Use Element provides for the general ~~Section 65302a of the California Government Code requires the County to adopt a "land use element which designates the proposed general~~ distribution ~~and~~ **and general** ~~general~~ location and extent of the uses of the land for housing, business, industry, open space, ~~including~~ agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element~~shall~~ include**s** a statement of standards of population density and building intensity recommended for the various districts and other territory covered by the **P**~~p~~lan.

The goals and policies of the Land Use Element of the Stanislaus County General Plan, supported by implementation measures, are designed to achieve the goals of:

~~The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas. The land use element shall designate, in a land use category that provides for timber production, those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982." Stanislaus County does not have any land which falls under the latter category.~~

1) Providing for diverse land use needs,
2) Ensuring compatibility between land uses,
3) Fostering stable economic growth,
4) Ensuring that an effective level of public service is provided,
5) Complementing the general plan of cities within the County,
6) Promoting and protecting healthy living environments, and
7) Providing for direct citizen participation in land use expansions of residential uses into agricultural and open-space areas.

GOALS, POLICIES AND IMPLEMENTATION MEASURES

GOAL ONE

Provide for diverse land use needs by designating patterns which are responsive to the physical characteristics of the land as well as to environmental, economic and social concerns of the residents of Stanislaus County.

POLICY ONE

Land will be designated and zoned for agricultural, residential, commercial, industrial, or historical uses when such designations are consistent with other adopted goals and policies of the general plan.

IMPLEMENTATION MEASURES

1. In reviewing proposals for amendments to land use designations, the County shall evaluate how the proposal would advance the long-term goals of the County.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. The zoning district map of the County shall be reviewed **as needed** to verify that no conflicts exist between land use designations**,** ~~and~~ zoning districts**, and other applicable plans or regulations, including but not limited to Airport Land Use Commission / Compatibility Plans.** ~~A report of this review shall be submitted to the Planning Commission not later than January 4, 1996.~~
   Responsible Department: Planning Department

POLICY TWO

Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation and enjoyment of scenic beauty.

IMPLEMENTATION MEASURE

1. Agricultural areas should generally be zoned for 40- to 160-acre minimum parcel sizes. Exceptions include land in a ranchette area so identified because of significant existing parcelization of property, poor soils, location, and other factors which limit the agricultural productivity of the area.
   Responsible Departments: Agricultural Commissioner, Planning Department, Planning Commission, Board of Supervisors

POLICY THREE

Land use designations shall be consistent with the criteria established in this element.

IMPLEMENTATION MEASURE

1. Requests for General Plan amendments shall be carefully reviewed for consistency with the criteria established in the **LAND USE DESIGNATIONS** section of this element for locating these designations. Applications which are inconsistent shall be denied.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY FOUR

Urban development shall be discouraged in areas with growth-limiting factors such as high water table or poor soil percolation, and prohibited in geological fault and hazard areas, flood plains, riparian areas, and airport hazard areas unless measures to mitigate the problems are included as part of the application.

IMPLEMENTATION MEASURES

1. All requests for development which require discretionary approval and include lands adjacent to or within riparian habitat shall include measures for protecting that habitat.
   Responsible Departments: Agricultural Commissioner, Planning Department, Planning Commission, Board of Supervisors

2. Applications for development in areas with growth-limiting factors such as high water table, poor soil percolation, geological fault areas, flood plains, and airport hazard areas shall include measures to mitigate the problems.
   Responsible Departments: Public Works, Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

3. Development within the 100-year flood boundary shall meet the requirements of Chapter ~~16.40~~ **16.50** (Flood Damage ~~Protection~~ **Prevention**) of the County Code and within the designated floodway shall obtain ~~Reclamation Board~~ **Central Valley Flood Protection Board** approval.
   Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

4. The County ~~will continue to~~ **shall** enforce ~~the~~ **all applicable codes and regulations, including adopted Airport Land Use Compatibility Plans, restricting** height**s** ~~limiting ordinance~~ near airports.
   Responsible Departments: Planning Department, Board of Supervisors

5. The County shall enforce the provisions of the Alquist-Priolo Earthquake Fault Zoning Act that limits development in areas identified as having special seismic hazards. See Map 5-1 of the Support Documentation for the location of the zone.
   Responsible Departments: ~~Building Inspection~~ Planning Department-Building Permits Division, Planning Department, Public Works, Planning Commission, Board of Supervisors

POLICY FIVE

Residential densities as defined in the General Plan shall be the maximum based upon environmental constraints, the availability of public services, and acceptable service levels. The densities reflected may not always be achievable and shall not be approved unless there is proper site planning and provision of suitable open space and recreational areas consistent with the supportive goals and policies of the General Plan.

IMPLEMENTATION MEASURE

1. Residential development shall not be approved at the maximum density if: (1) it threatens riparian habitat; (2) growth-limiting factors such as high water table, poor soil percolation, geological fault areas, and airport hazard areas exist; (3) development is in a designated floodway or does not meet the requirements of Chapter ~~16.40~~ **16.50** of the County Code; (4) **if** it ~~does not~~ **conflicts** ~~comply~~ with the Airport Land Use ~~Commission~~ **Compatibility** Plan ~~airport height limiting ordinance restrictions~~; (5) there is lack of, or inadequate, sanitary sewer or public water service; or (6) environmental impacts, including traffic, cannot be mitigated.
Responsible Departments: Planning Department, Environmental Resources, Public Works, Planning Commission, Board of Supervisors

POLICY SIX

Preserve and encourage upgrading of existing unincorporated urban communities.

IMPLEMENTATION MEASURES

1. The County shall support State efforts to reestablish redevelopment tools utilizing tax increment for the purpose of upgrading existing unincorporated urban communities. ~~The County in association with the Redevelopment Agency will use redevelopment as a tool to upgrade existing urban areas that meet the requirements of the State of California redevelopment law.~~
Responsible Departments: Planning Department, ~~Stanislaus County Redevelopment Agency~~, Planning Commission, Board of Supervisors

2. The County will apply for federal and state funds to aid in upgrading existing urban areas.
Responsible Department: ~~Redevelopment Agency~~, Planning Department, Parks and Recreation, County Executive Office, Board of Supervisors

3. Land within the sphere of influence of a community services district, sanitary district or domestic water district shall be rezoned for development only if ~~the US (Urban Service) combining district is used~~ **capacity for connecting to available public services exists and any resulting projects are conditioned to require connection to available services**.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

4. When feasible, new development shall be designed and built to allow for the upgrading or expansion of services necessary to upgrade existing unincorporated urban communities; however, new development will not be expected to be financially responsible for providing upgrades.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

5. **The County shall support and assist unincorporated urban communities in their efforts to establish "self-help" programs (such as assessment financing districts) necessary to upgrade their communities.**
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

6. ***As part of the environmental work The County will review, and if necessary, amend the General Plan to address the infrastructure, housing and public health needs to assist in transforming identified disadvantaged communities into healthy communities.***

POLICY SEVEN

Riparian habitat along the rivers and natural waterways of Stanislaus County shall to the extent possible be protected.

IMPLEMENTATION MEASURE

1. All requests for development which require discretionary approval and include lands adjacent to or within riparian habitat shall include measures for protecting that habitat **to the extent that such protection does not pose threats to proposed site uses, such as airports**.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY EIGHT

The County will continue to provide proper ordinances to ensure that flood insurance can be made available to qualified property owners through state and federal programs.

IMPLEMENTATION MEASURE

1. Development within the 100-year flood boundary shall meet the requirements of Chapter ~~16.40~~ **16.50** (Flood Damage ~~Protection~~ **Prevention**) of the County Code and within the designated floodway shall obtain ~~Reclamation Board~~ **Central Valley Flood Protection Board** approval.
Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

POLICY NINE

The Land Use Element shall be maintained so that it is responsive to change.

IMPLEMENTATION MEASURES

1. The Land Use Element shall be comprehensively ~~updated~~ **reviewed by the General Plan Update Committee (GPUC)** as found necessary by the Board of Supervisors. Every attempt shall be made to do so at least once every five years.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. All of the community plans shall be reviewed and updated as found necessary by the Board

of Supervisors. Substantial changes to these plans shall be permitted only in conjunction with a complete community plan update unless the Director of Planning and Community Development finds that (1) the plan has been completely updated within the past three years and the proposed changes can be adequately evaluated based on that updated plan or (2) the proposed change will have no major or demonstrable impact on the surrounding area or on the community in general.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

3. An annual report shall be made to the Board of Supervisors on the status of the General Plan and progress in its implementation as required in Section 65400 ~~(b)~~ **(a)** of the Government Code.
Responsible Department: Planning Department

POLICY TEN

New areas for urban development (as opposed to expansion of existing areas) shall be limited to less productive agricultural areas.

IMPLEMENTATION MEASURES

1. Requests for designation of new urban areas shall be reviewed by the County to determine whether the land is located in a less productive agricultural area based on considerations identified in the Agricultural Element.
Responsible Departments: Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors

2. Requests for designation of new urban areas shall be accompanied by a plan and implementation methods to provide all appropriate urban services.
Responsible Departments: Planning Department, Environmental Resources, ~~Fire Safety~~ Fire Warden's Office and the Local Fire Agency Having Jurisdiction, Sheriff, Parks, Library, Public Works, Planning Commission, Board of Supervisors

3. Proposed amendments to the General Plan map that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they are consistent with the conversion criteria stated in the Agricultural Element.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

GOAL TWO

Ensure compatibility between land uses.

POLICY ELEVEN

Development of residential areas shall be adjacent to existing compatible unincorporated urban development or, in the case of remote development, included as part of a specific plan.

IMPLEMENTATION MEASURE

1. The criteria for location of residential areas as described in the **LAND USE DESIGNATIONS** section of this element shall be applied to all requests for residential designation.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWELVE

The expansion of urban boundaries of unincorporated communities shall attempt to minimize conflict between various land uses.

IMPLEMENTATION MEASURES

1. The County shall ensure that expansion of urban boundaries of unincorporated communities is accomplished in an orderly manner to limit the area of conflict as much as possible. Substantial changes to community plans shall be permitted only as specified under Policy Nine, Implementation Measure 2.
Responsible Departments: Planning Department, Agriculture Commissioner, Planning Commission, Board of Supervisors

2. Before redesignating land designated Agriculture in the General Plan in the process of expanding an existing unincorporated community, the County shall require that the existing community plan be updated or, if a community plan does not already exist, that one be adopted.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

3. In the process of establishing a new, self-contained community, the County shall require that a specific plan be adopted before approving the redesignation of any land designated Agriculture in the General Plan.
Responsible Departments: Planning Department, Planning Commission, and Board of Supervisors

POLICY THIRTEEN

Expansion of urban boundaries of unincorporated communities should be based on infilling and elimination of existing "islands" and should not permit leapfrog development or create new "islands."

IMPLEMENTATION MEASURE

1. The County shall not approve applications (such as General Plan amendments, rezones, or tentative maps) for expansion of urban boundaries of unincorporated communities that would create "islands" or disregard infilling.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY FOURTEEN

Uses shall not be permitted to intrude into or be located adjacent to an agricultural area if they are detrimental to continued agricultural usage of the surrounding area.

IMPLEMENTATION MEASURES

1. All development proposals that require discretionary action shall be carefully reviewed to ensure that approval will not adversely affect an existing agricultural area.
Responsible Departments: Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors

2. Proposed amendments to the General Plan map that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they are consistent with the County's conversion criteria, as stated in the Agricultural Element.
Responsible Departments: Agricultural Commissioner, Planning Department, Planning Commission, Board of Supervisors

POLICY FIFTEEN

Uses should not be permitted to intrude into or be located adjacent to areas that are identified as existing and/or potential sites for solid waste facilities if such uses would not be compatible.

IMPLEMENTATION MEASURES

1. Potential conflicts with existing solid waste facilities shall be avoided.
Responsible Departments: Environmental Resources, Public Works, Planning Department, Planning Commission, Board of Supervisors

2. ~~When the Countywide Integrated Waste Management Plan is adopted, those sites which are identified as potential solid waste facilities should be protected from land use conflicts.~~
Sites identified as potential solid waste facilities within an adopted Countywide Integrated Waste Management Plan should be protected to the greatest possible extent from land use conflicts.
Responsible Departments: Environmental Resources, Public Works, Planning Dept., Planning Commission, Board of Supervisors

GOAL THREE

Foster stable economic growth through appropriate land use policies.

POLICY SIXTEEN

Agriculture, as the primary industry of the County, shall be promoted and protected.

IMPLEMENTATION MEASURES

1. The County shall require a 10-acre minimum parcel size for parcels requesting inclusion in the Williamson Act.
Responsible Departments: Planning Department, Board of Supervisors

2. As land is designated to accommodate new businesses, the County shall give priority to utilizing less productive agricultural areas.
Responsible Departments: Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors

3. Specific plans shall be encouraged when non-agricultural uses are proposed within areas designated for agriculture.

Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

4. The County shall continue to implement the Agricultural Element.
Responsible Departments: Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors

5. Where parcels under a Williamson Act contract are divided and result in parcels of less than ten acres, a notice of non-renewal shall be filed for the contract on those parcels. This affects subdivision maps, parcel maps, and lot line adjustments.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY SEVENTEEN

Promote diversification and growth of the local economy.

IMPLEMENTATION MEASURES

1. ~~Encourage the~~ Stanislaus County **shall continue to work with** ~~E~~**e**conomic ~~D~~**d**evelopment **entities** ~~Corporation~~ to promote Stanislaus County as a profitable location for industry.
Responsible Department: Board of Supervisors

2. The Board shall support the use ~~introduction of businesses in the County through consideration~~ of ~~suitable~~ financial mechanisms ~~such as Industrial Revenue Bonds~~ **supporting the introduction and growth of businesses in the county.**
Responsible Departments: Planning Department, Board of Supervisors

3. Continue to implement achievable components of the ~~1989 Economic Strategic Plan~~ **economic strategies recognized and/or adopted by the Board of Supervisors**.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

4. Encourage the development of new industries and the retention of existing industries that help the community reduce, recycle, and/or reuse waste that would otherwise require disposal.
Responsible Departments: Environmental Resources, Board of Supervisors

5. Allow private recreational uses where they are not found to cause land use conflicts.
Responsible Departments: Planning Department, Parks and Recreation, Planning Commission, Board of Supervisors

6. Emphasize the conservation and development of significant mineral resources as identified **in Special Reports prepared by the California Geological Survey,** ~~by the State Division of Mines and Geology in its report entitled Mineral Land Classification of Stanislaus County, California (Special Report, 173)~~ by implementing the policies and implementation measures specified under Goal Nine of the Conservation/Open Space Element.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

7. Strengthen the agricultural sector of the economy by continuing to implement the strategies for agriculture-related economic development identified under Goal One of the Agricultural Element.
Responsible Departments: U.C. Cooperative Extension, Agricultural Commissioner,

Planning Department, Planning Commission, Department of Environmental Resources, Board of Supervisors

8. Encourage tourism in Stanislaus County by **continuing to** participat~~eing~~ in efforts to develop a tourism program, including marketing strategies and objectives.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

9. Encourage reuse of the Crows Landing Air Facility as a regional jobs center.
Responsible Departments: Board of Supervisors, Chief Executive Office

POLICY EIGHTEEN

Accommodate the siting of industries with unique requirements.

IMPLEMENTATION MEASURE

1. The criteria described in the **LAND USE DESIGNATIONS** section of this element shall be applied in the siting of industries with unique requirements.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY NINETEEN

Nonconforming uses are an integral part of the County's economy and, as such, should be allowed to continue.

IMPLEMENTATION MEASURE

1. Maintain current Zoning Ordinance provisions (Chapter 21.80 of the County Code) which permit replacement or expansion of nonconforming uses.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY

Facilitate retention and expansion of existing businesses.

IMPLEMENTATION MEASURES

1. The County shall support ~~the Stanislaus County~~ ~~E~~**e**conomic ~~D~~**d**evelopment ~~Corporation~~ **efforts and opportunities of partnership on workforce training activities**.
Responsible Departments: Board of Supervisors, Planning Department, Chief Executive Office

2. The County shall investigate the use of federal and state funds to provide incentives for businesses to locate, expand or relocate in Stanislaus County.
Responsible Departments: Planning Department, Board of Supervisors

POLICY TWENTY-ONE

Support and facilitate efforts to develop and promote economic development and job creation centers throughout the County.

IMPLEMENTATION MEASURE

1. **While supporting efforts to direct economic development and job creation centers towards incorporated areas, the County shall also consider approval of centers in unincorporated areas of unique character and proximity to transportation infrastructure.**
   Responsible Departments: Board of Supervisors, Chief Executive Office, Public Works

GOAL FOUR

Ensure that an effective level of public service is provided in unincorporated areas.

POLICY TWENTY-~~ONE~~TWO

At least three net acres of developed neighborhood parks, or the maximum number of acres allowed by law, should be provided for every 1,000 residents, through land dedication and development, payment of in-lieu-of fees, **public facility fees,** or other methods acceptable to the Parks Department.

IMPLEMENTATION MEASURE

1. Continue to implement the strategies identified under Goal Four of the Conservation/Open Space Element.
   Responsible Departments: Parks Department, Parks Commission, Planning Department, Planning Commission, Chief Executive Office, Board of Supervisors

POLICY TWENTY-~~TWO~~THREE

Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.

IMPLEMENTATION MEASURES

1. The County shall continue to implement its Public Facilities Fees Program, which is intended to help finance public facilities needed to maintain current levels of service.
   Responsible Departments: Chief Executive Office, Public Facilities Fees Committee, ~~Building Inspections~~ Planning Department-Building Permits Division, Auditor-Controller, Board of Supervisors

2. ~~Only development requests for which sewer service capacity that meets the standards of Measure X and domestic water are available shall be approved.~~
   Development within a public water district and/or waste water district shall connect to the public water system and/or the waste water treatment facility; except where capacity is limited or connection to existing infrastructure is limiting and an

alternative is approved by the County's Department of Environmental Resources. For development outside a water and/or waste water district, it shall meet the standards of the Stanislaus County Primary and Secondary Sewage Treatment Initiative (Measure X) and domestic water.
Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

3. Benefit assessment districts, County Service Areas (CSA's), Mello-Roos Districts or other similar districts shall be formed as needed to pay for the cost of providing ongoing appropriate services.
Responsible Departments: Sheriff, ~~Fire Safety~~ Fire Warden's Office, Local Fire Agency Having Jurisdiction, Library, Public Works, Parks & Recreation, Treasurer-Tax Collector, Auditor-Controller, Environmental Resources, Social Services, Stanislaus Medical Center, Planning Department, Planning Commission, Chief Executive Office, Board of Supervisors

4. The County shall continue to work with independent fire districts to implement fees to help finance public facilities to support their services.
Responsible Departments: ~~Fire Safety~~ Fire Warden's Office, Local Fire Agency Having Jurisdiction, Chief Executive Office, Board of Supervisors

5. The current level of service of public agencies shall be determined and not allowed to deteriorate as a result of new development.
Responsible Departments: Sheriff, ~~Fire Safety~~ Fire Warden's Office, Local Fire Agency Having Jurisdiction, Public Works, Environmental Resources, Parks & Recreation, Library, Social Services, Stanislaus Medical Center, Planning Department, Planning Commission, Treasurer-Tax Collector, Auditor-Controller, Chief Executive Office, Board of Supervisors

6. Rezoning of property for development prior to: 1) annexation to a special district; or 2) inclusion of such property into a newly formed special district that will provide urban services (i.e. sanitary sewer district, domestic water district, or community service district) shall be approved only if the **development is adequately conditioned to restrict development from occurring until annexation to or formation of the required district is complete.** ~~US zoning district is used as a combining district or comparable requirements are incorporated into a Community Plan District.~~
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

7. Only development requests which have recognized and mitigated any significant impacts on solid waste reduction, recycling, disposal, reuse, collection, handling, and removal shall be approved.
Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

8. Only development requests which have recognized and reasonably mitigated significant impacts on school facilities shall be approved.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

9. The County will coordinate development with existing irrigation, water, utility and transportation systems by referring projects to appropriate agencies and organizations for review and comment.
Responsible Department: Planning Department

POLICY TWENTY-~~THREE~~FOUR

New development shall pay its fair share of the cost of cumulative impacts on circulation and transit systems.

IMPLEMENTATION MEASURES

1. Benefit assessment districts or other similar districts shall be formed as needed to pay for the cost of providing ongoing appropriate transportation services.
   Responsible Departments: Public Works, Treasurer-Tax Collector, Auditor-Controller, Chief Executive Office, Board of Supervisors

2. Traffic impacts **not covered under Public Facility Fees** shall be identified and impact mitigation fees shall be paid by the subdivider and/or developer.
   Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

3. The level of service (LOS) for all roadways and intersections shall be at least a "C" level, unless they are located within the sphere of influence of a city that has adopted a lower level of service.
   Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

4. Applicants for General Plan amendments shall coordinate with the Stanislaus Council of Governments (StanCOG) Congestion Management ~~Program~~ **Process** to mitigate traffic impacts.
   Responsible Departments: Planning Department, Public Works, Planning Commission, Board of Supervisors

GOAL FIVE

Complement the general plans of cities within the County.

POLICY TWENTY-~~FOUR~~FIVE

Development, other than agricultural uses and churches, which requires discretionary approval and is within the sphere of influence of cities or in areas of specific designation created by agreement (e.g., Sperry Avenue and East Las Palmas Corridors), shall not be approved unless first approved by the city within whose sphere of influence it lies or by the city for which areas of specific designation were agreed. Development requests within the spheres of influence or areas of specific designation of any incorporated city shall not be approved unless the development is consistent with agreements with the cities which are in effect at the time of project consideration. Such development must meet the applicable development standards of the affected city as well as any public facilities fee collection agreement in effect at the time of project consideration. (Comment: This policy refers to those development standards that are transferable, such as street improvement standards, landscaping, or setbacks. It does not always apply to standards that require connection to a sanitary sewer system, for example, as that is not always feasible.)

IMPLEMENTATION MEASURES

1. All discretionary development proposals within the sphere of influence or areas of specific designation of a city shall be referred to that city to determine whether or not the proposal shall be approved and whether it meets their development standards. If development standards of the city and County conflict, the city's standards shall govern.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. The policies described in the section on **SPHERES OF INFLUENCE** for projects within a city's sphere of influence or areas of specific designation shall be followed.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

3. The County shall limit its approval of discretionary projects in spheres of influence to agricultural uses, churches and projects recommended for approval by the city unless such projects are exempt from this implementation measure as a result of individual city/county agreements (e.g., upper McHenry Avenue, Beard Tract areas).
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

4. Discretionary projects in areas zoned other than A-2 (General Agriculture) prior to the applicable agreement with the city within whose sphere of influence the project lies shall not be allowed to develop consistent with the current zone classification unless they first obtain approval for the project from the city.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

5. Non-discretionary projects in spheres of influence shall be allowed to develop with existing entitlements**. However, the County shall coordinate with the cities to identify opportunities to develop uniform development standards.**
Responsible Departments: Planning Department, ~~Building Inspection Division~~ Planning Department-Building Permits Division, Public Works Department

6. The County shall amend its ordinances as necessary to implement any specific designation created by agreement. All active agreements shall be incorporated into the General Plan as an Appendix to the Land Use Element and upon approval may be incorporated into the General Plan without the need for a General Plan amendment.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY-SIX

Development which requires discretionary approval and is outside the sphere of influence of cities but located within one mile of a city's adopted sphere of influence and within a city's adopted general plan area, shall be referred out to the city for consideration. However, the County reserves the right for final discretionary action.

IMPLEMENTATION MEASURES

1. All discretionary development proposals within one mile of a city's adopted sphere of influence boundary and within a city's adopted general plan area, shall be referred to that city.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. **The County shall consider applying city development standards to discretionary projects located within one mile of a city's adopted sphere of influence boundary and within the city's adopted general plan area to the extent such standards are appropriate for the type of development.**
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors, Public Works, Environmental Resources

3. **Encourage joint County and city cooperation in establishing land use and development standards along all major county defined gateways to cities.**
Responsible Departments: Planning Department, Board of Supervisors

POLICY TWENTY-SEVEN

The County shall support a County-wide growth management strategy that is equitable to the needs of the County and all nine cities, taking in consideration land consumption and absorption rates.

IMPLEMENTATION MEASURES

1. **The County shall participate in efforts to develop and implement a County-wide growth management strategy that is consistent with the County General Plan.**
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. **The County shall encourage LAFCO to consider land consumption and absorption rates when evaluating the size of sphere of influence and annexation proposals in order to determine that the proposal does not exceed what is reasonably needed to accommodate the amount and type of development anticipated to occur.**
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

GOAL SIX

Promote and protect healthy living environments

POLICY TWENTY-EIGHT

Support the development of a built environment that is responsive to decreasing air and water pollution, reducing the consumption of natural resources and energy, increasing the reliability of local water supplies, and reduces vehicle miles traveled by facilitating alternative modes of transportation, and promoting active living (integration of physical activities, such as biking and walking, into everyday routines) opportunities.

IMPLEMENTATION MEASURES

1. **County development standards shall be evaluated and revised, as necessary, to facilitate development incorporating the following (or similar) design features:**
    - **Alternative modes of transportation such as bicycle lanes, pedestrian**

paths, and facilities for public transit;

- **Alternative modes of storm water management (that mimic the functions of nature); and**
- **Pedestrian friendly environments through appropriate setback, landscape, and wall/fencing standards.**

Responsible Departments: Planning Department, Board of Supervisors

POLICY TWENTY-NINE

New development shall be designed to facilitate the efficient extension of public transportation systems.

IMPLEMENTATION MEASURES

1. **Development proposals shall be referred to the appropriate transit authority to determine the types of facilities needing to be provided, if any.**
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY THIRTY

The County shall support efforts to improve local health care options through the siting of new facilities in locations with the infrastructure (including, but not limited to, transportation and utility) to support both facility and client needs.

GOAL ~~SIX~~ SEVEN

Provide for direct citizen participation in land-use decisions involving the expansion of residential uses into agricultural and open-space areas in order to encourage compact urban form and to preserve agricultural land.

POLICY ~~TWENTY-FIVE~~ THIRTY-ONE

A. Any decision by the Board of Supervisors of the County of Stanislaus to approve the redesignation or rezoning of land from an agricultural or open space use to a residential use shall require, and be contingent upon, approval by a majority vote of the County voters at a general or special local election. In the event the Board approves the redesignation or rezoning of such land for a residential use, such approval shall not take effect unless and until that decision is approved by an affirmative majority vote of the voters of the County voting on the proposal.

B. The requirement set forth in paragraph (A) shall apply to all such decisions affecting land that is designated for agricultural or open space use on the Land Use Map of the County's General Plan as of the effective date of this policy, even if the affected land is, after the effective date, redesignated or rezoned to a use other than an agricultural or open space use. The intent of this paragraph is to ensure that a developer does not launder land by obtaining County approval for a non-residential use (e.g., an industrial or commercial use),

and then subsequently obtain County approval for a residential use.

C. The Board's decision to approve the redesignation or rezoning of land from an agricultural or open space use to a residential use constitutes the approval of a project for purposes of CEQA. For this reason, the County shall comply with CEQA prior to the Board's decision to approve the redesignation or rezoning, notwithstanding the requirement that the voters approve such redesignation or rezoning.

D. Once the voters have approved a land use map designation or land use entitlement for a property, additional voter approval shall not be required for: (1) subsequent entitlement requests that are consistent with the overall approved development project or land-use designation and zoning; and (2) any requested modification to a land-use or zoning designation that does not decrease the number of permitted dwellings, as specified in the exhibits and plans approved by the voters.

E. Exemptions. The requirement for voter approval set forth in this policy shall not apply to any of the following:

1. After notice and hearing as required by state law and after compliance with CEQA, the Board of Supervisors may, without a vote of the electorate of the County, approve residential development on land designated for agricultural or open space uses if the Board finds, based on substantial evidence in the record, and HCD certifies in writing, that all of the following circumstances exist: (a) the approval is necessary and required to meet the County's legal fair share housing requirement; and (b) there is no other land in the County or the cities in the County already designated for urban use that can accommodate the County's legal fair share housing requirement. The Board shall not redesignate more than ten (10) acres per year for residential use under this paragraph.

2. Additional acreage may be designated for residential use if the Board finds, and HCD certifies in writing, that the additional acreage is necessary to meet the Board's legal fair share obligation based on maximum multi-family densities. Any proposal approved under this subsection shall be required to have all housing units permanently affordable to persons or families of moderate, low and very low income. The intent of this exemption is to provide sufficient land for housing to accommodate moderate, low and very low income housing, as may be necessary over time under State law.

3. Any development project that has obtained a vested right pursuant to state law prior to the effective date of this policy.

4. Any development project consisting entirely of farm worker housing.

F. Definitions.

The following definitions apply to this policy:

1. Residential use means any land-use designation, zoning district or other legislative entitlement authorizing, allowing, or consistent with residential development at a density greater than one (1) dwelling unit per ten (10) gross acres. Such density shall not include (a) caretaker housing or other residential uses incidental to the primary use, or (b) farm worker housing. Residential use includes the following land-use designations set forth in the General Plan (1994), all land-use designations that may be adopted by the County in the future that are comparable to such designations, and all zoning districts compatible with such designations: Estate

Residential, Low-Density Residential, Medium-Density Residential, Medium High-Density Residential, Planned Development, and Specific Plan.

2. Agricultural or open space use means any land-use designation or zoning district authorizing, allowing, or consistent with residential development at a density of equal to or less than one (1) dwelling unit per ten (10) gross acres. Agricultural or open space use includes the following land-use designations set forth in the General Plan (1994), all land-use designations that may be adopted by the County in the future that are comparable to such designations, and all zoning districts compatible with such designations: Agriculture, Urban Transition, Mineral Resources.

3. General Plan means the Stanislaus County General Plan adopted in or about October 1994, as amended through the effective date.

4. Effective date means the effective date of the Citizen's Right to Vote on Expansion of Residential Areas initiative measure, as established by the California Elections Code.

5. Board or Board of Supervisors means the Stanislaus County Board of Supervisors.

6. County means Stanislaus County.

7. CEQA means the California Environmental Quality Act.

8. HCD means the California Department of Housing and Community Development.

G. Duration; Amendment. Goal Six and Policy Twenty-five, shall remain in effect until December 31, 2036, and may be amended or repealed only by the voters of the County at an election held in accordance with State law.

SPHERES OF INFLUENCE

BACKGROUND

In 1973, Stanislaus County adopted a new General Plan concept called Urban Transition. This designation was placed on property outside the city limits but within the city's general plan boundary. One of the reasons for development of this designation was ongoing conflicts between the County and the cities. The County routinely approved development of land within a city's general plan boundary without regard to consistency with the city's plans. This caused a variety of problems for a city. First, although rare, development sometimes occurred which was not acceptable to the city, therefore, no attempt was made to annex the property resulting in islands of unincorporated area within a city. Second, if the County permitted urban development within the County, there was no incentive for the property owner to annex. This often prevented annexation. Third, even if the city wanted to annex the property and the property owner agreed, the development seldom met city standards with respect to street improvements, landscaping, signage, etc. At this point, there was no recourse for the city to upgrade the requirements.

With the adoption of the Urban Transition designation, development in most instances was required to annex before approval. Development which was allowed by ordinance without annexation was referred to the appropriate city for comment. The intent of the referral was to gain city input on whether or not a proposal was consistent with the city's plans and, if so, did the proposed development standards equal what the city would require if development were to occur in the city.

Originally, referrals were only made if the general plan designation was Urban Transition although the Urban Transition area is only a portion of the area within a city's general plan boundary. Gradually, referrals were made of all applications within a city's general plan boundary regardless of whether or not the property was designated Urban Transition.

In late 1984, the Local Agency Formation Commission (LAFCO) adopted spheres of influence for each city as required by state law. These spheres are "a plan for the probable ultimate physical boundaries and service area of a local agency." (Section 56425 of the California Government Code.) Since a sphere of influence is usually the general plan boundary of a city, the term more accurately describes the area in which referrals have been made.

POLICY

Whenever an application is to be considered which includes property within the sphere of influence of a city or special district (e.g., sewer, water, community services) or areas of specific designation created by agreement between County and City, the following procedures should be followed:

1. Development, other than agricultural uses and churches, which requires discretionary approval from incorporated cities shall be referred to that city for preliminary approval. The project shall not be approved by the County unless written communication is received from the city memorializing their approval. If approved by the city, the city should specify what conditions are necessary to ensure that development will comply with city development standards. Requested conditions for such things as sewer service in an area where none is available shall not be imposed. Approval from a city does not preclude the County decision-making body from exercising discretion, and it may either approve or deny the project.

2. Agricultural uses and churches which require discretionary approval should be referred to that city for comment. The County Planning Commission and Board of Supervisors shall consider the responses of the cities in the permit process. If the County finds that a project is inconsistent with the city's general plan designation, it shall not be approved. Agricultural use and churches shall not be considered inconsistent if the only inconsistency is with a statement that a development within the urban transition area or sphere of influence shall be discouraged (or similar sweeping statement). The city shall be asked to respond to the following questions:

   (a) Is the proposed project inconsistent[1] with the land use designation on the city's general plan? If so, please include a copy of the map (or that portion which includes the subject property) and the text describing uses permitted for the general plan designation. All findings of inconsistency must include supporting documentation.

   (b) If the project is approved, specifically what type of conditions would be necessary to ensure the development will comply with city development standards such as street improvements, setbacks and landscaping?

In the case of a proposed project within the sphere of influence of a sanitary sewer district, domestic water district or community services district, the proposal shall be forwarded to the district board for comment regarding the ability of the district to provide services. If the district serves an unincorporated town with a Municipal Advisory Council (MAC), the proposal shall also be referred to the MAC for comment.

[1]The question is specifically phrased to ask if a proposed project is inconsistent with the General Plan designation. This is intended to (a) encourage a city to specifically designate all land within its Sphere of Influence if it wants to oppose development proposals within the Sphere, and (b) to assure that tangible proof is submitted if denial is requested. This will eliminate the County's dilemma of trying to prove something is consistent with an inadequate General Plan.

LAND USE DESIGNATIONS

The following land use designations shall be used in the unincorporated area of the County. They are intended to further the Land Use Element goals and policies. If any of these designations fall within the sphere of influence of a sanitary sewer district, domestic water district, or community services district that provides services to an unincorporated town, it will be necessary to consult the **COMMUNITY PLANS** section to determine if any modification of the designation applies. For areas within such a sphere of influence, the community plans indicate the proposed future General Plan **Land Use D~~d~~**esignations.

State of California requirements for the Land Use Element state the General Plan should designate general distribution and location of land for various kinds of uses. Most of these, such as housing, industry and agriculture, are identifiable by the obvious nature of their specific **land use** designations. There are, however, certain kinds of uses which are not so obvious. These uses are education, public buildings and grounds, and solid and liquid waste disposal facilities. In addition, the Land Use Element must identify areas that are subject to flooding. Information follows regarding specific land uses and areas which are subject to flooding.

ESTATE RESIDENTIAL

Intent. The intent of the Estate Residential designation is to satisfy the desires of people who wish to live on a relatively small parcel in a rural setting and are willing to accept less than the full range of urban services. It should be applied only to land which is beyond the projected ultimate (or 20-year) service area of a city or special district which provides urban services and which is outside the adopted sphere of influence for a community.

Zoning. The R-A (Rural Residential) zone is appropriate within this designation. PD (Planned Development) zoning may also be appropriate provided the development does not exceed the established building intensity of this designation. Building intensity normally is zero to one dwelling unit per three acres. Building intensity may increase to two dwellings ~~per three acres for properties with temporary mobile homes~~ as allowed by zoning regulations. Population density averages approximately one to two persons per acre.

Appropriate Locations. The Estate Residential designation is appropriate in areas beyond the sphere of influence of a city (or special district which provides urban services) which is a less productive agricultural area but capable of supporting rural residential development. Among the factors to be considered in making this determination are: (1) existing and potential agricultural suitability (availability of irrigation facilities, crop history and potential); (2) surrounding land use (impacts caused by possible intrusion of rural residential uses and non-agricultural uses); (3) septic tank suitability (Environmental Resources standards for minimum area requirements and potential impacts of a concentration of septic tanks); (4) surrounding parcel size (conformity to adjacent parcel sizes); (5) soil type (soil grade and Storie rating); (6) public road access (length of necessary accesses, condition of existing public roads and future plans for both public roads and private access roads as determined by the Department of Public Works); (7) aesthetic characteristics (removal of natural vegetation, impairment of scenic view, introduction of uses or structures not in the same character as the surrounding area); and (8) anticipated environmental impact (removal of habitat of rare or endangered plant or animal, removal of riparian areas and impacts on natural resources).

LOW-DENSITY RESIDENTIAL

Intent. The intent of this designation is to provide appropriate locations and adequate areas for single-family detached homes, in either conventional or clustered configurations. Single-family detached dwellings are the predominant housing type in areas so designated, and would remain so under this designation. Semi-detached dwellings and manufactured housing would be consistent with this designation.

Zoning. R-A (Rural Residential), R-1 (Single-Family Residential), SCP-R-1-ST (Salida Community Plan, Single-Family Residential Special Treatment Zone) and SCP-R-1 (Salida Community Plan, Single-Family Residential) zones are appropriate within this designation. PD (Planned Development) zoning may also be appropriate, provided the development does not exceed the established building intensity of this designation. The use of the US (Urban Service) combining district in conjunction with any of the above zones would be appropriate for areas adjacent to unincorporated towns so that annexation to and service from the adjoining sanitary sewer district or community services district is required prior to development. Residential building intensity when served by a community services district or sanitary sewer district and public water district is zero to eight units per net acre. Building intensity for areas not served by public water and sewer service is zero to two units per net acre. Population density ranges from zero to 25 persons per net acre in areas served by public water and sewer and zero to six persons per net acre in other areas. Small second units, as permitted by State Law, may increase both the building intensity and the population density to a limited degree within this designation.

Appropriate Locations. The Low-Density Residential designation is appropriate in established residential areas characterized by single-family dwellings. It would also be appropriate in areas: (a) designated by the Board of Supervisors for ranchettes of 1/2 to one acre in size if the area is a less productive agricultural area but capable of supporting rural residential development based on the eight factors to be considered in locating "Estate Residential" land; or (b) adjacent to unincorporated towns which can serve the development after annexation to and service by a sanitary district or community services district.

MEDIUM-DENSITY RESIDENTIAL

Intent. The intent of this designation is to provide appropriate locations for single- and multi-family units, primarily in semi-detached or clustered arrangements. Typical housing types would be single-family detached manufactured houses, duplexes, triplexes and low-mass multi-family units (townhouses and garden apartments). All lands within this designation shall be within the boundaries of a community services district, sanitary district or similar public district which provides urban services except where such designation existed at the time of adoption of this plan.

Zoning. The R-2 (Medium-Density Residential) and SCP-R-2 (Salida Community Plan, Medium Density Residential) zones are appropriate within this designation. PD (Planned Development) zoning may also be appropriate provided the development does not exceed the established building intensity of this designation. PD zoning which allows sewage generated on site to be metered into the disposal system during non-peak hours is encouraged in communities with limited system capacity. Residential building intensity varies from zero up to 14 units per net acre. Population density ranges from zero to 45 persons per net acre.

Appropriate Locations. The Medium-Density Residential designation would be appropriate in areas adjacent to unincorporated towns where the Board of Supervisors has determined, pursuant to a community plan, that medium-density residential use is needed. These areas will be developed only after annexation to and service by a sanitary district or community services district.

MEDIUM HIGH-DENSITY RESIDENTIAL

Intent. The intent of this designation is to provide appropriate locations for housing types including duplexes, triplexes, fourplexes, and apartment buildings. This designation shall be within the boundaries of a community services district, sanitary district or similar public district which provides urban services.

Zoning. The R-3 (Multiple-Family Residential) and SCP-R-3 (Salida Community Plan, Multiple Family Residential) zones are appropriate within this designation. PD (Planned Development) zoning may also be appropriate provided the development does not exceed the established building intensity of this designation. PD zoning which allows sewage generated on site to be metered into the disposal system during non-peak hours is encouraged in communities with limited system capacity. Residential building intensity varies from zero to 25 units per net acre. Population density ranges from zero to 85 persons per net acre.

Appropriate Locations. The Medium High-Density Residential designation is appropriate in established residential areas characterized by duplexes, triplexes, fourplexes, and apartment buildings. It would also be appropriate in areas adjacent to unincorporated towns where the Board of Supervisors has determined, pursuant to a community plan, that medium high- density residential use is needed. These areas will be developed only after annexation to and service by a sanitary district or community services district.

COMMERCIAL

Intent. The intent of this designation is to indicate areas best suited for various forms of light ~~or~~ **to** heavy commercial uses, including~~, but not limited to,~~ retail, service and wholesaling operations. **This designation also allows for residential development in limited situations or when connected to both public sewer and water service.** The County has one designation to correspond to the various commercial zoning districts. This designation is intended for lands which demonstrate a valid supportive relationship to other existing or projected urban development.

Zoning. C-1 (Neighborhood Commercial), C-2 (General Commercial), H-I (Highway Frontage Commercial), SCP-C-1 (Salida Community Plan, Neighborhood Commercial) and SCP-C-2 (Salida Community Plan, General Commercial) zones shall be considered consistent with this designation. PD (Planned Development) zoning may also be appropriate provided the development does not exceed the established building intensity of this designation. The building intensity shall be determined by Zoning Ordinance development standards for setback, landscaping, height, parking and other requirements except that residential building intensity shall not exceed 25 units per net acre. In no case shall buildings exceed 75 feet in height, nor shall they cover so much of the lot that insufficient area remains for parking, landscaping, etc. In commercial zones which allow dwelling units, population density can range from zero to 85 persons per net acre.

Appropriate Locations. The Commercial designation is appropriate in areas already committed to commercial use. In unincorporated towns this designation is appropriate for Central Business Districts and other areas within the sanitary sewer or community services district in sufficient amount to serve the needs of the community. Areas adjacent to community services district may also be appropriate if the US (Urban Service) combining zone is utilized. **This designation shall allow uses that are deemed compatible with adjacent development through the use of discretionary permits**

INDUSTRIAL

Intent. The intent of this designation is to indicate areas for various forms of light or heavy industrial uses, including, but not limited to, manufacturing and warehousing. Generally, the Industrial designation shall be used in areas where public sewer and water are available or where the restrictions of the Planned Industrial designation are inappropriate. The Planned Industrial designation shall be used instead of the Industrial designation unless (a) the property to be designated is intended for a single-use applicant not permitted in the Planned Industrial designation and the applicant needs a very large site (see discussion under **Designating New Industrial Areas** or (b) the property is adjacent to an existing industrial area which is reaching capacity and whose services can be extended to serve the expansion.

Zoning. The LM (Limited Industrial), M (Industrial) and PI (Planned Industrial) zones shall be consistent with this designation. PD (Planned Development) zoning may also be appropriate provided the development does not exceed the established building intensity of this designation. Building intensity is governed by the fact that the Zoning Ordinance prohibits more than 75% coverage of the property by buildings. Buildings for human occupancy shall not exceed 75 feet in height. Population density is almost nonexistent as only one residential unit per parcel is allowed and then only if it is secondary to the industrial use of the property.

~~**Existing Locations.** Nearly all existing industrial areas are within or adjacent to the sphere of influence of a city or special district which serves an unincorporated town. Only one industrial area (on the northwest corner of Claribel and the Oakdale/Waterford Highway) is removed from an established urban area. Although new areas to be designated Industrial should be chosen based on the criteria discussed in the following section **(Designating New Industrial Areas),** the following areas already are established and shall remain as being appropriate:~~

> ~~The cities/towns of Crows Landing, Denair, Riverbank, Turlock and Westley have industrial areas along railroads which parallel their boundaries. Keyes, Modesto, and Turlock have industrial areas along Highway 99. Oakdale has industrial land around the Hershey plant south of town and near Riverbank is the Norris Industries Plant. Newman has one parcel on the south side of Inyo, east of the city limits designated Industrial, and the southeast corner of Kiernan Avenue and Sisk Road in Salida is also designated Industrial. There are several industrial areas in the Modesto area including (a) the Beard Tract on the south side of Yosemite Boulevard; (b) south 7th Street between Hatch Road and the Tuolumne River; (c) the east side of Crows Landing Road on both sides of Whitmore Avenue**.** and (d) a portion of the North Modesto Industrial Park on the south side of Kiernan Avenue, west of McHenry.~~

~~**Designating New Industrial Areas.** The amount of land designated as Industrial in the County has changed very little in the past 10 years, decreasing slightly through annexation to cities. Although a great deal of land is still available for industrial development, more than 70% is located in the Beard Tract.~~

Designating New Industrial Areas. The criteria listed below shall be used in evaluating potential areas, both for general Industrial designation and for designating sites for industries that need very large sites. There are few industries with the need for extremely large parcels, but they do exist. It is not practical to designate a large industrial area because a large amount of land might lay idle for an extended period of time. If an industry requiring a large site approaches the County or if more industrial sites are needed, the following criteria shall be used in determining whether or not a site is suitable for being designated Industrial:

a. **Access.** The proposed site should have adequate access to handle the type and quantity of traffic associated with industrial uses without impacting existing facilities. This shall usually mean that the area will be located on a major road at a minimum, with location on a state highway preferred.

b. **Sewage disposal.** Public sanitary sewer service should be available and a written commitment for service received. (Lands suitable for industrial development but without public sanitary sewer service should more appropriately be designated Planned Industrial.)

c. **Water.** An adequate supply of potable water should be available for industrial usage including water needed for fire suppression. Generally this will require a public water supply in order to meet fire flow standards.

d. **Infrastructure.** Other utilities (such as natural gas, electricity) shall be reasonably available to the site as might be required by the proposed uses.

e. **Topography.** The site is physically suitable for industrial development.

f. **Williamson Act and other constraints to development.** The site should be free from constraints such as valid Williamson Act Contracts that would inhibit rezoning and development of the area.

g. **Conflicts.** The proposed site development ~~shall~~ **should** not cause land use conflicts with surrounding properties. From this viewpoint, expansion of existing areas is more desirable than designating totally new areas.

h. **City general plan land use designation.** Any new areas proposed for industrial designation shall ~~not~~ be ~~in~~consistent with the General Plan of any city in whose sphere of influence they lie.

I. **Countywide Integrated Waste Management Plan.** Any new areas proposed for industrial designation shall be consistent with the Countywide Integrated Waste Management Plan.

PLANNED INDUSTRIAL

Intent. The intent of this designation is to provide locations for light industrial development. Such locations may be so designated on the initiative of the County or may be requested by a property owner or group of property owners. The Planned Industrial designation shall be preferred to the Industrial designation as it allows more control of development to ensure that impacts on adjoining properties are reduced. It shall be used largely in areas without public sewer and/or water service but shall only be used if it is practical, both physically and financially, to provide sewage disposal and water service as needed by the proposed development.

Zoning. Building intensity will be determined by the County on an individual basis, depending upon the nature and location of the proposed planned development. However, no buildings shall cumulatively occupy more than 70% of the area of any parcel. Population density is almost nonexistent as only one residential unit per parcel is allowed if it is secondary to the industrial use of the property. The A-2 (General Agriculture), PI (Planned Industrial), LI (Light Industrial), IBP (Industrial Business Park), SCP-PI (Salida Community Plan, Planned Industrial) and all industrial or business park related PD (Planned Development) zones shall be consistent with this designation.

Annexation. Areas designated Planned Industrial on the General Plan and rezoned for development which are located within the adopted **S**phere of **I**nfluence of a city shall include the requirement that an agreement be signed in a form satisfactory to the city attorney of the affected city and Stanislaus County Counsel guaranteeing that the property on which the planned industrial

designation is applicable will be annexed to the affected city upon demand by the city and with the approval of the Stanislaus County Board of Supervisors.

Appropriate Locations. Appropriate locations for the Planned Industrial designation shall be based on the same criteria as used for designating new industrial areas. The Planned Industrial designation shall be more appropriate than Industrial in locations with limited or no sanitary sewer capacity or in other locations where restricting the permitted uses is desirable.

INDUSTRIAL TRANSITION

Intent. This designation is intended for lands within spheres of influence which for the most part are not zoned or developed for industrial usage, but lie in the path of a valid expansion of a contiguous industrial area. Land falling within this designation may continue to be zoned and used for non-industrial purposes pending demand for such industrial expansion. Rezoning for industrial usage should not be approved for less than an entire block or an area adjacent to an existing industrial zone and must be based on evidence of industrial development capability and a program for adequate relocation of any persons to be ultimately displaced.

Zoning. Property within this designation shall retain its present zoning until such time as conversion to Industrial is desirable. At such time as a General Plan amendment to Industrial is processed, property will then be rezoned to be consistent with the Industrial General Plan designation. Population density and building intensity within the Industrial Transition areas shall correspond to that of the General Plan designation which most closely matches the zoning of the property in question.

Appropriate Locations. The Industrial Transition designation is appropriate in areas within the sphere of influence of a city or town which lie in the path of an expanding industrial area.

BUSINESS PARK

Intent. The intent of this designation is to accommodate development of modern, employment-intensive uses within the Salida Community Plan. Principal development and employment-generating uses allowed within this designation are characterized by research, product development, professional office, commercial, and business services **in a campus park like setting**. A full range of other uses may be permitted within the Business Park designation in conformance with the trends of successful contemporary business parks in Northern California.

Zoning. The SCP-IBP (Salida Community Plan, Industrial Business Park) and PD (Planned Development) zones shall be consistent with this designation.

Appropriate Locations. Appropriate location for the Business Park designation is within the Salida Community Plan Amendment Area **and the former Crows Landing Air Facility**.

AGRICULTURE

Intent. The major portion of Stanislaus County is productive and potentially productive agricultural land. These lands are of economic importance not only to Stanislaus County, but to the state and nation as well, as evidenced by the fact that Stanislaus County ranks very high nationally in production of agricultural commodities.

This designation recognizes the value and importance of agriculture by acting to preclude

incompatible urban development within agricultural areas. It is intended for areas of land which are presently or potentially desirable for agricultural usage. These are typically areas which possess characteristics with respect to location, topography, parcel size, soil classification, water availability and adjacent usage which, in proper combination, provide a favorable agricultural environment. This designation establishes agriculture as the primary use in land so designated, but allows dwelling units, limited agriculturally related commercial services, agriculturally related light industrial uses, and other uses which by their unique nature are not compatible with urban uses, provided they do not conflict with the primary use. The Agriculture designation is also consistent with areas the overall General Plan has identified as suitable for open space or recreational use and for ranchettes.

Zoning. This designation is consistent with an A-2 (General Agriculture) zoning district. PD (Planned Development) zoning may also be appropriate, provided the development does not exceed the established building intensity of this designation. Residential building intensity normally ranges from zero to two dwellings per 40 acres in the A-2-40 zone and up to one dwelling per three acres in A-2-3. Building intensity may increase to two dwellings per three acres for properties with temporary mobile homes as allowed by zoning regulations. Appropriate intensities would correspond for any land zoned A-2-5, A-2-10, A-2-20, A-2-160 or any other agricultural zoning designation. Building intensity for agricultural buildings is virtually unlimited, provided setbacks as listed in the A-2 zoning district are maintained. Based on a ~~1980~~ **2010** countywide census figure of ~~2.77~~ **3.08** persons per unit, population density is low, **and only slightly more** ~~less~~ than one person per acre even in the A-2-3 zone, and much lower than that in A-2-10 or A-2-40 zones. A Planned Development (PD) zone may also be consistent with this designation when it is used for agriculturally-related uses or for uses of a demonstrably unique character, which due to specific agricultural needs or to their transportation needs or to needs that can only be satisfied in the agriculture designation, may be properly located within areas designated as agricultural on the General Plan. Such uses can include, facilities for packing fresh fruit, facilities for the processing of agricultural commodities utilized in the County's agriculture community, etc.

Appropriate Locations. The Agriculture designation is appropriate in areas where the agricultural land is productive or potentially productive. It is also appropriate in these areas as suitable for open space, recreation uses or ranchette uses such as the Valley Home, Orange Blossom, South Ceres, South Turlock, and Oakdale/Riverbank areas.

URBAN TRANSITION

Intent. The purpose of the Urban Transition designation is to ensure that land remains in agricultural usage until urban development consistent with a city's (or unincorporated community's) general plan designation is approved. Generally, urban development will only occur upon annexation to a city, but such development may be appropriate prior to annexation provided the development is not inconsistent with the land use designation of the General Plan of the affected city. If this is to occur, a change in the General Plan designation consistent with the adopted goals and policies to some other land use designation shall be required.

Zoning. Until Urban Transition lands within a sphere of influence are annexed, they should be zoned General Agriculture (A-2). PD (Planned Development) zoning may also be appropriate, provided the development does not exceed the established building intensity for this designation. Building intensity and population density will be the same as under the Agriculture designation.

Appropriate Locations. The Urban Transition designation is appropriate for undeveloped land located within the LAFCO-established sphere of influence of a city or town.

PLANNED DEVELOPMENT

Intent. The Planned Development designation is intended for land which, because of demonstrably unique characteristics, may be suitable for a variety of uses without detrimental effects on other property.

Zoning. Land within a Planned Development designation should be zoned A-2 (General Agriculture) until development occurs through Planned Development zoning. A PD (Planned Development) zone (which, with the A-2 zone, are the only zoning districts consistent with this designation) is applied through application and submission of specific development plans. Building intensity and population density would be determined by the County on an individual basis, depending upon the nature and location of the proposed planned development.

Appropriate Locations. The Zoning Ordinance indicates that all applications for planned development should be consistent with the General Plan. The following are considered to be valid uses of the planned development designation consistent with the intent of this element:

a. Application for uses of unique character (not otherwise allowed as proposed in other zoning districts) for which findings can be made as to the appropriateness of the location and the absence of detrimental effect to the surrounding area.

b. Applications falling within an area designated by this element as a Planned Development area, subject to those resolutions within the appendix of this element that define special policy for planned development uses in the following areas:

(1) Upper McHenry Avenue, Resolution No. 87-01 (See Appendix 1-1).

(2) East F Street, Highway 108/120, Oakdale, Resolution No. 87-02 (See Appendix 1-2).

(3) Freeway Interchange and Frontage Roads adjacent to major highways and freeways, Resolution No. 87-03 (See Appendix 1-3).

~~**(4) The former Crows Landing Air Facility property.**~~

Appendix references above will be updated during final format.

HIGHWAY COMMERCIAL PLANNED DEVELOPMENT

Intent. This designation is intended for land located at freeway interchanges where it is necessary to provide services to highway travelers.

Zoning. Land within this designation shall be zoned for General Agriculture (A-2) until rezoned to Planned Development (PD). Population density and building intensity will be determined on a case-by-case basis.
Uses within this designation shall be limited to the following as principle uses:

Truck Stops
Restaurants
Motels
Service Stations
Overnight R.V. Camping

Fruit Stands

The following uses may be permitted, but only when accessory to the uses listed above:

Towing Service
Minor Emergency Automobile Repair
Convenience Market
Wine Tasting

Appropriate Locations. The Highway Commercial Planned Development designation is appropriate only for parcels adjacent to a freeway interchange. No property shall be designated Highway Commercial Planned Development and rezoned PD unless findings are made that the change will not be detrimental to the agricultural productivity of the surrounding property and that the subject property is not considered to be one of the County's Most Productive Agricultural Areas.

HISTORICAL

Intent. The Historical designation is intended to preserve areas of local, regional, state or national historical significance. Historical areas should be protected by zoning controls emphasizing the need for new development (or rehabilitation) to be compatible with the historic nature of the area. When a community plan has been adopted for a designated historic area, guidelines for development shall be followed as established within that plan. Development standards which are applicable elsewhere should be waived if such waiver is consistent with the intent of the Historical designation and does not endanger the public health, safety or welfare.

Zoning. This designation shall be considered to be consistent with the County H-S (Historical Site) zoning district. Due to the unique nature of this kind of designation, population density and building intensity for any new projects must be reviewed on an individual basis. For residential uses, however, building intensity should normally be from one to ~~seven~~ **eight** units per net acre with a population density of two to 25 persons per net acre. For other uses, building intensity ~~should be consistent with existing development in the area~~ **should be determined by the County on an individual basis, depending upon the nature and location of the proposed use**.

Appropriate Locations. The Historical designation is intended for areas which are of local, regional, state or national historical significance.

MINERAL RESOURCES

Background. ~~In December 1993, after more than a decade and a half of requests from the County, the State of California completed its classification of mineral resources in Stanislaus County. This classification was done as part of what will eventually be a statewide series of classifications required by the Surface Mining and Reclamation Act of 1975 (SMARA)~~ **The State of California has established a classification of mineral resources in Stanislaus County as required by the Surface Mining and Reclamation Act of 1975 (SMARA).** The classification is a ~~very~~ detailed inventory of known and/or presumed locations of a wide variety of mineral resources throughout Stanislaus County.

The SMARA classification process is designed to implement the basic intent of the State Legislature to create and maintain an effective surface mining and reclamation policy with regulation of surface mining operations to ensure that:

1. Adverse environmental effects are prevented or minimized and mined lands are

reclaimed to a usable condition that is readily adaptable for alternative land use.

2. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

3. Residual hazards to public health and safety are eliminated. (Public Resources Code, Sec. 2712)

SMARA mandates that, ~~upon completion of the State's inventory,~~ the County as Lead Agency must amend its General Plan to recognize the mineral information classified by the State, assist in the management of land uses that affect areas of statewide and regional significance, and emphasize the conservation and development of identified mineral deposits.

The State's findings are published in **Special Reports prepared by the California Geological Survey,** ~~by the State Division of Mines and Geology in a report entitled Mineral Land Classification of Stanislaus County, California (Special Report 173).~~ The classification maps and mineral information contained in ~~that~~ **the** report**s** are incorporated in this General Plan by reference, together with Public Resources Code Section 2710 et seq. (SMARA) and state policy.

As indicated in the State's inventory, key minerals commercially excavated in Stanislaus County are construction aggregates, primarily sand and gravel. Significant aggregate areas are shown on the General Plan maps entitled "Aggregate Resource Areas," which are based on more detailed maps provided by the State Division of Mines and Geology. To a large extent, aggregate areas are located in flood plains of rivers and streams, particularly the Tuolumne and Stanislaus Rivers and Orestimba Creek.

These significant aggregate resource areas are protected by the Mineral Resources plan designation, coupled with policies and implementation measures under Goal Nine in the Conservation/Open Space Element that emphasize their conservation and development. County zoning regulations (Chapter 21.88) also regulate surface mining permits and reclamation plans in a manner consistent with the intent and requirements of SMARA.

Intent. The Mineral Resources designation is an overlay designation intended to protect mineral deposits that have been identified by the state as being of regional or statewide significance. Development of land designated Mineral Resources will be restricted to those kinds of development that will not interfere with the ultimate excavation of the minerals identified by the State as being in the area.

Zoning. Land with this overlay designation shall be zoned for General Agriculture (A-2) or a Planned Development (PD) that is consistent with the underlying designation (Agriculture) and will not interfere with the ultimate excavation of the minerals from the area. Building intensities and population densities shall be consistent with those specified for the Agriculture designation. Surface mining permits and reclamation plans shall meet the requirements established in Chapter 21.88 of the Zoning Ordinance.

Appropriate Locations. The Mineral Resources designation shall be located where the State Division of Mines and Geology has designated land as having a mineral deposit of statewide or regional significance. It also may be located in those areas identified as containing significant deposits but which have not been formally designated by the state.

SPECIFIC PLAN

Intent. A specific plan is a detailed plan for a specific area of the County. It is guided by and must conform to the General Plan, but its scale permits a relatively detailed level of examination and planning not normally possible in the General Plan.

A specific plan is appropriate where major new development or redevelopment is envisioned as spelled out in the Stanislaus County Specific Plan Guidelines. This designation may serve as either an overlay to other General Plan designations, or in the case of more complex and/or larger projects, it may stand as a separate designation.

Zoning. Land designated Specific Plan shall be zoned S-P (Specific Plan) for development under an approved specific plan, or the S-P zone may be an overlay zone used in conjunction with other zoning designations. Population density and building intensity standards for different portions of the S-P zone shall be determined by the specific plan approved by the County, as determined on an individual case basis, except where it is used as an overlay, in which case density and intensity shall not exceed that allowed in the underlying designations.

Appropriate Locations. The Specific Plan designation is to be used for areas where it is anticipated that a specific plan will be adopted immediately following the General Plan redesignation. The Specific Plan designation is appropriate for areas which exhibit the following characteristics:

1. Rapidly urbanizing areas with significant new demand for public facilities and services; such a site should be at least 100 acres.

2. Unique physical conditions (including unusual natural resources to be conserved).

3. Complex mixture of uses proposed.

4. Multiple ownership in complex developing area.

5. Need to revitalize a marginal or deteriorated area.

6. Large industrial and/or commercial complexes.

7. Very large single-ownership land developments where a significant new community is to be developed in a presently non-urban area.

8. Special study areas.

The Director of Planning and Community Development shall determine when a given project will require that a specific plan be prepared.

LAND USE ELEMENT

DIAGRAMS

(Insert the following diagrams into this Section)

1. Stanislaus County Legend for Land Use Map
2. Stanislaus County Index
3. A, B, C, D, E, F & G to Index
4. Crows Landing
5. Del Rio
6. Denair
7. Empire
8. Grayson
9. Hickman
10. Hughson
11. Keyes
12. Knights Ferry
13. La Grange
14. Newman
15. Modesto
16. Modesto/Ceres
17. Oakdale
18. Patterson
19. Riverbank
20. Turlock
21. Valley Home
22. Waterford
23. Westley
24. Salida

COMMUNITY PLANS

Stanislaus County has adopted Community Plans for most of the unincorporated towns in the County. These plans outline the future growth pattern of the town. ~~Each plan is used in conjunction with the General Plan to indicate whether the Urban Transition area will be residential, commercial, industrial, etc.~~ Any requests for rezoning **of** ~~of property designated Urban Transition on the General Plan~~ **land within a plan area** must be consistent with the proposed use category on the **Community Plan** . ~~**Plan amendments**~~ **and shall be processed as a General Plan amendment.**

Community Plans are incorporated in the Appendix of this element. In circumstances where the circulation/transportation designations of a Community Plan are not consistent with those of the General Plan, the General Plan designation, with the exception of the Salida Community Plan, shall govern unless determined otherwise by the Director of Public Works.

~~In order to develop land within the sphere of influence which is designated Urban Transition on the Land Use Element of the Stanislaus County General Plan, the developer must request a general plan amendment, rezoning, and submit a tentative map. The latter is only required if development of the property is dependent on approval of a tentative map. The combining "Urban Service (US)" zone shall be used for all such rezoning. Use of this zone will require that the property annex to the appropriate service district (sanitary, water, or community services) prior to development while still requiring that the underlying zone be consistent with the General Plan designation.~~

~~(PLEASE NOTE: ALL CIRCULATION/TRANSPORTATION DESIGNATIONS IN THE COMMUNITY PLANS, WITH THE EXCEPTION OF THE SALIDA COMMUNITY PLAN WHICH WAS ADOPTED AUGUST 7, 2007, HAVE BEEN SUPERCEDED BY THE FOCUSED GENERAL PLAN UPDATE, GPA 2004-03, ADOPTED ON APRIL 18, 2006, REFER TO CHAPTER 2)~~

Community Plans below will be merged with the Plans in the Support Document and integrated in the appendix of this element. All Community Plan text and maps will be reformatted for visual consistency as part of the Comprehensive General Plan Update, however, no content will be amended.

CROWS LANDING

It is not anticipated that Crows Landing will experience significant growth in the coming years. Constraints with the existing water systems, lack of sanitary sewer, and existing Williamson Act contracts will keep its growth to a minimum. Projected 2010 population is only 475 compared to the 1980 population of 436. It is anticipated that this growth will be due to infilling rather than community expansion. ~~The Community Plan shown on Map 1A-1 reflects this expectation.~~

DEL RIO COMMUNITY PLAN

In 1992 the County approved a major expansion of the Del Rio Community Plan, extending the community south to Ladd Road and from Carver Road east to McHenry. The two-tiered plan requires that a detailed Specific Plan be completed prior to any development in the undeveloped Tier Two area, which lies south of the current developed area of Del Rio. ~~(The Del Rio Community Plan is available as a separate document.)~~

DENAIR COMMUNITY PLAN

Land Use. One of the primary land use changes involves establishing an urban buffer area around the community. To achieve an urban buffer, parcels located on the periphery of the Plan Area have been designated as Estate Residential (ER). The Estate Residential land use designation will allow

for the gradual blending of urban development with surrounding agricultural uses. Estate Residential also promotes a well-defined rural small town characteristic edge between the City of Turlock and the Community of Denair where agricultural operations may no longer continue as a viable land use option.

The future growth forecasted for Denair translates into demand for a variety of housing types. Vacant and underutilized parcels within the existing Denair Community Plan Area offer the potential for meeting the forecasted population growth housing needs. Suitable locations for Medium-Density Residential (MDR) and Medium High-Density Residential (MHDR) housing is within the interior of communities, providing residents convenient access to public services, retail shopping and public transit opportunities. Development of housing at medium and medium high densities in and around the community's commercial district would positively influence the overall appearance of the community and add new residents who are likely to shop in Denair's commercial district. As such, Medium- and Medium High-Density land use designations have been moved from Denair's periphery to its interior.

With the community's small size and the proximity to competing commercial centers outside the community (City of Turlock), the community's downtown commercial core takes on a neighborhood convenience and specialty commercial focus that meets the convenience goods and services needs of local residents. In addition, the downtown commercial area can become a gathering place for local community events. To provide an opportunity for the revitalization of Denair's historical urban core, the community's commercial area has been centralized and compacted.

Circulation. Waring Road, Taylor Road (west of Waring Road) and Zeering Road (west of Waring Road) are classified as Major Roads. Class II bike lanes are designated along major roadways consistent with the Stanislaus Area Association of Governments' *Regional Bicycle Transportation Master Plan.* Additional Class II bike lanes provide connectivity to downtown, school and recreational facilities and to the multi-purpose trail system.

A multi-purpose trail, offering access to a variety of users, including pedestrians, cyclist and equestrians is planned along the canals on the plans eastern and northern edges. The multi-purpose trail ties into the community's bikeway network.

Public Facilities. The Community of Denair is devoid of parks and other public outdoor areas for recreating, gathering, and socializing. The County's minimum standard for providing adequate parkland is 3 acres of parkland / 1,000 residents. The Community Plan diagram depicts the general location of future neighborhood and community park sites. The general locations of future park sites are conceptual and indicative of park locations based on service area radius, major streets and surrounding land uses. Parks should be located in the general vicinity shown in the Community Plan.

The following general standards define the various park designations identified in Denair Community Plan:

Neighborhood Park - 3 to 5 acres. Neighborhood parks are designed to meet local neighborhood" needs, and are intended to be within walking or bicycling distance of one-half mile from neighborhood residences. A neighborhood park service area should avoid crossing any major natural or manmade barriers (e.g., railroads, canals, and major roads) that inhibit access to the park. Neighborhood parks usually emphasize child oriented facilities providing a variety of play spaces and associated amenities.

Community Park - 10 to 15 acres. A community park should serve the community and be developed to serve specific recreational needs such as baseball, softball, hard court areas,

swimming pool, or recreation center. Patrons of these facilities are expected to drive to the park. As such, community parks should provide adequate parking areas and access from collector and/or major roads. The location of the community park should avoid the need to travel through neighborhoods. Care must be taken when siting a community park to avoid conflicting with nearby residential uses. Community parks can be developed as joint-use facilities able to accommodate seasonal storm drainage basins.

Setting. The Community of Denair is located in the south central portion of Stanislaus County, east of the City of Turlock. Most of the community is surrounded by productive farmland, though residential development within the City of Turlock lies only a mile to the west. The community is bisected by the Burlington Northern-Santa Fe Railroad.

Development History and Pattern. Originally a Quaker settlement, the Denair community was first called Elmwood Colony and then Elmdale. In the early 1900s, the Modesto Bank subdivided 640 acres as a townsite. John Denair, a railroad superintendent, subsequently purchased the townsite, and the town's name was changed, fittingly, to Denair.

The original townsite was surveyed and developed at right angles to the Burlington Northern-Santa Fe Railroad, which runs in a northwest/southeast direction. More recent development patterns have been on the traditional north/south grid, leaving Denair's historic core physically offset from newer development.

Land Use. The Denair Community Plan area encompasses 1,013 acres between Taylor Road on the north and Tuolumne Road on the south. The Turlock Irrigation District Main Canal binds Denair on the east while Waring Road generally forms the community's western boundary. The Denair community is buffered by land designated as Estate Residential. This residential land use designation provides a transition from the urbanized environment of the town to surrounding agricultural uses. In the southwest portion of the plan, an agricultural buffer is established between the Denair community and the City of Turlock.

Denair's commercial core area is compact to maximize development opportunities. Higher density residential development is located near the downtown commercial core for easy access to downtown services. The Denair Community Plan contains adequate land to support a population of approximately 8,000 residents. Table 1 provides a summary of land uses within the Denair Community Plan area.

Table 1: Denair Community Land Use Profile

Land Use	*Developed Acreage*	*Vacant Land*	*Total Acreage*	*Percent Of Total*
Estate Residential (ER)	*132*	*153*	*285*	*28%*
Low Density Residential (LDR)	*275*	*263*	*538*	*53%*
Medium Density Residential (MDR)	*17*	*0*	*17*	*2%*
Medium High Density Residential (MHDR)	*6*	*11*	*17*	*2%*
Commercial (C)	*12*	*24*	*36*	*4%*
Industrial (I)	*5*	*0*	*5*	*1%*
*Parks**	*0*	*34*	*34*	*3%*
*Schools***	*61*	*20*	*81*	*8%*
Total	*508*	*505*	*1,013*	*100%*

Notes:

Parks vacant land acreage is based upon a calculation need of 3 acres / 1,000 population projected in the Community Plan

***** School vacant land acreage assumes two additional elementary schools will need to be provided.***

Circulation. Primary roadways within the community are Monte Vista Avenue, Main Street, Zeering Road, Lester Road and Santa Fe Avenue. Traffic within the community is relatively light, with most of Denair's roadways operating at LOS C or better. Signalization of the community's main intersections (Lester Road at Monte Vista Ave/Main Street, Santa Fe Avenue at Main Street and Zeering Road at Gratton Road) will improve traffic flow. Non-motorized transportation is encouraged via a system of recreational trails and bicycle lanes that connect the Community's residential areas with downtown, recreational and school facilities and along the irrigation canals at the Community's edge.

Public Services

Wastewater Collection and Treatment. The Denair Community Services District provides wastewater service. Wastewater is conveyed to the City of Turlock Wastewater Treatment Plant for treatment. For the past 13 years, growth in Denair has been ~~retarded~~**restricted** due to the capacity of the sewer interceptor between Denair and Turlock.. Wastewater collection system improvements are underway to improve delivery of wastewater to the City of Turlock Wastewater Treatment Plant.

Water Service. The Denair Community Services District provides potable water service to the Denair community. Domestic water is supplied by wells that pump groundwater. Water quality is good and no treatment is provided

Law Enforcement. Law enforcement is provided by the Stanislaus County Sheriff's Department that maintains a sheriff's substation within the Denair community. The California Highway Patrol shares space with the County Sheriff's Department in the substation located on East Main Street.

Fire Protection. The Denair Fire District (DFD) has the responsibility for fire protection, paramedic services and emergency rescue services to Denair and surrounding areas. The DFD is a volunteer fire department. Response time within the Denair community is 3 to 5 minutes.

Schools. Denair is located within the Denair Unified School District. The District has one elementary school (K-4), one middle school (5-8) and one high school (9-12). To accommodate growth, the Community Plan identifies general locations for future school sites.

Parks and Recreation. The Denair Community Services District provides park and cultural activity centers services in the community. The community's current parkland inventory does not meet the County standard of 3 acres of parkland per 1,000 residents. The Community Plan illustrates the general location of future park sites, including 1 Community Park and 3 neighborhood parks.

Goals, Policies and Implementation Measures

The following goals, policies and implementation measures are directed specifically toward the Denair community and are intended to guide development within the Denair Community Plan Area:

GOAL ONE

Reinforce Denair's small rural town character.

POLICY ONE

The County shall work with the Denair Municipal Advisory Committee, and other interested groups, to develop a Downtown Master Plan for the planning and implementation of programs to support the vitality of the downtown area. The Master Plan should include detailed development guidelines for downtown.

POLICY TWO

Promote the vitality of Denair's central business district and preserve Denair's small town character by encouraging it to become a unique shopping district and community events area with a variety of retail commercial, office residential, civic, cultural and recreational uses.

POLICY THREE

Reduce the area currently designated for commercial uses in the community as a means of concentrating retail activity in a focused area.

IMPLEMENTATION MEASURES

1. Develop gateway treatments to mark the entries to the downtown at Santa Fe Avenue and Main Street and at Gratton Road and Main Street.

2. Create a pleasant pedestrian street environment through attractive streetscape design and features including street trees, lighting, sidewalks and planters.

3. Develop design guidelines for new and existing building renovation in the downtown, in keeping with a small town, pedestrian oriented street character.

~~4. Consider use of Redevelopment Agency funds for enhancement projects.~~

GOAL TWO

Provide a well-defined community edge between Denair and adjacent agricultural land, as well as between Denair and the City of Turlock.

POLICY ONE

Create a greenbelt / buffer around the perimeter of the Community that provides clear sense of identity for the Community of Denair.

POLICY TWO

The Denair Community Plan should promote very low density residential uses along the Community's edge or periphery in order to reduce conflicts with surrounding agricultural uses, as well as to establish and define a permanent buffer between Community of Denair and the City of Turlock.

IMPLEMENTATION MEASURES

1. Estate Residential shall be designated along the northerly, westerly and easterly periphery of the Denair Community Plan Area to reduce urban density toward the edge of the Community Plan Area.

2. The sizing of sewer and water lines should be reduced as they approach the northerly, westerly and easterly periphery of the Denair Community Plan Area to limit growth influences beyond the Plan Area.

3. Landscape design requirements shall be considered for new projects, which develop along the entryways to the Community of Denair, in particular to Waring Avenue, Monte Vista Avenue, Gratton Road and Santa Fe Avenue. Landscape design should promote a sense of transition from the surrounding agricultural area to urban setting. Utilization of trees to screen urban uses along these entryways is encouraged.

4. Within the Community Plan area, properties designated Low Density Residential and located outside the boundaries of the Denair CSD, may be designated, "Low Density Residential" or "Estate Residential" on the General Plan. (This will allow development of ½ acre lots with public water or 1 acre lots without public water or public sewer.)

GOAL THREE

Provide for the non-motorized transportation needs of the Denair Community.

POLICY ONE

Provide safe and convenient pedestrian and bicycle facilities to various destinations throughout the Community of Denair.

POLICY TWO

Provide pedestrian and bicycle facilities that link community residents to schools, parks, civic facilities and the community's downtown core in accordance with the Denair Community Plan diagram.

POLICY THREE

The Community pedestrian and bicycle facilities shall connect to regional pedestrian and bicycle facilities.

IMPLEMENTATION MEASURES

1. Develop irrigation canals as non-motorized transportation enhancement to promote the walking, cycling and other non-motorized means of transportation.

2. The County shall explore a cooperative agreement with the Turlock Irrigation District to use canal right-of-way / easement for multi-purpose recreational trails, as identified on the Denair Community Plan diagram.

3. Bicycle facilities shall be included as part of road improvement projects where said roadways are identified as bike lanes on the Denair Community Plan.

GOAL FOUR

Provide for the recreational needs of residents of the Denair Community.

POLICY ONE

New development shall provide the residents of Denair with adequate parkland facilities to meet the County standard of 3 acres per 1,000 residents.

IMPLEMENTATION MEASURES

1. The County shall work to acquire and develop parkland, including adequate facilities to accommodate one community park. The general location of future park sites is portrayed on the Community Plan diagram.

HICKMAN COMMUNITY PLAN

Significant population growth is not anticipated in Hickman. Presently, the service area is mostly developed and there has been little demand for expansion. Some growth is expected in existing lots, but there are a limited number of vacant lots that front on County roads.

KEYES COMMUNITY PLAN

Land Use. Growth forecasted for Keyes translates into a demand for a variety of housing types. Vacant and underutilized parcels within the existing Keyes Community Plan Area, along with a northward expansion of the Community Plan Area offer the potential for providing the forecasted population growth housing needs. Growth, in the form of residential development, has been directed east of State Route 99 to avoid conflicts with industrial uses west of State Route 99. With the exception of an established mobile home park located north of Turlock Irrigation District's Upper Lateral 2½, Medium - and Medium High-Density land use designations are moved from the periphery of Keyes to the interior of the community. Establishment of medium and medium high-density housing adjacent to the community's commercial districts and public amenities will accommodate long-range housing needs for the community and County, while encouraging a compact community form.

With the community's small size and proximity to competing commercial centers outside the community (Cities of Ceres and Turlock), the community's commercial designations take on a neighborhood convenience focus. The Commercial designations within the community are intended to provide essential community retail goods and services. Activities may range from a single commercial use to a neighborhood shopping center. The Highway Commercial land use designation adjacent to the State Route 99 / Keyes Road Interchange is intended to provide for and promote concentration of commercial uses serving the needs of the traveling public. The State Route 99/Keyes Road Interchange also serves as an important gateway into the community.

Industrial and Planned Industrial land uses west of State Route 99 are buffered from sensitive land uses to the east of the highway. Industrial and Planned Industrial uses are afforded direct access to heavy rail service, and vital regional north-south and east-west transportation corridors.

The Community Plan includes an area designated Urban Transition. The Urban Transition land use designation recognizes the lands current commitment to Williamson Land Conservation Act contracts. The Urban Transition land use designation also recognizes the importance of this area in the overall development of community-wide circulation improvements and relationship to adjacent planned urban land uses. It is anticipated this area will, in the future, be developed as Low Density Residential.

Community Character. Community character is crucial for establishing the overall vision of what constitutes a desirable and viable community. The present appearance of the community along the State Route 99 corridor, as with many corridor communities, is unattractive. A lack of urban landscaping, key community entryways and unsightly land uses adjacent State Route 99 contribute to a negative image which discourages interest in investing in the community.

The residents of Keyes envision a cohesive small town that encourages social interaction among its community members. The Plan along with its goals, policies and implementation measures address neighborhood character, community edge and entryways into the community. The community core along 7th Street has its own unique character as a pedestrian-oriented concentrated area of residential, commercial, and public and quasi-public uses. Future development should enhance the vitality of the community core along 7th Street while retaining a diversity of residential, commercial and public and quasi-public uses.

Circulation. Faith Home Road (north of Keyes Road), Keyes Road (east of Faith Home Road) and Golden State Boulevard (south of Keyes Road) are classified as Major Roads. Rohde Road, 7th Street, Nunes Road, and Washington Road are classified as Collectors. To promote a traditional local street pattern that evenly disperses traffic throughout the community, the Plan identifies the alignments for future roadway extensions. The Community Plan includes future easterly roadway extensions of Hollywood Drive, Anna Street, Esmail Avenue, Maud Avenue and Norma Way to serve east-west circulation. The Community Plan also includes future northerly roadway extensions of Jennie Avenue and Stella Avenue to serve north-south circulation.

To optimize Highway Commercial opportunities and accommodate forecasted traffic volumes on Washington Road, Ninth Street between Nunes and Keyes Roads should be abandoned. In its place, Washington Road should be extended to Keyes Road, opposite Golden State Boulevard. These modifications will improve circulation within the community and create a clear distinction between highway commercial and community related commerce, while establishing an opportunity for a prominent gateway for the community. The broad open area of the highway on- and off-ramps provides an opportunity for establishing a distinctive landscaped entry into the community.

The Community Plan encourages bicycling and walking. Two forms of non-motorized transportation routes are depicted on the Community Plan Diagram. Bike lanes are designated along major roadways consistent with the Stanislaus Council of Governments' (formally Stanislaus County Area Association of Governments) *Regional Bicycle Transportation Master Plan*. Bike lanes provide connectivity to neighborhoods, commercial centers, school and recreational facilities.

A multi-purpose trail, offering access to a variety of users including pedestrians, cyclists and equestrians, is planned along Turlock Irrigation District's Upper Lateral No 2½ right-of-way. The multi-purpose trail, which ties into the community's bikeway, provides a completely separated right-of-way with minimum cross flows by motorists.

Parks. Hatch Park is the only park available to all residents of Keyes. This park does not meet the County's minimum standard of providing 3 net acres of parkland/1,000 residents needed to support the community's current population. To accommodate growth, the Community Plan diagram envisions the expansion of Hatch Park into a community park. The Community Plan also identifies the general location of future neighborhood park sites. The neighborhood park symbols do not denote precise park locations, but suggest approximate locations for additional parkland acquisitions.

The following general standards define the various park designations identified in the Keyes Community Plan:

Neighborhood Park – 3 to 5 Acres. Neighborhood parks are designed to meet local "neighborhood" needs, and are intended to be within walking or bicycle distance of one-half mile from neighborhood residences. A neighborhood park service area should avoid crossing any major barriers (e.g., canals, collectors or major roads) that inhibit access to the park. Neighborhood parks should emphasize child-oriented facilities providing a variety of play spaces and associated amenities. Neighborhood parks should also be bound on all four sides by local streets to promote safety and public access.

Hatch Community Park – 15+ Acres. To provide for recreational needs of the community such as baseball, softball, and hard court areas, and family-oriented activities such as picnic areas and an indoor recreation center, Hatch Park should be enlarged to provide a minimum of 15 acres. Patrons are expected to drive to this facility. As such, Hatch Park should be bound by streets to minimize on-site parking requirements. As a highly active center, residential or other noise sensitive land uses should not directly abut the park.

Schools. Keyes is served by two school districts providing elementary and secondary education. The Keyes Unified School District provides for elementary (grades K-8) education. The Turlock Joint Union High School District provides for secondary (grades 9-12) education. Existing, planned and proposed school sites are shown on the Community Plan diagram. The proposed elementary school symbol does not denote the precise school site location, but suggests an approximate location for an additional elementary school.

Development History and Pattern. Keyes dates back to 1871 when it was a railroad siding of the Central Pacific (now Union Pacific) Railroad. The siding was named Keyes Switch, after Thomas J. Keyes, a state senator who resided nearby. The community grew slowly, consisting of only 16 families when the Keyes Grammar School was established in 1905-1906. The construction of the school and a church spurred additional growth, which slowed once more during the Great Depression. In the 1990s, the community grew faster than the County on average and reached an estimated 3,400 residents by 1998.

Like many other Central Valley towns, Keyes' original townsite was laid out at right angles to the northwest/southeast trending railroad. More recent development patterns have been on a traditional north/south grid, leaving Keyes' historic core physically offset from newer development. State Route 99 parallels the Union Pacific Railroad corridor to the east. The State Route 99 bypass, constructed in the mid-1980s, physically divides the community.

Land Use. The Keyes Community Plan area contains adequate land to support a population of approximately 9,300 residents. The Community Plan accommodates future growth in the most efficient manner possible. The Community Plan is aimed toward maintaining a compact urban form, preserving surrounding agricultural lands.

The Plan area encompasses 857 acres between the Turlock Irrigation District Lateral Number 2-1/2 on the north and Keyes Road on the south. Faith Home Road serves as the community's western boundary. Washington Road serves as the community's eastern boundary. The majority of commercial and residential land uses lie east of State Route 99 while industrial uses are located to the west of State Route 99.

New residential development is targeted for the community's northern and eastern areas. The Community Plan also includes land designated as Urban Transition. This land is presently under Williamson Land Conservation Act contract. Should the Williamson Act contracts not be renewed in the future, the land may be developed as Low Density Residential.

The Community Plan encourages the development of commercial areas which conveniently serve residential population, provide employment opportunities, form an attractive segment of the community and contribute to the County's tax base. Commercial development opportunities are provided at the northwest intersection of Washington Road and Keyes Road, and at the planned intersection of Faithhome Road and Hollywood Drive. In addition, the Keyes Community Plan designates land adjoining Golden State Boulevard, Keyes Road and State Route 99 for highway commercial development. Industrial uses are primarily located west of State Route 99.

Table 1 provides a summary of land uses within the Keyes Community Plan area.

Table 1: Keyes Community Land Use Profile

Land Use	Development Acreage	Vacant Land	Total Acreage	Percent of Total
Low Density Residential (LDR)	**191**	**159**	**350**	**41%**
Medium Density Residential (MDR)	**57**	**34**	**91**	**10%**
Medium High Density Residential (MHDR)	**17**	**13**	**30**	**3%**
Commercial (C)	**22**	**17**	**39**	**4%**
Highway Commercial	**18**	**90**	**108**	**13%**
Industrial (I)	**52**	**32**	**84**	**10%**
Planned Industrial (PI)	**33**	**7**	**40**	**5%**
Urban Transition (UT)	**-**	**48**	**48**	**6%**
Parks*	**5**	**20**	**25**	**3%**
Schools**	**12**	**30**	**42**	**5%**
Total	**407**	**450**	**857**	**100%**

Notes:
***Parks vacant land acreage is based on a calculation need of 3 acres/1,000 residents projected in the Community Plan. Vacant parkland is representative of the Community Polan "Proposed Parks" symbol which denotes general location.**

****Schools vacant land acreage includes the planned middle school to be developed adjacent to Washington Road, and for on additional elementary school that will be needed.**

Circulation. The Community Plan identifies the location and extent of existing and proposed major roads, collector streets and local streets, as well as bikeways and rail lines. The Keyes Road interchange provides a vital link to the community from State Route 99. Keyes Road, Faith Home Road, Rohde Road/7th Street, Washington Road and Esmail Avenue are the community's primary roadways. Non-motorized transportation is encouraged via a system of recreational trails and bicycle lanes that connect the community's residential neighborhoods with retail centers, recreational and school facilities, and other public facilities.

Public Services

Wastewater Collection and Treatment. The Keyes Community Services District provides wastewater collection. Wastewater is conveyed to the City of Turlock wastewater treatment plant for treatment. Population growth in Keyes has been impeded due to capacity limitations of the sewer interceptor between Keyes and the City of Turlock wastewater treatment plant. Wastewater collection system improvements are underway to improve delivery of wastewater to the City of Turlock wastewater treatment plant.

Water Service. The Keyes Community Services District provides water service to the Keyes community. Domestic water is supplied by wells that pump groundwater. The groundwater is treated at the well head prior to being conveyed to customers.

Law Enforcement. Law enforcement is provided by the Stanislaus County Sheriff's Department. The County maintains a Sheriff's substation within the Keyes community. The California Highway Patrol shares space with County's sheriff's Department in the sub-station located on 7th Street.

Fire Protection. The Keyes Fire Protection District provides fire protection and paramedic services to the Keyes and surrounding areas. The District is a volunteer fire department. The average response time is two minutes.

Schools. Keyes is located within the Keyes Unified School District and the Turlock Joint Union High School District. The Keyes Unified School District has three schools, one charter school (K-8), one elementary school (K-8) and one pre-school all located on one campus site. Improvements are underway for a new middle school (Grades 6 – 8). The new middle will be located in northeast section of the community plan area, adjacent to Washington Road. The

Community Plan Diagram depicts the general location of a future elementary school site. High school-aged students (Grades 9 – 12) currently attend Turlock High School. Construction is underway for a new high school (Pitman High School) between Taylor Road and Christofferson Parkway. Once completed, it is anticipated that Keyes' high school-aged students will attend Pitman High School.

Parks and Recreation. The County provides and maintains one park facility within the community of Keyes. The community's current parkland inventory does not meet the County standard of 3 acres of parkland per 1,000 residents needed to support the community's present population. The Community Plan includes expanding Hatch Park into a 15 acre Community Park. The Community Plan also depicts the general location of future neighborhood park sites.

Goals, Policies and Implementation Measures

The following goals, policies and implementation measures are directed specifically toward the Keyes community and are intended to guide development within the Keyes Community Plan Area:

GOAL ONE

Achieve a harmonious relationship between the urban environment and surrounding agricultural setting.

POLICY ONE

Provide a land use pattern that is compatible with surrounding land uses and which provides an effective transition between the built environment and agricultural uses along the periphery of the community.

POLICY TWO

Discourage the designation/rezoning of residential land uses on land sharing a boundary with agriculture designated lands outside the Community Plan Area.

POLICY THREE

Provide adequate setbacks and/or non-residential improvements between residential development and adjacent agricultural land uses outside the Community Plan Area.

POLICY FOUR

Cooperate with the City of Ceres to the north and the City of Turlock to the south in establishing definitive community separator policies/implementation measures.

IMPLEMENTATION MEASURES

1. Residential land use designations/rezoning that share a boundary with agricultural designated lands outside the Community Plan area shall demonstrate that a 200 foot building setback or other comparable development setback can be provided. Setbacks may include physical improvements such as roads and canals.

2. Commercial, Highway Commercial, and Planned Industrial development shall be buffered from adjacent agricultural land uses outside the Community Plan Area by landscaping elements.

GOAL TWO

Improve the visual appearance of the Keyes community.

POLICY ONE

Encourage the development of identifiable community boundaries to establish a sense of community identity.

POLICY TWO

Encourage the development of "Gateway" treatments at major entryways to the community.

POLICY THREE

Encourage the upgrading, beautification and revitalization of existing commercial areas along 7th Street.

POLICY FOUR

Develop and Implement Design Guidelines for new development and for revitalization of existing development within Keyes.

POLICY FIVE

Promote alternative design solutions to reduce the negative visual impact of walled developments within Keyes.

IMPLEMENTATION MEASURES

1. The County should adopt Design Guidelines for the Keyes Community. The guidelines should address residential subdivision design and connectivity, non-residential development, and design/establishment of a gateway/entry features for Keyes.

2. "Gateway" treatments should be established at the State Route 99/Keyes Road Interchange, and at Rohde Road and the crossing of the Turlock Irrigation District's Upper Lateral No 2 ½.

3. Develop positive, high quality landscaped edges along State Route 99 and major roads leading into the community

4. The County shall approve development proposals which include walls only if walls are necessary in order to mitigate the negative impacts of noise, visual separation from traffic, or to provide a barrier between incompatible land uses. Where walls are necessary, the County shall require separation from the roadway by a curb-adjacent sidewalk and a six-foot landscaped planter strip. A combination of walls, berming and vegetation is considered more desirable than walls used alone.

GOAL THREE

Encourage attractive and orderly development which preserves a small town atmosphere.

POLICY ONE

Provide a diverse community that integrates residential, commercial and industrial land uses supported by public facilities.

POLICY TWO

Create an enhanced streetscape environment through the use of landscape and pedestrian access along arterial and collector streets.

POLICY THREE

Medium and High Density Residential should be located along collectors, and be designed and oriented in order to function as part of the overall neighborhood.

POLICY FOUR

Provide adequate lands to accommodate the development of commercial areas which will conveniently serve current and future residential needs.

POLICY FIVE

Minimize conflicts between industrial and planned industrial land uses by concentrating industrial activity west of State Route 99.

POLICY SIX

Provide convenient and accessible neighborhood commercial areas within the community to minimize vehicular trips needed for frequently used retail services.

POLICY SEVEN

Multi-family residential land uses shall be developed with a balance of open space, landscaping, and shall be accessible to commercial and recreational areas and public transportation facilities.

IMPLEMENTATION MEASURES

1. Commercial development shall be consistent in scale and character with surrounding neighborhood.

2. Commercial sites shall be developed in such a manner to not preclude direct access from residential areas for pedestrian and bicycle traffic.

3. County shall encourage and seek the revitalization of existing housing stock within the central core of the community.

4. County shall encourage and assist the commercial revitalization of 7th Street.

5. Walled and isolated residential enclaves shall be discouraged.

6. Residential areas shall be designed to create a pattern of activity that promotes community interaction within and with abutting neighborhoods.

7. Parks and schools shall be located and designed as neighborhood focal points.

8. Residential rear yards with walls shall be discouraged along collector streets within the interior of the community to avoid walled subdivisions. In situations where collectors with walls adjoin residential areas, cul-de-sacs should be used to create wall openings with pathway connections to encourage pedestrian access.

9. Development adjacent to Turlock Irrigation District Upper Lateral No 2½ shall maintain an open edge along the Lateral rather than backing against the Lateral.

GOAL FOUR

Promote highway-oriented commercial development in the State Route 99 corridor.

POLICY ONE

The County shall encourage the location of businesses and services (e.g., restaurants, service stations, lodging) in the State Route 99 corridor to serve the traveling public and local residents.

IMPLEMENTATION MEASURES

1. Designate land adjacent to the State Route 99/Keyes Road Interchange with good highway visibility and access as Highway Commercial. Permitted uses shall be those determined by the County to be supportive of the overall goals and policies of the Keyes Community Plan.

2. Limit development adjoining State Route 99/Keyes Road Interchange to large sites and non-residential uses with generous landscaping.

3. The County shall designate land in the Golden State Boulevard/Keyes Road/State Route 99 Interchange corridor area as Highway Commercial.

GOAL FIVE

Provide an interconnected system of streets and roads to distribute traffic and meet the circulation needs of the Community.

POLICY ONE

The County should promote development of a traditional grid circulation system that distributes traffic, provides connectivity and offers multiple-route choices for motorists, as portrayed on the Keyes Community Plan Diagram.

POLICY TWO

Open street patterns that create a network of circulation connections with multiple points of ingress and egress are encouraged.

POLICY THREE

All roadways shall be designed to complement the urban development pattern and coordinate with pedestrian, bicycle and transit routes.

IMPLEMENTATION MEASURES

1. The County shall evaluate development proposals for conformance with the circulation system depicted on the Keyes Community Plan Diagram.

2. Recognizing the community's land use pattern, limited number of continuous north-south and east-west streets will result in less than acceptable service standards on a small number of streets, the following roads shall be extended and designated as Collectors as depicted on the Community Plan:

    a) Esmail Avenue shall be extended to Washington Road;
    b) Starlite Drive shall be extended to Washington Road; and
    c) Washington Road shall be extended to Keyes Road.

    The following local roads shall be extended to improve continuous north-south and east-west circulation as depicted on the Community Plan:

    a) Maude Avenue shall be extended to Washington Road;
    b) Anna Avenue shall be extended to Washington Road;
    c) Jennie Avenue shall be extended to future Starlite Drive extension; and
    d) Stella Avenue shall be extended to future Starlite Drive extension.

GOAL SIX

Provide for the non-motorized transportation needs of the Keyes Community.

POLICY ONE

Provide safe and convenient pedestrian and bicycle facilities to various destinations throughout the community of Keyes.

POLICY TWO

Provide pedestrian and bicycle facilities that link community residents to schools, parks, civic facilities and the community's retail centers in accordance with the Keyes Community Plan diagram.

POLICY THREE

Community bicycle facilities shall connect to regional bicycle facilities.

IMPLEMENTATION MEASURES

1. Develop multi-purpose trail adjacent to the Turlock Irrigation District Lateral 2½ to promote walking, cycling and other non-motorized means of transportation.

2. The County shall explore a cooperative agreement with the Turlock Irrigation District to use Lateral 2½ right-of-way/easement for multi-purpose recreational trail, as identified on the Keyes Community Plan.

3. Bicycle facilities shall be included as part of road improvement projects where said roadways are identified as bike lanes on the Keyes Community Plan.

GOAL SEVEN

Provide for the recreational needs of the residents of the Keyes Community.

POLICY ONE

The County shall support expansion of Hatch Park as a Community Park.

POLICY TWO

The County should acquire additional parkland, pursuant the Keyes Community Plan, to meet the future parkland needs of the Keyes Community. Total parkland inventory should be consistent with the County standard of 3 acres of parkland per 1,000 residents.

IMPLEMENTATION MEASURES

1. The County shall acquire lands to the north and east of Hatch Park to accommodate expansion of the Hatch Park site to promote the development of a 15+ acre community park.

2. The County, in conjunction with the Keyes Municipal Advisory Committee and other interested groups, shall work to upgrade and expand the facilities at Hatch Park to include facilities normally associated with a Community Park (e.g., baseball fields, community center, soccer fields).

KNIGHT'S FERRY COMMUNITY PLAN

It is not anticipated that Knight's Ferry will experience significant growth in the coming years. Lack of sanitary sewer, existing Williamson Act contracts to the north, the Stanislaus River on the south and the community's desire to retain its historical character will keep its growth to a minimum. Projected 2010 population is only 300 compared to the 1980 population of 281. In the event that development is proposed within the historical community of Knight's Ferry, it must comply with the building standards in Appendix 1-1 of the Support Documentation.

LA GRANGE COMMUNITY PLAN

It is not anticipated that La Grange will experience any significant growth in the coming years. The present water system is lacking in the ability to serve additional customers, consequently, until the system is upgraded and expanded, future growth is seriously **limited**~~retarded~~. This is evident in the population projection for the year 2010 of 112 as compared to the 1980 population of 88. In the event that development is proposed within the historical community of La Grange, Appendix 1-2 of the Support Documentation should be consulted for building exterior design standards.

SALIDA COMMUNITY PLAN

The Salida Community Plan ("Community Plan" or "Plan") provides land use planning and guidance for development of approximately 4,600 acres of land in the Salida area. The Community Plan encompasses the existing community of Salida, which was part of the previously approved Salida Community Plan (the "Existing Plan" or "Existing Plan Area"), and an amendment area encompassing approximately 3,383 acres (the "Amendment Area"). **The Amended Area consists of the Salida Area Planning, Road Improvement, Economic Development, and Farmland Protection Initiative (the "Initiative") approved by Board of Supervisors on August 7, 2007 and adopted by ordinance on August 17, 2007. The ordinance specifies that until the terms of the Development Agreement governing the Amended Area expire, the Initiative may be amended or repealed, to the extent permitted by law, by a majority of the voters of the County voting in an election held in accordance with state law. The terms of the Development Agreement expires twenty-five (25) years from the effective date of August 7, 2007 (*Expires: August 7, 2032*).**

The Existing Plan Area

The land use plan for the Existing Plan Area reflects both existing land use patterns and gathered information to guide future land use decisions. In formulating this plan, it was apparent that a substantial portion of the community had already developed in a way which has produced few areas of potential land use conflicts. The designations included within this plan are intended to, whenever possible, mitigate those impacts, or prevent them from occurring in the future. This will, hopefully, result in an attractive and efficient pattern of living and working areas. In the event that development is proposed within the redevelopment area of Salida, Appendix 1-3 of the Support Documentation should be consulted for development standards.

The Amendment Area

The Community Plan provides land use and development guidance for the Amendment Area that promotes harmonious integration of the Existing Plan Area with new development planned within the Amendment Area. The land uses, goals, and policies of the Community Plan promote job creation, retail opportunities, and tax generation, while providing for improved vehicular and non-vehicular circulation, expanded recreational amenities, expanded housing choice, preservation of open space, effective transitions between urban and agricultural environments, and substantial

infrastructure improvements within the Amendment Area. New development within the Amendment Area will be implemented through the Salida Community Plan Zoning District, which requires the adoption of a discretionary non-legislative Development Plan ("Development Plan") prepared according to the regulatory zoning requirements of the District.

Amendment Area Purpose

One of the primary purposes of the Amendment Area is to provide for a mix of land uses that can facilitate the Salida community's financial and fiscal self-sufficiency. Building upon this purpose, and other goals and policies, the Amendment Area strives to create local jobs and commercial opportunities with significantly improved regional vehicular circulation and infrastructure, supported by complementary and integrated housing that expands the community's range of residential offerings. Capital facility, and service needs generated by new development in the Amendment Area should be financed by new development. To allow sufficient time for proper infrastructure planning and development, no new residential units in the Amendment Area shall be occupied prior to January 1, 2010.

Land Use and Land Use Designations

Land uses shown for the Amendment Area are consistent with designations contained in the County General Plan. However, a new land use designation, Business Park, has been added for this area. The General Plan land use designations applicable within the Amendment Area include: Low-Density Residential, Medium-Density Residential, Medium High-Density Residential, Commercial, Planned Industrial, Business Park, and Agriculture. Table 1, Salida Community Plan Amendment Area Land Use Designations, shows the proposed Amendment Area land uses and their associated acreages. Refer to the Salida Community Plan map for a map of land uses within the Amendment Area. The Amendment Area represents a blueprint for the expansion of Salida and is meant to take a comprehensive view of land uses in order to prevent piecemeal planning. In order to offer a long-term planning approach, non-agricultural land use designations are applied to lands which may still be subject to Williamson Act contracts. However, the provisions of the Salida Community Plan Zoning District should require that until such time as contracts are terminated, lands encumbered by a Williamson Act contract shall remain subject to the zoning restrictions found within the County's A-2 zoning regulations.

The Board of Supervisors may, at its discretion, approve minor modifications to the boundaries and location of the land designated Low-Density Residential, Medium-Density Residential, Medium High-Density Residential, or Agriculture within the Amendment Area, and approve rezonings which implement such modifications, provided such modifications preserve the overall intent of the Community Plan and the total acreage devoted to the Low-Density, Medium-Density and Medium High-Density Residential land use designations, as set forth in Table 1, does not increase or decrease by more than ten percent (10%).

In addition, the Business Park designation, as created herein, is intended to provide land use flexibility in order to support the creation of a first-class modern business park. Therefore, the Board of Supervisors may, at its discretion, re-designate land within the Amendment Area from Planned Industrial to Business Park along with rezonings to implement said modifications without limitation. This discretion is reserved for the Board of Supervisors in acknowledgment that the market demand for Business Park uses may increase over time, thereby warranting the broader range of uses and land use configurations offered by the Business Park designation.

To effectively implement the Planned Industrial, Business Park, or Commercial Land Use designations within the Amendment Area, the Board of Supervisors may also, at its discretion, rezone land zoned as SCP-C-1, SCP-C-2, SCP-PI, or SCP-IBP, to Planned Development. The

Planned Development district as provided for in Chapter 21.40 of the County Code would allow for modification of requirements established by the SCP district and diversification in the relationship of different uses, buildings, structures, lot sizes and open spaces, while ensuring compliance with, and implementation of, the Community Plan. Such flexibility would be used to promote development of modern retail, business park and industrial park developments.

Finally, if the potential adverse environmental impacts associated with the current Planned Industrial or Business Park land use designations, as identified in an Environmental Impact Report, could be reduced or eliminated by alternative land use designations, the Board of Supervisors retains the discretion to make changes to the Planned Industrial or Business Park land uses, including conforming rezonings.

An illustrative conceptual plan for the Amendment Area is included in the Community Plan as Illustration 1 and is provided for illustrative purposes only. The precise design, location of uses, and amenities will be established by discretionary non-legislative Development Plan approval.

Table 1

SALIDA COMMUNITY PLAN AMENDMENT AREALAND USE DESIGNATIONS		
Land Use Designation	**Zoning**	**Total Acreage**
Planned Industrial	**SCP-PI**	**1,259**
Business Park	**SCP-IBP**	**490**
Commercial	**SCP-C-1 SCP-C-2**	**280**
Low-Density Residential	**SCP-R-1**	**802**
Low-Density Residential-Special Treatment Area	**SCP-R-1- ST**	**64**
Medium-Density Residential	**SCP-R-2**	**187**
Medium High-Density Residential	**SCP-R-3**	**57**
Agriculture	**SCP-A-2**	**244**
Total Acres		***3,383***

SCP Illustration 1 to be inserted

Planned Industrial. As part of an interjurisdictional effort, the County of Stanislaus and the City of Modesto developed the North Gateway Business Complex Master Development Plan in 2003. The goal of the plan is to help alleviate the existing jobs-housing imbalance in the County by promoting development of employment-generating industrial/business park uses in the area roughly bound by Ladd Road on the north, Dale Road on the east, Pelandale Expressway on the south, and Sisk Road on the west. The Planned Industrial designations shown to the east of Sisk Road within the Amendment Area are consistent with the intent of the North Gateway Business Complex Master Development Plan.

Approximately 1,259 acres of land are designated as Planned Industrial. This represents approximately 37.2 percent of the Amendment Area. The majority of these lands are located in the northeastern portion of the Amendment Area. An area designated as Planned Industrial is located in the southwestern portion of the Amendment Area on land that includes an existing industrial use. Intended uses within the Planned Industrial designation are consistent with those defined in the General Plan.

Business Park. The Community Plan includes 490 acres that are designated Business Park. This represents approximately 14.5 percent of the total Amendment Area. This use is concentrated largely in the eastern portion of the Amendment Area, but two notable areas in the northwest portion of the Amendment Area, near the Hammett Road/State Route 99 interchange, also carry this designation.

The Business Park designation is intended to accommodate development of a full range of uses, including modern, employment-intensive uses. Principal development and employment-generating uses allowed within this designation include research, product development, professional office, commercial, and business services.

Commercial. The Community Plan includes 280 acres of land designated Commercial within the Amendment Area. This represents approximately 8.3 percent of the Amendment Area. The Commercial designation applies to Regional Commercial, Neighborhood Commercial, and Highway Commercial uses as described in the General Plan. A major regional commercial area is planned in the northwest corner of the Amendment Area on the east side of State Route 99. Neighborhood-serving commercial uses are located at the southwest corner of the Covert Road/Toomes Road intersection and between Sisk Road and Stoddard Road just south of the planned expressway. New highway commercial uses are located west of State Route 99 near the Hammett Road/State Route 99 interchange.

Table 2

SALIDA AMENDMENT AREAANTICIPATED EMPLOYMENT GENERATION			
Land Use	**Acres**	**Jobs/Acre[1]**	**Total Jobs**
Business Park	**490**	**25 [2]**	**12,250**
Manufacturing/Industrial/Warehousing, etc.	**1,259**	**7**	**8,813**
Neighborhood, General, and Highway Commercial	**280**	**24**	**6,720**
Total	**2,029**	**13.7**	**27,783**

[1] **Source: Stanislaus County Economic and Workforce Alliance**

[2] **Weighted average number of jobs per acre between Business Park and High-Visibility Business Park**

Residential. The Amendment Area affords substantial opportunity for new residential development with a neighborhood orientation. The Amendment Area includes 866 acres of land designated Low-Density Residential, 187 acres designated Medium-Density Residential, and 57 acres designated Medium High-Density Residential, for a total of 1,110 acres of new residential development. Land designated for residential uses represents approximately 32.8 percent of the total Amendment Area. The new residential areas are generally located in the southwestern and northern portions of the Amendment Area.

Public facilities, parks, and schools are conditional uses within areas designated as Low-Density Residential. Accordingly, approximately 118 acres of the land designated Low-Density Residential within the Amendment Area are either occupied by existing schools or owned by a school district for which a school is planned and are therefore not expected to result in additional units beyond the 5,000 units shown in Table 3. Additionally, 64 acres of land now owned by the Salida Sanitation District on which it operates the Salida Wastewater Treatment Plant are designated Low-Density Residential. Build-out of this land with residential uses may or may not occur. If the Salida Sanitation District determines that it will continue to operate the existing plant, modify the plant, and/or expand the plant in the future to meet its needs, this could preclude build-out of all 64 acres with residential units, though some portion of the land may retain capacity for residential development. As a result, the maximum number of units and the total projected population increase shown in Table 3 could be incrementally lower.

Single-family homes at a density of up to eight dwelling units per net acre may be developed on land designated Low-Density Residential. The actual development density is likely to be about 4.5+/- dwelling units per net acre. Detached single-family homes, duplexes, and triplexes at densities of up to 14 units per net acre are permitted on land designated Medium-Density Residential. An average density of about 10+/- dwellings units per net acre is anticipated. Densities up to approximately 25 dwelling units per net acre are permitted on land designated Medium High-Density Residential. An average density of about 23+/- dwelling units per net acre is anticipated. Table 3, Projected Residential Build-Out and Population, shows that a total of approximately 5,000 new dwelling units could be accommodated within areas designated Low-, Medium- and Medium High-Density Residential use at build-out. The local population would increase by about 15,063 people with build-out of the residential designated portions of the Amendment Area. Including the population of the existing community, the projected total population within the Community Plan boundary would be 29,063 persons at build-out of the Amendment Area.

Table 3

Projected Residential Build-Out and Population

Land Use Designation	Total Gross	Average Dwelling	Total Dwelling Units	Population Accommodated
Low-Density Residential	**866**	**4.5**	**2,754**	**8,299**
Medium-Density Residential	**187**	**10.0**	**1,306**	**3,933**
Medium High-Density Residential	**57**	**23.4**	**940**	**2,831**
TOTAL	***1,110***		***5,000***	***15,063***

I. Net acreage is approximate based on an assumption that 30% of the gross acreage will be occupied by parks, roads, school sites, sidewalks, and utilities.

2. Based on average of 3.01 persons per household.

Agriculture. The County currently applies the Agriculture land use designation to areas identified as suitable for open space or recreational use. Within the Amendment Area, this designation applies solely to the proposed Stanislaus River Park, which comprises 244 acres, or approximately 7.2 percent of the Amendment Area. This designation is not intended to accommodate agricultural activities within the Community Plan boundary.

The Stanislaus County Parks Development Plan states that regional parks are an important component of the County-wide parks program. The Stanislaus County Parks Development Plan suggests that parks which preserve river and riparian areas, which are significant natural resources, should be a focus. Though the Stanislaus County Parks Development Plan states that the overall acreage of existing regional parks in the County is adequate to serve future populations, to meet the intent of the Community Plan for providing expanded recreation resources and to help preserve valuable natural resources, the Amendment Area includes an approximately 244-acre river park along the Stanislaus River. The river park comprises lands within habitat and flood easements along the river that are controlled by the U.S. Army Corps of Engineers. The river park concept is to preserve and restore natural conditions close to the river and to locate passive recreational activities such as picnicking, bird-watching, walking, jogging, bicycling, and supporting structures such as restrooms and parking facilities, etc. at distances that are progressively farther from the river. Active recreational facilities could be considered.

It is expected that developers of new projects within the Amendment Area would prepare a park plan, as part of the Development Plan process, for the river park and would fund improvements needed to implement the park plan.

Circulation

Circulation Concept. Existing and planned roadways should comprise a roadway network that serves the existing community and provides connectivity to regional transportation corridors. The existing circulation system and proposed circulation facilities and improvements should be fully integrated. Roadway segments and alignments should promote even dispersal of traffic throughout the Community Plan area. For example, industrial traffic should be routed from the eastern portion of the Amendment Area to a new expressway. Right-of-way for the Hammett Road interchange is needed to accommodate interchange improvements required to accommodate additional traffic generated by new development. A Project Study Report for the Hammett Road Interchange is currently under preparation. A Project Study Report shall be approved for the Hammett Road Interchange prior to approval of tentative maps and development permits for lands located within the interchange study area of the Project Study Report. Right-of-way for any interchange improvement is required to be protected and incorporated into any Development Plan for lands contained within the interchange study area.

The new vehicular circulation system should include a number of major improvements:

- Construction of that portion of a new expressway located within the Amendment Area to facilitate traffic flow east to west and which connects to the State Route 99 / Hammett Road interchange;

- Modification of an existing State Route 99 interchange at Hammett Road;

- Extension of Pirrone Road east from Sisk Road;

- Widening and improvement of Sisk, Stoddard, Kiernan, Dale, Toomes, Hammett, and Bacon roads;

- Facilitation of circulation to the area designated Planned Industrial that is located south of Kiernan Avenue; and

- Construction of local roadways and collectors throughout the Amendment Area to promote efficient and safe circulation.

Conceptual Roadway Classifications/Sections. New roadways within the Amendment Area must be designed to accommodate a variety of vehicle types, volumes, speeds, and safety conditions. To this end, several roadway types are proposed. These range from an expressway road classification, where the proposed right-of-way width is up to 224 feet, to a local street classification with a right-of-way width of approximately 50 feet. Several of the roadway types incorporate Class II bicycle or Class I separated dual-use pedestrian/bicycle paths to provide for non-motorized transportation connectivity throughout the Amendment Area. In most cases, the conceptual sections differ from standard road sections utilized by the County and where different, the conceptual road standards are unique to the Amendment Area. Conceptual roadway classifications and types are as follows:

- Expressway: An expressway running east to west that connects the eastern portion of the Amendment Area and the communities of Oakdale, Riverbank, Modesto, and beyond with access to the State Route 99 / Hammett Road interchange is planned. The expressway would improve access to State Route 99 from the noted communities and link new development within the Amendment Area to the highway. New development within the Amendment Area is expected to provide funding needed to construct the portion of the expressway located within the Amendment Area. Funding to construct portions of the expressway that extend east from the eastern Amendment Area boundary must be acquired and improvements constructed by other parties. The expressway could ultimately be 10 lanes wide, with a right-of-way width of approximately 224 feet. The expressway would likely be constructed in phases and widened over time to respond to demand for increased capacity, as determined by traffic studies, and available funding.

- Hammett Road: The right-of-way width for Hammett Road north of Ciccarelli Road would measure 105 feet and would include 6 travel lanes (3 in each direction). A 12-foot Class I dual-use pedestrian/bicycle trail would be located within a 50-foot landscape buffer to the east. The total separation between new development and agriculture to the west of the Amendment Area would total 155 feet, inclusive of the landscape buffer. The right-of-way width for Hammett Road from Ciccarelli Road to Bacon would measure 81 feet and include 4 travel lanes (2 in each direction). A 12-foot Class I dual-use pedestrian/bicycle trail would be located within a 50-foot landscape buffer to the east. The total separation between new development and agriculture to its west inclusive of the right-of-way width and landscape buffer would be 131 feet.

- 4-Lane Backbone Roads: The following roadways are classified as 4-Lane Backbone Roads: Dale Road, Stoddard Road, Quinturn Lane and Pirrone Road. Right-of-way width for these road segments measures 125 feet and includes either an 8-foot Class I dual-use bike trail and sidewalk or a 6-foot Class II bike lane and 5-foot separated sidewalk on each side of the street.

- Sisk Road: Sisk Road would measure 110 feet in total public right-of-way width. The current public right-of-way width for Sisk Road totals 50 feet. New development would improve 60 feet of new right-of-way width on the eastern side of the street.

- Kiernan Avenue Parkway: Kiernan Avenue west of Hwy. 99 from Hammett Road to the west property line of Salida Middle School would measure 81 feet in width and include 4 travel lanes. An 8-foot Class I dual-use bike trail and sidewalk would be located within a 31-foot landscape buffer to the south. Kiernan Avenue Parkway from the west property line of Salida Middle School to Toomes Road would measure 81 feet in width and include three travel lanes and a 5-foot separated sidewalk to the north. An 8-foot Class I dual-use pedestrian/bicycle trail would be located within a 31-foot landscape buffer.

- Bacon Road: Bacon Road right-of-way width would measure 72 feet and include four travel lanes and an 8-foot Class II dual-use bike path and sidewalk to the north.

- Arborwood Road: Arborwood Road right-of-way would measure 82 feet in width and include two travel lanes, a 5-foot Class II bike lane in each direction, and a 4-foot separated sidewalk on both sides of the street.

- Toomes, Ciccarelli, Covert, and Finney: Right-of-way for the named streets would measure 62 feet in width and include an 8-foot Class II bike lane, a 5-foot separated sidewalk on one side of the street, and an 8-foot Class I dual-use pedestrian/bicycle trail on one side of the street.

- Industrial Collectors: Right-of-way width for collector streets within land areas designated for planned industrial or business park land uses would total 80 feet and consist of 34 feet of travel lanes and a 6-foot attached sidewalk on each side of the centerline.

- Right-of-way width for local residential streets serving more than 50 homes would measure 56 feet and include a 5-foot separated sidewalk on both sides of the street. Right-of-way width for local residential streets serving fewer than 50 homes would measure 50 feet and include a 10-foot travel lane, an 8-foot parking lane, and a 4-foot attached sidewalk on each side of the street.

The Development Plans for new development shall specify the roadway classifications and standards required within each Development Plan boundary to ensure that the overall circulation network functions efficiently and effectively. Development Plans may include modifications or additions to the conceptual road standards noted above, with such modifications and additions subject to review and approval of County staff.

Neighborhood Parks and Trails

Neighborhood Parks. Neighborhood parks are intended to serve residents within one-quarter to one-half mile, be within an appropriate walking or cycling distance, and be connected by a multi-use trail system where possible. The Stanislaus County Parks Development Plan suggests that neighborhood parks be provided at a ratio of at least three acres of park land for every 1,000 people. A population increase of 15,063 people is projected should the designated Low-Density, Medium-Density, and Medium High-Density new residential areas build-out within the Amendment Area to their maximum potential. If maximum build out were achieved, 45 acres of neighborhood parks would be needed to meet County standards. Satisfaction of park provision requirements may also be met through payment of park in-lieu fees. However, given the need for local park facilities within local neighborhoods in the Amendment Area, it is anticipated that park requirements will be largely met through provision of park land. The Community Plan illustrates the general location of

potential neighborhood park sites. Where possible, neighborhood parks are placed adjacent to new or existing schools. Co-location of parks and school facilities maximizes the recreational utility of both types of facilities; a full range of complementary recreational opportunities can be provided in one location. Neighborhood park land may also be designed to serve the dual-uses of recreation and temporary storm water detention. This approach improves land use efficiency.

Trails. Community Plan policy requires that new development incorporate multi-use trails, pedestrian corridors, and bicycle facilities. Development Plans for new development must incorporate such improvements to demonstrate that new development is meeting the intent of the Community Plan that significant alternative transportation opportunities be provided to maximize community interconnectedness. Priority should be placed on linking neighborhoods with local neighborhood parks, the Stanislaus River Park, school facilities, and major employment centers. The Development Plans must include policy and guidance for the location and standards of trails, pedestrian facilities, and bicycle facilities.

A regional trail spanning the length of the Stanislaus River Park is planned and would be a valuable asset. Class I or Class II bicycle lanes should be incorporated into the design of new arterial and major collector roadways. Separated dual-use Class I pedestrian/bicycle facilities should also be considered for inclusion in the design of such roadways.

Schools

With the increase in population in the Salida community, new schools will be needed to serve new local residents. It is anticipated that up to three new elementary schools and one new middle school will be required. The Community Plan shows the general locations proposed for new elementary school and middle school sites. These schools would complement the new Joseph Gregori High School, the Modesto Christian School, and the Salida Middle School, each of which is located within the Amendment Area. Each of the new schools is planned to include active recreational playfields and other amenities that will substantially expand availability of recreation facilities within the community.

Public Utilities and Facilities

New public services and facilities will be needed to support new development within the Amendment Area and may also provide benefit to the existing Salida community. Examples of new public utilities include wastewater treatment service and water service. Facilities include sheriff or fire stations, utility substations, or other utility improvements such as water or wastewater treatment facilities. While provisions have been made for the location of such facilities within the Amendment Area, the Board of Supervisors retains discretion to allow such facilities to be located outside the Amendment Area.

Emergency Response. Emergency response and law enforcement services are provided by the Salida Fire Protection District and the Stanislaus County Sheriff's Department respectively. An additional fire station site may be needed to adequately serve emergency response needs of the community. A new fire station site has been generally designated for a location on Stoddard Road north of Pirrone Road as shown on the Community Plan. Final determination of a fire station site is within the purview of the Salida Fire Protection District and Stanislaus County.

Wastewater Treatment. The existing Salida Wastewater Treatment Plant must be expanded or upgraded and/or a new plant constructed to provide treatment capacity for new development. The existing plant site is designated for residential use, but is considered a special treatment area within which continued operation and expansion of the plant is permitted. If an additional treatment plant is needed, it could be located nearly anywhere within the Amendment Area. New wastewater treatment plants can be designed to substantially reduce the types of nuisances normally associated with more traditional facilities (i.e. odors, noise, etc.) and to be very land use efficient. A new plant with capacity to accommodate the new development could be constructed on about 8-12 acres of land. This enables flexibility in locating a new treatment facility because potential land use incompatibility concerns are substantially reduced. Given current requirements of the California Regional Water Quality Control Board, new wastewater treatment facilities must meet stringent environmental standards.

Because water is a limited resource, it is likely that a new plant (and possibly any upgrade to the existing wastewater treatment plant) would be designed to treat wastewater to a tertiary level. A significant volume of recycled water will be produced. Recycled water may be used for a variety of applications such as landscape irrigation, toilet flushing, etc. Use of recycled water would reduce demand for ground or surface water, thereby reducing the impact of new development on existing water sources.

The precise location of a new wastewater treatment facility, if one is needed, will be identified and incorporated into the Development Plan which guides development for that location. The Development Plan must address land use compatibility issues and identify measures to avoid or substantially reduce incompatibilities should incompatibilities be identified.

Water Supply. An adequate water supply must be secured and demonstrated for development in accordance with applicable law.

WESTLEY COMMUNITY PLAN

Westley could experience significant growth in the coming years. Projected population within the Community Services District by the year 2010 is 740. The sewage treatment facility can serve an approximate capacity of 1115. However, until a public water system is available, growth will be kept to a minimum. Existing Williamson Act contracts will restrict the expansion of the current district boundary.

Insert the following Community Plan Maps in this Section

1. Crows Landing
2. Del Rio
3. Denair
4. Hickman
5. Keyes
6. Knights Ferry
7. La Grange
8. Salida
9. Westley

PUBLIC FACILITIES AND SERVICES

EDUCATION FACILITIES

School facilities are provided by ~~36~~ **26** school districts in the County. For a list of the elementary, high school and special school districts along with their individual schools located within the unincorporated area of the County, see Appendix 1-4.

In addition to elementary and high school districts, Stanislaus County has a junior college district and a California State University campus. The Yosemite Community College District supports Modesto Junior College. There are two campuses comprising the college. Modesto Junior College West is located on Blue Gum Avenue and ~~the main campus is located on~~ **Modesto Junior College East, located on** College Avenue, both within the city limits of Modesto. California State University, Stanislaus is located on West Monte Vista Avenue in Turlock.

The Stanislaus County Office of Education **Department of Special Education provides a comprehensive school program for severe and low incidence handicapped students ranging from birth to 22 years of age.** ~~operates specialized schools for special education, alternative education and an outdoor education center. The John F. Kennedy Special Education Center provides a complete range of classes and services for the trainable mentally retarded, developmentally handicapped, and multi-handicapped students, aged birth to 22 years.~~ The **Department**~~center also~~ provides **a variety of education programs and services, including early intervention, K-12 classes for severely handicapped students, specialized student services, and integrated site classes.** ~~vocational training and parent counseling.~~ Alternative Education provides education for students grades 7-12 in the Modesto Community School, Turlock Community School, Juvenile Hall and through independent study programs.

~~Most school districts~~ **According to the California Department of Education Data Reporting Office, K-12 school districts experienced rapid growth in school enrollment numbers from 2001-2007. As a result, many new facilities and school sites were added to accommodate the rise in student enrollments. That enrollment growth declined in 2008 and has remained steady since. Even with stagnant enrollment numbers and reductions in funding that have occurred over the last five years, school facility expansions and upgrades are still anticipated to occur over the next 20 years.** ~~in Stanislaus County are experiencing growth and many have added new facilities, are completing construction of new facilities, or are studying the possibility of adding or replacing facilities within the next five years. Denair Unified School District continues to study the feasibility of building a new school on its property. Modesto City Schools and Turlock Unified School District have completed construction of a high school and junior high school respectively, both of which opened in the fall of 1992. Empire Union and Sylvan Union School Districts have begun construction of new elementary schools, Modesto City Schools opened Hanshaw Middle School in 1991, and the Stanislaus County Office of Education opened the John B. Allard Alternative Education Center in Turlock in 1992. In addition, many districts such as La Grange, Denair, Empire and Hughson High School District have accommodated growth by remodeling, renovating and/or adding relocatable units.~~

~~To help finance new school facilities needed to accommodate a growing population, state law allows school districts to levy development fees directly on new residential, commercial and industrial development (Government Code Section 65995). School districts may also acquire funds to provide school facilities in specific areas through a variety of other sources including mitigation~~

~~fees, the state building program, creation of Mello-Roos Community Facilities Districts, and issue of local general obligation bonds.~~

California state law requires that the Land Use Element of the General Plan address criteria for locating various land uses, including school facilities. Stanislaus County has chosen to meet these requirements through the use permit process. Virtually all ~~of the~~ County zoning designations, including residential and agricultural zones, allow**s** schools. This method requires a public hearing to be conducted prior to approval unless the school district chooses to ignore these regulations. According to state law, the school district may vote (2/3 vote required) to ignore County zoning regulations (Government Code Section 53094). This procedure is routinely used by districts in this County, with the result that public schools are rarely, if ever, actually subject to the use permit process.

Although school districts usually choose to operate independently of local governmental land use regulations, proposed school sites must be referred to local agencies for comment. In evaluating sites for the location of schools, the County shall consider factors including, but not necessarily limited to, the following:

a. **Surrounding land uses (both existing and planned).** Existing and future land uses should be consistent with the proposed school facility. Schools shall be located in areas convenient to the people to be served.

b. **Traffic impacts and public road access.** Proposed school facilities shall not cause significant impacts that cannot be mitigated. School facilities shall be located on collector streets and should not be located on major streets.

c. **Public safety.** Proposed school facilities shall be located to provide the maximum degree of public safety. They should not be located adjacent to high traffic generating activities.

d. **Parcel size.** School facilities should be located in areas which are of diminished agricultural importance due to small parcel sizes unless location in other areas is necessary in order to most efficiently serve the public. The typical parcel size for school sites is approximately 10 acres for elementary schools and 40 acres for high schools.

e. **Impacts on agriculture.** School facilities shall be located to avoid impacts on adjoining agricultural uses. For the most parts they should be located within cities or in the Urban Transition area that a city will someday annex.

f. **Noise, dust, and vibration.** The proposed school facility shall not cause an unreasonable amount of noise or dust and should not be located in areas where it would be impacted by the same.

g. Proximity to an existing or proposed runway. A proposed school site shall be evaluated by the Caltrans Division of Aeronautics if it is within 2 nautical miles of an existing or proposed runway that is identified in an adopted Airport Layout Plan.

PUBLIC BUILDINGS AND GROUNDS

With the exception of schools as discussed in the preceding section, most public buildings (such as the courthouse, County administration building, city halls, etc.) are located within the limits of

incorporated cities. ~~However, the County's public safety center and social services complex (County Center VI) are located in an unincorporated area near Ceres~~. ~~In addition~~ **However**, there is much public land in the unincorporated part of the County. Most of this land is used for parks or preserved as open space. The locations of these lands can be found on Map 3-12 of the Conservation/Open Space Element. **Lands owned by the United States Government and State of California are used as open space (both existing and future parks) and, in the case of the State, as right-of-way reserved for future construction or expansion of roads.**

~~This map also indicates lands owned by the United States Government which are used as open space. In addition to land used for open space, the United States Government owns the Crows Landing Naval Air Station near the town of Crows Landing. (This facility became a NASA facility in mid-1993, when the Navy abandoned it.) Land owned by the State of California is used largely for open space (both existing and future parks) and as right-of-way reserved for the future construction or expansion of roads.~~

In addition to identifying existing public buildings and grounds, the Land Use Element is required to designate "the proposed general distribution and general location and extent of the uses of land for . . . public buildings and grounds . . . ." Stanislaus County has chosen to permit public buildings and grounds in virtually all of the various zoning districts. Generally, a use permit is required, which allows public review of the request and allows Planning Commission review to ensure suitable locations. This method recognizes the diversity of the areas the plan covers, ranging from residential and commercial neighborhoods to farm and industrial lands. It also recognizes that such facilities could include a variety of uses such as hospitals, office buildings, fire stations, and airports. The permit process allows specific review of the relationships between the proposed uses and those that surround them either currently or in the future. It also allows the County to review the project as it relates to the objectives of this plan. Sites identified on city general plans as being appropriate for public facilities, when within ~~Urban Transition~~ **a LAFCO adopted Sphere of Influence**, shall be considered consistent with this plan. In some instances, the state or federal law preempts local control and requirements. Therefore, review is only effective when the agency cooperates.

In evaluating the consistency of a public facility, the County shall consider factors including, but not necessarily limited to, the following:

a. **Surrounding land uses (both existing and planned).** Existing and future land uses should be consistent with the proposed public facility. The facility shall be located in an area that is convenient to the users of the facility.

b. **Traffic impacts and public road access.** The proposed facility shall not cause significant traffic impacts that cannot be mitigated. In the case of public facilities for open space (wildlife areas, etc.), it is important that traffic not be allowed to impact the open space area.

c. **Noise, dust and vibration.** The proposed facility shall not cause an unreasonable amount of noise, dust or vibration and should not be located in areas where it would be impacted by the same.

d. **Public safety.** Proposed public facilities shall be located to provide the maximum degree of public safety.

e. **Soil types.** Public facilities shall be located as much as possible on poorer soils unless such location is clearly not practical.

f. **Parcel size.** Public facilities should be located in areas which are of diminished agricultural importance due to small parcel sizes unless location in another area is necessary due to specialized requirements of the facility.

g. **Impacts on agriculture.** Facilities shall be located to avoid impacts on adjoining agricultural uses.

LIQUID AND SOLID WASTE DISPOSAL FACILITIES

Solid Waste. With the passage of the California Integrated Waste Management Act of 1989 (AB 939), all counties and cities are mandated to provide fully integrated systems to deal with their solid waste. The law requires all communities to reduce the amount of solid waste that goes to disposal by 25% by 1995. That mandate increases to 50% reduction in the year 2000. The County is required to produce a comprehensive planning and implementation document, the Countywide Integrated Waste Management Plan (CIWMP), to guide the County and the incorporated cities in every detail of their solid waste management activities.

The CIWMP provide**d** direction and establishe~~s~~**d** goals so the entire community will be assured adequate, long-term disposal capacity. **Related to AB 939, annual reports on the County-wide solid waste activities are provided to the State.** ~~The law requires local jurisdictions to prioritize their waste management systems by utilizing the following hierarchy:~~

SOURCE REDUCTION

RECYCLING AND COMPOSTING

ENVIRONMENTALLY SAFE TRANSFORMATION AND LANDFILLING

To enable the County to meet state mandates, the community must have systems and facilities that are not only used for disposal, but also are capable of diverting significant portions of our waste from either landfilling or transformation (waste-to-energy).

Current status: The ~~eight~~ **eleven** permitted solid waste facilities in Stanislaus County are described below.

Fink Road Landfill – **Located at 4040 Fink Road., on the west side of I-5, south of the City of Patterson, in the southwest corner of the County.** Owned and operated by Stanislaus County, this facility has a Class III fill operation for general refuse and a Class II monofill used exclusively for ash residual from the waste-to-energy facility.

Geer Road Landfill – **Located on the west side of Geer Road., on the north side of the Tuolumne River, north of the City of Hughson.** This facility is ~~not actively~~ **no longer** receiving waste and is going through extensive state-mandated ~~closure and~~ post-closure activities. The facility is owned by Stanislaus County and the City of Modesto; Stanislaus County is performing the closure activities.

Bonzi Landfill – **Located at 2650 W. Hatch Road., west of Carpenter Rd., just west of the City of Modesto.** This facility**, although presently inactive, was considered to be** a Class III landfill ~~that is currently~~ permitted to receive specified inert **and industrial** wastes. Owned and operated by a private company.

Stanislaus Resource Recovery Facility – **Located on Fink Road., adjacent to the Fink Road Landfill, on the west side of I-5, south of the City of Patterson, in the southwest corner of the County.** This is an 800-ton-per-day, mass-burn, waste-to-energy facility. Electricity is generated and sold to a public utility ~~to offset the cost of the plant construction, operation and maintenance~~. Owned and operated by a private company.

~~Modesto Disposal Service Transfer Station/Resource Recovery Facility~~ **Waste Management, Inc. Transfer Station – Located at 2769 W. Hatch Road., west of Carpenter Road, west of the City of Modesto.** ~~This is a~~ **A** large- volume transfer station permitted to receive general waste and recyclables from residential, commercial and industrial sources. Owned and operated by a private company**, however it is currently inactive**.

Turlock Transfer – **Located at 1100 South Walnut Road, inside the City of Turlock, on the west side of State Highway 99.** Large-volume transfer station permitted to receive general waste and recyclables from residential, commercial and industrial sources. Owned and operated by a private company. ~~The only facility that is inside an incorporated city (Turlock).~~

Bertolotti Transfer and Recycling Center – **Located at 231 Flamingo Drive, on the northeast corner of Crows Landing and E. Whitmore Roads, in the Modesto area.** Large-volume transfer station permitted to receive general waste and recyclables from residential, commercial and industrial sources. Owned and operated by a private company.

Gilton Resource Recovery/Transfer Facility – **Located at 800 S. Mc Clure Road, in the Beard industrial area, south of the City of Modesto and north of the City of Ceres.** Owned and operated by a private company, this large-volume transfer station is permitted to receive general waste and recyclables from residential, commercial and industrial sources.

Recology Grover Environmental Products – Located 6131 Hammett Road, in the Salida Community Area, west of State Highway 99. Owned and operated by a private company. This Composting facility is permitted to receive green waste.

Recology Grover Environmental Products – Located at 3909 Gaffery Road, in the northwest side of the County, east of Interstate 5. Owned and operated by a private company. This Composting facility is permitted to receive mixed greenwaste.

City of Modesto Co-Compost Project – Located at 7001 Jennings Road on the northeast side of the City of Patterson. Owned and operated by the City of Modesto. The co-composting facility is permitted to compost food waste, green materials and biosolids.

A majority of the collection and removal of garbage and refuse in the County is performed by franchised and permitted waste haulers. Private individuals can use any of the facilities except the Geer Road Landfill, which is closed, and the waste-to-energy facility, which restricts access to non-permitted haulers.

Recovery of recyclable and reusable materials takes place at each of the transfer stations. In addition, all of the franchised refuse haulers in the County operate systems for the curbside collection of recyclables on their residential routes.

Future perspective: Stanislaus County will continue to take a very active role in all aspects of solid waste management. Medium- and long-range plans will incorporate both future landfill capacity and diversion facilities. Projects like composting operations and material recovery facilities need to be planned for and encouraged. Facilities and projects that deal with the diversion of special wastes (food processing residue, demolition/construction waste, inert wastes, tires, de-watered sewage sludge and household hazardous wastes) should be allowed to continue and expand as justifiable.

It is imperative that both existing and potential disposal and diversion facilities are protected, thereby assuring proper opportunities for their continued use, expansion or development. The County will ensure that no new uses that conflict with solid waste facilities are permitted next to, or near, such sites.
Responsible Departments: Environmental Resources, Board of Supervisors

Liquid Waste. Liquid waste facilities (sewer plants) are located throughout the County. Each of the incorporated cities has its own facilities as do the unincorporated communities of Grayson and Salida. The Stanislaus County Housing Authority owns the system which serves Westley. The

towns of Keyes and Denair use Turlock's facilities and Empire uses Modesto's. Nearly all of the cities facilities are within the limits which they serve (six of nine) although all but one of these facilities is surrounded on at least three sides by County land (See Appendix I-6). Riverbank's plant is in San Joaquin County. Modesto's plant is partly inside the city and partly outside. Only Waterford's facilities are located totally in the County. In addition to incorporated towns, the systems which serve Grayson, Salida, and Westley are located in the County.

Liquid waste facilities are permitted only in the A-2 (General Agriculture), PD (Planned Development) and M (Industrial) zoning districts. In all three districts, public hearings are required in order to approve the project, thereby assuring proper opportunities for complete review.
Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

AREAS SUBJECT TO FLOODING

There are a number of areas within Stanislaus County which are subject to periodic flooding. They are located along the natural watercourses. These include the County's three major rivers: the Stanislaus, the Tuolumne and the San Joaquin. Several creeks are subject to flooding as well: Salado, Del Puerto and Orestimba west of the San Joaquin River; and Dry Creek, Little John Creek, and Sand Creek on the east side of the County. The Farmington Flood Control Basin located on Little John Creek in the northeasterly part of Stanislaus County floods periodically in order to protect lands downstream. In addition, all of the creeks flowing out of the Diablo Mountains should be considered potentially flood prone.

The County has recognized the need to plan and protect its residents as much as possible from flooding hazards. ~~It has adopted a~~ **The County adopted its** Flood Damage ~~Protection~~ **Prevention** Ordinance **in 1996.** It makes reference to the flood hazard areas which have been identified by the Federal Insurance Administration **(FIA) of the Federal Emergency Management Agency (FEMA)**. The County has adopted that agency's Flood Insurance Rate Maps (FIRM**s**)**, Flood Boundary and Floodway Maps (FBFMs)** and has adopted specific regulations pertaining to building activities within those areas. Detailed maps are available in the County ~~Department of Public Works, Building Inspection Division~~ **Department of Planning and Community Development, Building Permits Division**. The subject of flooding is discussed extensively in the Safety Element.

Responsible Departments: Public Works, ~~Building Inspections~~ Planning Department-Building Permits Division

LAND USE ELEMENT

All appendices to be updated to include relevant documents & updated information during environmental phase.

APPENDICES

Insert the following Appendices:

1. Appendix I-1 - Planning Commission Resolution No. 87-1
2. Appendix I-2 - Planning Commission Resolution No. 87-2
3. Appendix I-3 - Planning Commission Resolution No. 87-3
4. Appendix I-4 - School Districts in Stanislaus County
5. Appendix I-5 - Legal Authority for Adoption of Improvement Assessments
6. Appendix I-6 - Municipal Sewer Plants Map

Chapter 2

CIRCULATION ELEMENT

An efficient, integrated transportation system is essential to maintaining the quality of life and facilitating the economic growth of the County of Stanislaus. Over the past few decades, the County has been able to sustain its growth without extensive expansion of County roads and State Highways because sufficient capacity has been available on the existing system to absorb the traffic generated by new growth. However, over the past few years, the rate of traffic growth in the County has started to exceed the available transportation system capacity in some areas of the County, particularly in and around the more urbanized areas. In addition, **approximately** ~~roughly~~ one-fifth of the workers living in Stanislaus County commute to jobs outside the county each day placing greater demand on freeways, county roads and bridges that provide access to adjacent counties.

~~Since 1970~~**From 1990 to 2000**, ~~the annual rate of growth of the total population of~~ Stanislaus County **saw substantial population growth, increasing 20.6 percent from 370,522 to 446,997. From 2000 to 2010 that population growth rate slowed significantly, increasing only 15.1 percent from 446,997 to 514,453** ~~has ranged from 2.2% to 4.4%~~ **(*U.S. Census Bureau*** ~~*StanCOG spreadsheet, 2014*~~ ***04***). Although some growth has been in unincorporated towns, most of this growth has occurred within the incorporated cities of Stanislaus County. Consequently, the County must plan for new urban and rural roads to be built as part of development proposals and expansion of existing roads to connect major traffic generators (i.e., incorporated cities). These roads will facilitate inter-city traffic movement between the cities and between neighboring counties.

Goods movement will also increase with an expanded population and economic base. The large urbanized areas require millions of tons of goods each year to maintain their economic activities. Transport of agricultural commodities has long been an important function in the Stanislaus County area. Stanislaus County is an important food processing region for the State, nation and the world. Poultry, dairy, **tree nuts** and vegetable products are processed and distributed throughout the world from here every day. Goods movement is the result of production activities within and outside of the region, ~~and~~ **where** movement takes place within a complex system of routes, modes, terminals, and warehouse facilities.

Stanislaus County is principally an agricultural region which produces and specializes in a number of products. Nearly 80% of the County's land is devoted to agricultural production, compared to 25% in the State as a whole (*California Department of Conservation, 2002; Department of Finance*). However, in the case of Stanislaus County, when raw materials are bulky, perishable, and of relatively low value, it is natural that processing will occur nearest to the place where the raw material is produced, not only to reduce the bulk, but to raise the value in order to be able to sustain transportation costs. With agricultural processing occurring throughout the County, in many of its towns and in the cities, transportation and circulation are key factors in determining the health of the County's economy.

The State has also recognized the importance of the agricultural goods movement in Central Valley areas such as Stanislaus County. The State's Goods Movement Action Plan identifies four high priority gateway regions in California that are necessary to support the continued growth of the California economy. The Central Valley region, which includes **Major International Trade Routes** Route 99**,** ~~and~~ Interstate 5**, and the Union Pacific Railroad**, and other important east-west corridors that traverse Stanislaus County, is one of these high priority regions. Traffic congestion and operational conflicts between trucks and passenger vehicles have been identified as key issues that need to be addressed to maintain an efficient goods movement network in the Central Valley.

Agriculture and manufacturing depend on an efficient, rapid, and economical transportation system to move supplies and final products. Continued allocation, improvement, and maintenance programs will ensure a circulation system vital to the County's economy.

PURPOSE

The Circulation Element of the General Plan identifies goals, policies and implementation measures that ensure compatibility between land use, infrastructure and transportation modes. The information gathered that gives rise to this element is provided in Chapter 2 of the "Stanislaus County General Plan - Support Documentation."

The Circulation Element of the County General Plan depicts corridors for public mobility and access which are planned to meet the needs of the existing and anticipated population of Stanislaus County. The adoption of this Circulation Element by the Board of Supervisors of Stanislaus County complies with California Government Code Section 65302(b), which requires each county and city to prepare, as part of their general plan, a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan.

The Stanislaus County Circulation Element serves to: (1) provide a system of roads throughout the County which reflects land use needs; and (2) support a broad range of transportation modes. Development of these facilities is based on the needs generated by future land use and represents the anticipated needs of each area when fully developed to the uses and densities proposed by the General Plan. Increased demand for circulation facilities is based on the need of an increased number of people to move about and the increased need to move goods from place to place.

Stanislaus County maintains more than 1,500 miles of roadways within the unincorporated area (*Stanislaus County Public Works **– Annual Report**, ~~2004~~ **2013***). These roads provide access to individual parcels and serve as major corridors between urban areas. The mobility of those without automobiles is effectively restrained and, as the population grows**;** ~~,~~ increased traffic could adversely affect air quality. The lower the residential density, the less likely that public transit systems can be supported. This element recognizes that the auto is and will be in the future the overwhelming transportation choice for most of the populace. This element also incorporates strategies intended to encourage land uses that support public transit and other transportation modes that will contribute to improved air quality in the future.

CONSISTENCY WITH THE REGIONAL TRANSPORTATION PLANS AND LOCAL GENERAL PLANS

Efficient transportation systems cannot be created without forging effective linkages between the internal transportation network (which is the responsibility of the County and the cities) and the external transportation network (which is the responsibility of other local, State and federal entities). By incorporating policies, standards, and implementation measures to ensure consistency with the external systems, the County can play an important role in building a regional transportation system that provides seamless integration between internal and external systems thereby facilitating the movement of both people and goods. This element incorporates recommendations from each of the cities' general plans, the Caltrans Transportation Corridor Reports, and the Regional Transportation Plan developed by the Stanislaus Council of Governments (StanCOG) to develop the specific recommendations contained in this chapter. The final recommendations of this chapter have been extensively reviewed by each jurisdiction, Caltrans, and StanCOG for consistency and compatibility.

LEVEL OF SERVICE

Level of service (LOS) is a standard measure of traffic service along a roadway or at an intersection **for vehicles**. It ranges from A to F, with LOS A being best and LOS F being worst. ~~Figure 2-1 provides illustrations of Level of Service conditions for two types of roadway situations commonly found in Stanislaus County (i.e., two-lane highways and unsignalized intersections at four-way stops).~~ In very general terms, LOS A, B and C indicate conditions where traffic can move relatively freely. LOS D describes conditions where delay is more noticeable and average travel speeds are more unstable. LOS E indicates significant delays and average travel speeds vary greatly and are unpredictable; traffic volumes are generally at or close to capacity. Finally, LOS F characterizes traffic flow at very slow speeds (stop-and-go) and significant delays with queuing at ~~unsignalized~~ intersections; in effect, traffic demand on the roadway exceeds the roadway's capacity. As a matter of policy, Stanislaus County strives to maintain LOS ~~C~~ **D** or better **for motorized vehicles** on all roadway~~s~~ **segments and a LOS of C or better for motorized vehicles at all roadway intersections**. When measuring levels of service, Stanislaus County uses the criteria established in the Highway Capacity Manual published and updated by the Transportation Research Board.

TRAFFIC ANALYSIS

Consultant to confirm and update as needed as part of the environmental.

To confirm the need for transportation improvements identified in the Circulation Element, a forecast of traffic volumes and Level of Service is prepared based upon the level of growth anticipated by the year ~~2030~~ 2035, the planning horizon for the General Plan. The forecast is based on the latest population, housing and employment projections prepared by StanCOG, the agency designated by the State to prepare these forecasts. These forecasts were adjusted to reflect additional growth anticipated by the cities or the County since the adoption of the StanCOG forecast. The traffic study is provided in Chapter 2 of the "Stanislaus County General Plan - Support Documentation" and its recommendations have been incorporated into this element.

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Figure 2-1 Level of Service

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LEVELS OF SERVICE
for Two-Lane Highways

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		55+	Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. **No delays**
B		50	Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. **No delays**
C		45	Stable traffic flow, but less freedom to select speed, change lanes or pass. **Minimal delays**
D		40	Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. **Minimal delays**
E		35	Unstable traffic flow. Speeds change quickly and maneuverability is low. **Significant delays**
F			Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. **Considerable delays**

Source: 2000 HCM, Exhibit 20-2, LOS Criteria for Two-Lane Highways in Class 1

LEVELS OF SERVICE
Unsignalized Intersections
Four Way Stop

Level of Service	Flow Conditions	Delay per Vehicle (seconds)	Technical Descriptions
A		<10	**Very short delays**
B		10-15	**Short delays**
C		16-25	**Minimal delays**
D		26-35	**Minimal delays**
E		36-50	**Significant delays**
F		>50	**Considerable delays**

Source: 2000 HCM, Exhibit 17-22, Level of Service Criteria for AWSC Intersections

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STREETS AND ROADS

Road Classifications

A hierarchy of adequately sized roads will be required to provide access to facilitate the movement of people and goods throughout the County, provide access to future development within the unincorporated area and between cities, and maintain acceptable levels of service. The General Plan Circulation Diagram depicted in Figure **TBD** ~~2-2~~ identifies the functional classification of key routes and distinguishes between existing and proposed future roads. The classifications**,** as well as their required design and access standards**,** are defined in the following index of road classifications (State Highways, and special circumstances and exceptions to these standards are noted in *italics*):

A. **Interstate** Freeway. The function of a**n Interstate** Freeway is to provide for the safe and efficient movement of large volumes of interregional, inter-city, and urban traffic at high-speeds. **Interstate** Freeways have no direct land service function. Access is restricted to roads via interchanges, and typically to Expressways and Majors **at minimum of 2-mile spacing along the mainline**. ~~Parking is not permitted on freeways.~~ **Interstate** Freeways in Stanislaus County are ~~typically~~ planned, constructed, and operated by Caltrans **and legislatively defined by the United States Congress under the Dwight D. Eisenhower National System of Interstate and Defense Highways**. **Parking, pedestrians, non-motorized vehicles and farm machinery are not allowed on these types of highways.**

*Interstate 5 ~~and State Route 99 are~~ **is** the only **Interstate** Freeway~~s~~ that **traverses** Stanislaus County~~. Caltrans has prepared a feasibility study to expand State Route 99 to eight lanes through the county. Right-of-way and building setback requirements for these facilities are determined by Caltrans.~~*

B. Freeways and Expressway**s.**

Designed exclusively for high-speed and unhindered vehicular traffic, with no traffic signals, intersections, or property access, these highways are free of any at-grade crossings with other roads or railroads, which instead use overpasses and underpasses to cross the highway. Entrance and exit to the highway is provided by ramps at interchanges. Opposing directions of travel are usually (but not always) separated by a median or some sort of traffic barrier. Generally, pedestrians, non-motorized vehicles and farm machinery are not allowed on these types of highways, although some exceptions do exist in certain areas.

SR-99, North County Corridor and SR-132 are the only example of this highway type in Stanislaus County. Caltrans has prepared a feasibility study to expand State Route 99 to eight lanes through the County. Right-of-way and building setback requirements for these facilities are determined by Caltrans. North County Corridor, running from Highway 99 north of Modesto to Highway 120 east of Oakdale, and ~~Proposed~~ the realignment of State Route 132, from Highway 99 to Dakota Avenue, are planned to be Expressways.

C.~~B~~ **Principal Arterials (Rural and Urban).** The function of a~~n Expressway~~ **Principal Arterial** is to move high volumes of people and goods between urban areas within the

county at higher speeds**, while still providing access to abutting properties as permitted by the standards for each Principal Arterial class**. ~~depending upon the level of access control~~. ~~Direct access to abutting property is specified within the standard for each expressway class.~~ ~~Expressways~~ **Principal Arterials** serve a similar function to that of Freeways **and Expressways (**the fast and safe movement of people and goods within the county**)** and provide access to the interregional freeway system. On-street parking is not permitted on ~~Expressways~~ **Principal Arterials** ~~except under very special and rare circumstances where the Department of Public Works has determined that traffic flow and safety conditions allow on-street parking~~. The design features of ~~Expressways~~ **Principal Arterials** are determined by the level of access control and the number of lanes designated for each ~~Expressways~~ **Principal Arterial** route segment (see Figure ~~2-3~~ **TBD**)**. Pedestrian and bicycle facilities may be provided on these types of roadways. Farm machinery is permitted on these types of highways. The number of lanes that are required will be determined at project build time for the 20-year design life as required in the most current Public Works Standards and Specifications. The access restrictions of Principal Arterials are defined as**:

~~(1) A "Class A" Expressway is a fully access-controlled road with grade separated interchanges at intervals of approximately one mile at other Expressway, Major, or Local roads. The typical right-of-way is 110 or 135 feet (4 or 6 lanes, respectively).~~

~~*State Route 120 (Oakdale Bypass from Valley Home Rd. to its eastern junction at State Route 108) is planned to be a Class A Expressway within the right-of-way planned and approved by Caltrans.*~~

(1)~~(2) A "Class B" Expressway is a~~ **P**~~p~~artially access-controlled **Principal Arterial** road**s (formerly identified as "Class B" Expressway)** ~~with~~ **are** traffic-controlled intersections at **Principal and Minor Arterials** ~~Major roads and other Expressways~~. Collectors and Locals are permitted right-in, right-out access only at 1/4- to 1/2-mile intervals. The typical right-of-way is 110 or 135 feet (4 or 6 lanes, respectively). ~~On limited rights-of-way, Class B Expressways may be 100 feet for four lanes and 124 for six lanes.~~

~~*State Route 219 (Kiernan Avenue between State Route 99 and State Route 108 (McHenry Blvd.) is planned to be a Class B Expressway. Caltrans has adopted an Official Plan Line for construction of the ultimate 6-lane facility.*~~

~~*State Route 132 from State Route 99 west to the San Joaquin County line is planned to be constructed along a new alignment as a Class B Expressway unless otherwise determined by Caltrans. Caltrans has adopted Project Study Reports for construction of the interim facilities.*~~

(2)~~(3) A "Class C" Expressway is a~~ **L**~~l~~imited access-controlled **Principal Arterial** road**s (formerly identified as a "Class C" Expressway)** ~~with~~ **are** traffic-controlled intersections at ~~Majors and other~~ Expressways **and Principal or Minor Arterials**. Intersections at Collectors and Locals may or may not be controlled by a traffic signal. The typical right-of-way is 110 or 135 feet (4 or 6 lanes, respectively). ~~On limited rights-of-way, Class C Expressways may be 100 feet for four lanes and 124 for six lanes.~~

Some State Highways that lie in the unincorporated area outside the spheres of influence of the cities and the community of La Grange (State Routes 4, 33, 120 ~~except the Oakdale Bypass,~~ and 132 along its existing Maze Blvd. alignment and east of Modesto) are planned to be ***Limited Access Principal Arterials*** *~~Class C Expressways~~, unless otherwise determined by Caltrans.*

Santa Fe Avenue, outside of the communities of Empire and Denair, and the City of Hughson, is planned to be a~~n~~ 4-lane ***Limited Access Principal Arterials*** *~~Class C Expressway~~ within an 85-foot right-of-way measured from the railroad right-of-way.*

Hatch Road from Mitchell Road to Geer Road is planned to be a 4-lane Limited Access Principal Arterial within a 100-foot limited right of way due to the Ceres Main Canal restrictions.

D~~C~~. **Minor Arterial (Rural & Urban)** ~~Major~~. The function of a ~~Major road~~ **Minor Arterial** is to carry moderate- to high-volume traffic to and from collectors to other ~~Majors~~ **Minor Arterials**, **Principal Arterials,** Expressways, and Freeways with a secondary function of land access. ~~Majors~~ **Minor Arterials** located within areas zoned for heavy or light industrial or that are expected to carry large or heavy trucks shall be constructed to Industrial Major **Collector** standards. Limited direct access is provided to abutting property. On-street parking will be permitted only where the Department of Public Works has determined that traffic flow and safety conditions allow on-street parking. **Pedestrian and bicycle facilities may be provided on these types of roadways. Farm machinery is permitted on these types of highways.** The typical right-of-way **for a Minor Arterials** is 110 feet (up to 6 lanes, ultimately). **However, there are different design standards associated with the Urban and a Rural Minor Arterial classifications.** ~~On limited rights-of-way, Majors may be 100 feet.~~

State Route~~s~~ ~~108 and~~ 165 from State Route 99 to the Merced County line ***is*** *~~are~~ planned to be* ***a Minor Arterial*** *~~Majors and State Route 33 within the cities of Patterson and Newman is planned to be an 80-foot Major~~,* ***unless otherwise determined by Caltrans.***

State Route 33 within the cities of Patterson and Newman is planned to be an 80-foot Minor Arterial, unless otherwise determined by Caltrans.

Santa Fe Avenue, within the communities of Empire and Denair, and within the City of Hughson, is planned to be an 85-foot ***Minor Arterial*** *~~Major~~ measured from the railroad right-of-way*.

E~~D~~. **Major** Collector **(Rural, Urban & Industrial). Major** Collectors serve a dual function by providing ~~both~~ access to abutting property and movement of moderate volumes of people and goods for medium length trips **in rural, urban, and industrial zones**. **Major** Collectors serve as transition facilities, carrying traffic from lower to higher level roads. Most **Major** Collectors are two-lane roads ~~with a typical right-of-way of 60 feet.~~ **, but may be up to four-lane facilities where traffic dictates it to be necessary.** On-street parking will be permitted only where the Department of Public Works has determined that traffic flow and safety conditions allow on-street parking. **Pedestrian and bicycle facilities may be provided on these types of roadways. Farm machinery is permitted on these types of highways.**

~~In urban residential subdivisions, roads not shown on the General Plan Circulation Diagram or as an Official Plan Line that will serve more than 50 dwelling units, when the maximum density and full extent of the development is considered, shall be deemed Collectors.~~

The typical right-of-way for an Urban and Rural Major Collectors is 80 feet (up to 4 lanes, ultimately). However, there are different design standards associated with the Urban and a Rural Major Collector classifications.

Within industrial zones, a 110-foot right-of-way shall be the standard for the Major Collectors. The Industrial Major Collectors serve as transition facilities carrying traffic from lower to higher level roads.

~~In some instances, the Department of Public Works may determine that project design features dictate that a road serving as few as 20 urban dwelling units be deemed a Collector. Under certain circumstances, 80 feet of right-of-way may be required to provide additional capacity to provide two additional through lanes to accommodate projected traffic demand, to facilitate the movement of large trucks, or to improve safety due to limited visibility or other safety hazards. Table 2-1 lists the 80-foot Collectors.~~

F~~E~~. **Minor Collector (Rural, Urban, & Industrial). Minor Collectors serve a dual function by providing access to abutting properties and movement of light to moderate volumes of people and goods for medium length trips. Pedestrian and bicycle facilities may be provided on these types of roadways. Farm machinery is permitted on these types of highways.**

The typical right-of-way for Urban and Rural Minor Collectors is 60 feet (2 lanes). However, there are different design standards associated with the Urban and a Rural Minor Collector classifications.

In industrial zones, a 70-ft right-of-way is required to allow for the movement of goods while still providing local access to abutting properties. This is the minimum size for roads located within unincorporated County industrial zones.

G~~E~~. **Rural** Local. **Rural** Local roads serve as land access facilities in the agricultural areas of the County by providing ~~both~~ direct access to abutting property and movement of small volumes of people and goods for medium length trips. **Rural** Local **roads** are two-lane roads with a typical right-of-way of 60 feet ~~to~~ **that** safely accommodate**s** drainage, utilities, and other physical improvements that may be located within the public right-of-way. In agricultural areas of the county, roads not shown on the General Plan Circulation Diagram or as an Official Plan Line shall be considered **Rural** Local. This classification also includes cul-de-sac and dead-end roads in agricultural areas of the county. **Pedestrian and bicycle facilities may be provided on these types of roadways. Farm machinery is permitted on these types of highways.**

The typical right-of-way for Rural Local Roads is 60 feet (2 lanes).

H~~F~~. ~~Minor~~ **Urban Local.** ~~Minor~~ **Urban Local** roads serve as land access facilities in the urban and industrial areas of the County by providing ~~both~~ **direct** access to abutting property and movement of small volumes of people and goods for short trips.

In urban subdivisions, roads not shown on the General Plan Circulation Diagram or as an Official Plan Line, ~~which will serve no more than 50 dwelling units, when the neighborhood is fully developed,~~ shall be deemed ~~Minors~~ **Urban Local roads** unless otherwise designated by the Department of Public Works. ~~Minors~~ **Urban Local** roads are two-lane roads ~~with a typical right-of-way of 50 feet. Minors located~~ within areas zoned for heavy or light industrial or which are expected to carry large or heavy trucks shall be constructed to ~~Industrial~~ Minor **Collector** standards with a typical right-of-way of 70 feet. This classification also includes cul-de-sac and dead-end roads in urban and industrial areas of the County. **Pedestrian and bicycle facilities may be provided on these types of roadways. Farm machinery is permitted on these types of highways.**

The typical right-of-way for Urban Local Roads is 50 feet (2 lanes).

~~I~~C. Private. Private roads serve as land access facilities and are not maintained by the County. Two types of Private roads are permitted in the County. These roads are generally not shown on the General Plan Circulation Diagram.

Agricultural access easements, providing access to parcels 20 acres or more, are included primarily to conform to state-mandated standards for private access roads in the State Responsibility Area as designated by the California Department of Forestry and Fire Protection. New roads under this category shall not exceed a 12% slope nor be less than 30 feet in width.

Private roads may also be approved by the Planning Commission or Board of Supervisors as an exception to the Subdivision Ordinance to provide access to parcels in an urban or planned development when it is determined that such a request serves a public purpose and that future divisions of land requiring road access to or through the development would not occur due to topographic features, physical barriers, existing development, and other physical constraints of the development and the adjacent lands. If approved, these roads shall be constructed to the same standards as County-maintained roads or other standard approved by the Department of Public Works.

Other Requirements

Within the Spheres of Influence of any city, roadway improvements, dedications, building setbacks, and road reservations shall meet the development standards of the city consistent with the Spheres of Influence Policy in the Land Use Element of the General Plan, except in those areas subject to an individual city/county agreement. These requirements may change from time-to-time through the adoption or revision of local land use plans or standards. To ensure consistency with a city's development standards, additional right-of-way may be required for each of the roadway classifications described above. Where design and access requirements of a city differ from those established by the County, development shall be required to meet the standards of the city. The County will consult with the city prior to the construction of transportation improvements within its sphere of influence to ensure consistency with the standards of that city.

Dedication Requirements

When land is subdivided or otherwise divided into smaller parcels in Stanislaus County, or when buildings are constructed, existing zoning and subdivision regulations provide for the dedication of land for eventual public road use within or adjacent to the development. It is required that sufficient

land be dedicated to provide the width necessary for the ultimate road right-of-way based on the road classification of specific street plans. This dedication is based on the presumption that development will intensify use of the property and of the streets which provide access thereto. ~~Findings must be made by~~ **T**~~t~~he Planning Commission and the Board of Supervisors **must identify and make findings** supporting this presumption when a**n** ~~subdivision~~ application **for development** is being considered.

Road right-of-way acquisition policies to be further developed as part of the environmental review.

TABLE 2-1

MINIMUM RIGHT-OF-WAY REQUIREMENTS AND ROADWAY SEGMENT LEVEL OF SERVICE CRITERIA

	Street Classification	Total Lanes	Level of Service Thresholds (vehicles / per day / per lane)				
			A	B	C	D	E
Urban	50 Ft Local (Urban)	2	350	950	1,700	2,950	5,000
	60 Ft Minor Collector	2	350	950	1,700	2,950	5,000
	80 Ft Major Collector	2	700	1,900	3,400	5,900	10,000
	80 Ft Major Collector	4	2,520	4,230	5,940	7,110	9,000
	110 Ft Minor Arterial	4	3,000	5,000	7,000	8,400	10,000
	135 Ft Principal Arterial	4	3,750	6,250	8,750	10,500	12,500
	135 Ft Principal Arterial	6	4,500	7,500	10,500	12,600	15,000
Industrial	70 Ft Minor Collector	2	350	950	1,700	2,950	5,000
	110 Ft Major Collector	2	700	1,900	3,400	5,900	10,000
Rural	60 Ft Local*	2	350	950	1,700	2,950	5,000
	60 Ft Minor Collector*	2	350	950	1,700	2,950	5,000
	80 Ft Major Collector	2	350	950	1,700	2,950	5,000
	80 Ft Major Collector	4	1,400	2,350	3,300	3,950	5,000
	110 Ft Minor Arterial	4	3,000	5,000	7,000	8,400	10,000
	135 Ft Principal Arterial	4	3,750	6,250	8,750	10,500	12,500
	135 Ft Principal Arterial	6	4,500	7,500	10,500	12,600	15,000

Consultant to coordinate with Public Works and update as part of environmental review.

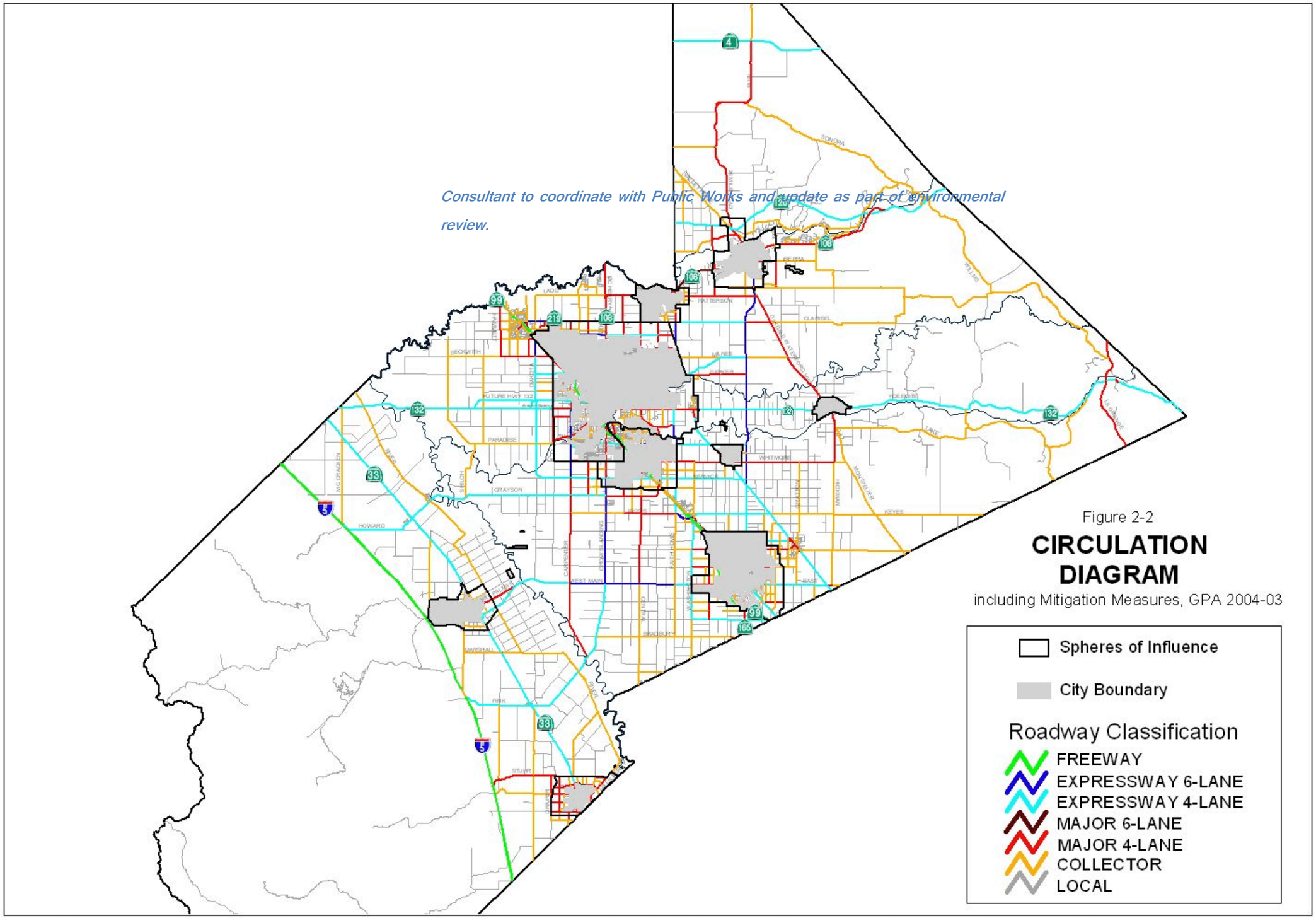

Figure 2-2

CIRCULATION DIAGRAM

including Mitigation Measures, GPA 2004-03

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Table 2-~~1~~2
Rural Local or Rural Minor Collector ~~Routes~~ Roads Requiring at Least 80' of Right-of-Way*

The following designated **Rural Local or Rural Minor C**~~c~~ollector routes require at least 80' of right-of-way either because of **non-ideal environments including rolling terrain where additional sight distance and/or super elevations are needed or in locations where more land is required for drainage or safety purposes**~~hilly terrains or greater than average anticipated traffic flows~~:

1. Claribel Road: Oakdale-Waterford Highway to Tim Bell Road.
2. Cooperstown Road: Warnerville Road to La Grange Road.
3. Crabtree Road: Highway 132 to Warnerville Road.
4. Del Puerto Canyon Road: Interstate 5 to Santa Clara County.

~~5. Dunton Road: Milton Road to Highway 4.~~

5.~~6~~. Eastman Road: 26 Mile Road to 28 Mile Road.
6.~~7.~~ Emery Road: Warnerville Road to Fogarty Road.
7.~~8~~. Fogarty Road: Wamble Road to Emery Road.
8.~~9.~~ Frankenheimer Road: 28 Mile Road to Sonora Road.
9.~~10.~~ Hawkins Road: Lake Road to Keyes Road.
10.~~11.~~ Hazeldean Road: Highway 132 to Tim Bell Road.
11.~~12.~~ Hickman Road: East Avenue to Whitmore Avenue.
12.~~13.~~ Kennedy Road: Highway 108/120 to Sonora Road.
13.~~14.~~ Keyes Road: Santa Fe Avenue to Merced County Line.
14.~~15.~~ Lake Road: Hickman Road to Highway 132.
15.~~16.~~ Lancaster Road: Orange Blossom Road to Highway 108/120.
16.~~17.~~ Milnes Road: Claus to Oakdale-Waterford Highway.
17.~~18.~~ Milton Road: Highway 4 to Calaveras County Line.
18.~~19.~~ Orange Blossom Road: Highway 108/120 to Sonora Road.
19.~~20.~~ River Road: San Joaquin County Line to Highway 120.
20.~~21.~~ Rock River Road: Willms Road to Tuolumne County Line.
21.~~22.~~ Rodden Road: Highway 120 to Orange Blossom Road.
22.~~23.~~ Sisk Road: Kiernan Avenue north to end.
23.~~24.~~ Sonora Road: Milton Road to Highway 108/120.
24.~~25.~~ Tim Bell Road: Lone Oak Road to Warnerville Road.
25.~~26.~~ Twenty Eight Mile Road: Rodden Road to Sonora Road.
26.~~27.~~ Wamble Road: Fogarty Road to Orange Blossom Road.
27.~~28.~~ Warnerville Road: Albers Road to Cooperstown Road.
28.~~29.~~ Willms Road: Cooperstown Road to Highway 108/120.

* This list only contains those **Rural Local or Rural Minor** Collector roads that require 80 feet of right-of-way. All other **Local or** Collector routes are depicted in the Circulation Diagram depicted in Figure 2-~~2~~**TBD**.

Recommended Approach Lanes

Additional lanes**, needing additional right-of-way dedication,** may be necessary at intersections to accommodate traffic making left-and right-turns. The recommended approach lane design at each intersection along these roadways is represented in Table ~~2-2~~**TBD**. ~~Precise il~~Intersection geometrics can be found in the **current** Stanislaus County Department of Public Works Standards and Specifications. These geometrics will be used when establishing building setbacks and

dedication requirements for development projects located in and around intersections, and may be modified in specific cases where the traffic impact analysis shows that additional approach lanes are needed to accommodate projected traffic.

Official Plan Lines

Official Plan Lines have been prepared for a number of roads in the County and adopted by the Board of Supervisors. Adoption of Official Plan Lines shows the intent of the County to widen these streets to a specified width along a specified alignment or build a new road at some future time. Official Plan Lines are often used when it is undesirable or impractical to widen a road by requiring legal dedication on both sides of the existing center line. Official Plan Lines are established to prevent any unnecessary removal of buildings or important natural features when the County is ready to build the road. Once adopted, building activity is prohibited inside the established setback lines although existing buildings may remain.

Identified ultimate road widths and alignments for the eventual widening or construction of a road have the important advantage of minimizing the cost to the County in the future. If new structures are permitted to be constructed in the proposed right-of-way, the County will be obligated to purchase portions of buildings and land lying within the proposed street line. It is also hoped that the disruption and dislocation of privately- owned improvements would also be minimized to reduce impacts on property owners. Adoption of Official Plan Lines or identification of ultimate street width requires foresight because the entire process of developing a transportation corridor is a slow one. A number of years may elapse before the last building, or even a majority of the buildings, are set back to the adopted line. Building setbacks may cause hardships to the first buildings that are required to be set back of the new line because they appear to be placed at the back of a parcel with old buildings projecting in front of them on both sides.

The process of adopting an Official Plan Line entails extensive technical studies and public outreach including a **multi-modal transportation** ~~traffic~~ analysis, environmental analysis, and detailed engineering studies to determine potential alignments and work with the affected property owners and the public to determine an appropriate alignment for each roadway. The Official Plan Lines adopted by the Board of Supervisors are listed in the Table 2-3. Some portions of these roads have been annexed into the spheres of influence or jurisdictional boundaries of the cities; therefore, city standards now apply to in those areas. This element includes proposed streets and roads that are necessary to support development planned within the cities' general plans. Generally, these streets and roads will be planned, developed and constructed upon annexation to the city. If, however, a city develops an Official Plan Line for any of these roadways, the city may also wish to submit that Official Plan Line to the County for adoption to ensure it is applied to new development within the sphere of influence.

Table 2-2
RECOMMENDED APPROACH LANES

Facility Type	Intersecting Road	Left	Through	Right
Expressway	Expressway	2	2 or 3	1
	Major*	2	2 or 3	1
	Collector*	1	2 or 3	1
	Local*	1	2 or 3	1
	Minor/Private			
Major	Expressway*	2	2 or 3	1
	Major	2	2 or 3	1
	Collector	1	2 or 3	1
	Local	1	2 or 3	1
	Minor/Private			
Collector	Expressway*	1	1 or 2	1
	Major	1	1 or 2	1
	Collector	1	1 or 2	1
	Local	1	1 or 2	1
	Minor/Private	0	1 or 2	0
Local	Expressway*	1	1 or 2	1
	Major	1	1 or 2	1
	Collector	1	1 or 2	1
	Local	1	1 or 2	1
	Minor/Private	1	1 or 2	1
Minor/Private	Expressway			
	Major			
	Collector	0	1	0
	Local	0	1	0
	Minor/Private	0	1	0

Table 2-3
Functional Classifications - Desired Roadway Characteristics

	Functional Classification	Corridor Width	Lanes	LOS Threshold	Intersecting Roadways	Private Property Access	Mobility/ Operating Speed
Urban	Freeway/ Expressway	Varies	4 - 8	D	Interchange at 1 miles spacing	None	High
	Principal Arterial	110'-125'	4 - 6	D	1 per 1/2 mile	Very Limited	High
	Minor Arterial	110'-125'	4 - 6	D	1 per 1/2 mile	Limited	Medium-High
	Major Collector	80'-110'	2 - 4	D	1 per 1/4 mile	Limited	Medium
	Minor Collector	60'-70'	2	D	1 per 1/8 mile	Limited	Low-Medium
	Local/Private	50'	2	D	No Limit	Controlled	Low
Rural	Freeway/ Expressway	Varies	4 - 8	D	Interchange at 2 mile spacing	None	High
	Principal Arterial	110'-125'	4 - 6	C	1 per 1/2 mile	Very Limited	High
	Minor Arterial	110'-125'	2 - 4	C	1 per 1/2 mile	Limited	Medium-High
	Major Collector	80'-110'	2 - 4	C	1 per 1/4 mile	Limited	Medium-High
	Minor Collector	60'-70'	2	C	1 per 1/4 mile	Limited	Medium-High
	Local/Private	50-60'	2	C	1 per 1/4 mile	Controlled	Low-High

Table Notes:

1. Corridor Width. The right-of-way widths shown represent typical right-of-way widths needed to accommodate the number of travel lanes necessary to support anticipated traffic volumes, shoulders, roadside ditches (rural roadways), curb, gutter, sidewalk, and bicycle lanes (where appropriate). Additional right-of-way width may be necessary at approaches to intersections to accommodate turn pockets. See Table 2-3 for Minor Collector and Local Roads that will require additional right-of-way.
2. Lanes. The number of lanes shown represents the typical number of lanes likely to be necessary for the various types of roadways. In unusual cases, additional lanes may be necessary to accommodate higher traffic volumes.
3. LOS Threshold. The LOS thresholds indicated in this table represents the maximum acceptable weekday AM or PM Peak Hour LOS. Whenever a traffic analysis is prepared as part of a project approval, improvements need to be identified to ensure the resulting operating LOS does not exceed these threshold values.
4. Intersecting Roadways. The values in this column represent the typical maximum number of intersections along the various types of roadways. In some cases, the number of intersections may be greater; however, a traffic analysis will be required indicating that the safety and function of the roadway will not be significantly compromised.
5. Private Property Access. Private property access to roadways maintained by Stanislaus County is granted through the issuance of an encroachment permit by the Department of Public Works. No access to private property will be permitted on Freeways or Expressways. Access to local roads will generally be approved; however, guidelines for driveways on local roadways in urban areas have been established in the Stanislaus County Public Works Standards and Specifications. Generally, driveways on other roadway types will be permitted; however the number of driveways will be limited to preserve the safety and function of the roadway. In some cases joint driveways serving more than one parcel may be required.
6. Mobility/Operating Speed. The descriptions in this column represent the perceived level of mobility (usually represented by operating speed) a motorist may anticipate to experience on the various roadway types during non-peak hours.

For lane configurations and intersection right-of-way requirements see appropriate Table within most current Public Works Standards and Specifications. Right of Way (ROW) widths are based on the road classification or as determined by the Director of Public Works. However, ROW dedications and improvements may be greater than listed above at intersections and/or where facilities or alternative forms of

transportation are planned. **

~~Table 2-3~~
~~ADOPTED PLAN LINES~~

~~NAME~~	~~FROM~~	~~TO~~
~~26 Mile Road~~	~~Dodds Road~~	~~Sonora Road~~
~~Blue Gum Avenue~~	~~Morse Road~~	~~North Ninth Street~~
~~Briggsmore Avenue~~	~~State Route 99~~	~~Claus Road~~
~~Carpenter Road~~	~~Crows Landing Road~~	~~Whitmore Avenue~~
~~Claus Road~~	~~State Route 132~~	~~State Route 108~~
~~Coffee Road~~	~~Orangeburg Avenue~~	~~Sylvan Road~~
~~Coffee Road~~	~~Sylvan Road~~	~~Patterson Road~~
~~Crane Road~~	~~Patterson Road~~	~~West F Street~~
~~Crows Landing~~	~~State Route 99~~	~~Whitmore Avenue~~
~~Crows Landing~~	~~Whitmore Avenue~~	~~West Main Street~~
~~Fink Road~~	~~Interstate 5~~	~~State Route 33~~
~~Fulkerth Avenue~~	~~State Route 99~~	~~Golden State Boulevard~~
~~Hatch Road~~	~~Carpenter Road~~	~~Crows Landing Road~~
~~Hatch Road~~	~~State Route 99~~	~~Mitchell Road~~
~~Hawkeye Road~~	~~State Route 99~~	~~Berkeley Avenue~~
~~Howard Road~~	~~Interstate 5~~	~~State Route 33~~
~~McHenry-Ladd-Patterson Intersection~~		
~~Mc Henry Avenue~~	~~Briggsmore Avenue~~	~~Stanislaus River~~
~~Monte Vista Avenue~~	~~State Route 99~~	~~Berkeley Avenue~~
~~Monte Vista Avenue~~	~~State Route 99~~	~~Golden State Boulevard~~
~~North Olive Avenue~~	~~Canal Drive~~	~~Monte Vista Avenue~~
~~Oakdale Road~~	~~Scenic Drive~~	~~Patterson Road~~
~~Orange Blossom Road~~	~~Rodden Road~~	~~Knights Ferry~~
~~Paradise Road~~	~~Sutter Avenue~~	~~Dunning Lane~~
~~Pelandale-Claratina~~	~~Dale Road~~	~~Claus Road~~
~~Roselle Avenue~~	~~Briggsmore Avenue~~	~~Floyd Avenue~~
~~Scenic Drive~~	~~Modesto City Limit~~	~~Claus Road~~
~~Sperry Road~~	~~Interstate 5~~	~~State Route 33~~
~~Standiford-Sylvan~~	~~State Route 99~~	~~Claus Road~~
~~Stearns Road~~	~~State Route 108~~	~~Oakhurst Drive~~
~~Stuhr Road~~	~~Interstate 5~~	~~State Route 33~~
~~Sylvan-Standiford Avenue~~	~~State Route 99~~	~~Claus Road~~
~~Yosemite Boulevard~~	~~Modesto City Limit~~	~~Waterford City Limit~~

~~Zeering Road~~	~~State Route 99~~	~~Hawthorne Street~~

Table 2-4~~3~~
ADOPTED PLAN LINES

NAME	FROM	TO
26 Mile Road	Dodds Road	Sonora Road
Carpenter Road	Crows Landing Road	Whitmore Avenue
Coffee Road	Sylvan Road	Patterson Road
Crows Landing	Whitmore Avenue	West Main Street
Fink Road	Interstate 5	State Route 33
Howard Road	Interstate 5	State Route 33
Mc Henry Avenue	Briggsmore Avenue	Stanislaus River
Orange Blossom Road	Rodden Road	Knights Ferry
Stuhr Road	Interstate 5	State Route 33

Study Areas

Prior to adopting an Official Plan Line, focused traffic, engineering and environmental studies may be conducted to determine the appropriate alignment and right-of-way requirements for major transportation improvements. These studies are particularly useful when a new road is required or special circumstances, such as limited sight visibility or hilly terrain, warrant a more detailed traffic operations analysis to determine the appropriate design and alignment for the future facility. These studies will require extensive involvement by the cities, other public agencies, and the public, to determine the appropriate design and alignment of each facility. ~~Eight~~ **The** special study areas ~~have been~~ **are** identified ~~as shown~~ in Table 2-~~4~~**5**.

~~**Table 2-4**~~
~~**SPECIAL STUDY AREAS**~~

~~STUDY AREA~~	~~DESCRIPTION~~	~~FROM~~	~~TO~~	~~SOURCE~~
~~1~~	~~Las Palmas Bypass~~	~~Patterson~~	~~San Joaquin River~~	~~StanCOG/Patterson~~
~~2~~	~~Southeast Turlock Interchange~~	~~Turlock~~	~~Merced County Line~~	~~Turlock~~
~~3~~	~~Washington Road Extension~~	~~Turlock~~	~~Keyes~~	~~Turlock~~
~~4~~	~~Dakota Avenue/Service Road (Tuolumne River Crossing)~~	~~Paradise Road~~	~~Service Road~~	~~Modesto/Ceres~~
~~5~~	~~North County Transportation Corridor~~	~~State Route 99~~	~~East of Oakdale~~	~~StanCOG~~
~~6~~	~~Briggsmore Avenue Extension~~	~~Briggsmore Avenue~~	~~Milnes Road~~	~~StanCOG/Modesto~~
~~7~~	~~State Route 132 Realignment and Widening~~	~~East of Empire~~	~~San Joaquin County Line~~	~~StanCOG~~
~~8~~	~~Claus/Garner/Faith Home Expressway~~	~~Modesto~~	~~Keyes~~	~~StanCOG~~
~~9~~	~~SR-99/Kiernan Avenue~~	~~Salida~~		~~County Project Study Report~~
~~10~~	~~SR-99/Hammett Road~~	~~Salida~~		~~County Project Study Report~~

Table 2-5
SPECIAL STUDY AREAS

Study Area	Description	From	To	Source
1	South County Corridor	Interstate 5	San Joaquin River	
2	North County	State Route	State Route 120	Stanislaus

	Transportation Corridor	99	East of Oakdale	County
3	SR132 Realignment and Widening	East of Empire	San Joaquin County	StanCOG
4	Claus/Garner/Faith Home Expressway	Modesto	Keyes	StanCOG
~~5~~	~~Turlock NE Expressway~~	~~Turlock~~	~~Patterson~~	~~Turlock~~

~~***Las Palmas Bypass:*** The Las Palmas Bypass (or Orange Avenue Extension) would provide a new connection from Sperry Road in Patterson to Las Palmas Avenue just west of the San Joaquin River. This project is planned to alleviate congestion along the Las Palmas corridor as proposed in the City of Patterson General Plan.~~

South County Corridor**: The South County Corridor would provide connectivity to I-5 near the City of Patterson to Highway 99 near the City of Turlock.**

~~***Southeast Turlock Interchange:*** The Southeast Turlock interchange is a study funded by a special federal grant to the City of Turlock and County of Merced. A joint planning study is underway to examine the potential realignment of State Route 165 to provide a bypass for the community of Hilmar that would connect to a new State Route 99 interchange in the southeast Turlock area which is required to support future planned development in the City of Turlock General Plan.~~

~~***Washington Road Extension:*** The Washington Road Extension would examine the possibility of extending the proposed expressway along Washington Road in the Turlock area to connect at the State Route 99 interchange at Keyes Road, rather than at the Taylor Road interchange. The purpose of the new connection is to reduce conflicts between large trucks and passenger vehicles.~~

~~***Dakota Avenue/Service Road River Crossing:*** To implement the expressway system proposed in the general plans of the cities of Modesto and Ceres an Official Plan Line will need to be adopted for the north-south expressway proposed along the Dakota Avenue alignment crossing the Tuolumne River and connecting to Service Road in the Ceres area.~~

North County Transportation Corridor: The North County Transportation Corridor is a ~~concept to construct an~~ **proposed** expressway from State Route 99 in the Salida area to ~~a point east of~~ **SR 120, east of** Oakdale**.** ~~perhaps at the same location that the new State Route 120 (otherwise known as the Oakdale Bypass) would connect to existing State Route 108/120. StanCOG has initiated a planning effort that will examine potential alignments and facility types within approximately one mile of the Kiernan Avenue and Claribel Road corridors through the~~ **A Joint Powers Authority has been formed and has initiated an environmental effort that will select a preferred alignment through the** Modesto, Riverbank and Oakdale areas.

~~***Briggsmore Avenue Extension:*** To implement the expressway system proposed in the City of Modesto General Plan, an extension of the Briggsmore Avenue expressway is planned from east of Claus Road along an alignment parallel and extending from MID Lateral No. 3 to Milnes Road.~~

State Route 132 Realignment and Widening: Realignment, widening, and operational improvements along the State Route 132 corridor from Empire to the San Joaquin County Line have been planned for many years. A federal grant has been secured to investigate ways to connect the portion of State Route 132 east of State Route 99 to its new proposed alignment south

of, and parallel to, Kansas Avenue west of State Route 99. Project Study Reports have been prepared by Caltrans for the construction of an expressway west of State Route 99 to Interstate 580.

Claus/Garner/Faith Home Expressway: The general plans of the cities of Modesto and Ceres plan for the construction of an expressway and new Tuolumne River crossing along the Claus Road, Garner road, and Faith Home Road corridors from north Modesto to Keyes Road in the Keyes area. A Project Study Report was initiated by StanCOG to develop an Official Plan Line for the route, to resolve internal circulation issues within the Beard Industrial Tract, and determine the best engineering solution to cross the Tuolumne River in this area.

~~***State Route 99/Kiernan Avenue Interchange:*** The County has initiated a Project Study Report to determine potential improvements required to support implementation of the Salida Community Plan.~~

~~***State Route 99/Hammett Road Interchange:*** The County has initiated a Project Study Report to determine potential improvements required to support implementation of the Salida Community Plan.~~

~~**Scenic Highways**~~

~~Section 65302(h) of the Government Code requires the general plan to include a Scenic Highways Element for the development, establishment, and protection of scenic highways pursuant to the provision of the Streets and Highways Code. Interstate 5 is the only officially designated State Scenic Highway in Stanislaus County. Standards for official designation of scenic highway rest on the analysis, planning, and protection of the scenic corridor through which the highway traverses. Although the emphasis of the scenic highway is on the designation of state highway routes as scenic routes, this does not preclude local agencies from developing and adopting local scenic designations on County routes. The Scenic Highway designation is an overlay and not a separate street classification. The scenic highway designation maintains areas which are in their natural or undeveloped condition. The State of California has designated various state highways as having natural scenic beauty worthy of preservation. This highway designation involves land use controls within the corridor to maintain the natural beauty of the area.~~

Highway 99 Visual Enhancement Efforts

While the primary function of the County's transportation network is to move people and goods from one place to another, each time someone travels on Stanislaus County's roads, they see a view of the community, whether it is from the window of a car, truck, bus or train, or from the seat of a bicycle. Whether for business or pleasure, these images gathered while traveling through the community affect perceptions and feelings about the community. A collaborative effort led by the Great Valley Center is raising awareness about ways communities can enhance the visual quality of major transportation corridors, in particular the Highway 99 corridor, and key gateways into communities located along major transportation corridors. To facilitate implementation of this effort, Caltrans adopted a master plan that provides examples of the types of improvements that can be made on Highway 99 that will not only improve the appearance of the corridor but meet State Highway design standards. The Stanislaus Council of Governments initiated a master planning effort for the Highway 99 corridor involving the cities of Turlock, Ceres, and Modesto, and the County of Stanislaus. These planning efforts provide suggestions and strategies on how transportation improvement projects, as well as development projects located on or within the view

shed of the Highway 99 corridor, can be designed to improve the attractiveness of the corridor and help promote economic development, encourage tourism, highlight our natural resources, and generally improve the quality of the life in the county.

SAFETY

Nationwide, approximately 40 percent of county roads are inadequate for current travel, and nearly half of the rural bridges longer than 20 feet are structurally deficient. (*FHWA, 2012)* Backlogs of maintenance and system preservation have long plagued the nation's infrastructure. As such, Stanislaus County is moving towards minimizing the infrastructure needs for operations and aesthetics, and increasing the emphasis on roadway Safety. This is a multi-modal approach that will provide safe infrastructure for all modes of transportation, including vehicles, bicycles, pedestrians, and transit.

Moving goods and people throughout Stanislaus County requires a safe and efficient network of roadways. While the Level of Service of a roadway is generally determined by average travel times and average driver delay, safety is not factored into the Level of Service metric. As such, Stanislaus County may require additional road improvements where necessary to improve the safety characteristics of a road. Safety improvements may include, but are not limited to, the widening of paved shoulders, the addition of travel lanes, bicycle lanes, transit priority lanes, passing lanes, left/right turn lanes, intersection signalization or roundabouts.

BICYCLE AND PEDESTRIAN

Stanislaus County offers excellent conditions for bicycle and pedestrian transportation. **Although relatively few marked bicycle facilities have been constructed in the County,** ~~T~~the County ~~is~~ **offers** generally flat **terrain**, ~~has~~ **and** a temperate climate, **which are suitable conditions for cyclists and pedestrians.** ~~and major destinations are within an easy ride of most residences. According to the 2000 Census, approximately 3.1% of the workers reported that they rode a bike or walked to work regularly. Relatively few marked bicycle facilities have been constructed in the County.~~ (***Consultant to update census data as part of environmental review)*** In agricultural areas, the County provides adequate striping and paving in accordance with Caltrans and **American Association of State Highway and Transportation Officials (**AASHTO**)** standards to safely accommodate bicycle travel whenever a roadway is widened, and, where adequate right-of-way exists, whenever a roadway is resurfaced, restored, or rehabilitated on all routes except **Rural Local/Rural** Minor **Collector** roads. Marked and/or signed bicycle lanes and paths are provided in accordance with the ~~Regional Bicycle Action Plan~~ **Non-Motorized Transportation Plan** adopted by StanCOG, the adopted Community Plans for the urban areas of the County, and the general plans of the cities within the spheres of influence.

PUBLIC TRANSIT

Public transportation systems are being called upon to provide more services, serve more people and businesses, and satisfy more needs than ever before. Rising fuel costs, more stringent air quality regulations, and economic affordability are making transit a more attractive alternative for both commuters and local government. At the same time, public transit is being asked to deliver services more efficiently by reducing costs and to operate more effectively by targeting resources where people use them. Transit ridership continues to increase steadily, but accounts for only about one percent of the commute trips each day. Development patterns in the County, characterized by low housing densities and dispersed business centers, continue to make the Stanislaus area difficult to access and serve by public transit.

The Stanislaus County Public Works Transit Division ~~is the administrator for~~ **manages** the County's ~~intercity~~ public transportation system**,** ~~called~~ **also known as the** Stanislaus Regional Transit or StaRT. StaRT provides **service throughout the County including urbanized and unincorporated communities and to the City of Merced and Gustine in Merced County.** ~~to sixteen (16) cities and communities in Stanislaus County and the city of Gustine in Merced County~~. StaRT operates fixed route, deviated fixed route, curb-to-curb dial-a-ride transportation services and provides non-emergency medical transportation to Bay area medical facilities. The Division has Memorandums of Understanding with three cities, Newman, Patterson and Waterford, to operate dial-a-ride services for their respective cities.

~~Being the intercity operator,~~ **Local bus services throughout the county include MAX (Modesto Area Express), CAT (Ceres Area Transit), and BLAST (The Bus Line Service of Turlock). As the County transit services provider**, StaRT ~~has~~ connect~~sivity~~ with **these** local transit operators **and serves the transit centers in the cities of** ~~and has transfer points within various~~ **cities**, ~~including~~ **Turlock and Modesto and with service to transfer locations in the cities of Ceres, Riverbank, Oakdale and Patterson**. This enables County residents to connect ~~between~~ **with regional,** intracity and intercity transit ~~so they can~~ **and to** travel throughout the County. Transit services are supported through the construction and operation of ~~bus maintenance~~ **transit amenities and** facilities, **such as bus** shelters, **bus** benches and **bus** stop signs.

~~**Various**~~ **Transit** planning studies **and other related activities** are conducted ~~by the County~~ to ensure that transit services ~~are~~ provided **are** ~~in an~~ **cost-**efficient and **cost-**effective ~~manner~~. ~~In October 2000, the County adopted a long-range transit plan that projects the long-term transit needs of the county and presents a vision for StaRT service.~~ The County also prepares short-range transit plans ~~covering a five-year period to look at~~ **to improve** ~~improving~~ **coordination between transit operations services in Stanislaus County**~~.~~ ~~**operators and future transportation services to the University of California at Merced**~~**, Stanislaus County business parks and other locations within the County. The plan ~~will~~ also looks at future capital purchases, including additional buses and transfer ~~**stations**~~ **locations throughout the County** ~~within key cities~~.

RAIL SERVICE

Passenger

As an increasing number of commuters travel outside the County to jobs located in the Bay Area and Sacramento, the role of passenger rail service is changing. Traditionally, passenger rail service has met the travel needs of the recreational traveler. As time goes on, however, passenger rail is beginning to take on more importance as a commuter transportation option. ~~The success of the Altamont Commuter Express from San Joaquin County to San Jose, funded largely through the passage of their half-cent sales tax, presents an alternative vision for the future role of passenger~~

~~rail service in Stanislaus County.~~

Presently, Stanislaus County has access to three passenger rail services - the Bay Area Rapid Transit system (BART), the Altamont-Commuter Express (ACE), and Amtrak. BART service can be accessed by traveling by car to the Dublin-Pleasanton station or taking the Modesto Area Express (MAX) BART Express bus. ACE service can be accessed by traveling by car to the Lathrop/Manteca station or by taking inter-city bus service offered by the MAX ACE Express service. Depending on the destination, Amtrak service may be accessed locally at the Amtrak station on Parker Road or by traveling to stations located in the **Community of Denair (by way of the StaRT Turlock-Modesto shuttle service) and the** City of Stockton. **Amtrak can also be accessed through MAX bus route No. 25, which connects to the Modesto Amtrak Station.**

In 2001, the County commissioned a study to examine potential alternatives to extend the ACE service to Stanislaus County. The study concluded that, with roughly fifteen percent (15%) of the passengers on ACE trains residing in Stanislaus County, passenger rail could work but would require a considerable infrastructure investment. The recommendations of this study should be reviewed and considered in future planning efforts.

In 2003, the Bay Area Rapid Transit District (BART) began studying the feasibility of extending some type of service to connect Walnut Creek with Pleasanton ***(Consultant to update as part of the environmental review)***, then eastward along the Interstate 580 corridor perhaps as far east as Tracy. Four different options are being considered using three different technologies, including light diesel multiple units, heavy diesel multiple units and bus rapid transit.

~~High-speed rail continues to be explored by the California High-Speed Rail Authority as an alternative to driving and flying across the State. If implemented, this system would forever change the way people travel between cities and counties in California by offering an alternative to driving or flying. Studies suggest that roughly eighteen percent (18%) of the riders would come from the Central Valley.~~

The California High-Speed Rail project is a planned future high-speed rail system in the state of California and headed by the California High-Speed Rail Authority (CHSRA). Initial funding for the project was approved by California voters on November 4, 2008, with the passage of Proposition 1A authorizing the issuance of US $9.95 billion in general obligation bonds for the project. The CHSRA is currently tasked with completing the final planning, design and environmental efforts. The planned system would serve major California cities including San Francisco, Los Angeles, Sacramento, San Jose, Fresno, Bakersfield, Palmdale, Anaheim, Irvine, Riverside and San Diego. ~~The California High-Speed Rail Authority is currently studying potential station locations, including one in Modesto.~~

Altamont Commuter Express (ACE)

ACE forward is a phased improvement program to reduce travel time and improve service reliability and passenger facilities along the existing Stockton to San Jose corridor, and to extend ACE rail service to Modesto and to Merced. This program would provide the foundation for the long term plan for SJRRC intercity passenger rail services.

The program would improve the existing ACE service managed by SJRRC by delivering safety and operational improvements that enable expansion of service to six daily round trips between Stockton and San Jose and extending ACE service to Modesto, which could occur as early as 2018. Following that, the program would extend ACE service to Merced and service frequency from Stockton to San Jose would increase to 10 or more daily round trips,

perhaps as soon as 2022. The ACE forward EIR/IS will include development of preliminary engineering designs and assessment of environmental effects associated with the construction, operation, and maintenance of rail improvements, including new track corridors, additional track, track realignments, ancillary facilities, new stations, and station improvements along the Altamont Corridor. The FRA and SJRRC will use a tiered process for the environmental review, as provided for in 40 CFR 1508.28 and in accordance with FRA Guidance. Tiering is a staged environmental review process. Tier-1 (or programmatic) analysis comprehensively reviews the environmental, impacts of a program of improvements at a broad conceptual level of analysis including cumulative impacts. Tier-2 (or project) analysis is conducted for specific improvements that are sufficiently designed to allow for a detailed analysis of site-specific component projects and alternatives and identification and disclosure of related environmental impacts. Improvements analyzed at a Tier-1 level of review would subsequently be reviewed at a Tier-2 level before they can be approved and constructed at a project level. The EIS/EIR for ACE forward will include both a Tier-1 and Tier-2 analysis.

Freight

Railroad operations in Stanislaus County include high speed **approximately 50 to 60 miles per hour freight rail** mainline operations on the Burlington Northern and Santa Fe (BNSF) Railway and Union Pacific Railroad (UPRR) and low speed **freight rail less than 25 miles per hour** mainline and switching operations on the BNSF Railway, UPRR, Sierra Railroad, California Northern Railroad, Modesto and Empire Traction Company Railroad, and Tidewater Southern Railroad.

Union Pacific Railroad (UPRR): The UPRR in Stanislaus County includes operations on the main line which passes through Salida, Modesto, Ceres, Keyes, and Turlock. The UPRR also operates on the ***California Northern Railroad*** line located on the west side of the county, which passes through Westley, Patterson, Crows Landing, and Newman.

Burlington Northern and Santa Fe (BNSF) Railway: Operations on the BNSF Railway in Stanislaus County occur on the mainline which runs through Riverbank, Hughson, Empire, and Denair, and on a branch line which connects the mainline at Riverbank with the Sierra Railroad in Oakdale.

Sierra Railroad: The Sierra Railroad operates between Oakdale and Standard, and includes both freight and passenger trains. Freight trains are operated by Union Pacific and Burlington Northern Santa Fe and usually operate roughly three times per week. Passenger trips travel between Oakdale and the eastern Stanislaus County Line and include entertainment style railroad travel approximately three to five times per week with most trips occurring Thursday through Sunday.

Modesto and Empire Traction (M&ET) Company Railroad: The Modesto and Empire Traction Company is a short-line railroad which connects switching operations between the Union Pacific Railroad in Modesto and the Burlington Northern Santa Fe Railway in Empire. Train lengths can vary from one locomotive with four cars to up to several locomotives with 60 cars.

Tidewater Southern Railroad

The Tidewater Southern Railroad is a branch line operation of the Union Pacific Railroad. The line runs in a general north-south route through Stanislaus County, from the City of Stockton to North Modesto and from the City of Turlock to South Modesto. The portion of the line from just south of Bangs Avenue through Modesto to Bonniefair was abandoned in 2000 and sections were removed or paved over in 2003. **A further abandonment was applied for in 2009 with the Surface Transportation Board from Bangs Road to a point south of the City of Escalon, in San**

Joaquin County. ~~North of Bangs Road~~**Escalon**, operations typically occur three days per week on Tuesday, Thursday and Saturday. However, service may be operated more or less frequently depending on demand.

Freight Intermodal ~~*Transfer*~~ ***Facilities:*** **Intermodal facilities offer opportunities for serving freight at locations where an interface between transportation systems occurs while helping to ease traffic congestion. An** intermodal **facility for freight** is provided in the Beard Industrial District.

AVIATION

Air facilities in Stanislaus County serve a number of needs, including scheduled commercial air passenger service, recreational flights, ~~military operations,~~ agricultural crop dusting services, cargo services and private business flights. There are ~~five~~ **three** major facilities of concern for circulation and transportation purposes: (1) Modesto City-County Airport (Harry Sham Field); (2) Oakdale Municipal Airport; ~~(3) Turlock Airpark; (4)~~ **and (3) proposed** Crows Landing **General Aviation Airport** ~~Air Facility~~**.** ~~and (5) Patterson Airport.~~ The Modesto-Stanislaus County Airport is currently the only airport that provides regularly scheduled air passenger service. The remaining air fields in the County are either private, not open to the public, or used purely for agricultural purposes.

Air freight service is characterized by fast shipment of small bulk items or high value items over long distances at higher cost. For these reasons, air service does not account for a significant proportion of the tonnage of goods moved into and out of the region. A significant feature of air movement is its dependability and very short in-transit time. In many new businesses seeking to open new markets, and in businesses dealing in high value items, air shipment is an important means of providing rapid access to distant manufacturing facilities, and thereby eliminating large inventory requirements. In such cases, air shipment makes it possible to establish supply lines quickly and lowers the cost of maintaining inventory significantly. This offsets the higher cost of air service.

~~In 2004, the County acquired title to1,528 acres of federal land formerly occupied by the Crows Landing Naval Air Station. The Crows Landing Air Facility served as an auxiliary landing field for the Moffett Air Field in Santa Clara County until 1991 when the Defense Base Realignment and Closure Commission voted to close the base. The property was transferred from the Navy to the National Space and Aeronautics Administration (NASA) in 1994. NASA continued to conduct aviation research and flight testing until 1997. Through special federal legislation, approved by Congress in 1999, NASA transferred the facility to the County for the expressed purpose of fostering economic development. These economic development opportunities have been explored by the County since 1989 with the adoption of the Stanislaus County Economic Strategic Plan.~~

~~In 2001, the County adopted a Reuse Plan for the Crows Landing Air Facility that identified two distinct phases for development of the former base. Phase 1 would allow occasional fly-by's, touch-and-go training, and other aviation exercises, along with agricultural crop production and ongoing environmental remediation activities required to transfer the remainder of the property to the County. Phase 2 would allow the development of General Aviation airport though an aviation permit application that must be approved by the Aeronautics Division of the California Department of Transportation.~~

The former Crows Landing Air Facility served as an auxiliary landing field for Moffett Field in Santa Clara County until 1991, when the Defense Base Closure and Realignment (BRAC) Commission recommended that the airfield no longer be operated by the U.S. Navy. The National Aeronautics and Space Administration (NASA) assumed custody of the Crows

Landing Naval Auxiliary Field in 1994. In June 1994, NASA proposed to relinquish the Crows Landing Flight Facility, and on October 27, 1999, Congress passed Public Law 106-82, which directed NASA to convey all right, title, and interest of the United States in Crows Landing to Stanislaus County. In 2004, 1,352 acres of the 1,528-acre property were conveyed to Stanislaus County for the purpose of economic development. Conveyance of the remaining 176 acres is anticipated to occur by 2015.

Following federal authorization of the former Crows Landing Air Field in 1999, the County Board of Supervisors convened the Crows Landing Flight Facility Task Force to prepare a Reuse Plan for the former airfield. The Reuse Plan, which focused on the development of a general aviation airport and ground distribution center, was approved by the Board of Supervisors in 2001. The Crows Landing Steering committee identified a reuse scenario in 2006 that retained Runway 11-29 to support the development of a general aviation airport while optimizing the amount of land available for industrial, commercial, and other uses to further support job creation. The Board of Supervisors adopted the Steering Committee's reuse scenario in 2006, and has performed subsequent studies to evaluate development of the former military site.

AIR QUALITY

Stanislaus County falls within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). ~~The attainment status in Stanislaus County for major criteria air pollutants are summarized in Table 2-56.~~

~~Table 2-56~~
~~San Joaquin Valley Air Quality Attainment Status~~

~~Major Criteria Air Pollutant~~	~~State Designations~~	~~Federal Designation/ Classification~~
~~Ozone (0_3): 1 hour~~	~~Nonattainment~~	~~Nonattainment/Extreme~~
~~Ozone (0_3): 8 hour (*federal only*)~~	~~---------~~	~~Nonattainment/Serious~~
~~Particulate Matter -- finer than 10 microns (PM_{10})~~	~~Nonattainment~~	~~Nonattainment/Serious~~
~~Particulate matter --finer than 2.5 microns ($PM_{2.5}$)~~	~~Nonattainment~~	~~Nonattainment~~
~~Carbon Monoxide (CO)~~	~~Attainment~~	~~Attainment or Unclassified~~
~~Nitrogen Dioxide ($NO_{2)}$~~	~~Attainment~~	~~Attainment or Unclassified~~
~~All others~~	~~Attainment or Unclassified~~	~~Attainment or Unclassified~~

~~An air quality analysis of the improvements contained within this Circulation Element is provided in Chapter 2 of the "Stanislaus County General Plan - Support Documentation." The federal Clean Air Act and federal transportation conformity rule require each transportation improvement program to demonstrate conformance with the federal air quality attainment plans. This analysis demonstrates that the regional emissions generated by the Circulation Element are consistent with the assumptions built into those air quality attainment demonstrations. The County is committed to implementing transportation control measures that reduce emissions generated by on-road and off-road mobile sources. These control measures are adopted by resolution of the Board of Supervisors from time-to-time. Examples of the types of adopted control measures are expansion of public transit systems, transit incentives, adaptive signal timing, internet education, and transit amenities such as bus pullouts and bike racks on buses.~~

IMPLEMENTATION PROGRAMS

The goals, policies, and implementation measures of the Circulation Element are carried out through a variety of implementation programs. Implementation programs fall into two broad categories, those related to new development and those related to the construction of improvements on the system. Major transportation improvements are funded from a variety of State, federal and local revenue sources.

Implementation Programs Applicable to New Development

Zoning Ordinance

The Zoning Ordinance establishes structure setbacks from roadways for all zoning districts in the County. All structures are required to be set back in conformance with Official Plan Lines, where applicable. Special setback requirements for certain roadways are also identified. Vision clearance areas are required at intersections **and at driveway entrances** to ensure that no obstruction is placed, built, parked or allowed to grow such that it blocks the view of a motor vehicle driver. **The Zoning Ordinance also specifies the number of parking spaces required for various types of expanding or new development.**

Subdivision Ordinance

The Subdivision Ordinance establishes design standards for minimum right-of-way road widths, intersection geometrics, road grades, part-width streets, access and curb, gutter and sidewalk. Procedures for establishing fees for the construction of bridges and major thoroughfares, authorized under Government Code Section 66484, are also provided in the Subdivision Ordinance.

Standards and Specifications

The Standards and Specifications Manual establishes the standards for all work performed within the public right-of-way, including roadway pavement sections, road cross sections, driveway access, sidewalks, bicycle facilities, and bus turnouts, and certain on-site improvements, such as parking.

~~*Traffic*~~ *Transportation Impact Studies*

Transportation ~~Traffic~~ impact studies are performed to determine the impact that a proposed development proposal could have on the transportation system. These studies help to determine the significance of the impact, the nexus between the proposed development and the need for a transportation improvement, the type of improvement required, and, in some cases, the contribution that the development project needs to make toward the transportation improvement. Accepted **transportation** ~~traffic~~ engineering principles are applied in preparing these reports.

For impacts on State Highways, Caltrans has adopted formal procedures for performing these studies, called the "Guide for the Preparation of Traffic Impact Studies." The Caltrans procedures are to be followed whenever it is determined that the Caltrans traffic generation thresholds have been exceeded.

All modes of transportation shall be considered in Transportation Impact Studies including the operational and safety impacts of vehicle traffic, bicycle/pedestrian traffic, and transit systems. Impacts shall be mitigated with appropriate improvements to minimize the impacts of the proposed development.

State legislative changes have prohibited vehicular delay, or Level of Service (LOS), from being used as a metric to define a significant impact under CEQA law, and have shifted emphasis of transportation analysis to transit-oriented design, the reduction of vehicle trips, and safety. However, the Highway Capacity Manual (HCM) can still be used to determine Level of Service to evaluate impacts of new developments on the transportation system. Although other factors, such as safety and air quality, will be considered in environmental review, Stanislaus County Policy still maintains a goal of a minimum Level of Service for all modes of transportation.

Improvement Programs

Funding

Funding for improvements to the county's transportation system is generated primarily through State and federal gasoline and diesel fuel taxes paid at the pump by the driving public. These funds are returned to counties and cities throughout the State of California through a variety of State, federal and local programs. Local governments directly receive roughly one-third of the funding from these sources. The remaining funds are distributed either by Caltrans or the Stanislaus Council of Governments, the regional transportation planning agency for Stanislaus County. An increasingly important source of funding comes from public facility fees, dedications, and improvements required from new development. Consideration ~~is being~~ **may be** given to the enactment of a half-cent sales

tax to fund transportation improvements. This **potential** sales tax would be collected countywide and administered by a transportation authority, an agency designated by the cities and County of Stanislaus.

Capital Improvement Program

Each year the County prepares a multi-year, prioritized list of capital projects in its Capital Improvement Program. This list includes those transportation improvement projects that are required to meet the needs of the County in the short- and long-term. The program is reviewed annually for consistency with the General Plan as required under Section 65103(c) of the Government Code. The Capital Improvement Program identifies major projects, exceeding $100,000 in cost, ~~that~~ **which** are being implemented by the County and divides those projects into prioritized groups based on funding availability and on the planning status of each project. Projects included in the Capital Improvement Program are funded by a combination of State, federal, and local sources, including development fees collected through the Public Facility Fee program. Modifications to the Plan are made annually as a normal part of the County's budgeting process and do not require amendment of the General Plan.

GOAL ONE

Provide **and maintain** a **transportation** system ~~of roads and roads~~ throughout the County **for the movement of people and goods** that **also** meets land use **and safety** needs **for all modes of transportation**.

POLICY ONE

Development will be permitted only when facilities for **vehicle** circulation exist, or will exist as part of the development, to adequately handle increased traffic **and safety concerns.**

IMPLEMENTATION MEASURES

1. Future road rights-of-ways shall be protected from development through the adoption and implementation of Official Plan Lines, where necessary (see Table ~~2-3~~**TBD**). The County shall utilize Official Plan Lines provided by cities for roadways that fall within the cities' sphere of influence.
   Responsible Departments: Public Works, Planning

2. Dedication and improvement of right-of-way to conform to the Official Plan Line or ultimate right-of-way line shall be required as a condition of development. Generally, this is accomplished through administration of the Subdivision Ordinance and Building Code requirements.
   Responsible Departments: Public Works, Planning

3. ~~Developers~~ **Applicants** will construct or pay the cost of new roads**, including non-motorized elements,** necessary to serve the development **of all land uses** and to mitigate impacts to the existing roads caused by the development.
   Responsible Department: Chief Executive Office, Public Works, Planning

4. The County shall ensure that new development pays its fair share of the costs of circulation improvements**, including non-motorized modes,** through a combination of public facility fees, ~~traffic~~ **transporatation** impact fees, and other funding mechanisms. The total cost of required improvements shall be paid for by new development.
   Responsible Departments: Chief Executive Office, Public Works, Planning

5. The **internal (on-site)** circulation systems of development proposals shall be reviewed **and approved** to ensure **there are** no adverse effects to adjoining land **and the circulation system.**
   Responsible Departments: Public Works, Planning

6. **Applicants shall identify and mitigate, at the sole cost of the ~~developer~~applicant, all potential impacts to the transportation system from new development that adversely impact the operations and safety of the circulation system.**
   Responsible Departments: Public Works, Planning

~~7~~6. To identify the potential impacts of new development on ~~traffic~~ transportation service levels, the County ~~shall~~ **may** require the preparation of a ~~traffic~~ **transportation** impact study at the

sole expense of the ~~developer~~**applicant.** ~~for developments determined to be large enough to have a potentially significant impact on traffic. As appropriate, the study may be required to follow the Caltrans' "Guide for the Preparation of Traffic Impact Studies" and/or other procedures specified by the Department of Public Works.~~
Responsible Departments: Public Works, Planning

~~8~~**7.** The County will require that newly created parcels will either have frontage on a County-maintained road or access will be provided as required by County Code.
Responsible Departments: Public Works, Planning

~~9~~**8.** Unless a**n** ~~Subdivision Ordinance~~ exception to the **current Public Works Standards and Specification** is granted, no public or private road**, which serves more than one parcel,** shall be altered in such a way that would create a cul-de-sac or dead end street longer than 500 feet.
Responsible Departments: Public Works, Planning

~~10~~**9**. Access to Expressways**,** ~~and Majors~~ **Principal & Minor Arterials and Major Collectors** shall be provided in accordance with the road classification definition, except that all existing driveway access and parking approved by the County may remain until otherwise determined by the Department of Public Works. As development occurs, one driveway with right-in, right-out access only may be provided to an original parcel created, or vested, prior to the adoption of a corridor-specific **access plan. Reciprocal access easements and driveways shall be provided when feasible to minimize the number of existing access driveways.** ~~onto major collectors and arterials. resolution (such as Resolution 2002-507 for the State Route 219 from SR 99 to SR 108 adopted on June 25, 2002) or the Focused General Plan Amendment, GPA 2004-03 (April 18, 2006) after the Department of Public Works determines that no acceptable alternative access can be provided and that providing access would not adversely impact traffic safety.~~
Responsible Departments: Public Works, Planning

~~11~~**10**. **As funding is available, t**~~T~~he County will consider the recommendations of the State Route 99 Task Force to enhance the visual attractiveness of the State Route 99 and major gateways into the County in developing its standards for new development.
Responsible Departments: Planning, Public Works

~~12~~**11**. The Subdivision Ordinance, Zoning Ordinance, and County Standards and Specifications shall be modified to conform with the definitions and requirements of this element ~~by March 2007~~**.**
Responsible Departments: Planning, Public Works

POLICY TWO

The Circulation system~~s~~ shall be designed and maintained to promote **safety by combining multiple modes of transportation into a single, cohesive system.** ~~and minimize traffic congestion.~~

IMPLEMENTATION MEASURES

1. The County shall maintain LOS ~~C~~**D** or better for all County roadways **(Daily LOS)** and **LOS C or better** at intersections **(Peak Hour LOS),** except, within the sphere of influence of a city that has adopted a lower level of service standard, the City standard shall apply. The

County may **allow** ~~adopt~~ either a higher or lower level of service standard for roadways and intersections within urban areas such as Community Plan areas, but in no case shall the adopted LOS fall below LOS D.
Responsible Departments: Public Works, Planning

2. The County will annually review and update its transportation funding mechanisms and, as necessary, adjust its traffic impact fee in compliance with Section 66000 of the Government Code to ensure that adequate funds are collected from local, State, and federal sources to implement improvements required to maintain the County's level of service standard on all County roads. ~~Within six (6) months of adopting the Focused General Plan Update (April 18, 2006), the County shall prepare cost estimates for the State Highway projects identified in this Circulation Element. As needed, the County will develop and adopt the appropriate impact fees to address capacity and safety elements of the intensification of land uses.~~
Responsible Departments: Chief Executive Office, Public Works

3. The County will work with StanCOG and the cities to monitor the performance of the County's circulation system and implement improvements as required by the State-mandated Congestion Management **System (CMS)** ~~Program~~.
Responsible Departments: Public Works, Planning

4. The County will work with StanCOG and the cities to identify and secure funding for improvements to the regional and local circulation system.
Responsible Departments: Chief Executive Office, Public Works, Planning

5. The County shall evaluate the circulation system and recommend amendments a minimum of once every five years.
Responsible Departments: Public Works, Planning

6. The County will work with staff of the nine cities, StanCOG and Caltrans to establish more coordinated standards and routes for Expressways, ~~Majors~~ **Principal & Minor Arterials**, and **Major & Minor** Collectors that cross jurisdictional lines.
Responsible Departments: Chief Executive Office, Public Works, Planning

7. Within the spheres of influence of any city, roadway improvements, dedications, building setbacks, and road reservations shall meet the development standards of the city consistent with the Spheres of Influence Policy in the Land Use Element of the General Plan, except in those areas subject to an individual city/county agreement. These requirements may change from time-to-time through the adoption or revision of local land use plans or standards. To ensure consistency with a city's development standards, additional right-of-way may be required to meet the standards of that city. Where design and access requirements of a city differ from than those established by the County, development shall be required to meet the standards of the city. The County will consult with the city prior to the construction of transportation improvements within the sphere of influence to ensure consistency with the standards of that city.
Responsible Departments: Public Works, Planning

8. Private roads in areas of the County protected by the California Department of Forestry and Fire Protection shall be designed consistent with the standards of that agency, the local fire protection district and the Department of Public Works.
Responsible Departments: Public Works, Consolidated Fire, Planning

9. Street and road standards proposed in any new development that differ from those established in the latest County's Standards and Specifications shall be approved by the Department of Public Works, and shall comply with nationally recognized standards, such as the Institute of Transportation Engineers, the American Association of State Highway and Transportation Officials, or Transportation Research Board, or other standard approved by the Department of Public Works that is based upon adequate research and testing.
Responsible Department: Public Works

10. Traffic control devices (e.g., traffic signals, **roundabouts**), traffic calming, and other transportation system management techniques shall be utilized to control the flow of traffic, improve traffic safety, and minimize delays.
Responsible Department: Public Works

11. On-site circulation among adjacent parcels shall include shared driveways and reciprocal access easements to limit the number of egress points onto a public road.
Responsible Department: Public Works, Planning, Planning Commission.

12. Existing and new development shall be designed to provide open street patterns, with multiple points of ingress and egress, to facilitate emergency response, to minimize traffic congestion, and to facilitate use by diverse modes of transportation.
Responsible Department: Public Works, Planning, Planning Commission.

13. Promote the transformation of major transportation corridors into boulevards that are attractive, comfortable, and safe for pedestrians by incorporating wide sidewalks to accommodate pedestrian traffic, amenities and landscaping; on-street parking between sidewalks and travel lanes; enhanced pedestrian street crossings; buildings located at the back of sidewalk; building entrances oriented to the street; transparent ground floor frontage; street trees and furnishings; and pedestrian-scale lighting and signage.
Responsible Department: Public Works, Planning.

14. A strategy plan should be prepared that includes the identification of areas and/or projects to which new multi-modal transportation guidelines shall apply. New guidelines shall identify strategies for creating communities that increase the convenience, safety and comfort of people using bicycle, pedestrian, and public transit facilities. Existing policies and standards, such as landscaping, parking, and building setback requirements, may require variations on a case by case basis, specifically in Central Business Districts.
Responsible Departments: Planning, ~~Transit Manager/~~Public Works Transit Division

POLICY THREE

The County's Capital Improvement Program (CIP) shall be consistent with the General Plan. Section 65103(c) of the California Government Code states that the Capital Improvement Program shall be periodically reviewed. This review ensures that capital improvements are coordinated with land use policies stated in the General Plan.

IMPLEMENTATION MEASURES

1. The CIP shall be reviewed annually by the Planning Commission for conformity with the General Plan.
Responsible Departments: Public Works, Chief Executive Office

2. The Department of Public Works shall prepare and present a report on public works projects in the County at least once a year, consistent with Section 65401 of the Government Code.
Responsible Department: Public Works, Chief Executive Office

3. Roadway, bicycle, pedestrian**,** ~~and~~ transit**, and aviation** improvements shall be included in the Capital Improvement Program, as appropriate, to implement the policies of this element.
Responsible Department: Public Works, Chief Executive Office

POLICY FOUR

The circulation system shall provide for roads in all classifications ~~(Freeway, Expressway, Major Collector, Local, Minor and Private)~~ as necessary to provide access to all parts of the County and shall be expanded or improved to provide acceptable **accessibility and mobility** ~~levels of service~~ based on anticipated land use.

IMPLEMENTATION MEASURES

1. As required by **Federal Transportation Law,** the Stanislaus ~~County~~**Council of Governments shall maintain and prepare a** Congestion Management ~~Program~~ **Process** (CMP)**.** ~~,t~~**T**he ~~County~~ **CMP shall identify alternative strategies such as travel demand management (TDM), traffic operational improvements, public transit options, Intelligent Transportation System (ITS), Non-motorized alternatives (bicycle and pedestrian) and smart growth alternative land use strategies as alternatives to manage congestion. Stanislaus County shall follow the guidance and strategies set forth in the CMP.**~~will require applicants for proposed General Plan amendments that would generate 1,000 or more average daily vehicle trips to analyze their potential impacts on the designated CMP system of state highways and principal arterials.~~
Responsible Departments: StanCOG, Planning, Public Works

~~2. As required by the Stanislaus County Congestion Management Program (CMP) and the city-county agreements, the County will work with StanCOG to prepare an annual cumulative traffic impact analysis of all general plan amendments approved by the cities and the County, focusing on potential impacts on the designated CMP system of State Highways and principal arterials. This analysis shall be used to amend the County's Public Facility Fee to meet the adopted level of service standard, as appropriate.~~
~~***Responsible Departments: Chief Executive Office, Planning, Public Works***~~
~~***Responsible Agency: StanCOG***~~

~~3. The County shall develop procedures for conducting traffic impact studies consistent with those adopted by Caltrans and the Stanislaus Council of Governments.~~
~~***Responsible Department: Public Works***~~

2. Transportation facilities will be adequately designed, developed and maintained to provide for current and future transportation needs to protect public health, safety and welfare.
Responsible Department: Public Works, Planning

POLICY FIVE

Transportation requirements **shall be considered during planning, design and construction** of commercial and industrial development **to address safety, mobility and accessibility needs.** ~~shall be considered in all planning, design, construction, and improvements.~~

IMPLEMENTATION MEASURES

1. Roads constructed in zoning districts that allow industrial and commercial uses shall be designed and constructed to accommodate truck traffic. The minimum roadway in commercial zones shall be a ~~60-foot~~ **Minor** Collector **(Urban/Rural)** and a ~~70-foot~~ Minor **Collector (**Industrial**)** shall be the minimum required right-of-way width in industrial zones.
   Responsible Department: Public Works

2. Prior to approving new industrial and commercial development, provisions will be made to ensure that roadways providing primary access to these developments from Interstate and State Highways are designed and constructed to the standards necessary to accommodate truck traffic.
   Responsible Department: Public Works

3. Industrial and commercial development shall be planned so that ~~truck~~ **vehicle** access **on local roads** through residential areas is avoided.
   Responsible Departments: Planning, Public Works

4. Specific Plans as defined in Government Code Section 65450 through 65457 shall be encouraged.
   Responsible Department: Planning

5. Off-street truck parking standards shall be developed to ensure that adequate off-street parking is provided in new or expanding industrial and commercial development. Commercial developments serving travelers on Highway 99, Interstate 5 or other routes carrying substantial truck traffic shall be required to include sufficient truck parking in their off-street parking plans and encouraged to provide facilities to accommodate long-term truck parking. Zoning Ordinance provisions for Off-Street Parking Requirements and the Standards and Specifications Manual shall be amended, as necessary, ~~by March 2007~~ to require truck parking as appropriate in new commercial and industrial developments.
   Responsible Departments: Planning, Public Works

6. On-street truck parking shall be discouraged where such parking restricts adequate sight distances, detracts from the visual aesthetics of the area, or poses a potential hazard to motorists, bicyclists, or pedestrians.
   Responsible Departments: Public Works, Planning

~~**GOAL TWO**~~

~~Provide a safe, comprehensive, and coordinated transportation system that includes a broad range of transportation modes.~~

POLICY SIX

The County shall strive to reduce motor vehicle emissions and vehicle **miles traveled (VMT)** ~~trips~~ by encouraging the use of alternatives to ~~the~~ single occupant vehicle**s**.

IMPLEMENTATION MEASURES

1. The use of alternative modes of transportation will continue to be encouraged by participating in programs to promote walking, bicycling, ridesharing, and transit use for commuting and recreation.
   Responsible Departments: ~~Transit Manager/~~Public Works, Planning

2. The County will continue to work with StanCOG, Caltrans, and the cities to identify and secure funding for the development and improvement of bikeways, pedestrian pathways, park-and-ride facilities, transit systems, and other alternatives to the single-occupant vehicle**s**.
   Responsible Departments: Chief Executive Office, ~~Transit Manager/~~Public Works

3. Facilities to support the use of, and transfer between, alternative modes of transportation (i.e., pedestrian, rideshare, bicycle, bus**, rail** and ~~train~~ **aviation**) shall be provided in new development.
   Responsible Departments: Public Works, Planning

~~4.~~ ~~A trip reduction and travel demand ordinance shall be developed to promote the use of alternative modes and ensure that adequate facilities are provided in new development to support the use of alternatives to the single-occupant vehicle. This ordinance may be combined with pedestrian-oriented Development (POD) and/or transit-oriented design (TOD) guidelines specified under Policies Seven and Eight.~~
~~Responsible Departments: Planning, Transit Manager/Public Works Transit Division~~

~~4~~5. The County will continue to work with the Stanislaus Council of Governments and the San Joaquin Valley Air Pollution Control District to develop and implement transportation control measures to improve air quality through reduction in vehicle trips and vehicle miles of travel.
Responsible Departments: Chief Executive Office, ~~Transit Manager/~~Public Works, Planning

5~~6~~. ~~Developers~~ **Applicants** will construct or pay the cost of new pedestrian pathways, bikeways, rideshare facilities, transit amenities, and other improvements necessary to serve the development and to mitigate impacts to the existing circulation system caused by the development.
Responsible Departments: ~~Transit Manager/~~Public Works, Planning

6~~7~~**.** The county shall ~~convert to clean fuels~~ **continue using Compressed Natural Gas (CNG) or another alternative energy source in its** fleet vehicles ~~when possible~~ and **will** pursue special grants and funding ~~sources to facilitate this conversion~~ **to offset the costs of continued-use of CNG in County-owned buses.**
Responsible Departments: ~~Transit Manager/~~Public Works Transit Division

POLICY SEVEN

Bikeways and pedestrian facilities shall be designed to provide **safe and** reasonable access from residential areas to major bicycle and pedestrian traffic destinations such as schools, recreation and transportation facilities, centers of employment, and shopping areas.

IMPLEMENTATION MEASURES

1. Bikeways shall be considered and implemented in accordance with the StanCOG ~~Regional Bicycle Action Plan~~ **Non-Motorized Transportation Plan (**~~2009~~**2013, StanCOG)** and adopted Community Plans or Specific Plans when constructing or improving the roadway system in the unincorporated area outside the spheres of influence of the cities.
   Responsible Departments: Public Works, Planning

2. Within the sphere of influence of a city, bikeways and pedestrian facilities and amenities shall be provided in accordance with the applicable city's general plan and development standards.
   Responsible Departments: Public Works, Planning

3. Facilities to safely move, and support the use of, bicycles, pedestrians, transit and ridesharing shall be considered and implemented in all new development and roadway construction.
   Responsible Departments: Public Works, Planning

4. Class I bicycle and multi-use paths~~, such as the "Highway 108 Scenic Corridor Multi-Purpose Trail Plan,"~~ shall be considered to provide connectivity between major origins-destinations or to major recreational areas when on-road provisions for bicycle traffic cannot be accommodated or no alternative roadway alignment provides adequate connectivity.
   Responsible Departments: Public Works, Planning

~~5. In conjunction with the next comprehensive update of the General Plan, the County shall consider incorporating a bicycle master plan as a component of the Circulation Element.~~
   ~~***Responsible Departments: Planning, Public Works***~~

5. ~~6.~~ To safely accommodate bicycle traffic, adequate pavement shoulder and/or striping shall be planned and implemented ~~for Expressways, Major, and Collector roads, and, in agricultural areas, on Local roads~~ when constructing new roadways or implementing major rehabilitation projects in accordance with the County Standards and Specifications, the Caltrans Highway Design Manual, or other nationally recognized standard.
   Responsible Departments: Public Works, Planning

6. ~~7~~. Whenever a roadway is resurfaced or restored, adequate pavement shoulder and/or striping will be considered to safely accommodate bicycle travel in accordance with the County Standards and Specifications, the Caltrans Highway Design Manual, or other nationally recognized standard, where adequate right-of-way exists.
   Responsible Departments: Public Works, Planning

7. ~~8.~~ Federal funds, special grants, and other sources of funding shall be pursued for the development and improvement of bikeways and pedestrian pathways.
   Responsible Departments: Public Works

~~9. Pedestrian-oriented Design (POD) guidelines shall be prepared which will include the identification of areas and/or projects to which POD guidelines shall apply. POD guidelines shall identify strategies for creating communities that increase the convenience, safety and~~

~~comfort of people walking and bicycling. POD guidelines may be combined with transit-oriented design (TOD) guidelines specified under Policy Eight.~~
~~***Responsible Departments: Planning, Public Works***~~

POLICY EIGHT

Promote public transit as a viable transportation choice.

IMPLEMENTATION MEASURES

1. ~~**Continue to operate an inter-city transit system and cooperate with other agencies and cities**~~ **Continue to operate existing transit systems and coordinate with other County transit operators** to provide public transit serving Stanislaus County.
Responsible Departments: ~~Transit Manager/~~Public Works Transit Division

2. ~~**Where appropriate, new development shall include provisions for connecting to or expansion of existing and/or planned public transit systems**~~. **The County shall continue to work with the Stanislaus Council of Governments (StanCOG) to seek funding to market and promote rideshare programs and where possible, encourage all County employees to use public transit to commute to work.**
Responsible Departments: ~~Transit Manager/~~Public Works Transit Division, Planning

3. Ensure that provisions are made in proposed development for access to current and future public transit services. In particular, continuous segments of walls or fences should not impede pedestrian access to ~~collectors, major, or **expressways**~~ **Expressways, Principal and Minor Arterials, and Major and Minor Collectors** with transit service.
Responsible Departments: Planning, Public Works

4. Where appropriate, new development projects shall **promote the coordination and continuity of all transportation modes and facilities, including park and ride facilities at major activity centers.** ~~**include bus turnouts and shelters and/or park-and-ride lots**~~
Responsible Departments: ~~Transit Manager/~~Public Works Transit Division, Planning

5. Where appropriate, new development projects shall include bus turnouts and site improvements associated with bus stop accessibility for persons with disabilities, including curb cuts for wheel chair access. Where feasible, developments should be encouraged along established or proposed transit routes. The costs associated with the site improvements are paid by the developer and/or applicant.
Responsible Departments: Planning, Public Works

6. Where possible, coordinate public transportation with land use planning, transportation planning and air quality policies such that transit investments are complementary to land use planning and air quality policies.
Responsible Departments: Planning, Public Works

~~5. Transit-oriented design (TOD) shall be prepared that include the identification of areas and/or projects to which TOD guidelines shall apply. TOD guidelines shall identify strategies for creating communities that increase the convenience, safety and comfort of people using public transit. TOD guidelines may be combined with POD guidelines specified under Policy Seven.~~
~~***Responsible Departments: Planning, Transit Manager/Public Works Transit Division***~~

7~~6~~. Financing mechanisms shall be investigated to recover the cost of providing transit service and infrastructure to support new development.
Responsible Departments: ~~Transit Manager/~~Public Works Transit Division, Planning

8. The County shall encourage infill development of vacant parcels and redevelopment projects that will align with and improve the overall effectiveness of the public transit system.
Responsible Departments: Public Works Transit Division, Planning

9. Increase transit use through higher-frequency service of at least 15-minute headways in downtown areas and along major transportation corridors. Transit and land use will be interconnected to support increased ridership.
Responsible Department: Public Works, Planning.

GOAL ~~THREE~~TWO

Maintain a **safe,** balanced and efficient transportation system that facilitates inter-city and interregional travel and goods movement.

POLICY NINE

The County shall promote the development of **safe** inter-city and interregional transportation facilities that more efficiently moves goods and freight within and through the region.

IMPLEMENTATION MEASURES

1. The County will coordinate with the Stanislaus Council of Governments (StanCOG), Caltrans, and other appropriate agencies in the implementation of the Regional Transportation Plan, including the development of a system of State Highways and expressways to allow more efficient people and goods movement.
Responsible Departments: Chief Executive Office, Public Works, Planning

2. The County will continue to work with Caltrans, StanCOG, and other agencies to investigate ways to provide increased inter-city and interregional passenger rail service to Stanislaus County.
Responsible Departments: Chief Executive Office, Public Works, Planning

3. The County shall continue to encourage and support the development of high-security, off-street parking for ~~trucks~~ **commercial vehicles**.
Responsible Departments: Chief Executive Office, Public Works, Planning

4. The County shall investigate the need for new or expanded grade-separated railroad crossings and river crossings for high volume routes and expressways.
Responsible Departments: Chief Executive Office, Public Works, Planning

5. The County will continue to support the development of public use airports consistent with the airport master plans developed for the Oakdale Municipal Airport and the Modesto City-County Airport.
Responsible Departments: Chief Executive Office, Public Works, Planning

6. Consistent with the 1989 Economic Strategic Plan and the 2001 Reuse Plan, **and subsequent studies,** the County will continue to plan the development of the **former** Crows Landing Air Facility**,** including the development of General Aviation **airport** ~~air service~~ and ~~associated~~ **aviation-compatible** business park and industrial development.
Responsible Departments: Chief Executive Office, Public Works, Planning

~~7. The County will coordinate and participate with the San Joaquin Valley Partnership, the Stanislaus Council of Governments, and Caltrans to evaluate the possibility of designating the San Joaquin Valley portion of State Route 99 as part of the Federal Interstate System.~~
~~***Responsible Departments: Chief Executive Office, Public Works***~~

POLICY TEN

The Airport Land Use Commission Plan and County Airport Regulations (Chapter 17 of the County Code) shall be updated as necessary, maintained and enforced.

IMPLEMENTATION MEASURE

1. Continue to implement the strategies identified under Policy Twelve of the Safety Element.
Responsible Departments: Planning, Airport Land Use Commission

GOAL THREE

Provide and manage parking to accommodate vehicle usage while minimizing the impacts of excessive parking supply.

POLICY ELEVEN

Seek to implement more flexible parking requirements to reduce the amount of land devoted to parking and to make alternative modes of transportation more accessible.

IMPLEMENTATION MEASURE

1. Update the Parking Ordinance to allow more flexibility in usage of on-street parking.

2. **Update the Parking Ordinance to allow the use of shared parking facilities.**

3. **Encourage the identification of priority parking areas for vanpools, carpools, and energy efficient and low-pollution vehicles, including consideration of recharge stations for electric vehicles in all Commercial and Business Park designated development projects with 100 or more employees.**

Chapter 3

CONSERVATION/OPEN SPACE ELEMENT

INTRODUCTION

The Conservation/Open Space Element of the Stanislaus County General Plan emphasizes the conservation and management of natural resources and the preservation of open space lands (any parcel or area of land or water which is essentially unimproved). The element: (1) promotes the protection, maintenance, and use of the County's natural resources, with special emphasis on scarce resources and those that require special control and management; (2) prevents wasteful exploitation, destruction, and neglect of natural resources; (3) recognizes the need for natural resources to be maintained for their ecological values as well as for their direct benefit to people; (4) preserves open space lands for outdoor recreation including scenic, historic and cultural areas; and (5) preserves open space for public health and safety including areas subject to landslides, flooding, and high fire risk and areas required for the protection of water and air quality. Information on the various natural, cultural, recreational and aesthetic resources, along with safety issues are discussed in Chapter 3 of the "Stanislaus County General Plan - Support Documentation."

Intro to include any information received as a result of CCIC Data and/or SB 18 – Native American comments received during the environmental review process.

GOALS, POLICIES AND IMPLEMENTATION MEASURES

GOAL ONE

Encourage the protection and preservation of natural and scenic areas throughout the County.

POLICY ONE

Maintain the natural environment in areas dedicated as parks and open space.

IMPLEMENTATION MEASURES

1. Development of County parks shall include provisions for native vegetation conservation. Rare and endangered plants will be protected consistent with state and federal law and consistent with protection standards for private development as established in this General Plan.
   Responsible Departments: Parks and Recreation, Board of Supervisors

2. Continue to use Williamson Act contracts as a means for open space conservation.
   Responsible Departments: Planning Department, Assessor, Board of Supervisors

POLICY TWO

Assure compatibility between natural areas and development.

IMPLEMENTATION MEASURES

1. Review zoning regulations for compatibility between proposed development and natural areas.
   Responsible Department: Planning Department

2. Review all development requests to ensure that sensitive areas (e.g., riparian habitats, vernal pools, rare plants) are left undisturbed or that mitigation measures acceptable to appropriate state and federal agencies are included in the project.
   Responsible Departments: Planning Department, Public Works, Planning Commission, Board of Supervisors.

3. Require Airport Land Use Commission (ALUC) review of the location, compatibility, and design of proposed parks, open space uses, and outdoor recreation areas within adopted Airport Influence Areas.
Responsible Department: Planning Department

4. Discourage the establishment of conservation areas or nature preserves within adopted Airport Influence Areas.
Responsible Department: Planning Department

5. Consider adoption of scenic corridors to protect and preserve natural scenic vistas located throughout the County.
Responsible Departments: Parks and Recreation, Planning Department, Planning Commission, Board of Supervisors

POLICY THREE

Areas of sensitive wildlife habitat and plant life (e.g., vernal pools, riparian habitats, flyways and other waterfowl habitats, etc.) including those habitats and plant species listed in the General Plan Support Document or by state or federal agencies shall be protected from development **and/or disturbance.**

IMPLEMENTATION MEASURES

1. Review all development requests to ensure that sensitive areas (e.g., riparian habitats, vernal pools, rare plants, flyways, etc.) are left undisturbed or that mitigation measures acceptable to appropriate state and federal agencies are included in the project.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. In known sensitive areas, the State Department of Fish and ~~Game~~ **Wildlife** shall be notified as required by the California Native Plant Protection Act; the U.S. Fish and Wildlife Service also shall be notified.
Responsible Department: Planning Department

3. All discretionary projects that will potentially impact riparian habitat and/or vernal pools or other sensitive areas shall include mitigation measures for protecting that habitat.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

4. All discretionary projects within an adopted Airport Influence Area (AIA) that have the potential to create habitat, habitat conservation, or species protection shall be reviewed by the Airport Land Use Commission.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

~~4.~~**5.** Implementation of this policy shall not be extended to the level of an unconstitutional "taking" of property.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

6. Any ground disturbing activities on lands previously undisturbed that will potentially impact riparian habitat and/or vernal pools or other sensitive areas shall include mitigation measures for protecting that habitat, as required by the State Department of Fish and Wildlife.
Responsible Departments: Planning Department, Public Works, Planning Commission, Board of Supervisors

POLICY FOUR

Protect and enhance oak woodlands and other native hardwood habitat.

IMPLEMENTATION MEASURES

1. Require all discretionary projects that will potentially impact oak woodlands and other native hardwood habitat, including but not limited to hardwood rangelands indentified in the maps in Appendix III-A, to include a management plan for the protection and enhancement of oak woodlands and other native hardwood habitat.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Consider adoption of a tree protection ordinance to promote conservation of native trees or trees with historic significance.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

GOAL TWO

Conserve water resources and protect water quality in the County.

POLICY FIVE

Protect groundwater aquifers and recharge areas, particularly those critical for the replenishment of reservoirs and aquifers.

IMPLEMENTATION MEASURES

1. Proposals for urbanization in groundwater recharge areas shall be reviewed to ensure that (1) as much water as possible is returned to the recharge area, (2) the development will not cause discharge of materials detrimental to the quality of the water, and (3) the development will not result in significant groundwater overdrafting or deterioration in quality. The Department of Environmental Resources shall require:

   A. In those areas where groundwaters are susceptible to overdrafting, the project proponent shall perform a hydrogeological analysis and include appropriate mitigation measures in the proposal.

   B. In those areas where groundwater quality is susceptible to deterioration or is already of reduced quality, the level of wastewater treatment shall be such that it will not cause further quality deterioration.

   Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors.

2. The Department of Environmental Resources shall identify and require control of point sources for pollutants stored, handled or disposed of on the surface of the soil or in the vadose zone that is located in the zone or aeration immediately above the groundwater level. Potential sources of pollutants to the groundwater may also include high densities of

individual on-site sewage treatment units and/or the use of community package treatment plants. The Department of Environmental Resources shall require the adoption of groundwater monitoring programs for projects where hydrogeological assessments indicate the potential for groundwater deterioration is likely.
Responsible Department: Environmental Resources

3. **Stanislaus County shall discourage the use of** ~~Eliminate reliance on~~ dry wells as a means of street drainage in urban areas. Dry wells collect and discharge toxic, hazardous and designated contaminants into aquifers having beneficial uses. New projects shall have storm water disposal systems that: (1) are designed not to pollute receiving surface or groundwaters, and (2) which could be integrated into an area-wide groundwater recharge program whenever feasible.
Responsible Departments: Environmental Resources, Public Works, Planning Commission, Board of Supervisors

4. ~~During the project and environmental review process,~~ **E**ncourage new development to incorporate water conservation measures to minimize adverse impacts on water supplies. ~~Possible measures include, but are not limited to, low-flow plumbing fixtures, use of reclaimed wastewater for landscaping when feasible, and use of drought-tolerant landscaping.~~
Responsible Departments: Environmental Resources, ~~*Building Inspection Division*~~ ***Planning Department-Building Permits Division***

5. Continue to implement the landscape provisions of the Zoning Ordinance, which encourage drought-tolerant landscaping and water-conserving irrigation methods.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

6. During the project and environmental review process, encourage new urban development to be served by community wastewater treatment facilities and water systems rather than by package treatment plants or private septic tanks and wells.
Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

POLICY SIX

Preserve **natural** vegetation to protect waterways from bank erosion and siltation.

IMPLEMENTATION MEASURES

1. Development proposals **and mining activities** including or in the vicinity of waterways and/or wetlands shall be closely reviewed to ensure that destruction of riparian habitat and vegetation is minimized. This shall include referral to the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, ~~and the~~ State Department of Fish and ~~Game~~ **Wildlife, and the State Department of Conservation**.
Responsible Departments: Planning Department, Public Works, Planning Commission, Board of Supervisors

2. Continue to encourage best management practices for agriculture and coordinate with soil and water conservation efforts of Stanislaus County Farm Bureau, Resource Conservation Districts, the U.S. Soil Conservation Service, and local irrigation districts.
Responsible Departments: Agricultural Commissioner, U.C. Cooperative Extension

POLICY SEVEN

New development that does not derive domestic water from pre-existing domestic and public water supply systems shall be required to have a documented water supply that does not adversely impact Stanislaus County water resources.

IMPLEMENTATION MEASURES

1. Proposals for development to be served by new water supply systems shall be referred to appropriate water districts, irrigation districts, community services districts, the State Water Resources Board and any other appropriate agencies for review and comment.
   Responsible Department: Planning Department, Environmental Resources

2. Review all development requests to ensure that sufficient evidence has been provided to document the existence of a water supply sufficient to meet the **short and long term water** needs of the project without adversely impacting the quality and quantity of existing local water resources.
   Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

POLICY EIGHT

The County shall **support** ~~continue and, if necessary, expand the water monitoring program of the~~ **efforts** ~~of the Stanislaus County Department of Environmental Resources~~ **to develop and implement water management strategies.**

IMPLEMENTATION MEASURES

1. The County ~~will consider applying for Community Development Block Grant Funds and other~~ will pursue state and federal ~~various grants~~ **funding options** to improve water **management resources** ~~quality~~ in the County.
   Responsible Department: Planning Department, Environmental Resources, Board of Supervisors

2. The Department of Environmental Resources should continue to monitor groundwater quality by reviewing well water chemical and bacterial analysis results **for public water systems under the department's supervision** and **by** overseeing investigations involving soil and groundwater contamination.
   Responsible Department: Environmental Resources

3. The County will coordinate with water purveyors, private landowners and other water resource agencies in the region on data collection of groundwater conditions and in the development of a groundwater usage tracking system, including well location/construction mapping (within the extent that prevailing law allows) and groundwater level monitoring, to guide future policy development.
   Responsible Department: Environmental Resources

4. The County shall promote efforts to increase reliability of groundwater supplies through water resource management tools ranging from surface water protection programs, demand management programs (conservation), continued public

education programs, and expanded opportunities for conjunctive use of groundwater, surface water, and appropriately treated wastewater and stormwater reuse opportunities.
Responsible Department: Environmental Resources, Agricultural Commissioner, Public Works, Public Health, Planning.

5. **The County will support and where appropriate help facilitate the formation of an integrated and comprehensive county-wide, and where appropriate regional, water resources management plan which incorporates existing water management plans and identifies and plans for management within the gaps between existing water management plans.**
Responsible Department: Planning Department, Environmental Resources

6. **The County will cooperate with other pertinent agencies, including cities and water districts, in the preparation and adoption of a groundwater sustainability plan pursuant to the Sustainable Groundwater Management Act (SGMA) and any subsequent legislation. The County will use its regulatory authority, as appropriate, to implement the requirements of the groundwater sustainability plan.**
Responsible Department: Environmental Resources, Planning.

7. **The County will obtain the technical information, and develop the planning and policy needs to improve groundwater recharge opportunities and groundwater conditions in the County.**
Responsible Department: Environmental Resources, Planning.

8. **As information becomes available, the County will adopt General Plan changes to protect recharge areas and manage land use changes that have an impact on groundwater use and quality.**
Responsible Department: Environmental Resources, Planning.

POLICY NINE

The County will investigate additional sources of water for domestic use.

IMPLEMENTATION MEASURE

1. The County will work with irrigation and water districts, community services districts, municipal and private water providers in developing surface water and other potential water sources for domestic use.
Responsible Departments: Planning Department, Chief Executive Officer, Environmental Resources, Stanislaus County Water Advisory Committee

GOAL THREE

Provide for the long-term conservation and use of agricultural lands.

POLICY TEN

Discourage the division of land which forces the premature cessation of agricultural uses.

IMPLEMENTATION MEASURES

1. Use of the 40-acre or larger parcel size or agricultural Planned Developments with average residential densities equivalent to those allowed by parcel sizes of at least 40 acres shall be continued throughout most of the area designated Agriculture on the Land Use Element of the General Plan.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. The County will continue to ~~offer the financial benefits of the~~ **participate in the** Williamson Act, consistent with **the** Polici**es**~~y~~ ~~Sixteen, Implementation Measure 5~~ of the Land Use **and Agricultural** Element**s.**
   Responsible Departments: Planning Department, Assessor, Board of Supervisors

3. The County will continue to participate in the Farmland Mapping and Monitoring Program. ~~(Comment: The major purpose of this program is to monitor conversion of the state's agricultural land to and from agricultural use, and to report that conversion annually to the legislature, local government, and the public. The program began in 1980 to supplement the land inventory and monitoring activity of the U.S. Department of Agriculture's Soil Conservation Service (SCS). Growing public concern over farmland losses in California and a low federal priority for the mapping program in our State were the basis for California's participation in the land inventory. The State's involvement in the SCS inventory program led to the passage of AB 966 in 1981. The primary purpose of the bill was to create a map inventory of the State's crop and grazing lands, and set up an ongoing monitoring system to document the quantity of land put into production and land converted to urban usage in California. As a result, three key areas of local governmental involvement in the State's Farmland Mapping and Monitoring Program are: (1) identifying farmland of local importance, (2) identifying land committed to nonagricultural use, and (3) advising the Department each year of lands which have been converted to urban use.)~~
   Responsible Departments: U.C. Cooperative Extension, Planning Department

~~4. In designated areas of agricultural land, the County will encourage clustering, or grouping together, of allowable dwelling units on relatively small parcels instead of the dispersal of such dwelling units on larger parcels. Any changes to County zoning and/or subdivision regulations to allow clustering should be submitted by staff to the Planning Commission and Board of Supervisors by June 30, 1996.~~
   ~~***Responsible Departments: Planning Department, Planning Commission, Board of Supervisors***~~

POLICY ELEVEN

In areas designated "Agriculture" on the Land Use Element, discourage land uses which are incompatible with agriculture.

IMPLEMENTATION MEASURES

1. All development proposals that require discretionary approval shall be reviewed to ensure that the project will not adversely affect an existing agricultural area.
   Responsible Department: Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors.

2. The County shall continue to implement the strategies identified in the Agricultural Element to ensure that new development is compatible with agricultural uses.
Responsible Department: Agricultural Commissioner, Planning Department, Planning Commission, Board of Supervisors.

3. The County shall continue to work with LAFCO to ensure that expansion of urban boundaries minimizes the area of conflict between urban and agricultural uses.
Responsible Department: Planning Department

GOAL FOUR

Provide for the open-space recreational needs of the residents of the County.

POLICY TWELVE

Provide a system of local and regional parks which will serve the residents of the County. (Comment: The County should acquire future park sites in areas where growth is planned when funding is available.)

IMPLEMENTATION MEASURES

1. The County shall consider adoption of an amendment to the Subdivision Ordinance ~~by June 30, 1996~~ to require parkland dedication~~, or~~ park in-lieu fees, **public facility fees, or other methods acceptable to the Parks Department**, to be paid by subdividers and developers.
Responsible Departments: Planning Department, Parks Department, Parks Commission, Planning Commission, Board of Supervisors

2. ~~The County Department of Parks and Recreation shall prepare and implement a plan to identify, acquire and maintain future park site locations. The parks plan should be adopted by June 30, 1996 and should address neighborhood parks and open space in urban settings as well as regional parks that serve the entire County population~~. **The County shall continue to implement the Parks Master Plan. The Plan shall be comprehensively updated as found necessary by the Board of Supervisors.**
Responsible Departments: Parks Department, Parks Commission, Planning Department, Planning Commission, Board of Supervisors

~~3. The County shall adopt design standards for urban parks by June 30, 1996.~~
~~***Responsible Departments: Parks Department, Parks Commission, Planning Department, Planning Commission, Board of Supervisors***~~

3. ~~4.~~ The County shall consider establishing appropriate funding mechanisms for park operations and maintenance, including benefit assessment districts and County Service Areas (CSAs), with appropriate exemptions included for those landowners that provide open space amenities.
Responsible Departments: Parks Department, Parks Commission, Planning Department, Planning Commission, Treasurer-Tax Collector, Auditor-Controller, Chief Executive Office, Board of Supervisors

4. ~~5.~~ The County shall encourage the interconnection of recreational areas, open spaces and parks that are oriented to pedestrian and bicycle travel along public highway rights-of-way, while protecting private property **and river corridors,** to the greatest extent possible.
Responsible Departments: Parks Department, Parks Commission, Planning Department, Planning Commmission, Public Works, Board of Supervisors

~~6. The County Department of Parks and Recreation will cooperate with efforts by the State Parks Department to make Henry Coe State Park more accessible to Stanislaus County residents.~~
~~***Responsible Department: Parks and Recreation***~~

5. ~~7.~~ The County shall require **dedication and improvement of parks and open space in accordance with the Stanislaus County Parks Master Plan, as amended from time to time**. ~~at least three net acres of developed neighborhood parks to be provided for every 1,000 residents~~.
Responsible Departments: Parks Department, Parks Commission, Planning Department, Planning Commission, Board of Supervisors

POLICY THIRTEEN

Promote the use of water reservoirs for multiple recreational purposes, where appropriate.

IMPLEMENTATION MEASURES

1. The County shall encourage the multiple use of reservoirs as flood control devices, recreational facilities, and wildlife habitats**.**
Responsible Departments: Parks and Recreation, Board of Supervisors

2. The County shall, when funds become available, install **and maintain** boat**ing** ~~ramps~~ **facilities,** where appropriate.
Responsible Departments: Parks and Recreation, Board of Supervisors

3. The County shall encourage the development of on-site resort services and accessory sales designed to enhance recreational opportunities, where appropriate.
Responsible Departments: Parks and Recreation, Board of Supervisors

POLICY FOURTEEN

Provide for diverse recreational opportunities such as horseback riding trails, hiking trails, and bikeways.

IMPLEMENTATION MEASURES

1. In areas where appropriate, equestrian facilities may be provided. (The County should consider equestrian facilities when developing new parks. Also, in large land subdivisions where horses are permitted, the County should encourage the development of equestrian facilities.)
Responsible Departments: Parks and Recreation, Planning Department, Planning Commission, Board of Supervisors

2. Bikeways and pedestrian paths shall be considered when constructing or improving the

road and street system within the sphere of influence of cities or other urban areas**, consistent with the Non-Motorized Transportation Plan adopted by StanCOG**.
Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

POLICY FIFTEEN

Coordinate the provision of recreation needs with other providers such as the Army Corps of Engineers, the State Resources Agency, school districts, **local cities,** river rafters, horse stable operators, and private organizations such as the Sierra Club, and Audubon Society**.**

IMPLEMENTATION MEASURES

1. The County will pursue various funding options for providing recreational opportunities.
Responsible Departments: Parks and Recreation, Board of Supervisors

2. The County will assume responsibility for parks, when financially feasible, dedicated to them by state or federal agencies.
Responsible Departments: Parks and Recreation, Board of Supervisors

3. Prior to the issuance of any building permit on parcels fronting ~~the Stanislaus River~~ **on rivers and streams**, it shall be verified that the building site is outside of Army Corps of Engineers easements.
Responsible Department: ~~*Building Inspection Division*~~ ***Planning Department-Building Permits Division***

4. An inventory of recreational facilities shall be maintained for use in parks and recreation facilities planning.
Responsible Department: Parks and Recreation

5. Proposals to establish new or expanded recreational areas shall be reviewed for consistency with policies of the Safety Element when located within an adopted Airport Influence Area as a means to prevent the creation of potential wildlife strike hazards or other hazards to park users, aviators, and the traveling public.
Responsible Department: Parks and Recreation

GOAL FIVE

Reserve, as open space, lands subject to natural disaster in order to minimize loss of life and property of residents of Stanislaus County.

POLICY SIXTEEN

Discourage development on lands that are subject to flooding, landslide, faulting or any natural disaster to minimize loss of life and property.

IMPLEMENTATION MEASURES

1. Enforce the provisions of the Alquist-Priolo Earthquake Fault Zoning Act.
   Responsible Departments: ~~*Building Inspection Division*~~ ***Planning Department-Building Permits Division, Planning Department, Planning Commission, Board of Supervisors***

2. Development will not be permitted in floodways unless it meets the requirements of Chapter ~~16.40~~ **16.50** of the County Code and is approved by the State Reclamation Board.
   Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

3. Development proposals in an area identified as having unstable soils (bluff, landslide areas in the foothills, etc.) shall include measures for mitigating possible hazards.
   Responsible Departments: Public Works, ~~*Building Inspection Division*~~ ***Planning Department-Building Permits Division, Planning Department, Planning Commission, Board of Supervisors***

4. The County shall enforce the subdivision ordinance requirement for soils reports, which may be required to include a geologic report.
   Responsible Departments: Public Works, Planning Commission, Board of Supervisors

5. The County shall utilize the California Environmental Quality Act (CEQA) process to ensure that development does not occur that would be subject to natural disasters.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

6. **Development proposals shall be reviewed for conformance with all applicable Hazard Mitigation Plans and consistency with policies of the Safety Element.**
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY SEVENTEEN

Develop a plan to minimize the impacts of a disaster.

IMPLEMENTATION MEASURES

1. The County Office of Emergency Services will continue to work with other jurisdictions to develop evacuation routes to be used in case of a disaster. Evacuation routes will serve all of the jurisdictions in the County. Plans for evacuation routes must be coordinated with the cities.
Responsible Department: Emergency Services

2. In case of a disaster, the County will use the adopted emergency plan and the procedures established in that document **(Multi-Jurisdictional Hazard Mitigation Plan).**
Responsible Departments: Emergency Services, Sheriff, ~~Fire Safety~~ Fire Warden's Office and the Local Fire Agency Having Jurisdiction, Board of Supervisors

3. The County will provide information to anyone interested in forming a flood control district in Stanislaus County.
Responsible Department: Public Works

GOAL SIX

Improve air quality.

POLICY EIGHTEEN

The County will promote effective communication, cooperation and coordination among agencies involved in developing and operating local and regional air quality programs.

IMPLEMENTATION MEASURES

1. Refer discretionary projects under CEQA review to the San Joaquin Valley ~~Unified~~ Air Pollution Control District (SJV~~U~~APCD), neighboring jurisdictions and other affected agencies for review and comment.
Responsible Department: Planning Department

2. Work with other agencies in the San Joaquin Valley to establish coordinated air quality programs and implementation measures.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY NINETEEN

The County will strive to accurately determine and fairly mitigate the local and regional air quality impacts of proposed projects.

IMPLEMENTATION MEASURES

1. Require all development proposals, where appropriate, to include reasonable air quality mitigation measures.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Minimize case-by-case analysis of air quality impacts through the use of standard criteria for determining significant environmental effects, a uniform method of calculating project emissions, and standard mitigation methods to reduce air quality impacts.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY

The County shall strive to reduce motor vehicle emissions by reducing vehicle trips and vehicle miles traveled and increasing average vehicle ridership.

IMPLEMENTATION MEASURES

1. Through strategies identified in the Circulation Element, ensure that circulation systems are designed and maintained to minimize traffic congestion and vehicle emissions.
Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

2. Support a broad range of transportation modes, including public transit, bicycling and pedestrian travel, through the strategies identified in the Circulation Element.
Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

3. Help achieve a jobs/housing balance by working with appropriate organizations to attract employers to Stanislaus County.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY-ONE

The County will support efforts to increase public awareness of air quality problems and solutions.

IMPLEMENTATION MEASURES

1. Support and participate in the air quality education programs of the SJV~~U~~APCD to the greatest extent possible.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Support education programs that increase public awareness of techniques to reduce ~~fine~~ particulate matter ~~(PM-10)~~ emissions.
Responsible Departments: U.C. Cooperative Extension, Agricultural Commissioner, Agricultural Advisory Board, Planning Department, Department of Environmental Resources, Public Health, ~~Building Inspection Division~~ Planning Department-Building Permits Division, Board of Supervisors

3. Work with the local building industry, utilities, and the SJV~~U~~APCD to educate developers and builders on the benefits of energy-efficient designs and the use of low-emission equipment for new residential and commercial construction.
Responsible Departments: Planning Department, ~~Building Inspection Division~~ Planning Department-Building Permits Division

GOAL SEVEN

Support efforts to minimize the disposal of solid waste through source reduction, reuse, recycling, composting and transformation activities.

~~(Comment: As urbanization spreads and populations increase, more and more refuse is produced. Public Resources Code, Section 41780, requires Stanislaus County to reduce solid waste disposal 50% by the year 2000 through maximizing the use of all feasible source reduction, recycling and composting options. For wastes that cannot be feasibly reduced at their source, recycled, or composted, the practices of environmentally safe transformation or land disposal, or both, may be used. Barriers to siting such disposal facilities include environmental factors and costs.)~~

POLICY TWENTY-TWO

The County will support the solid waste management hierarchy established by the California Public Resources Code, Section 40051, and actively promote the goals and objectives specified in the Countywide Integrated Waste Management Plan.

IMPLEMENTATION MEASURES

1. Encourage and promote activities, projects, legislation, business and industries that cause solid waste to be reduced at the source, reused, recycled and/or composted.
   Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors, ~~SCEDCO~~

2. ~~Complete and adopt the state-mandated Countywide Integrated Waste Management Plan by January 31, 1996.~~ **Maintain an up to date Countywide Integrated Waste Management Plan.**
   Responsible Departments: Environmental Resources, Board of Supervisors

3. Encourage the use of transformation facilities (such as waste-to-energy plants) as a component of the County's integrated waste management system.
   Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

4. Actively pursue the identification, siting, permitting and operation of additional landfill capacity to receive solid wastes that are not diverted from disposal and for the disposal of ash from transformation facilities.
   Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

5. Encourage and promote activities, projects, legislation, businesses and industries that cause special wastes (e.g., food processing ~~residue~~ **by-products,** demolition/construction waste, inert wastes, **e-waste/universal waste,** tires, de-watered sludge, household hazardous waste, etc.) to be safely diverted from landfills or transformation facilities, including composting and co-composting operations.
   Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

6. **Permitting and operation of recycling facilities that receive waste materials diverted from landfills or transformation facilities shall be evaluated for compatibility with surrounding land uses.**
Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY-THREE

The County will protect existing solid waste management facilities, including the waste-to-energy plant and the Fink Road landfill, against encroachment by land uses that would adversely affect their operation or their ability to expand.

IMPLEMENTATION MEASURES

1. Do not approve any discretionary projects within 1,000 feet of existing solid waste management facilities, including the Fink Road landfill and the waste-to-energy plant, unless such projects will have no adverse impact on those facilities or vice versa.
Responsible Departments: Public Works, Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

2. Explore the possibility of establishing an appropriate mechanism to preclude issuance of any building permits within 1,000 feet of solid waste management facilities, including the Fink Road landfill and the waste-to-energy plant.
Responsible Departments: Public Works, County Counsel, ~~Building Inspection Division~~ Planning Department-Building Permits Division, Board of Supervisors

GOAL EIGHT

Preserve areas of national, state, regional and local historical importance.

Policies under Goal 8 may include additional Information as a result of SB 18 – Native American Consultations during Environmental Phase

POLICY TWENTY-FOUR

The County will support the preservation of Stanislaus County's cultural legacy of archeological, historical, ~~and archeological~~ and paleontological resources for future generations.

(Comment: Landmarks of historical consequence not only include old schoolhouses, and covered bridges, but also such sites as Native American burial grounds, cemeteries, pottery, rock carvings, and rock paintings. Normally, "sensitive" areas are often located near natural watercourses, springs or ponds, or on elevated ground. However, due to the silt build-up in the valley and the meandering of rivers, archaeological and historical sites may be found in unsuspected areas.)

IMPLEMENTATION MEASURES

1. The County shall continue to utilize the HS (Historical Site) zone in Knight's Ferry and La Grange to protect the historical character of the communities.
Responsible Departments: Planning Department, Planning Commission, Board of

Supervisors

2. The County shall seek input from the Knight's Ferry Municipal Advisory Council concerning any development proposals in the HS zone in Knight's Ferry.
Responsible Departments: Planning Department, Historical Sub-Committee of the Planning Commission, Planning Commission, Board of Supervisors

3. The County shall work with the County Historical Society, and other organizations and interested individuals to study, identify and inventory archeological resources and historical sites, structures, buildings and objects.
Responsible Department: Planning Department, Parks and Recreation

4. The County will cooperate with the State Historical Preservation Officer to identify and nominate historical structures, objects, buildings and sites for inclusion under the Historical Preservation Act.
Responsible Department: Planning Department, Parks and Recreation

5. The County shall utilize the California Environmental Quality Act (CEQA) process to protect archaeological, ~~or~~ historic, or paleontological resources. Most discretionary projects require review for compliance with CEQA. As part of this review, potential impacts must be identified and mitigated.
Responsible Departments: Planning Department, Parks and Recreation, Planning Commission, Board of Supervisors

6. The County shall make referrals to the Office of Historic Preservation and the Central California Information Center as required to meet CEQA requirements and require.
Responsible Department: Planning Department

7. The County will work with all interested individuals and organizations to protect and preserve the mining heritage of Stanislaus County.
Responsible Department: Parks and Recreation

POLICY TWENTY-FIVE

"Qualified Historical Buildings" as defined by the State Building Code shall be preserved.

IMPLEMENTATION MEASURES

1. Whenever possible, the County Building ~~Inspection~~ **Permits** Division shall utilize the provisions of the State Building Code that allow historical buildings to be restored without damaging the historical character of the building.
Responsible Department: ~~Building Inspection Division~~ Planning Department-Building Permits Division

2. The County shall continue to utilize the HS (Historical Site) zone in Knight's Ferry and La Grange to protect the historical character of the communities.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

GOAL NINE

Manage extractive mineral resources to ensure an adequate supply without degradation of the environment.

POLICY TWENTY-SIX

Surface mining in areas classified by the State Division of Mines and Geology as having significant deposits of extractive mineral resources shall be encouraged.

IMPLEMENTATION MEASURES

1. The County shall encourage and support the State Division of Mines and Geology or other public or private organizations in designating the County's sand and gravel resources.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. The County shall utilize the California Environmental Quality Act (CEQA) process to protect mineral resources as well as the environment. Most discretionary projects require review for compliance with CEQA. As a part of this review, environmental impacts and alternatives, must be identified and the manner for such significant effects to be avoided or mitigated must be indicated. ~~The Legislature declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects.~~
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors.

3. **Areas identified in Special Reports prepared by the California Geological Survey, shall be covered by the Mineral Resource land use designation of the Land Use Element.** ~~The County shall adopt the Mineral Resources land use designation for those areas designated by the state as significant deposits of mineral by the State Division of Mines and Geology resources at such time as the State Division of Mines and Geology completes the countywide mineral resources designation process under the Surface Mining and Reclamation Act (SMARA).~~
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors.

4. **As necessary, t**he County shall ~~consider adopting~~ **update and maintain the** Mineral Resources land use designation for those areas**, within Stanislaus County,** identified as significant deposits of mineral resources in ~~the 1993 (Special Report 173) Mineral Land Classification of Stanislaus County~~ **Special Reports** prepared by the ~~State Division of Mines and Geology~~ **California Department of Conservation, California Geological Survey**.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY-SEVEN

The County shall emphasize the conservation and development of lands having significant deposits of extractive mineral resources by not permitting uses that threaten the potential to extract the minerals.

IMPLEMENTATION MEASURES

1. Requests for conversion of lands with significant deposits of extractive mineral resources (e.g., sand and gravel) to urban uses shall not be approved unless provisions are made for extraction prior to development.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Any approval of potentially incompatible land uses in and surrounding areas containing significant deposits of extractive mineral resources shall include conditions mitigating the significant land use conflicts.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

3. The classification maps and mineral information contained in ~~the Mineral Land Classification of Stanislaus County, California (Special Report 173),~~ **Special Reports identifying mineral resources within Stanislaus County and prepared by the California Geological Survey,** together with Public Resources Code Section 2710 et seq. (SMARA) and state policy, are hereby incorporated in this General Plan by reference.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TWENTY-EIGHT

Lands used for the extraction of mineral resources shall be reclaimed as required by the Surface Mining and Reclamation Act of 1975 **(SMARA)** to minimize undesirable impacts.

IMPLEMENTATION MEASURES

1. Approval of any excavation permits shall include requirements for reclamation of the land consistent with the land use designation.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Mineral excavation on productive agricultural land should have a reclamation plan that retains or restores a maximum amount of agricultural or open space land.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

GOAL TEN

Protect fish and wildlife species of the County.

~~**POLICY TWENTY-NINE**~~

~~Adequate water flows should be maintained in the County's rivers to allow salmon migration.~~

~~**IMPLEMENTATION MEASURE**~~

~~1. The County should continue to lobby the federal government to provide adequate water flow in the County's rivers to allow salmon migration.~~
~~***Responsible Department: Board of Supervisors***~~

~~POLICY THIRTY~~ **POLICY TWENTY-NINE**

Habitats of rare and endangered fish and wildlife species**, including special status wildlife and plants,** shall be protected. ~~Information on rare and endangered species and habitats is constantly being updated in response to a 1982 state law by the California State Department of Fish and Game through various sources which include the Stanislaus Audubon Society, California Native Plant Society, and the Sierra Club.~~

IMPLEMENTATION MEASURES

1. The County shall utilize the California Environmental Quality Act (CEQA) process to ensure that development does not occur that would be detrimental to fish, plant life, or wildlife species.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. The County shall **utilize the California State Department of Fish and Wildlife's California Natural Diversity Data Base and the California's Native Plant Society plant lists as the primary sources of information on special status wildlife and plants.** ~~maintain information regarding fish and wildlife habitats and rare and endangered flora and fauna species.~~
   Responsible Department: Planning Department

3. The County shall protect sensitive wildlife habitat and plant life through the strategies identified under Policy Three of this element.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

GOAL ELEVEN

Conserve resources through promotion of waste reduction, reuse, recycling, composting, ride-share programs and alternative energy sources such as mini-hydroelectric plants, gas and oil exploration, and transformation facilities such as waste-to-energy plants.

~~POLICY THIRTY-ONE~~ POLICY THIRTY

The County shall provide zoning mechanisms for locating material recovery facilities, recycling facilities, composting facilities, and new energy producers when the proposed location does not conflict with surrounding land uses.

IMPLEMENTATION MEASURES

1. The County shall include provisions in its zoning ordinance for siting material-recovery facilities, recycling facilities, composting facilities, mini-hydroelectric plants and **alternative energy sources.** ~~transformation facilities by June 30, 1997.~~
   Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

2. The County shall actively pursue and implement projects, plans and programs that will effectively protect and conserve existing and future landfill capacity.
   Responsible Departments: Environmental Resources, Board of Supervisors

~~POLICY THIRTY-TWO~~ POLICY THIRTY-ONE

New construction by the County shall meet or exceed code requirements for energy conservation.

IMPLEMENTATION MEASURES

1. New County facilities should be designed to maximize energy efficiency.
   Responsible Departments: County Executive Office, ~~Building Inspection Division~~ Planning Department-Building Permits Division

2. Existing County facilities should be made to maximize energy efficiency where it is found to be economically reasonable.
   Responsible Departments: County Executive Office, ~~Building Inspection Division~~ Planning Department-Building Permits Division

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Maps & appendix to be updated during environmental process.

APPENDIX III-A

STANISLAUS COUNTY HARDWOOD RANGELANDS

Source: California Department of Forestry and Fire Protection (CDF) maps prepared by Pillsbury, N.H., et al. 1991. From 1981 1:24,000 CDF aerial photos. Hardwoods above 5,000 feet were not mapped.

Refer to Extent and Ownership of California's Hardwoods for additional information.

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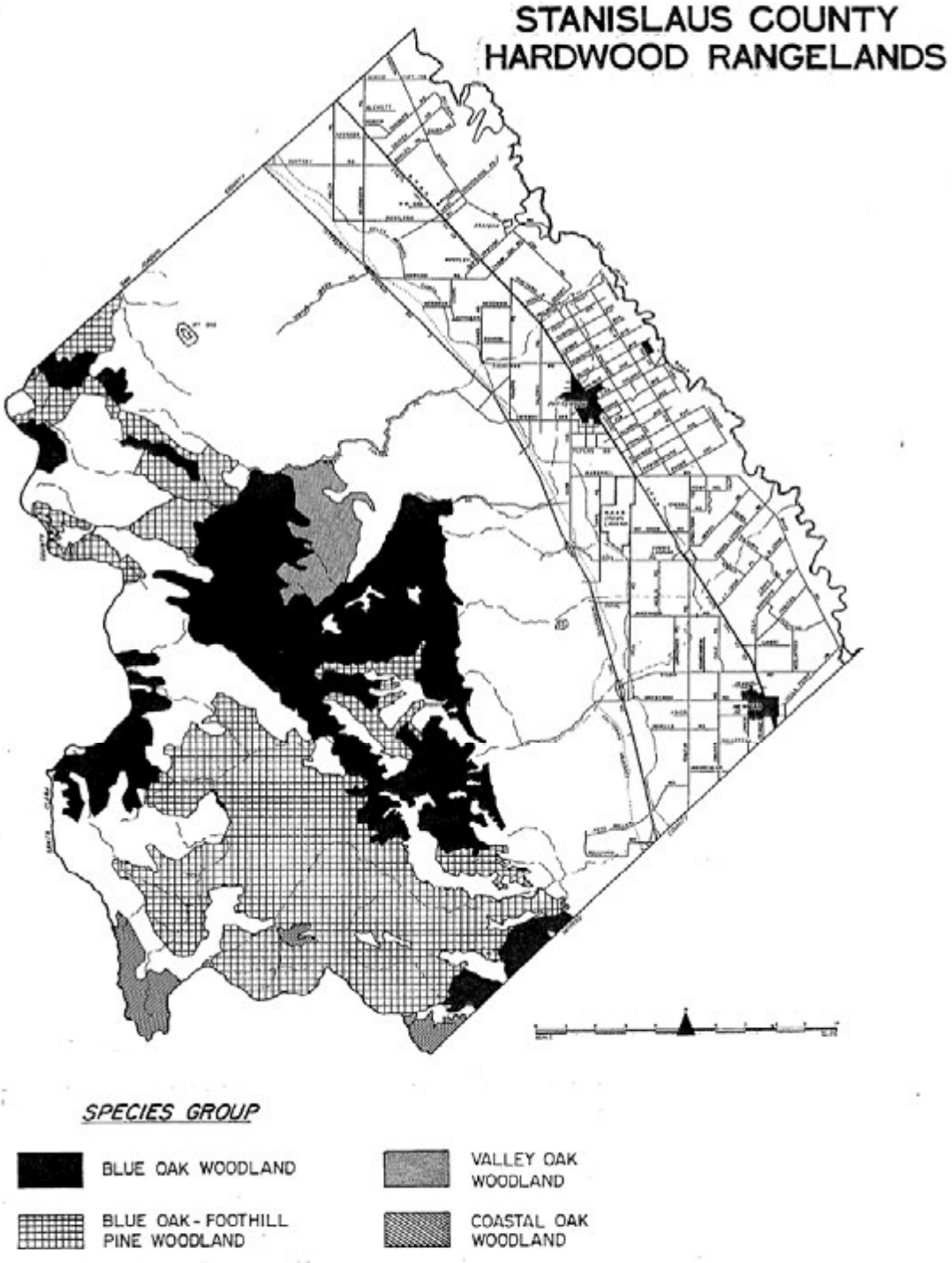
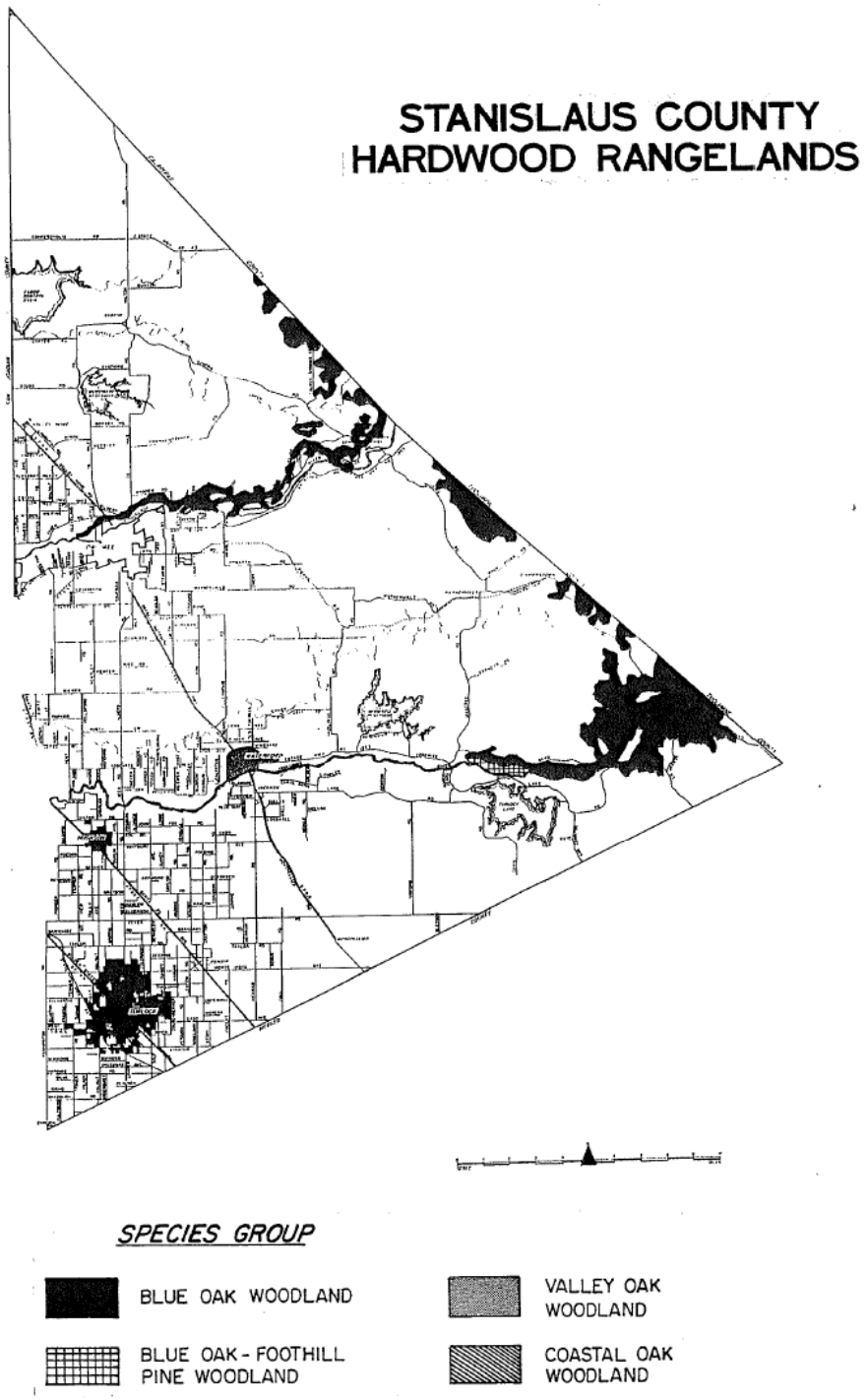

STANISLAUS COUNTY
HARDWOOD RANGELANDS
SPECIES GROUP
BLUE OAK WOODLAND
BLUE OAK - FOOTHILL PINE WOODLAND
VALLEY OAK WOODLAND
COASTAL OAK WOODLAND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HARDWOOD RANGELANDS
SPECIES GROUP
BLUE OAK WOODLAND
VALLEY OAK WOODLAND
BLUE OAK - FOOTHILL PINE WOODLAND
COASTAL OAK WOODLAND

APPENDIX III-B

AGGREGATE RESOURCE AREAS OF STANISLAUS COUNTY, CALIFORNIA

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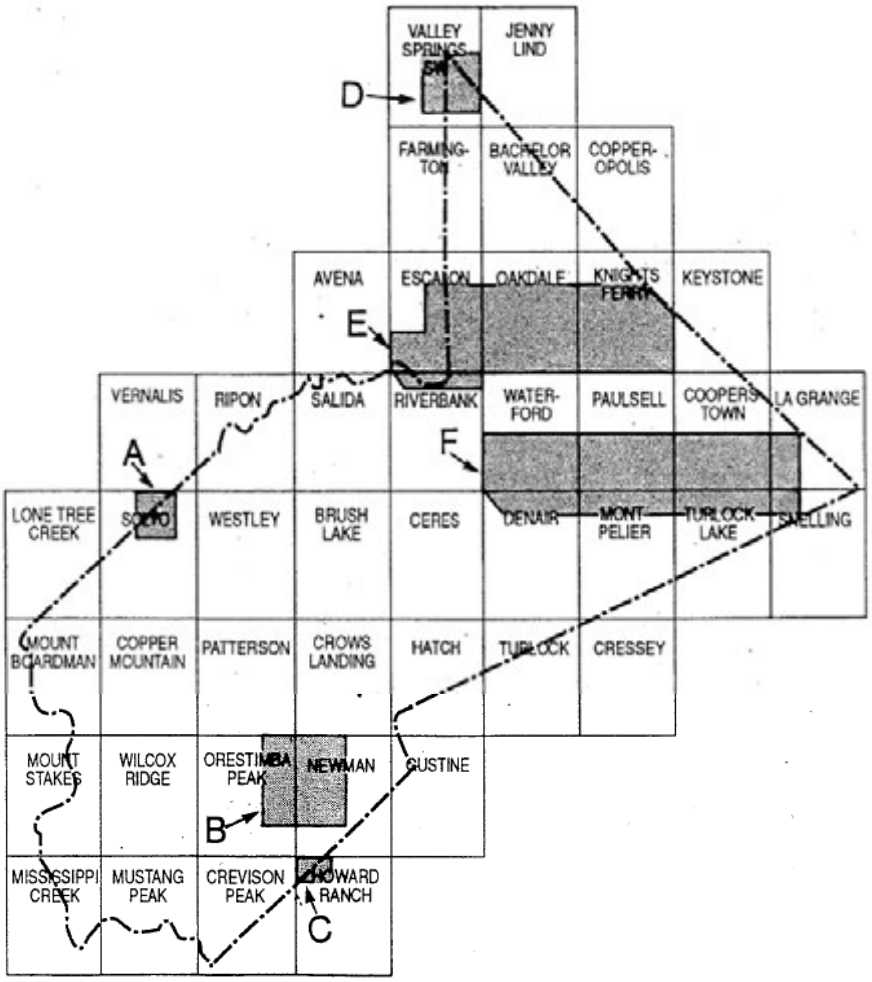


Index map of U.S.G.S. 7.5-minute quadrangles used to compile bases.

Topographic base maps by U.S. Geological Survey.

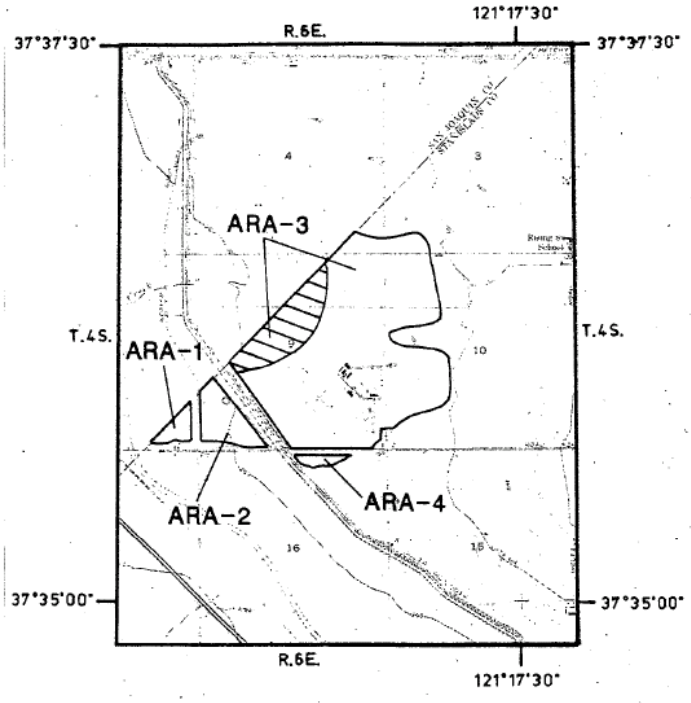
N

AGGREGATE RESOURCE AREAS OF STANISLAUS COUNTY

State Division of Mines & Geology
Special Report 173 (1993)

AGGREGATE RESOURCE AREAS OF STANISLAUS COUNTY

State Division of Mines & Geology
Special Report 173 (1993)



A-HOSPITAL CREEK FAN ARA's

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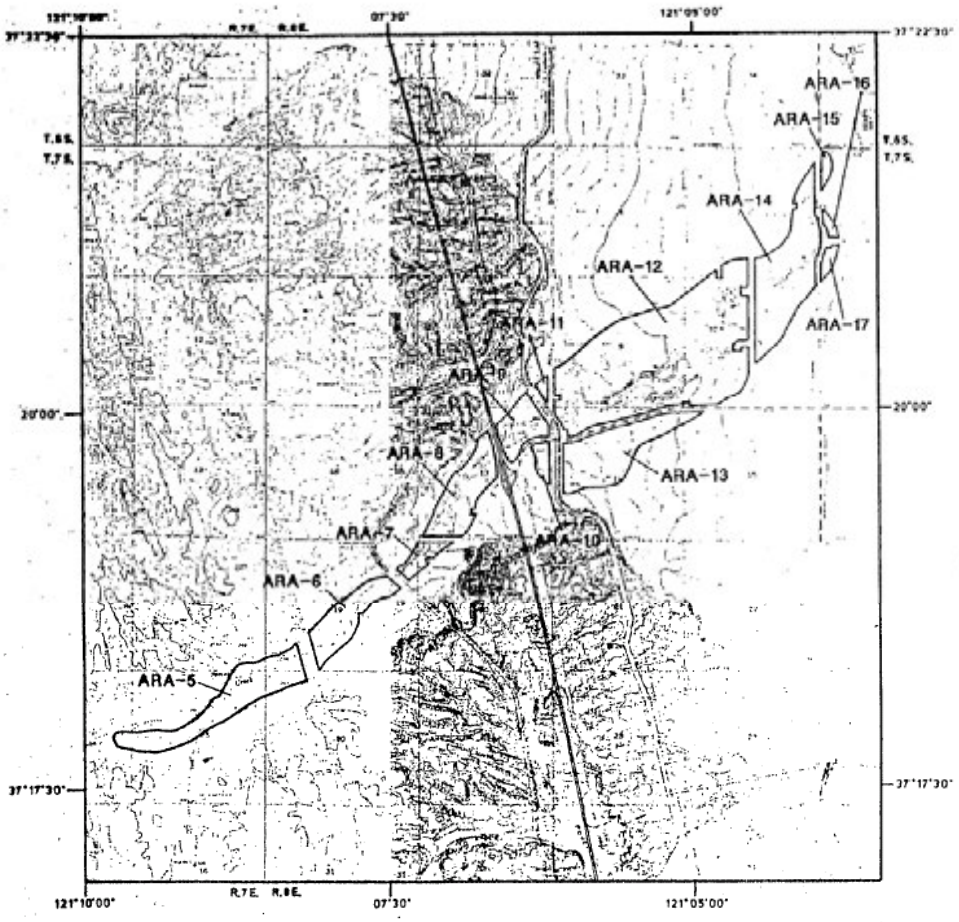
AGGREGATE RESOURCE AREAS OF STANISLAUS COUNTY

State Division of Mines & Geology
Special Report 173 (1993)



B-ORESTIMBA CREEK FAN ARA's

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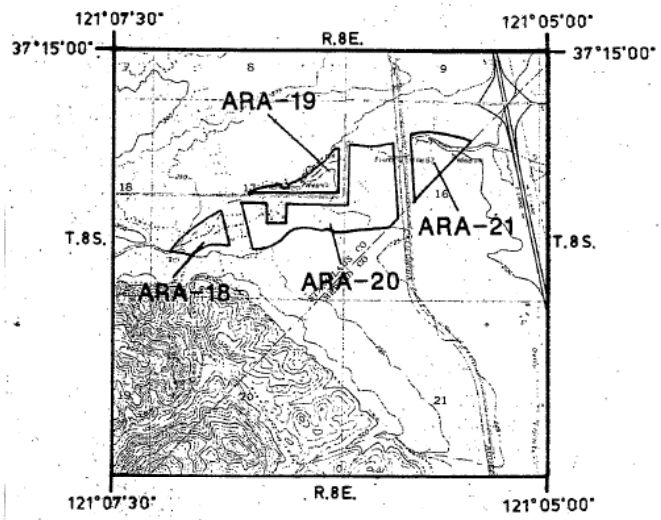
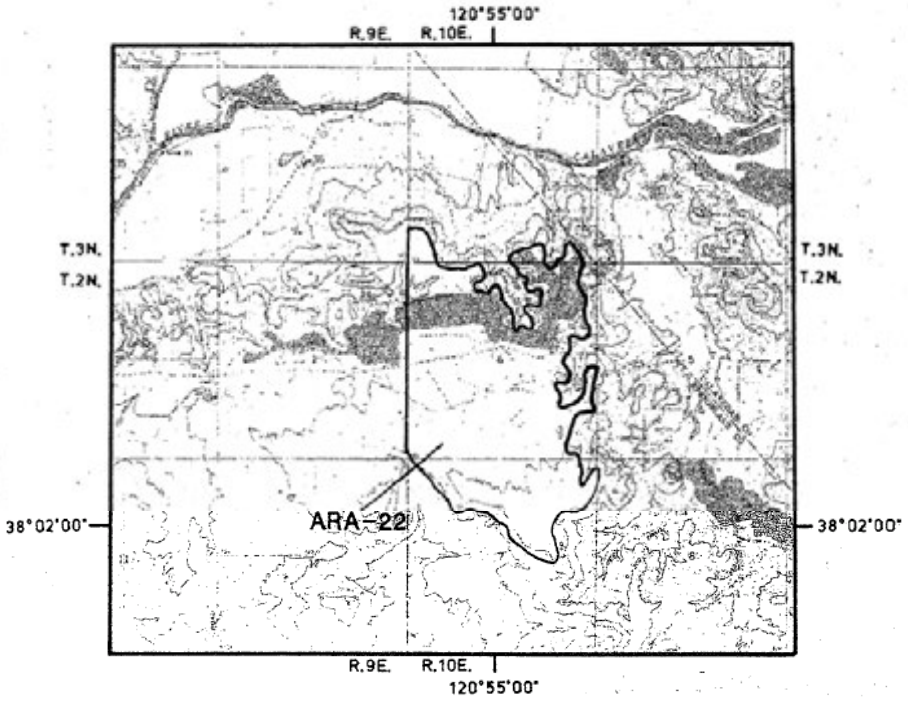


C-GARZAS CREEK FAN ARA's



D-CALAVERAS RIVER TERRACE ARA

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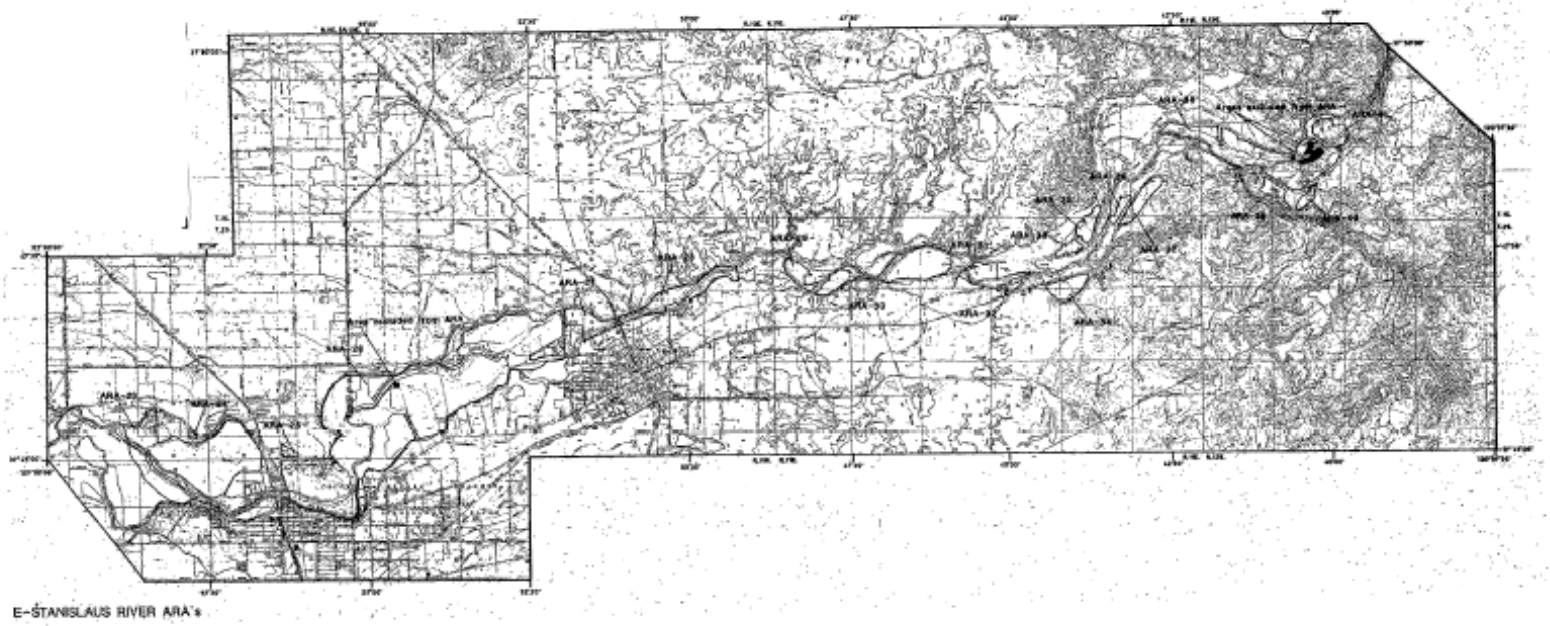

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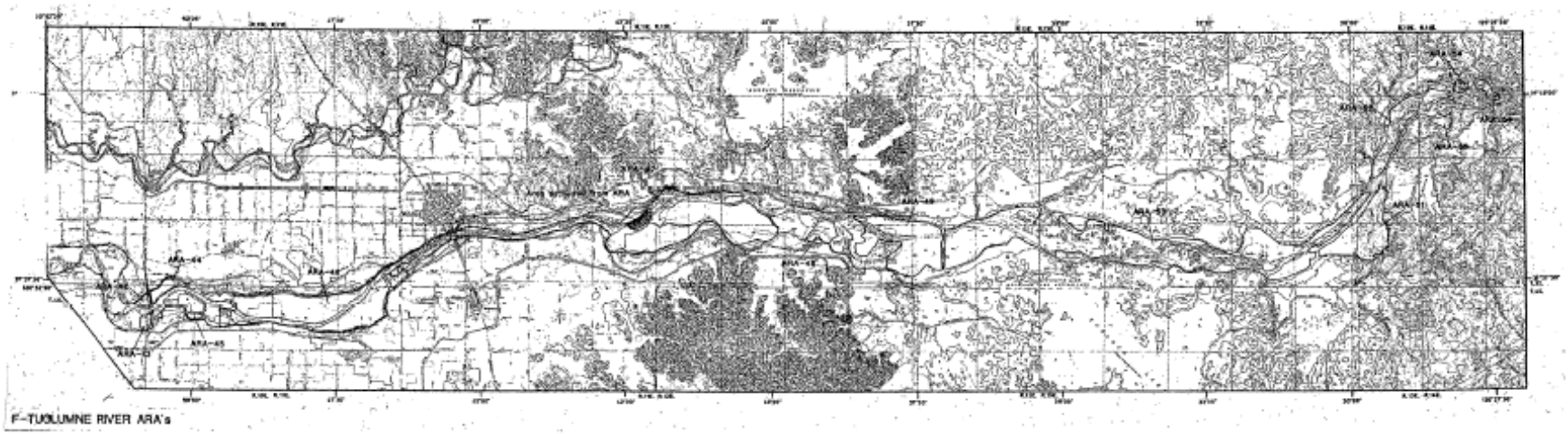
AGGREGATE RESOURCE AREAS
OF STANISLAUS COUNTY
State Division of Mines & Geology
Special Report 173 (1993)



F–TUOLUMNE RIVER ARA's

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AGGREGATE RESOURCE AREAS
OF STANISLAUS COUNTY
State Division of Mines & Geology
Special Report 173 (1993)

Chapter 4

NOISE ELEMENT

1.0 INTRODUCTION

1.1 Authority

The purpose of the noise element is to limit the exposure of the community to excessive noise levels. The 2003 Noise Element Guidelines requires local governments to analyze and quantify noise levels and the extent of noise exposure through field measurements or noise modeling, and implement measures and possible solutions to existing and foreseeable noise problems. California Government Code Section 65302(f) requires that current and projected noise levels be analyzed and quantified for highways, freeways, primary arterials, and major local streets. Noise contours for current and projected conditions within the community are required to be prepared in terms of either the Community Noise Equivalent Level (CNEL) or the Day-Night Average Level (L_{dn}), which are descriptors of total noise exposure at a given location for an annual average day. CNEL and L_{dn} are generally considered to be equivalent descriptors of the community noise environment within plus or minus 1.0 dBA. Section 1.4 provides an explanation of the acoustical terminology used in this document.

It is intended that the noise exposure information developed for the Noise Element be incorporated into the General Plan to serve as a basis for achieving Land Use compatibility within the unincorporated areas of the County. It is also intended that the noise exposure information developed for the Noise Element be used to provide baseline levels for use in the development and enforcement of a local noise control ordinance to address noise levels generated by non-preempted noise sources within the County.

According to the Noise Element Requirements and Noise Element Guidelines, the following major noise sources should be considered in the preparation of a Noise Element:

1. Highways and freeways
2. ~~Primary arterials and major local streets~~ **Principal Arterial, Minor Arterial, or Major Collector**
3. Passenger and freight online railroad operations and ground rapid transit systems
4. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft over flights, jet engine test standards, and all other ground facilities and maintenance functions related to airport operation
5. Local industrial plants, including, but not limited to, railroad classification yards
6. Other ground stationary sources identified by local agencies as contributing to the community noise environment

Noise-sensitive areas to be considered in the Noise Element should include areas containing the following noise sensitive land uses:

1. Schools
2. Hospitals
3. Convalescent homes
4. Churches
5. Sensitive wildlife habitat, including the habitat of rare, threatened, or endangered species
6. Other uses deemed noise sensitive by the local jurisdiction

1.2 Relationship to Other Elements of the General Plan

The Noise Element is most related to the Land Use and Circulation Elements of the General Plan. Its relationship to the Land Use Element is direct in that the implementation of either element has the potential to result in the creation or elimination of a noise conflict with respect to differing land uses. The Land Use Element must be consistent with the Noise Element in discouraging the development of incompatible adjacent land uses to prevent impacts upon noise sensitive uses and to prevent encroachment upon existing noise-generating facilities.

The Circulation Element is linked to the Noise Element in that traffic routing and volume directly affect community noise exposure. For example, increased traffic volume may produce increased noise in a residential area so that noise control measures are required to provide an acceptable noise environment. Similarly, rerouting traffic from a noise-impacted neighborhood may provide significant noise relief to that area. Implementation of the Circulation Element should include consideration of potential noise effects.

1.3 Noise and Its Effects on People

The Technical Reference Document, included in the General Plan Support Document, is an update of a previous technical reference document and provides a discussion of the fundamentals of noise assessment, the effects of noise on people and criteria for acceptable noise exposure. It is intended that the Technical Reference Document serve as a reference for Stanislaus County when reviewing documents or proposals which refer to the measurement and effects of noise within the County.

1.4 Acoustical Terminology

"Ambient noise levels" means the composite of noise from all sources near and far. In this context it represents the normal or existing level of environmental noise at a given location for a specific time of the day or night.

"A weighted sound level" means the sound level in decibels as measured with a sound level meter using the "A" weighted network (scale) at slow meter response. The unit of measurement is referred to herein as dBA.

"CNEL" means Community Noise Equivalent Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

"Decibel, dB" means a unit for 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).

"Equivalent Energy Level, L_{eq}" means the sound level corresponding to a steady state sound level containing the same total energy as time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

"Impulsive Noise" means a noise of short duration, usually less than one second, with an abrupt onset and rapid decay.

"L_{max}" means the maximum A-weighted noise level recorded during a noise event.

"Day/Night Average Sound Level, L_{dn}" is a 24-hour measure of the cumulative noise exposure in a community, with a 10 dBA penalty added to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels.

"Noise Exposure Contours" Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and L_{dn} are the decriptors utilized herein to describe community exposure to noise.

"Preempted Noise Source" means a noise source which cannot be regulated by the local jurisdiction due to existing state or federal regulations already applying to the source. Examples of such sources are vehicles operated on public roadways, railroad trains and aircraft.

"Pure Tone Noise" means any noise which is distinctly audible as a single pitch (frequency) or set of pitches. For the purposes of this document, a pure tone shall exist if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies of 500 Hz and above and by 8 dB for center frequencies between 160 and 400 Hz and 15 dB for center frequencies less than or equal to 125 Hz.

2.0 EXISTING AND FUTURE NOISE ENVIRONMENT

2.1 Overview of Sources

Based on discussion with County of Stanislaus Department of Planning and Community Development staff regarding potential major noise sources and field studies conducted by Brown Buntin Associates (1986) and updated by Illingworth & Rodkin (2004), it was determined that there are a number of potentially significant sources of community noise within Stanislaus County. These sources include traffic on state highways and major County roadways, railroad operations, airport operations and industrial activities. Specific noise sources selected for study are described in the Technical Reference Document.

2.2 Methods and Noise Exposure Maps

The California Department of Transportation (Caltrans) Noise Prediction Model LeqV2 was used in conjunction with field noise level measurements to develop L_{dn} contours for the state highways and major county roadways within the unincorporated areas of Stanislaus County. Annual average daily traffic volumes (AADT) and truck mixes for existing (2000) and future (2030) conditions were obtained from Caltrans and the Stanislaus County Department of Public Works. CNEL contours for operations at the Oakdale Municipal Airport and the Modesto City/County Airport were derived from existing Airport Master Plan reports.

Tabulated existing noise contours for the major railroad lines throughout the county are shown in Table 1. Figure 1 shows the locations and generalized L_{dn} 2030 noise contours of major roadway noise sources. Noise exposure contours for major transportation sources of noise within the unincorporated areas of Stanislaus County are also contained within Appendix A (Existing Noise Sources) and B (Future Noise Sources) of the Technical Reference Document (2004). Generalized

L_{dn} noise contours of major industrial noise sources can be found in Part C-7 (Existing Noise Environment, Industrial and Other Stationary Noise Sources) of the Technical Noise Document (2004). It should be noted that these contours are generally based upon annual average conditions, and are not intended to be site-specific where local topography, vegetation or intervening structures may significantly affect noise exposure at a particular location. The noise contour maps have been prepared to assist Stanislaus County with the implementation of the Noise Element through the project review and long range planning processes.

3.0 COMMUNITY NOISE SURVEY

As required by the Government Code and ~~ONC~~ **State's Office of Planning and Research (OPR), General Plan** Guidelines, a community noise survey was conducted to document noise exposure in areas of the County containing noise sensitive land uses. The following noise sensitive land uses have been identified within Stanislaus County:

1. Residential uses in Single-Family Residential, Medium-Density Residential and Multiple-Family Residential zones.
2. Schools **and churches**
3. Long-term care medical facilities, such as hospitals, nursing homes, etc.
4. **Sensitive Wildlife areas**

Noise monitoring sites were selected to be representative of typical conditions in the unincorporated areas of the County where noise sensitive land uses are located. A combination of short-term and long-term (24-hour) noise monitoring was used to document existing noise levels at these locations during July and August of 2004. A total of 30 monitoring sites were selected, including 20 long-term noise measurements and 10 short-term noise measurements. Measurement locations are shown in Figure 2.

Long-term noise measurements were conducted to show the daily trend in noise levels throughout a 24-hour to 48-hour period. Noise level data collected during continuous monitoring included the Leq, maximum noise level and the statistical distribution of noise levels for each hour of the sample period. The hourly fluctuations of noise levels at the long-term sites are summarized in graphic form in Appendix A of the Technical Reference Document (2004).

Short-term noise measurements were conducted in simultaneous intervals with traffic volume and speed observations. L_{dn} noise levels at each receiver were calculated by adjusting for differences in traffic conditions during measurements and the loudest existing hourly traffic conditions (based on the existing AADT traffic volumes). The data collected during the short-term sampling program included the L_{eq}, maximum noise level, minimum noise level and a description of major sources of noise which were audible. Long and short-term measured noise level data collected during the community noise survey are summarized in Tables 2 and 3.

The quietest areas of unincorporated Stanislaus County are those which are removed from major transportation-related noise sources and local industrial or other stationary noise sources. Good examples of these quiet areas are rural areas such as Hickman, Valley Home, and La Grange. The noisier areas surveyed were those located near state highways (Salida), major county roadways (Westport and Shackelford), or railroads (Empire). Typically, maximum noise levels observed during the survey were generated by local automobile traffic or heavy trucks. Other sources of maximum noise levels included occasional aircraft over flights and, in some areas, railroad operations (especially horns). Background noise levels in the absence of the above-described sources were caused by distant traffic, wind in the trees, running water, birds and distant industrial or other

stationary noise sources.

4.0 LAND USE COMPATIBILITY GUIDELINES

Figure 3 is provided as reference concerning the sensitivity of different land uses to their noise environment. It is intended to illustrate the range of noise levels which will allow the full range of activities normally associated with a given land use. For example, exterior noise levels in the range of 50-60 L_{dn} (or CNEL) are generally considered acceptable for residential land uses, since these levels will usually allow normal outdoor and indoor activities such as sleep and communications to occur without interruption. Industrial facilities, however, can be relatively insensitive to noise and may generally be located in a noise environment of up to 75 L_{dn} (or CNEL) without significant adverse effects. Specific noise compatibility criteria in terms of L_{dn} or CNEL for residential and noise sensitive land uses in Stanislaus County are defined in Section 5.0.

Table 1: Noise Contour Distances for Major Railroad Lines (2004)

Railroad Description*	Distance from Centerline of Roadway (in feet)			
	75-Ldn	70-Ldn	65-Ldn	60-Ldn
Union Pacific Railroad (UPRR)	70	150	320	680
Burlington Northern and Santa Fe (BN & SF) Railway	100	200	440	950
Sierra Railroad	**	**	**	80
Tidewater Southern Railroad	**	**	60	140

**** Noise contour distances for the Modesto and Empire Traction Company Railroad were not calculated due to a lack of specific information regarding train movements along this track.***

***** Distances of less than 50 feet are not included in this table.***

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Figure 1: Noise Contours for Major Roadways (2030)

Updated during Environmental Phase of GP Update.

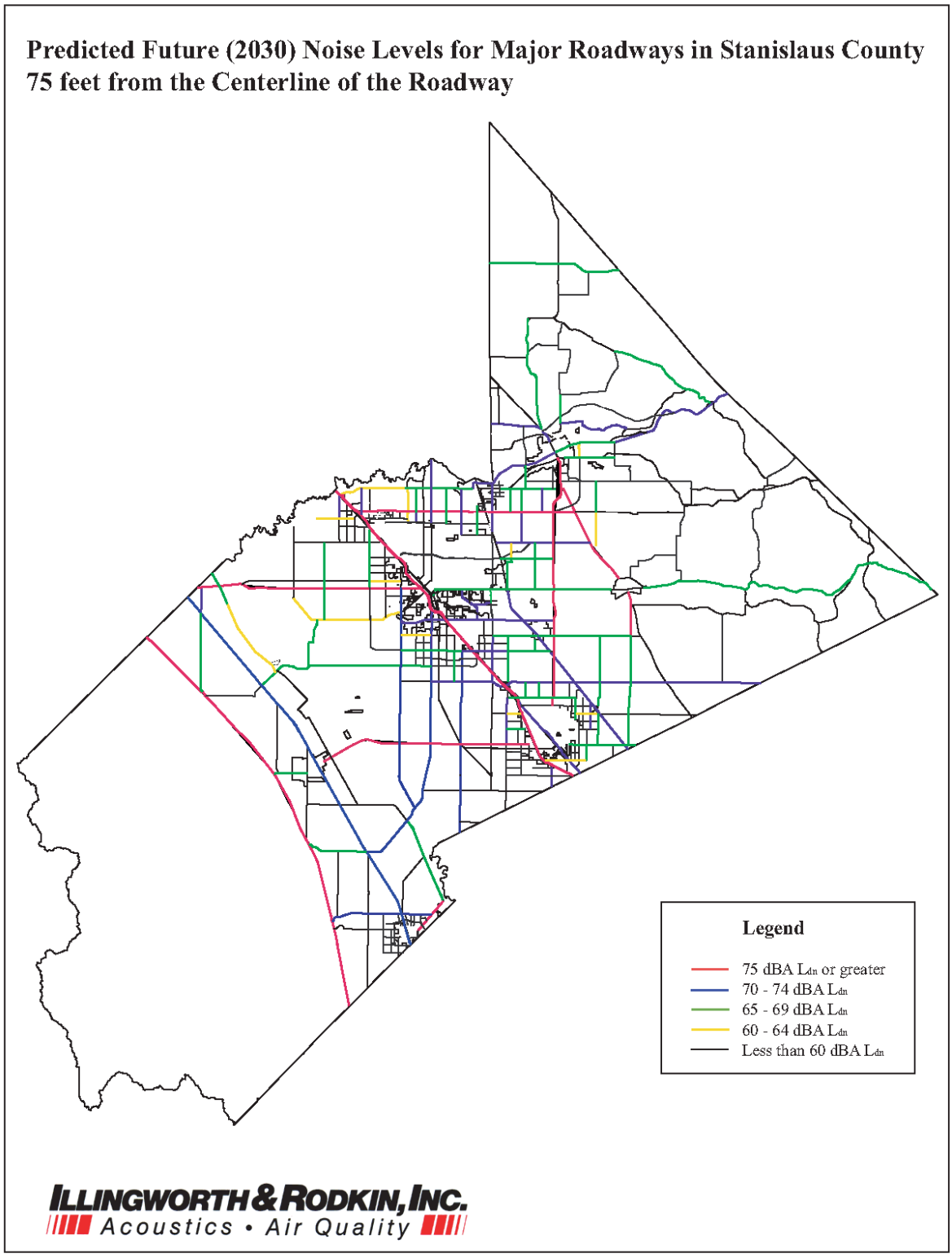

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Figure 2: Community Noise Survey Monitoring Sites

Updated during Environmental Phase of GP Update.

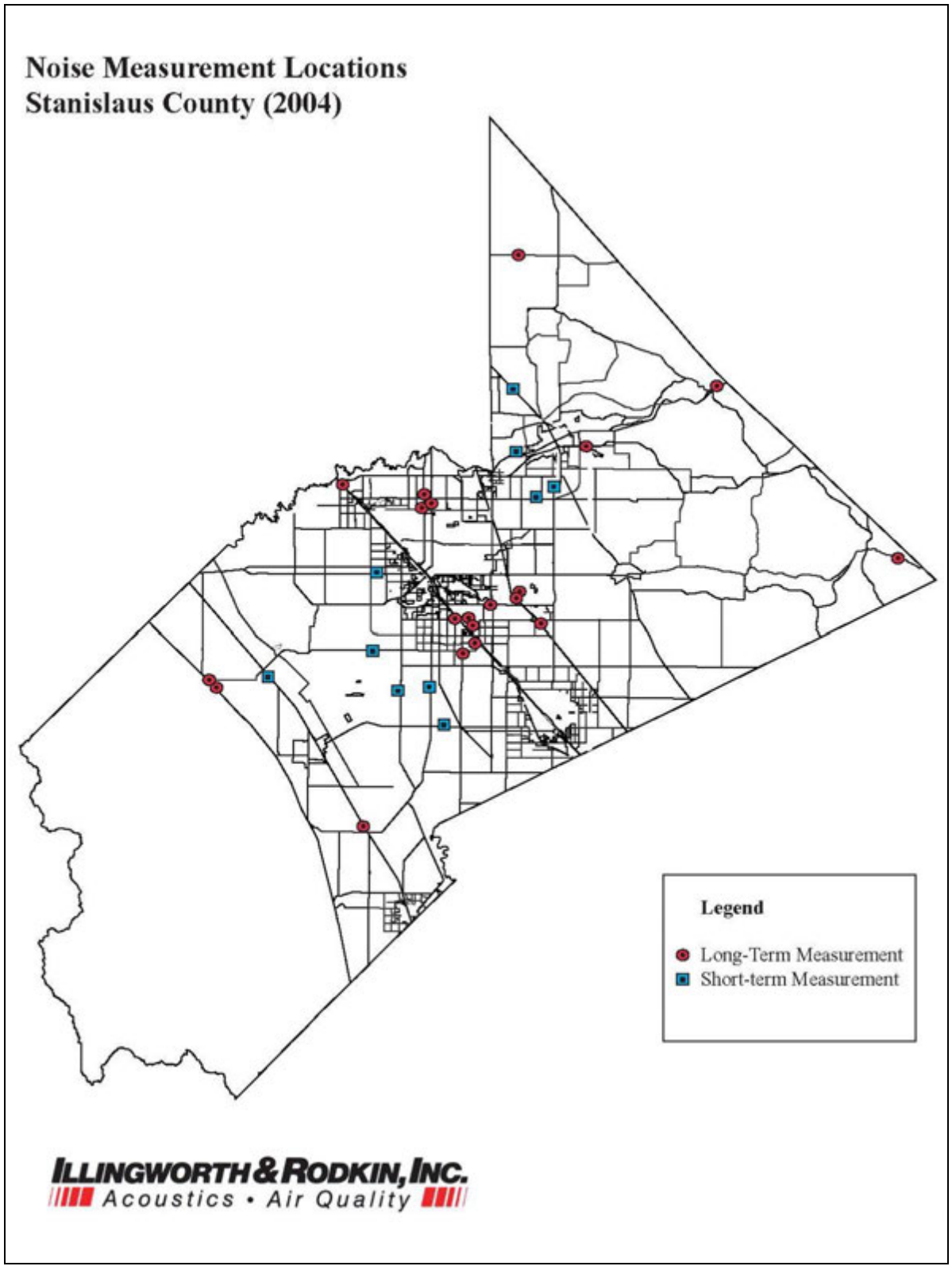

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Table 2: Summary of Long-Term Noise Measurements

Updated during Environmental Phase of GP Update.

Site	Location	Date	Time	Daytime Noise Levels	**Nighttime Noise Levels**	L_{dn}
Long-Term Measurements				**dBA**	**dBA**	**dBA**
LT-1	Residential Land Use, 907 Kiernan Road	7/20/04 to 7/21/04	11:00 am to 1:00 pm	65-68	56-65	**68**
LT-2	~50 feet from the centerline of Hwy 108, near intersection with Hwy 219	7/20/04 to 7/21/04	11:30 am to 12:30	71-74	64-73	**76**
LT-3	~200 feet to center of SR 99 near lane, ~350 feet toUPRR Rail line	7/20/04 to 7/22/04	12:20 pm to 2:30 pm	72-75	69-75	**78**
LT-4	~30 feet from centerline of 132, near county line	7/20/04 to 7/21/04	12:00 pm to 4:00 pm	62-66	51-66	**68**
LT-5	~50 feet from centerline of 120, near County line	7/20/04 to 7/21/04	1:00 pm to 5:00 pm	70-73	62-72	**75**
LT-6	~45 feet from centerline of Hwy. 4	7/20/04 to 7/21/04	2:00 pm to 7:00 pm	64-67	54-67	**69**
LT-7	~30 feet from centerline of Central Ave, south of Ceres near Grayson	7/20/04 to 7/22/04	6:00 pm to 2:00 pm	67-70	59-69	**72**
LT-8	~65 feet from near lane of I-5	7/21/04 to 7/22/04	11:00 am to 12:00	73-75	73-75	**80**
LT-9	~50 feet from centerline of SR 33, north of Crows Landing	7/21/04 to 7/22/04	11:30 am to 1:00 pm	66-70	57-69	**72**
LT-10a	~50 feet from the centerline of Santa Fe Ave., near Leedom	7/21/04 to 7/22/04	3:30 pm to 4:00 pm	68-75	62-76	**78**
LT-10b	~50 feet from the centerline of Santa Fe Avenue at Leedom	8/31/04 to 9/2/04	2:00 pm to 2:00 pm	69-75	60-74	**76**
LT-11	3831 Hatch Road, ~65 feet from centerline of Hatch Road	7/21/04 to 7/22/04	3:30 pm to 4:00 pm	68-71	62-71	**74**
LT-12	~20 feet west of SPTCo Railroad and ~105 feet west of SR 99, in Ceres	5/18/04 to 5/21/04	12:30 pm to 2:00 pm	77-81	71-79	**83**
LT-13	~30 feet from the edge of Service Road, at Service and Moffet in Ceres	5/18/04 to 5/21/04	1:00 pm to 2:00 pm	69-73	62-73	**75**
LT-14	2805 Evalee Lane ~270 feet east of SR 99, in Ceres	5/18/04 to 5/20/04	1:30 pm to 3:00 pm	66-69	60-69	**72**
LT-15	Little Orchard Mobile Home Park ~130 feet east of SR 99, in Ceres	5/18/04 to 5/20/04	2:30 pm to 3:00 pm	72-74	64-73	**78**
LT-16	~60 feet from near lane of I-5 in Westley	8/31/04 to 9/2/04	10:30 am to 10:30	72-74	71-75	**80**
LT-17	~150 feet from AT&SF Railroad in Hughson	8/31/04 to 9/2/04	1:00 pm to 2:00 pm	69-80	59-80	**81**
LT-18	~50 feet from the Sierra Railroad tracks east of Oakdale	8/31/04 to 9/2/04	3:00 pm to 3:00 pm	66-71	58-70	**72**
LT-19	~35 feet from the Tidewater Railroad, south of Del Rio	8/31/04 to 9/2/04	4:00 pm to 4:00 pm	63-70	43-63	**70**

Table 3: Summary of Short-Term Noise Measurements

Updated during Environmental Phase of GP Update.

Site	Location	Date	Time	L_{eq}	L_1	L_{10}	L_{50}	L_{90}
Short-Term Measurements				**dBA**	**dBA**	dBA	dBA	dBA
ST-1	~75 feet from the centerline of Maze Blvd/ Hwy. 132 at Garrison	7/20/04	12:55 pm to 1:00 pm	71	81	76	66	50
ST-2	~75 feet from the centerline of Grayson Road, east of Jennings Road	7/20/04	1:48 pm to 1:58 pm	61	75	63	45	37
ST-3	~80 feet from the centerline of Carpenter Road, at Monte Vista Avenue	7/20/04	2:22 pm to 2:32 pm	64	74	68	54	44
ST-4	~60 feet from the centerline of West Main Street, west of Blaker Road	7/20/04	3:00 pm to 3:10 pm	68	77	72	62	49
ST-5	~60 feet from the centerline of Crows Landing Road, at Zeering	7/20/04	3:33 pm to 3:43 pm	67	78	70	60	48
ST-6	~40 feet from the centerline of SR 33, south of Westley	7/21/04	10:50 am to 11:00 am	71	81	75	60	47
ST-7	~50 feet from the centerline of Albers, between Patterson and Claribel	7/21/04	5:50 pm to 6:00 pm	72	82	76	67	54
ST-8	~50 feet from the centerline of Claribel, between Albers and Hwy. 108	7/21/04	6:15 pm to 6:25 pm	69	78	74	62	50
ST-9	~60 feet from the centerline of Hwy. 108, at Orchard Ave.	7/21/04	6:40 pm to 6:50 pm	70	77	74	69	56
ST-10	~60 feet from the centerline of Valley Home Rd, at 12542 Valley Home Road	7/21/04	7:10 pm to 7:20 pm	65	76	71	52	42

Figure 3: ~~Land Use Compatibility for~~ Normally Accepted Community Noise Environments

Land Use Category	Exterior Noise Exposure Ldn or CNEL, dBA					
	55	60	65	70	75	80
*Residential – Low Density Single Family, Duplex, and Mobile Homes						
*Multi Family Residential						
Hotels and Motels						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Auditoriums, Concert Halls, and Amphitheaters						
Sports Arena and Outdoor Spectator Sports						
Playgrounds and Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, and Cemeteries						
Office Buildings, Business Commercial, and Professional						
Industrial, Manufacturing, Utilities, and Agriculture						

**** Residential development sites exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, California Building Code.***

~~** Interior noise levels shall not exceed 45 Ldn in all new residential units (single and multi family). Development sites exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in Appendix Chapter 12, Section 1208A, Sound Transmission Control, 1998 California Building Code.*~~

NORMAL ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.

CONDITIONALLY ACCEPTABLE
Specified land use may be permitted only after detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken because mitigation is usually

not feasible to comply with noise element policies.

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GOALS, POLICIES AND IMPLEMENTATION MEASURES

GOAL ONE

Prevent the encroachment of incompatible land uses near known noise producing industries, railroads, airports and other sources to protect the economic base of the County.

POLICY ONE

It is the policy of Stanislaus County to utilize the noise exposure information contained within the General Plan to identify existing and potential noise conflicts through the Land Use Planning and Project Review processes.

IMPLEMENTATION MEASURE

1. Areas within Stanislaus County shall be designated as noise-impacted if exposed to existing or projected future noise levels exterior to buildings exceeding the standards in Figure 3 or the performance standards described by Table 4. Maps showing existing and projected future noise exposures exceeding 60 L_{dn} or CNEL for the major noise sources are depicted in Figure 1, Table 1, and are included in Appendix A and B of the Technical Reference Document (2004). ***Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors***

GOAL TWO

Protect the citizens of Stanislaus County from the harmful effects of exposure to excessive noise.

POLICY TWO

It is the policy of Stanislaus County to develop and implement effective measures to abate and avoid excessive noise exposure in the unincorporated areas of the County by requiring that effective noise mitigation measures be incorporated into the design of new noise generating and new noise sensitive land uses.

IMPLEMENTATION MEASURES

1. New development of noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to the following levels:

    a) For transportation noise sources such as traffic on public roadways, railroads, and airports, 60 L_{dn} (or CNEL) or less in outdoor activity areas of single family residences, 65 L_{dn} (or CNEL) or less in community outdoor space for multi-family residences, and

45 L_{dn} (or CNEL) or less within noise sensitive interior spaces. Where it is not possible to reduce exterior noise due to these sources to the prescribed level using a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 L_{dn} (or CNEL) will be allowed. Under no circumstances will interior noise levels be allowed to exceed 45 L_{dn} (or CNEL) with the windows and doors closed in residential uses.

b) For other noise sources such as local industries or other stationary noise sources, noise levels shall not exceed the performance standards contained within Table 4.

Responsible Departments: Environmental Resources, Planning Department, Building Inspections, Planning Commission, Board of Supervisors

2. New development of industrial, commercial or other noise generating land uses will not be permitted if resulting noise levels will exceed 60 L_{dn} (or CNEL) in noise-sensitive areas. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will not be permitted if resulting noise levels will exceed the performance standards contained within Table 4 in areas containing residential or other noise sensitive land uses.
Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

TABLE 4

MAXIMUM ALLOWABLE NOISE EXPOSURE - STATIONARY NOISE SOURCES[1]

	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
Hourly L_{eq}, dBA	**55**	**45**
Maximum level, dBA	**75**	**65**

Each of the noise level standards specified in Table 4 shall be reduced by five (5) dBA for pure tone noises, noise consisting primarily of speech or music, or for recurring impulsive noises. The standards in Table 4 should be applied at a residential or other noise-sensitive land use and not on the property of a noise-generating land use. Where measured ambient noise levels exceed the standards, the standards shall be increased to the ambient levels.

3. Prior to the approval of a proposed development of noise-sensitive land uses in a noise impacted area, or the development of industrial, commercial or other noise generating land use in an area containing noise-sensitive land uses, an acoustical analysis shall be required. Where required, an acoustical analysis shall:

[1] As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

a) Be the responsibility of the applicant.
b) Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
c) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
d) Include estimated noise levels in terms of L_{dn} (or CNEL) and the standards of Table 4 (if applicable) for existing and projected future (10-20 years hence) conditions, with a comparison made to the adopted polices of the Noise Element.
e) Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
f) Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided.

Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

4. Projects which through the CEQA review process require an acoustical analysis shall include a monitoring program to specifically implement the recommended mitigation to noise impacts associated with the project.
Responsible Departments: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

5. Noise level criteria applied to land uses other than noise sensitive uses shall be consistent with the recommendations of Figure 3: ~~Land Use Compatibility for~~ **Normally Accepted** Community Noise Environments.
Responsible Department: Planning Department, Environmental Resources, Planning Commission, Board of Supervisors

6. Stanislaus County shall enforce Sound Transmission Control Standards in the **California Administrative Code, Title 25, Section 1092** ~~1998 California Building Code, Appendix Chapter 12, Section 1208, and Chapter 35 of the Uniform Building Code~~ concerning the construction of new multiple-occupancy dwellings such as hotels, apartments, and condominiums in areas where the existing or projected future noise environment exceeds 60 L_{dn} or CNEL.
Responsible Department: Building Inspection

7. Replacement of noise-sensitive land uses located in noise-impacted areas which are destroyed in a disaster shall not be considered in conflict with this element if replacement occurs within one year.
Responsible Departments: Building Inspections, Planning Department, Environmental Resources.

POLICY THREE

It is the objective of Stanislaus County to protect areas of the County where noise-sensitive land uses are located.

IMPLEMENTATION MEASURES

1. Require the evaluation of mitigation measures for projects that would cause the L_{dn} at noise-sensitive uses to increase by 3 dBA or more and exceed the normally acceptable" level, cause the L_{dn} at noise-sensitive uses to increase 5 dBA or more and remain normally acceptable, or cause new noise levels to exceed the noise ordinance limits (after adoption).
   Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

2. Actively enforce the Stanislaus County Noise Control Ordinance to reduce the number of incidents of excessive noise.
   Responsible Departments: Sheriff's Department, Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

~~2. In conjunction with or subsequent to a comprehensive update of the Noise Element, the County shall consider writing a community noise control ordinance based on the noise exposure information included in the research for the Noise Element. The "Model Community Noise Control Ordinance" prepared by the State Office of Noise Control should be considered for a guideline.~~
   ~~***Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors***~~

3. New equipment and vehicles purchased by Stanislaus County shall comply with noise level performance standards of the industry and be kept in proper working order to reduce noise impacts.
   Responsible Department: County Executive Office

4. Stanislaus County should encourage the California Highway Patrol and local law enforcement officers to actively enforce existing sections of the California Vehicle Code relating to **excessive vehicle noise.** ~~adequate vehicle mufflers[2], modified exhaust systems, and vehicle stereo systems[3].~~
   Responsible Department: Board of Supervisors

POLICY FOUR

It is the objective of Stanislaus County to ensure that the Noise Element is consistent with and does not conflict with other elements of the Stanislaus County General Plan **or adopted Airport Land Use Compatibility Plan(s) (ALUCP).**

IMPLEMENTATION MEASURES

1. The Noise Element shall be reviewed and updated as necessary to remain consistent with the Land Use and Circulation Elements of the General Plan.
   Responsible Departments: Planning Department, Department of Environmental

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~~[2] Section 27150 of the California Motor Vehicle Code discusses the control of excessive exhaust noise.~~

~~[3] Section 27007 of the California Motor Vehicle Code prohibits amplified sound which can be heard 50 or more feet from a vehicle.~~

Resources, Planning Commission, Board of Supervisors

2. The Land Use and Circulation Elements of the General Plan shall be continually reviewed to ensure consistency with the findings and policies of the Noise Element as they relate to the prevention of future noise conflicts.
   Responsible Department: Planning Department

3. The Noise Element and Land Use Elements of the General Plan shall be reviewed and amended as necessary to ensure consistency with the policies of the Airport Land Use Compatibility Plan(s) (ALUCP) as they relate to the prevention of future noise conflicts.
Responsible Department: Planning Department, Planning Commission, Board of Supervisors, and Airport Land Use Commission

4. Update the Stanislaus County Noise Control Ordinance as necessary to be consistent with the General Plan and/or adopted Airport Land Use Compatibility Plan(s) (ALUCP).
Responsible Departments: Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

Chapter Five ~~5~~

SAFETY ELEMENT

INTRODUCTION

Section 65302 of the California Government Code requires that every jurisdiction in California adopt a Safety Element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence; liquefaction; and other geologic hazards known to the legislative body; flooding; military installations; and wildland and urban fires.

Stanislaus County is susceptible to ~~nearly every type~~ **many** of **the** safety hazard**s** ~~in existence~~ **listed above** with the exception of tidal waves**, military installations,** and major hazardous waste disposal sites. **No special airspace or aircraft training routes are located in Stanislaus County.** Information on the various types of safety hazards **are**~~is~~ ~~provided in Chapter 5 of the "Stanislaus County General Plan - Support Documentation" and~~ summarized herein.

SAFETY HAZARDS

Seismic and Geological Hazard

Several known faults exist within Stanislaus County. They are located in the **western**~~extreme eastern~~ part of the County and in the Diablo Range west of I-5. These faults could cause ground shaking of an intensity approaching "X" (ten) on the Modified Mercalli Scale, which would result in very serious damage to most structures. The existence of unreinforced masonry buildings could cause severe loss of life and economic dislocation in an earthquake. **However, with exception of the Diablo Grande community, most development in the unincorporated county is not located near the areas of greatest shaking potential.**

The area west of I-5 (Diablo Range) is noted for unstable geologic formations that are susceptible to landslide. A portion of the southern part of this area includes the Ortigalita Fault, part of which is designated as an Alquist-Priolo Earthquake Fault Zone. This prohibits most construction without a geologic study.

(See Figures V-1 – Fault Map and V-2 – Earthquake Hazard Map)

Dam Inundation

One of the hazards associated with **major** seismic activity that has a ~~major~~ potential for destruction and loss of life is dam failure. ~~Entire cities~~**Large portions of the county** could be under 10 feet of water or more within a few hours of failure.

Seven dams present an inundation risk for Stanislaus County, including: Don Pedro, Exchequer, La Grange, New Melones, Pine Flat, San Luis, and Tulloch Reservoirs. The risks of inundation resulting from failure of a dam pose a threat to the entire valley floor and, in particular, from New Melones and Don Pedro dams within the area of greatest population density.

(See Figure V–3– Dam Inundation Map)

Flood Hazards

The ~~major flooding~~ **main flood risk** in Stanislaus County ~~occurs~~**exists** along the San Joaquin River and isolated stretches of **Dry Creek and** the Tuolumne River. Creeks such as Salado, Sand, and Orestimba also experience flooding. ~~Portions of the Stanislaus River still flood to the extent that there can be crop damage, but the Corps of Engineers has purchased flowage easements so that they have the "right" to flood this area.~~ **Nine Reclamation Districts maintain levees along the San Joaquin River, built by the Corps of Engineers. Since these levees do not extend the full length of the river, flooding still occurs. There are two flood control districts in the County, the Orestimba Flood Control District and Sand Creek Flood Control District (Denair).**

(See Figures V–4 – Flood Hazard Map, and V-5 – 100-Year and 200-Year Flood Zone, Best Available Maps)

Fire Hazards

Urban fires are generally man-caused fires that can be mitigated through proper building code requirements, fire flow minimums and zoning or subdivision ordinance requirements.

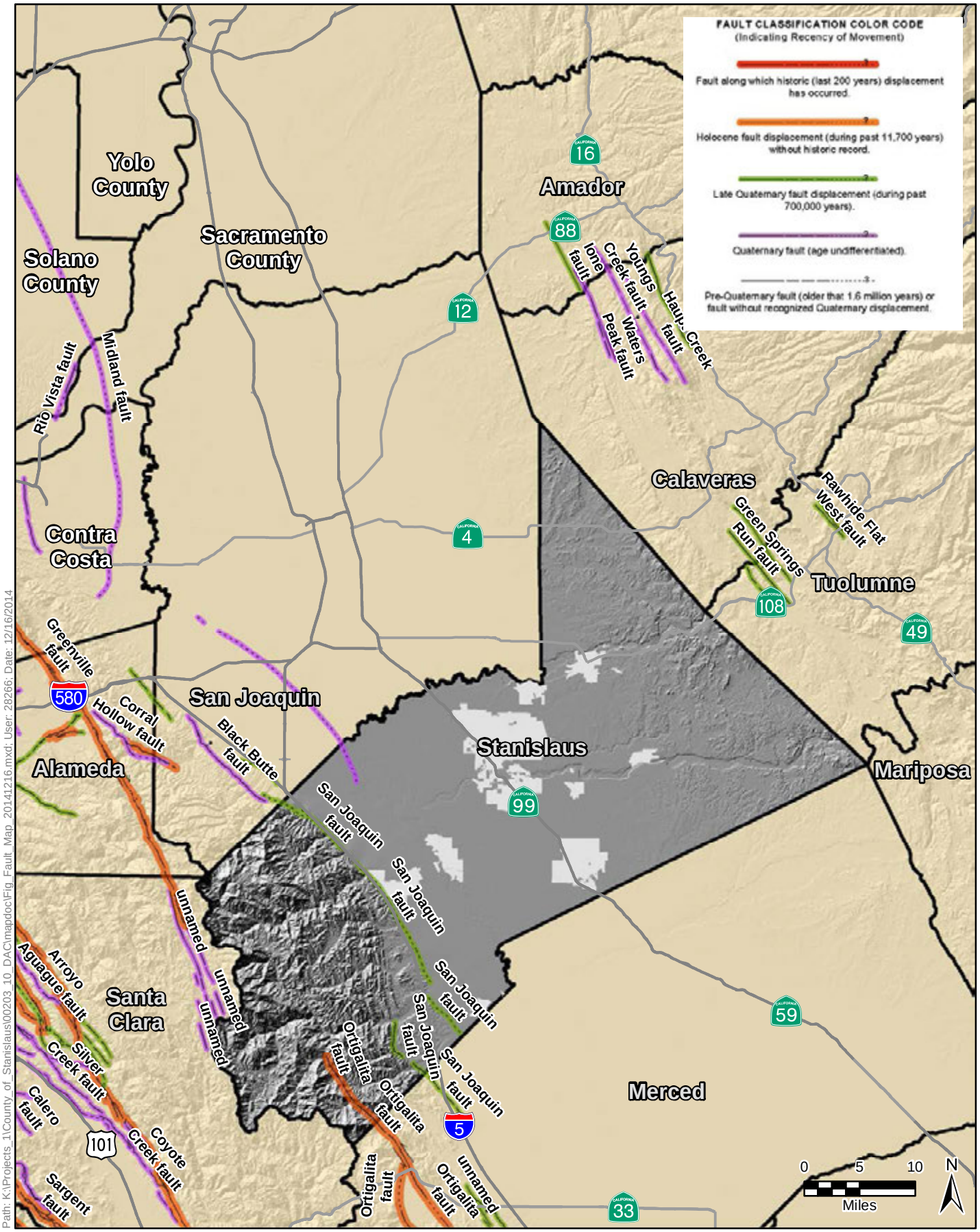
Wildland fires are generally limited to the foothills on either side of the County. Although there is less of a hazard to structures and people, controlling such fires is more difficult because of their inaccessibility. **Four factors contribute to wildland fires: vegetation, climate, topography, and people. Chaparral, grasslands and other wild plant life provide the major sources of fire fuel. Within Stanislaus County, the areas of potential wildland fires are designated as State Responsibility Areas (SRA), and are located along the Diablo Range, generally west of Interstate 5, and the Sierra Nevada foothills in the eastern portions of the County. SRAs are under the responsibility of the California Department of Forestry and Fire Protection (CDF, or CAL FIRE). Government Code Section 51178 requires the Department of Forestry and Fire Protection to identify very high fire hazard severity zones in the state. These areas of the county are sparsely populated. Evacuation routes are available along existing roads.**

(See Figures V-6 – Fire Hazard Severity Zones, and V-7 – State Responsibility Areas)

Hazardous Materials

The use, transportation and disposal of hazardous materials is ~~becoming~~ an issue of increasing concern. State laws were passed in 1985 that require users of hazardous materials to disclose the type and location of such materials so that emergency response teams can be prepared for potential disasters. ~~Routes are being specified to limit transportation of hazardous material such as nuclear waste.~~

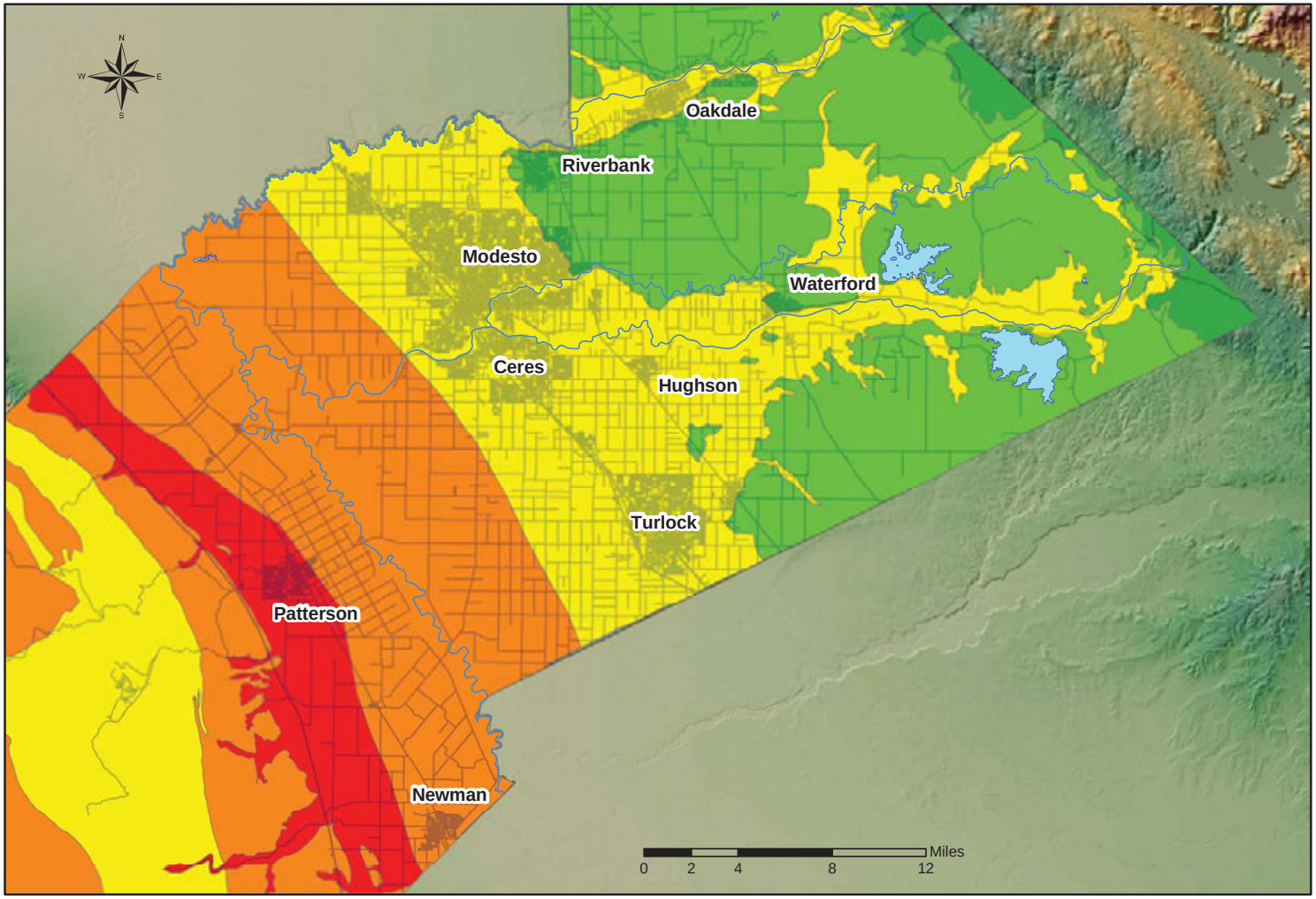
Cal EPA can delegate responsibility for hazardous materials oversight, permitting, and regulation to local agencies through the Certified Unified Program Agency (CUPA) program. The local CUPA is responsible for writing and updating a Hazardous Materials Area Plan (for the public safety response in the jurisdiction) and providing guidelines for the Hazardous Materials Business Plan (for local businesses designated as handlers of hazardous materials). The Stanislaus County Hazardous Material Division of the Department of Environmental Resources is the CUPA.



Path: K:\Projects_1\County_of_Stanislaus\00203_10_DAC\mapdoc\Fig_Fault_Map_20141216.mxd; User: 28266; Date: 12/16/2014

Figure V-1
Stanislaus County Fault Map

Figure V-2 2010 Stanislaus County -- Earthquake Hazard



Map Legend:

- Rivers
- Lakes
- Roads

Shaking Potential

Peak Ground Acceleration

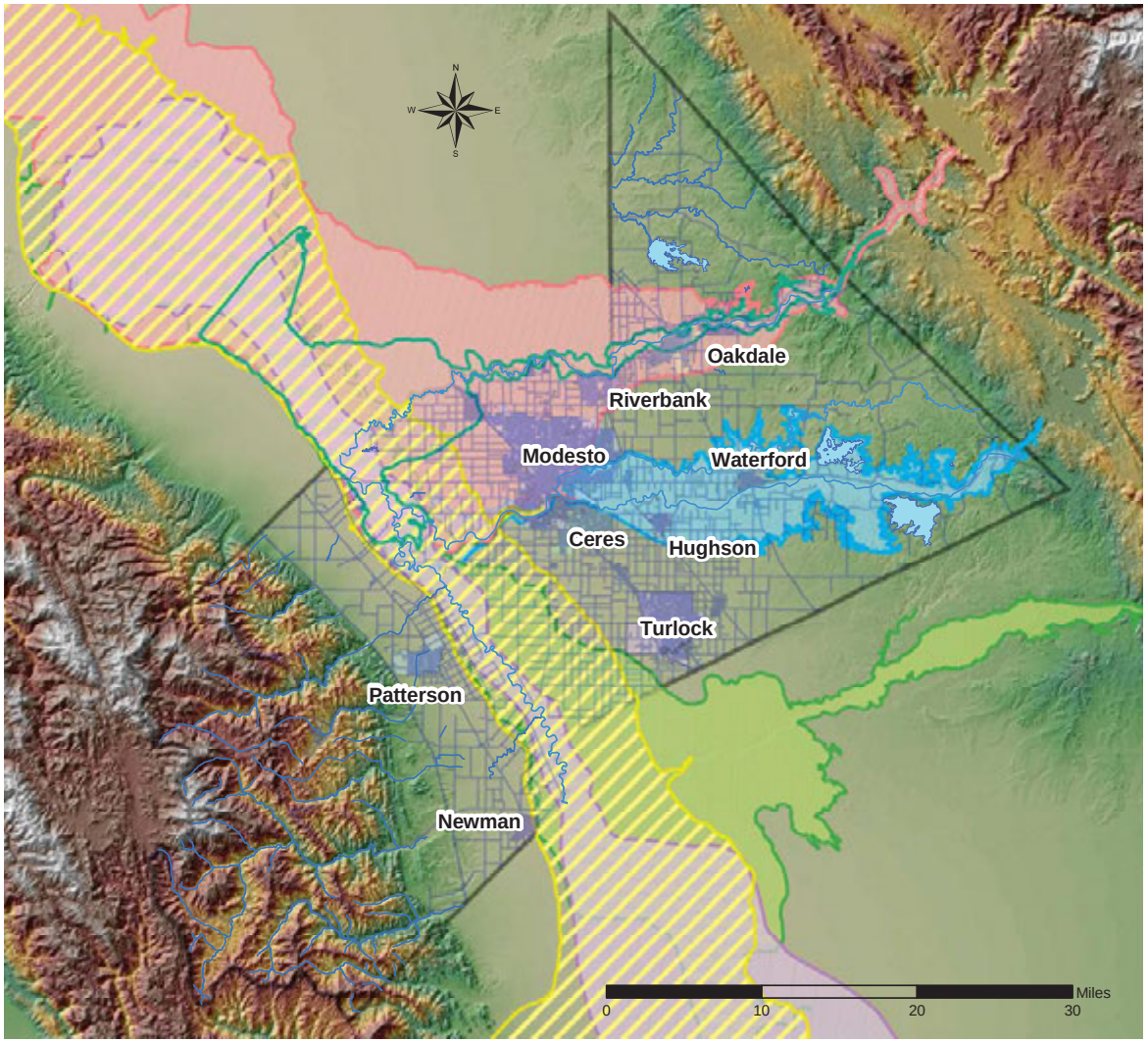
- 0.45 G's
- 0.35 G's
- 0.25 G's
- 0.15 G's
- 0.05 G's

Intensity

Map displays Stanislaus County with Earthquake Shaking Zones at PGA.
(Peak Ground Acceleration)

Prepared by:
Stanislaus County
Public Works - GIS
November, 2009

Figure V-3 - Stanislaus County Dam Inundation Hazards (2010)



Map Legend:

- Lakes
- Rivers
- Streams
- Roads

Dam Inundation Areas

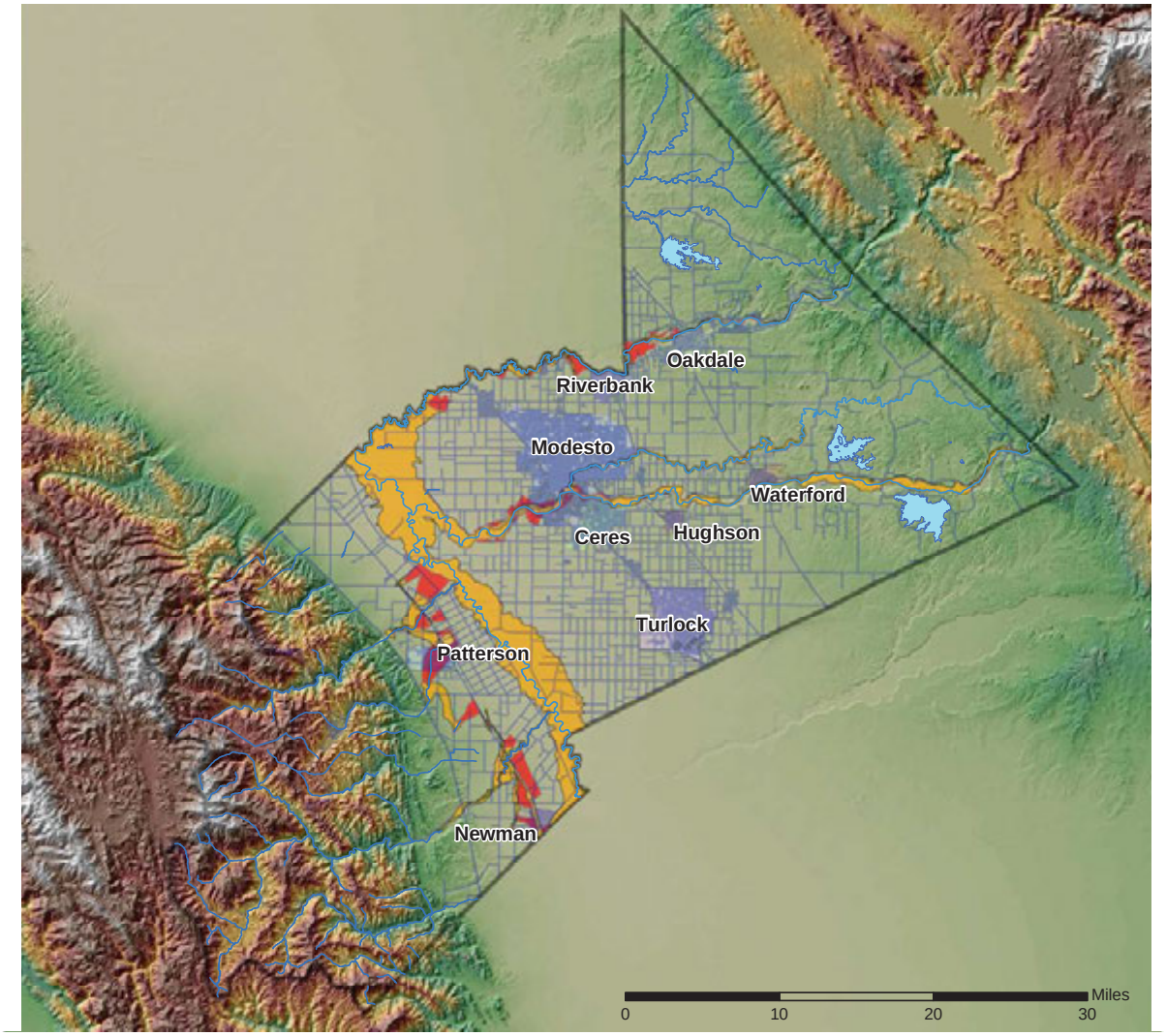
Dam Name

- Don Pedro
- Exchequer
- New Melones
- San Luis
- Pine Flat
- Tulloch

Map displays Stanislaus County with Dam Inundation Areas of regional dams.

Prepared by:
Stanislaus County
Public Works - GIS
November, 2009

Figure V-4 - Stanislaus County Flood Hazards (2010)



Map Legend:

- Rivers
- Streams
- Lakes
- Roads

FEMA Flood Zones

Federal Emergency Mgt Agency

- 100 Year Flood Zone
- 500 Year Flood Zone

N
W
E
S

Map displays Stanislaus County with 100 and 500 year FEMA floodplain boundaries.
(1% and 0.2% chance of flood)

Prepared by:
Stanislaus County
Public Works - GIS
November, 2009

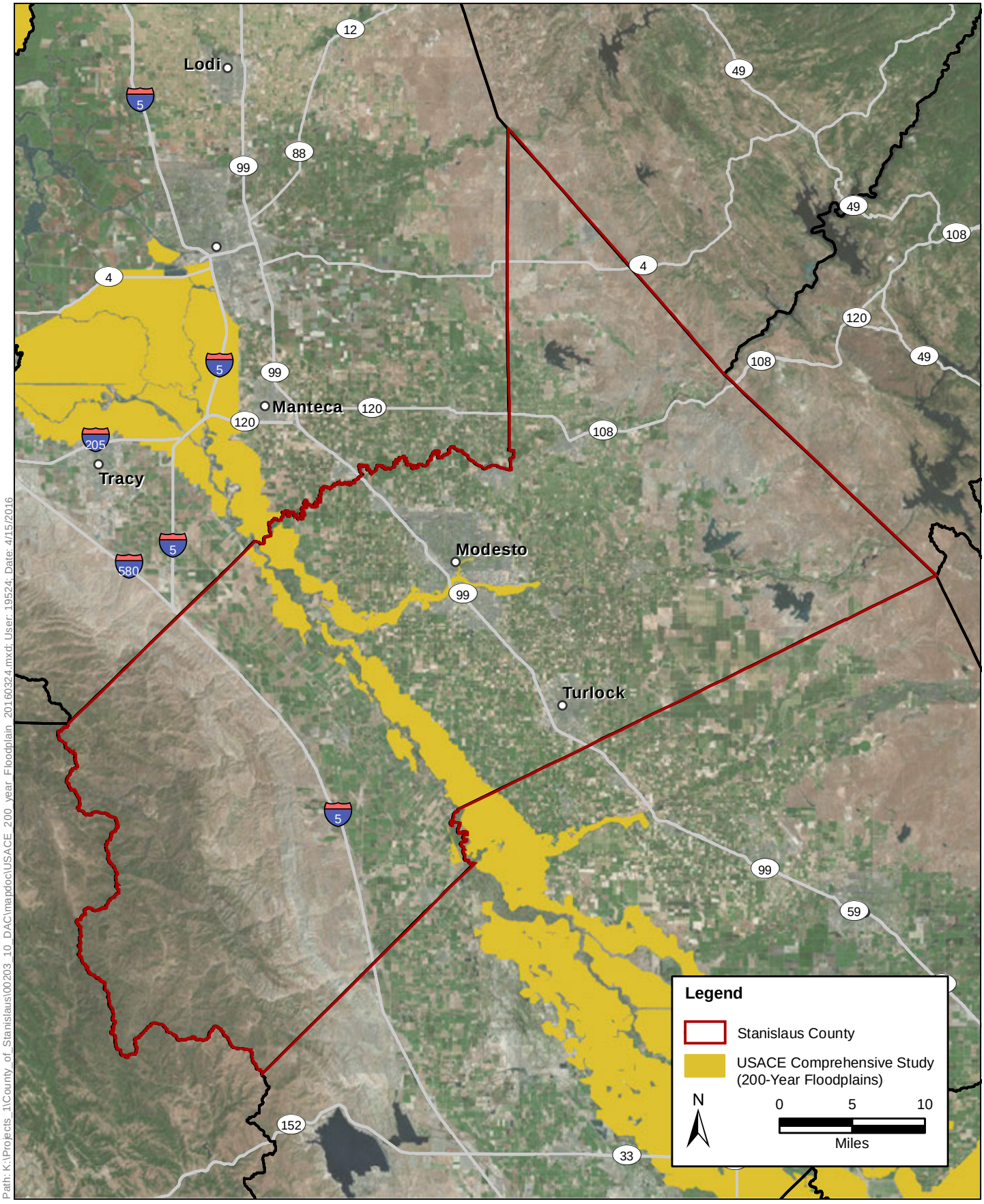


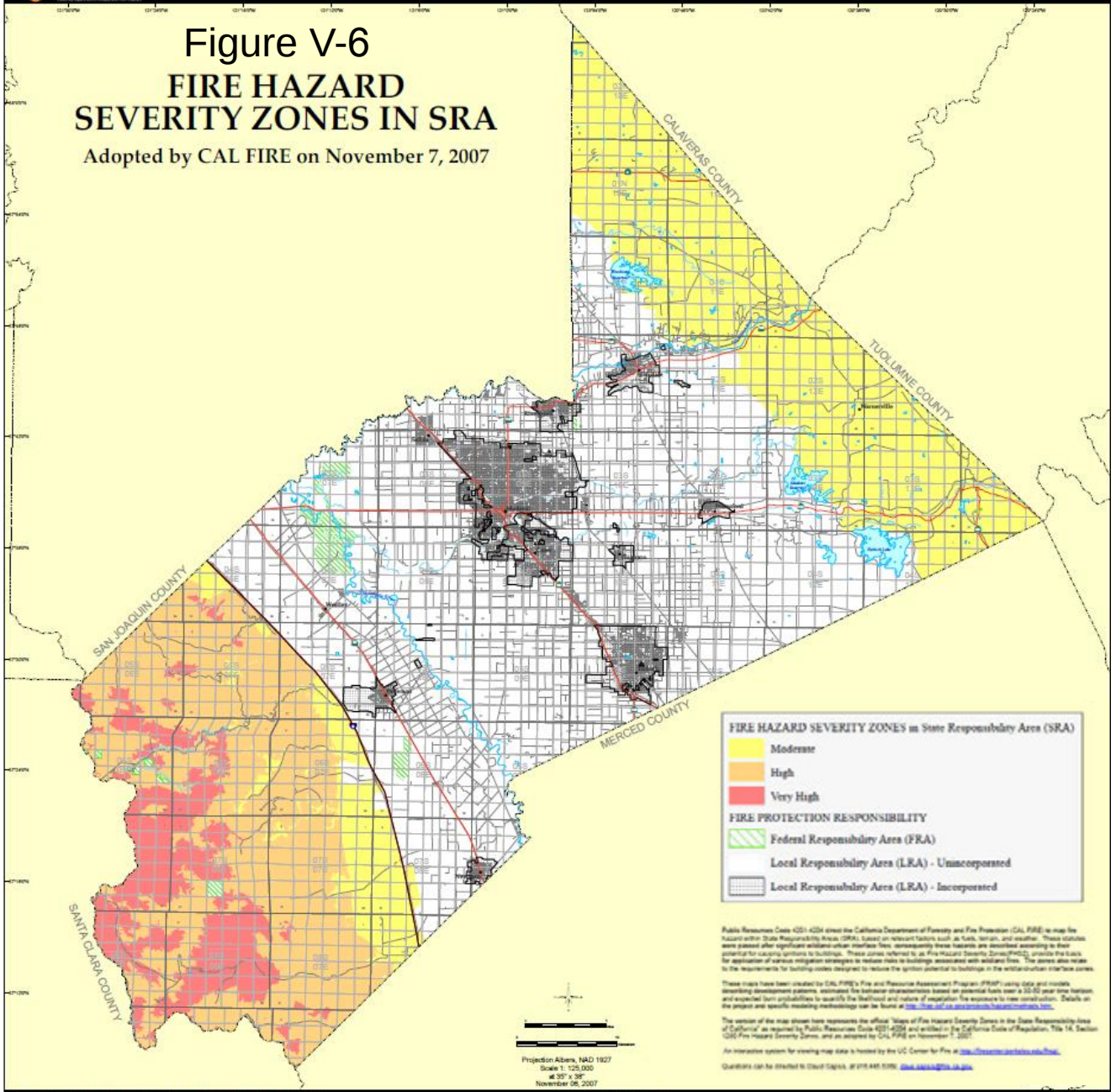
Figure V-5 **Stanislaus County 200-year Floodplain**

STANISLAUS COUNTY

Figure V-6

FIRE HAZARD SEVERITY ZONES IN SRA

Adopted by CAL FIRE on November 7, 2007

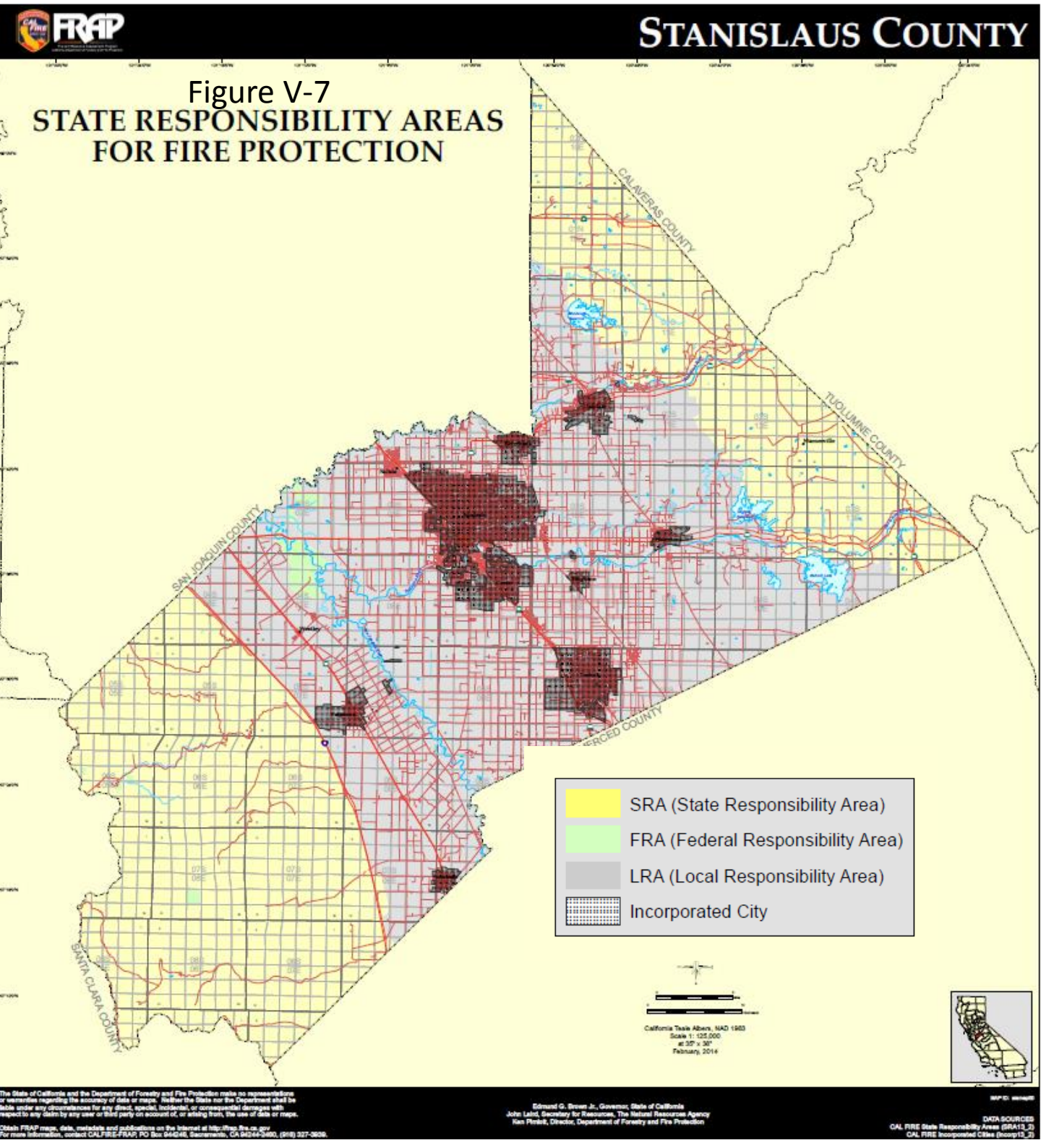


Obtain FRAP maps, data, matedata and publications on the Internet at http://frap.cdf.ca.gov
For more information, contact CAL FIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.

Arnold Schwarzenegger, Governor,
State of California
Mike Chrisman, Secretary for Resources,
The Resources Agency
Ruben Grijalva, Director,
Department of Forestry and Fire Protection

MAP ID: FHSZS_MXD

DATA SOURCES:
CAL FIRE Fire Hazard Severity Zones (FHSZS06_3)
CAL FIRE State Responsibility Areas (SRA05_5)
CAL FIRE Incorporated Cities (incorp07_3)
PLSS (1:100,000 USGS, Land Grants with CAL FIRE grid)


FRAP
STANISLAUS COUNTY
Figure V-7
STATE RESPONSIBILITY AREAS
FOR FIRE PROTECTION
CALAVERAS COUNTY
TUOLUMNE COUNTY
SAN JOAQUIN COUNTY
MERCED COUNTY
SANTA CLARA COUNTY
SRA (State Responsibility Area)
FRA (Federal Responsibility Area)
LRA (Local Responsibility Area)
Incorporated City
California Teale Albers, NAD 1983
Scale 1: 125,000
at 35" x 36"
February, 2014
The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.
Obtain FRAP maps, data, metadata and publications on the Internet at http://frap.fire.ca.gov
For more information, contact CALFIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.
Edmund G. Brown Jr., Governor, State of California
John Laird, Secretary for Resources, The Natural Resources Agency
Ken Pimlott, Director, Department of Forestry and Fire Protection
DATA SOURCES
CAL FIRE State Responsibility Areas (SRA13_2)
CAL FIRE Incorporated Cities (incorp13_2)

Airports

Airports located in urban areas**,** or areas with dwellings in the approach or take-off pattern may cause safety problems for both the airplanes and occupants on the ground. **Stanislaus County has an Airport Land Use Commission (ALUC) which reviews land use proposals within the approach patterns of airports (not air strips). The Commission bases its determinations on whether or not the proposed development meets compatibility criteria identified in the adopted ALUC plan. Location of air strips is governed by the County Zoning Ordinance and, in some cases, the State. The County has an adopted policy regarding the siting of air strips that requires approach patterns to be free from development (See Appendix V-A – Airport Siting Standards). County regulations require new communications antennas in agricultural areas be referred to crop dusters for input regarding safety.** ~~to obtain a Use Permit. Findings have to be made in order to approve such a use which includes the finding that the antenna will not be detrimental to the health, safety or general welfare of people or property in the area.~~

Other Safety Hazards

Other safety concerns include unprotected canals, and insufficient lightingand ~~L~~large antennas**, communication facilities, and wind power facilities located** in ~~the~~ agricultural area**s.** ~~may be hazardous to crop dusters if not properly located.~~ Streets and roads in terms of width, location and level of maintenance are important to safe travel of the public and for emergency vehicle (sheriff, fire, ambulance) access. ~~Unprotected canals in urban areas and lack of, or insufficient, street lighting are safety problems.~~ **Road safety is discussed in more detail in the Circulation Element of the Stanislaus County General Plan.** Dust and dirt moved as a result of erosion can also cause safety problems, as can the uncovered transportation of sand and gravel material.

MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

The **Stanislaus County Board of Supervisors has adopted, and will routinely update, the Stanislaus County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP)** ~~State Office of Emergency Services approved the County's Multi-Jurisdictional Hazard Mitigation Plan on April 29, 2005 and t~~**~~T~~**~~he Adopted plans are submitted to the Federal Emergency Management Agency (FEMA) on July 22, 2005. The Board of Supervisors adopted the Plan on December 13, 2005.~~

~~The County and 48 other jurisdictions participated in the Multi-Jurisdictional Hazard Mitigation Plan. Each of these 48 participating jurisdictions had their governing body formally adopt the County of Stanislaus Multi-Jurisdictional Hazard Mitigation Plan, along with their individual plan, as their own Local Hazard Mitigation Plan. The County's plan serves as the umbrella plan with each individual jurisdiction's plan considered an annex. The Stanislaus County Multi-Jurisdictional Hazard Mitigation Plan is incorporated into the Safety Element of the General Plan and shall be implemented as appropriate.~~

Detailed information on the various types of safety hazards and mitigation strategies to help reduce risk and prevent future losses in Stanislaus County are provided in the MJHMP. Dam Inundation and Flood Hazard maps from the 2010 MJHMP have been incorporated into the Safety Element for reference. However the MJHMP is required to be updated every five years and, as such, more recent maps and data may be found in

subsequent MJHMPs. The county is relying upon the MJHMP to meet its requirements under Government Code Section 65302(g)(4).

The hazards in the County's adopted MJHMP were identified through a process that utilized input from the various multi-jurisdictional partners, Work Groups, Stanislaus County Emergency Operations Plan, the Safety Element of the General Plan, input from the County's Planning Director, Public Health Director, Assistant Director of Emergency Services, City governments, researching past disaster declarations in the County, and public input. Hazards that are unlikely to occur, or for which the risk of damage is accepted as being very low, were eliminated from consideration. The MJHMP focuses on the five hazards with the greatest potential to cause a negative impact on the community. They are: earthquake, landslide, dam failure, flood, and wildfire.

The MJHMP accomplishes the following:

- **Ensures compliance with the Disaster Mitigation Act of 2000 that establishes requirements for local governments and requires that in order to remain eligible to receive Federal funding for both pre-disaster and post-disaster mitigation project funding, a local government must have a FEMA approved Local Hazard Mitigation Plan written in accordance with Section 322 of the Act; and**

- **Ensures that Stanislaus County complies with the Disaster Mitigation Act requirement that only local governments with a State and FEMA approved Local Hazard Mitigation Plan will be eligible to receive Hazard Mitigation Grant Program project grants for disasters declared after November 1, 2004; and**

- **Ensures compliance with the requirement that only local governments with a State and FEMA approved Local Hazard Mitigation Plan will be eligible to receive future mitigation project funding awarded through the Flood Mitigation Administration Assistance program, the Pre-Disaster Mitigation grant programs, and the U.S. Small Business Administration's (SBA) low-interest, pre-disaster, small business loan program; and**

- **Unlike past years, when a local plan was created after the disaster damage, the County must now have an approved local plan in place before a disaster strikes.**

The MJHMP includes the following components:

1. **Prerequisites – includes the adoption of the final plan by the local governing body. This demonstrates the County's commitment to fulfilling the mitigation goals and objectives outlined in the plan.**

2. **Planning Process – documents the planning process used to develop the plan, including how it was prepared and who was involved in the process.**

3. **Risk Assessment – includes seven requirements for each of the five hazards identified in the MJHMP**

    A. Identifying Hazards – includes a description of the hazards.

B. **Profiling Hazard Events – identifies the location, extent, previous occurrences and probability of future events.**
C. **Assessing Vulnerability/Overview – identifies an overall summary description of the vulnerability to each hazard and the impact of each hazard on the jurisdiction.**
D. **Assessing Vulnerability/Identifying Structures – includes the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.**
E. **Assessing Vulnerability/Estimating Potential Losses – includes estimates of potential dollar losses to vulnerable structures and describes the methodology used to prepare the estimate.**

- **Assessing Vulnerability: Addressing Repetitive Loss Properties**

  As of October 1, 2008, all mitigation plans must also address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged by floods. Repetitive Loss Properties (RLP) are those for which two or more loses of at least $1,000 each have been paid under the NFIP within any 10 year period since 1978.

F. **Assessing Vulnerability/Analyzing Development Trends – includes the land uses and development trends.**

G. **Multi-Jurisdictional Risk Assessment – each of the participating jurisdictions must include their unique risks, if different from the County's, in their individual plan.**

4. **Mitigation Strategy – provides the County's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources and expands on and improves these existing tools. This entails the development of goals from which specific mitigation actions will be derived. All mitigation actions must be prioritized and the plan must describe the strategy for implementation.**

5. **Plan Maintenance – describes the method and schedule for monitoring, evaluating and updating the plan every five years to make sure the plan remains an active and relevant document.**

CLIMATE ADAPTATION

The State of California's Cal-Adapt website provides information on key environmental changes that are expected to be the results of climate change. These include: temperature, snowpack, sea level rise, wildfire risk, and precipitation. Cal-Adapt estimates, as of 2016, that the average temperature in Stanislaus County will increase from 60.7 degrees F to 67.2 degrees under a high greenhouse gas emissions scenario or to 64.6 degrees under a low greenhouse gas emissions scenario. Stanislaus County is not subject to snowfall, so changes in snowpack would not directly impact the county. Sea level rise will not affect Stanislaus County, as it is an inland county. Wildfire risk is

not predicted to change, nor is the level of precipitation (although precipitation is expected to include more rain and less snow at higher elevations).

The County can be expected to experience the following effects as a result of climate change, most of which are related to the increase in average temperature:

- **Increased health risks for vulnerable populations during extended heat waves**
- **Changes in insect vector populations due to warmer temperatures, and associated increase in human health risk**
- **Increased drought potential due to less reliable snowfall**
- **Increased flood risk due to the expected increase in winter rains in relation to winter snow at higher elevations**
- **Reduced carry-over storage in multi-purpose reservoirs as a result of the need to maintain a larger flood control capacity later into the year**
- **Extended wildfire season**

These effects have the potential to affect the following community resources:

- **Essential facilities (hospitals, fire stations, police stations, water and wastewater treatment plants, etc.), transportation systems, utilities, and developed areas, where there is a risk of flooding**
- **Vulnerable populations, including disadvantaged unincorporated communities, where there is a risk of flooding and where air conditioning is limited**
- **Industrial or commercial businesses, where flood damage could result in economic losses or the release hazardous materials**

The Safety Element policies and implementation measures relating to efforts to improve flood control and reduce risks for future development, and efforts to improve the standard of living in disadvantaged unincorporated communities, along with the MJHMP, comprise the county's adaptation strategy. The risk assessments of flood and wildfire hazard in the MJHMP, and the associated goals and mitigation actions, describe these risks to life, property, and essential facilities in more detail and contain additional adaptation strategies to be undertaken by the County and other jurisdictions within the county.

GOALS, POLICIES AND IMPLEMENTATION MEASURES

GOAL ONE

Prevent loss of life and reduce property damage
as a result of natural disasters.

~~(Comment: Stanislaus County is prone to a variety of natural disasters. With several rivers traversing the County, flooding is a concern. Although there are no major faults in the valley portion of Stanislaus County, some faults do exist in the foothills on the eastern and western edges of the County. Earthquakes could occur that would cause severe damage in portions of the County.)~~

POLICY ONE

The County will adopt (and implement as necessary) plans inclusive of the Multi-Jurisdictional Hazard Mitigation Plan, to minimize the impacts of a natural and man-made disasters.

IMPLEMENTATION MEASURES

1. The County ~~Office of Emergency Services~~**Sheriff's Department** will continue to work with other jurisdictions to develop evacuation routes to be used in case of a disaster, including dam failure. Evacuation routes will serve all of the jurisdictions in the County; therefore plans for evacuation routes must be coordinated with these cities.
   Responsible Department~~s~~: Sheriff's Department, Office of Emergency Services / Fire Warden~~Emergency Services~~

2. The County will follow the policies included in the adopted ~~emergency~~ **County of Stanislaus Multi-Jurisdictional Hazard Mitigation P~~p~~lan.** New development shall not conflict with policies included in that document.
   Responsible Department~~s~~: *Sheriff's Department, Office of Emergency Services / Fire Warden, Planning*

3. The County will make information available to landowners in areas subject to flooding to help them form a flood control district.
   Responsible Department: Planning – Flood Plain Administrator ~~Public Works~~

4. Development, except that which is consistent with the County General Plan at the time the Patterson Agreement is executed, in the area known as the Sperry Avenue Corridor, shall be required to participate in the solution of the Salado Creek flooding problem.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

5. In the event of a major **threat,** ~~wildfire threatening the towns of Knight's Ferry or La Grange,~~ the Sheriff, **Office of** Emergency Services **/ Fire Warden,** ~~and Fire Safety Departments~~ **and the Local Fire Agency having jurisdiction** may mandate and coordinate evacuation of ~~those towns~~ **the threatened area**.
Responsible Departments: Sheriff's Department, ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, ~~Emergency Services~~

6. The County has adopted a Multi-Jurisdictional Hazard Mitigation Plan, and will implement and evaluate the Plan on a regular basis as necessary to comply with state and federal laws. **This includes implementing the mitigation actions of the Plan through the Safety Element.**
Responsible Department: Office of Emergency Services / Fire Warden

POLICY TWO

Development should not be allowed in areas that are within the designated floodway **or any areas that are known to be susceptible to being inundated by water from any source.**

(Comment: The Federal Emergency Management Agency (FEMA) has developed floodway maps which identify areas prone to flooding.)

IMPLEMENTATION MEASURES

1. Development within the 100-year flood boundary shall meet the requirements of Chapter ~~16.40~~ **16.50** (Flood Damage ~~Protection~~ **Prevention**) of the County Code and within the designated floodway shall obtain ~~Reclamation Board~~ **Central Valley Flood Protection Board** approval.
Responsible Departments: Planning – Flood Plain Administrator~~Public Works~~, Planning Commission, Board of Supervisors

2. The County shall utilize the California Environmental Quality Act (CEQA) process to ensure that development does not occur that would be especially susceptible to flooding. Most discretionary projects require review for compliance with CEQA. As part of this review, potential impacts must be identified and mitigated.
Responsible Departments: Planning Department, Public Works, Planning Commission, Board of Supervisors

3. The County shall amend its Zoning Ordinance, as needed, for compliance with the Central Valley Flood Protection Act of 2008 (and any subsequent amendments)
Responsible Departments: Planning Department, Public Works, Planning Commission, Board of Supervisors

POLICY THREE

Development should not be allowed in areas that are particularly susceptible to seismic hazard.

IMPLEMENTATION MEASURES

1. The County shall enforce the Alquist-Priolo Earthquake Fault Zoning Act.
Responsible Departments: Building Permits Division ~~Inspections~~, Planning Department, Planning Commission, Board of Supervisors

2. Development in areas of geologic hazard shall be considered for approval only where the development includes an acceptable evacuation route.
Responsible Departments: Sheriff's Department, ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, ~~Emergency Services,~~ Public Works, Planning Department, Planning Commission, Board of Supervisors

3. Development proposals adjacent to reservoirs shall include evaluations of the potential impacts from a seismically induced seiche.
Responsible Departments: Planning Department, Parks and Recreation, Planning Commission, Board of Supervisors

4. The routes of new public roads in areas subject to significant seismic hazard shall be designed to minimize seismic risk.
Responsible Departments: Public Works, Planning Commission, Board of Supervisors

5. Where it is found that right-of-way widths greater than those specified in the Circulation Element are necessary to provide added safety in geologically unstable areas, additional width shall be required.
Responsible Departments: Public Works, Planning Department, Planning Commission, Board of Supervisors

POLICY FOUR

Development west of I-5 in areas susceptible to landslides (as identified in this element) shall be permitted only when a geological report is presented with (a) documented evidence that no such potential exists on the site, or (b) identifying the extent of the problem and the mitigation measures necessary to correct the identified problem.

IMPLEMENTATION MEASURES

1. The County shall utilize the California Environmental Quality Act (CEQA) process to ensure that development does not occur that would be especially susceptible to landslide. Most discretionary projects require review for compliance with CEQA. As part of this review, potential impacts must be identified and mitigated or a statement of overriding concerns adopted.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Development west of I-5 shall include a geological report unless the Chief Building Official ~~and Planning Director~~ ~~are~~**is** satisfied that no need for the study is present.
Responsible Departments: Planning Department, ~~Building Inspections~~ Building Permits Division

3. The routes of new public **and private** roads in areas subject to landslides shall be designed to minimize landslide risks.
Responsible Departments: Public Works, Planning Commission, Board of Supervisors

POLICY FIVE

Stanislaus County shall support efforts to identify and rehabilitate structures that are not earthquake resistant.

IMPLEMENTATION MEASURE

1. The County shall take advantage of programs that would provide funds to identify and rehabilitate structures that do not currently meet building standard minimums for earthquake resistance.
   Responsible Department*s*: Board of Supervisors, Chief Executives Office, Building Permits Division ~~Inspections~~, Planning Department

GOAL TWO

Minimize the effects of hazardous conditions that might cause loss of life and property.

POLICY SIX

All new development shall be designed to reduce safety and health hazards.

IMPLEMENTATION MEASURES

1. Review development proposals and require redesign when necessary to ensure that buildings are designed and sited to minimize crime and assure adequate access for emergency vehicles. **The County shall promote the design of structures, streetscapes, pathways, project sites and other elements of the built environment that allow for surveillance of publically accessible areas.**
   Responsible Departments: Sheriff's Department, ~~Fire Safety~~ Office of Emergency Service / Fire Warden, Local Fire Agency Having Jurisdiction

2. Fencing shall be required between canals and new urban development when recommended by an irrigation district.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

3. Development standards shall be imposed to provide street lighting, storm drainage, **adequate** setbacks, fire walls **and fire safe standards for defensible space, pursuant to California Code of Regulations Title 14, Fire Safe Regulations**.
   Responsible Departments: Public Works, Planning Department, ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Planning Commission, Board of Supervisors

4. All building permits shall be reviewed to ensure compliance with the ~~Uniform Building Code~~ **California Code of Regulation, Title 24, California Building Codes, and California Code of Regulations Title 14, Fire Safe Regulations**.
   Responsible Departments: Building Permits Division ~~Inspections,~~ Local Fire Agency Having Jurisdiction

POLICY SEVEN

Adequate fire and sheriff protection shall be provided.

IMPLEMENTATION MEASURES

1. The County shall continue to implement the funding strategies **for Capital Improvements and ongoing operations as** identified under Policy Twenty-~~Two~~**Four** of the Land Use Element.
   Responsible Departments: Building Permits Division ~~Inspections~~, Board of Supervisors, Public Works

2. All discretionary projects in the County shall be referred to the ~~Fire Safety Department and to the appropriate fire district~~ **Office of Emergency Services / Fire Warden, and the Local Fire Agency having jurisdiction** for comment. The comments of these

agencies will be used to condition or recommend modifications of the project as it relates to fire safety and rescue issues**, including emergency access and evacuation routes**. **All projects in State Responsibility Areas or Very High Fire Hazard Severity Zone shall be routed to CALFire for comments.**

Responsible Departments: Planning Department, ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local and State Fire Agency Having Jurisdiction

3. The County ~~Fire Safety Department~~ **Fire Warden and the Local Fire Agency having jurisdiction** shall work with the California Department of Forestry and Fire Protection and with local fire ~~districts~~ **agencies** to minimize the danger from wildfire **by establishing adequate fire suppression, setbacks, and other requirements pursuant to California Code of Regulations Title 14, Fire Safe Regulations**. **All building permits and discretionary projects located within State Responsibility Areas and Very High Fire Hazard Severity Zones, the Strategic Fire Plans of the local and adjoining jurisdictions CalFire units shall be followed.**

Responsible Departments: ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local and State Fire Agency Having Jurisdiction

4. Discretionary projects ~~outside of fire districts~~ shall be considered for approval only when they are found to include adequate fire protection.

Responsible Departments: ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Planning Department, Planning Commission, Board of Supervisors

5. New development~~, other than agricultural,~~ shall have ~~adequate~~ water to meet the fire flow standards established in ~~Appendix 5-A~~ **the current adopted fire code, and the current California Public Resources Code 4290, and when located within the State Responsibility Area and Very High Fire Hazard Severity Zones, the National Fire Protection Association 1142 Standard on Water Supplies for Suburban and Rural Fire Fighting.**

Responsible Departments: ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local and State Fire Agency Having Jurisdiction, Planning Department, Planning Commission, Board of Supervisors

6. All discretionary projects shall be referred to the Sheriff's Department for comment **and evaluation of security features including crime prevention through design.** Comments from the Sheriff will be used to either condition or modify the project.
Responsible Departments: Sheriff's Department, Planning Department, Planning Commission, Board of Supervisors

7. All building permits and discretionary projects within the State Responsibility Areas **and Very High Fire Hazard Severity Zones**, as identified by the **current** California Department of Forestry and Fire Protection **Fire Hazard Severity Zone maps,** shall meet the minimum **State** development standards, ~~included in Article 1-5, Subchapter 2 SRA Fire Safe Regulations, Chapter 7 - Fire Protection, Division 1.5 - Department of Forestry, Title 14 - Natural Resources,~~ **including the current chapters of the California Fire Code regarding requirements for wild land – urban interface fire areas, the California Building Code and Residential Code Materials and Construction Methods for Exterior Wildfire Exposure, and California Code of Regulations Title 14, Fire Safe Regulations**, or more stringent specific standards as may be adopted by the Board of Supervisors for this County.

Responsible Departments: Building Permits Division ~~Inspections~~, Public Works, Planning Department, ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Planning Commission, Board of Supervisors, CalFire

8. All discretionary projects shall be referred to the ~~Regional Emergency Medical Services Office~~ **Agency Local Emergency Medical Services Agency** for comments related to ambulance service.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY EIGHT

Roads shall be maintained for the safety of travelers.

IMPLEMENTATION MEASURES

1. New urban development shall provide street lighting, storm drainage, setbacks, ~~fire walls~~, and other safety features as the specific case may require **for all modes of travel (automobile, pedestrian, bicycle, etc.)**.
Responsible Departments: Public Works, ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Planning Commission, Board of Supervisors

2. New development shall conform to the standards in the County **Department of Public Works** Specifications and Improvement Standards for maintenance and improvement of roads.
Responsible Departments: Public Works, Planning Commission, Board of Supervisors

3. The Sheriff's Department shall enforce California Vehicle Code Section 23114 related to material falling from overloaded trucks carrying sand, gravel and other materials.
Responsible Department: Sheriff's Department

4. Private access roads in the State Responsibility Areas, as designated by the California Department of Forestry and Fire Protection, shall be designed to meet state-mandated standards for such roads **and all requirements under California Code of Regulations Title 14, Fire Safe Regulations**.
Responsible Departments: ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Planning Department, Planning Commission, Board of Supervisors

5. Private access roads in agricultural parcel maps should not include "dead ends" longer than one mile.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY NINE

The County shall support the formation of improvement districts (including flood control districts) **or overlay zones** to ~~eliminate~~ **mitigate** safety hazards.

IMPLEMENTATION MEASURES

1. Fire ~~Districts~~ **Agencies**, Sheriff's Department, etc. should be encouraged to request that the Board of Supervisors impose development fees to help support **capital needs.** ~~their services~~. Such requests shall be accompanied by supporting documentation.
Responsible Departments: ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Sheriff's Department, County Executive Office, Board of Supervisors

2. The County will work with ~~the Fire Safety Department~~ the State Department of Forestry and Fire Protection and **the** local fire ~~districts~~ **agencies having jurisdiction** to ensure that adequate fire suppression measures are provided in areas without access to a public water system. These measures may include restrictions on building materials as well as the provision of adequate access and appropriate facilities for suppressing a fire.
Responsible Departments: ~~Fire Safety~~ Office of Emergency Services / Fire Warden, Local Fire Agency Having Jurisdiction, Building Permits Division ~~Inspections~~, Board of Supervisors

3. The County may consider the adoption of overlay zones for the purpose of alerting property owners to restrictions relating to safety hazards.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY TEN

The County shall limit the siting of air strips.

IMPLEMENTATION MEASURE

1. The County policy regarding the siting of air strips shall be enforced. (See Appendix **V-A**~~5-B~~)
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. Development proposals for the establishment of an air strip shall include easements to restrict development on neighboring properties as required by County policy. The developer shall document existing easements and demonstrate the ability to acquire additional easements, if needed, prior to project approval. Projects shall be conditioned to require easements be recorded prior to development of the air strip.
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

POLICY ELEVEN

Restrict large communication **and wind power facilities** ~~antennas~~ within the agricultural area with respect to maximum height, markings (lights) and location to provide maximum safety levels.

IMPLEMENTATION MEASURES

1. **All communication facilities shall meet the siting standards established by Chapter 21.90 -Communication Facilities of the Zoning Ordinance.** ~~An amendment to the A-2 (General Agriculture) zoning districts will be processed by June 30, 1995 to require that, before communication towers are approved, a finding must be made that measures have been taken to minimize the effect of the tower on crop dusting activities. (On September 19, 1995, the Board of Supervisors approved an amendment to the zoning ordinance establishing siting standards for communication towers in all zoning districts.)~~
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. **Discretionary development proposals** ~~Use permit applications~~ for communication ~~towers~~ **and wind power facilities** in the A-2 (General Agriculture) zone district shall be referred to the crop dusting companies which typically service the area of the proposed tower for notice and comment.
   Responsible Department: Planning Department

POLICY TWELVE

The Airport Land Use Commission Plan and County Airport Regulations (Chapter 17 of the County Code) shall be updated as necessary, maintained and enforced.

IMPLEMENTATION MEASURES

1. Development within areas protected by the Airport Land Use Commission Plan shall only be approved if they meet the requirements of the Plan.
   Responsible Departments: Planning, Airport Land Use Commission, Planning Commission, Board of Supervisors

2. The Airport Land Use **Commission** Plan shall be updated, **as necessary,** to conform to current state **and federal** law ~~when funds are budgeted for the project~~.
   Responsible Departments: Planning Department, Airport Land Use Planning Commission

3. All amendments to a land use designation, zoning district, or zoning regulation affecting land within the Airport Land Use Plan boundary shall be referred to the Airport Land Use Commission for comment. If that commission recommends denial, the Board of Supervisors may overrule that recommendation only by a two-thirds majority vote.
   Responsible Departments: Planning Department, Airport Land Use Commission, Board of Supervisors

4. The height and exterior materials of new structures, **protected by the Airport Land Use Commission Plan** ~~in the Airport Zone of the Modesto, Oakdale, Patterson or Turlock airports as defined in the Stanislaus County Airport Regulations,~~ shall be reviewed to determine whether they conform to those regulations.
Responsible Departments: Planning Department, Board of Supervisors

POLICY THIRTEEN

The Department of Environmental Resources shall continue to coordinate efforts to identify locations of hazardous materials and prepare and implement plans for management of spilled hazardous materials as required.

IMPLEMENTATION MEASURES

1. The County will continue to provide planning efforts to locate and minimize the effects of hazardous materials through the County's adopted emergency plan.
Responsible Department: Environmental Resources

2. The County has prepared a Hazardous Waste Management Plan which is the guideline for managing hazardous waste in this County. The goals, objectives, conclusions, recommendations and implementation measures of that plan are hereby incorporated as a part of the Safety Element, along with any modifications which may result from state review of the Hazardous Waste Management Plan.
Responsible Departments: Board of Supervisors, Environmental Resources

3. The Area Plan for Emergency Response to Hazardous Substance Release, required by the California Health and Safety Code, will be incorporated as part of the Safety Element when that plan is adopted.
Responsible Departments: Environmental Resources, Office of Emergency Services / Fire Warden, Sheriff's Department, Emergency Services

POLICY FOURTEEN

The County will continue to enforce state-mandated structural Health and Safety Codes, including but not limited to the ~~Uniform~~ **California** Building Code, the ~~Uniform~~ ~~Housing~~ **International Property Maintenance** Code, the ~~Uniform~~ **California** Fire Code, the ~~Uniform~~ **California** Plumbing Code, ~~the National~~ **California** Electric Code, and Title 24**, Parts 1-9**.

(Comment: The ~~Uniform~~ **California** Building Code includes provisions for safe construction under the most current standards. The ~~Uniform~~ ~~Housing~~ **International Property Maintenance** Code provides for upgrading of existing dwellings to eliminate health and safety problems without requiring upgrading of non-hazardous conditions.)

IMPLEMENTATION MEASURES

1. All building permits shall be reviewed to ensure compliance with the ~~Uniform~~ **California** Building Code.
Responsible Department: Planning Department - Building Permits Division ~~***Inspections***~~

2. All complaints of substandard dwellings shall be acted upon to ensure compliance with the ~~Uniform~~ ~~Housing~~ **International Property Maintenance** Code.
Responsible Departments: ~~***Building Inspections***~~ ***Planning Department - Building***

Permits Division*, *Environmental Resources

3. The ~~Uniform~~ **California** Fire Code shall be followed in inspections and maintenance of structures regulated under that code.
   Responsible Department~~s~~: ~~Fire Safety~~ Office of Emergency Servicers / Fire Warden, Local Fire Agency Having Jurisdiction

POLICY FIFTEEN

The County will support the Federal Emergency Management Agency (FEMA) Flood Insurance Program so that residents who qualify may purchase such protection.

(Comment: If Stanislaus County adopts a flood hazard reduction ordinance that meets FEMA standards, property owners whose property is located within certain areas identified by FEMA as flood hazard areas may purchase insurance against flood damage. Chapter ~~16.40~~ **16.50** of the Stanislaus County Code meets the FEMA standards.)

IMPLEMENTATION MEASURE

1. Stanislaus County will maintain and enforce Chapter ~~16.40~~ **16.50** (Flood Damage ~~Protection~~ **Prevention**) of the County Code to meet FEMA standards.
   Responsible Departments: Public Works, Board of Supervisors

APPENDIX 5-A

FIRE FLOW STANDARDS

New or Existing Water Systems

New development shall not be permitted to diminish the fire flow of an existing water system below the following minimum standards:, established in the current adopted Fire Code.

1. Lot density of three or more single-family residential units per acre. 1,000 gpm

2. Duplex residential units, neighborhood business of one story. 1,500 gpm

3. Multiple residential, one and two stories; light commercial or light industrial. 2,000 gpm

4. Multiple residential, three stories or higher; heavy commercial or heavy industrial. 2,500 gpm

New water systems also must meet the minimum fire flow standards established above. in the current adopted Fire Code.

Exception:With the installation of an approved, supervised, automatic sprinkler system in accordance with the National Fire Protection Association Pamphlet #13, throughout the building, a 50% reduction may be granted. In no case shall there be less than 500 gpm provided on site.

No Existing Water System

Where there is no established water system, in the rural areas of Stanislaus County, the following guidelines shall apply:

The installation of reservoirs, pressure tanks, elevator tanks, or other fixed systems capable of supplying the required fire flow and/or static source shall be in accordance with the National Fire Protection Association Pamphlet #1231, Water Supplies for Rural and Suburban Fire Fighting.

Source: Stanislaus County Fire Warden's Office

APPENDIX V-A~~5-B~~

AIRPORT SITING STANDARDS

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
STATE OF CALIFORNIA

Date: March 6, 1984 No. 84-367

On motion of Supervisor Blom, Seconded by Supervisor Simon,
and approved by the following vote,
Ayes: Supervisors: Blom, Simon, Cannella and Chairman Starn
Noes: Supervisors: None
Excused or Absent: Supervisors: Terry
Abstaining: Supervisor: None

D-2

THE FOLLOWING RESOLUTION WAS ADOPTED:

IN RE: ESTABLISHING POLICIES FOR THE SITING OF NEW AIRPORTS, AGRICULTURAL SERVICE AIRPORTS AND TEMPORARY AGRICULTURAL SERVICE AIRPORTS

WHEREAS, after receiving a report concerning private airports in Stanislaus County, this Board referred the matter to the Planning Commission for study and possible recommendations; and

WHEREAS, the Commission held a public hearing to gain input from private airport owners, pilots, cropdusters and other interested parties; and

WHEREAS, after much discussion, the Planning Commission recommends that this Board adopt the "Establishing Policies for the Siting of New Airports, Agricultural Service Airports and Temporary Agricultural Service Airports" as submitted,

NOW, THEREFORE, BE IT RESOLVED that this Board of Supervisors does hereby adopt the "Establishing Policies for the Siting of New Airports, Agricultural Service Airports and Temporary Agriclutural Service Airports" to wit:

ATTEST: BETH MEYERSON-MARTINEZ, Clerk
Stanislaus County Board of Supervisors,
State of California,
Rochelle A. Tilton
By: Rochelle A. Tilton, Assistant Clerk

5-14

File No. S-18-CC-27

ESTABLISHING POLICIES FOR THE SITING OF NEW AIRPORTS, AGRICULTURAL SERVICE AIRPORTS, AND TEMPORARY AGRICULTURAL SERVICE AIRPORTS

WHEREAS, it is the duty of the Stanislaus County Board of Supervisors to promote and protect the health, safety, comfort, convenience and general welfare of the residents of Stanislaus County; and

WHEREAS, private airstrips, private airports, crop duster landing strips and heliports are presently permitted upon approval of a use permit in A-2 (Exclusive Agriculture) and certain R-A (Rural Residential) zones; and

WHEREAS, the Board of Supervisors recognizes the fact that airports, agricultural service airports and temporary agricultural service airports are necessary for the economy and convenience of the people of Stanislaus County; and

WHEREAS, careful consideration must be given to the siting, layout and design of any new airport, agricultural service airport or temporary agricultural service airport in these areas to protect the health, safety, comfort, and general welfare of the residents of Stanislaus County,

NOW, THEREFORE, BE IT RESOLVED that the following policies shall be utilized as guidelines by Stanislaus County when considering an application for a use permit or staff approval application to locate any new airport or temporary agricultural service airport or expand any existing airport or temporary agricultural service airport.

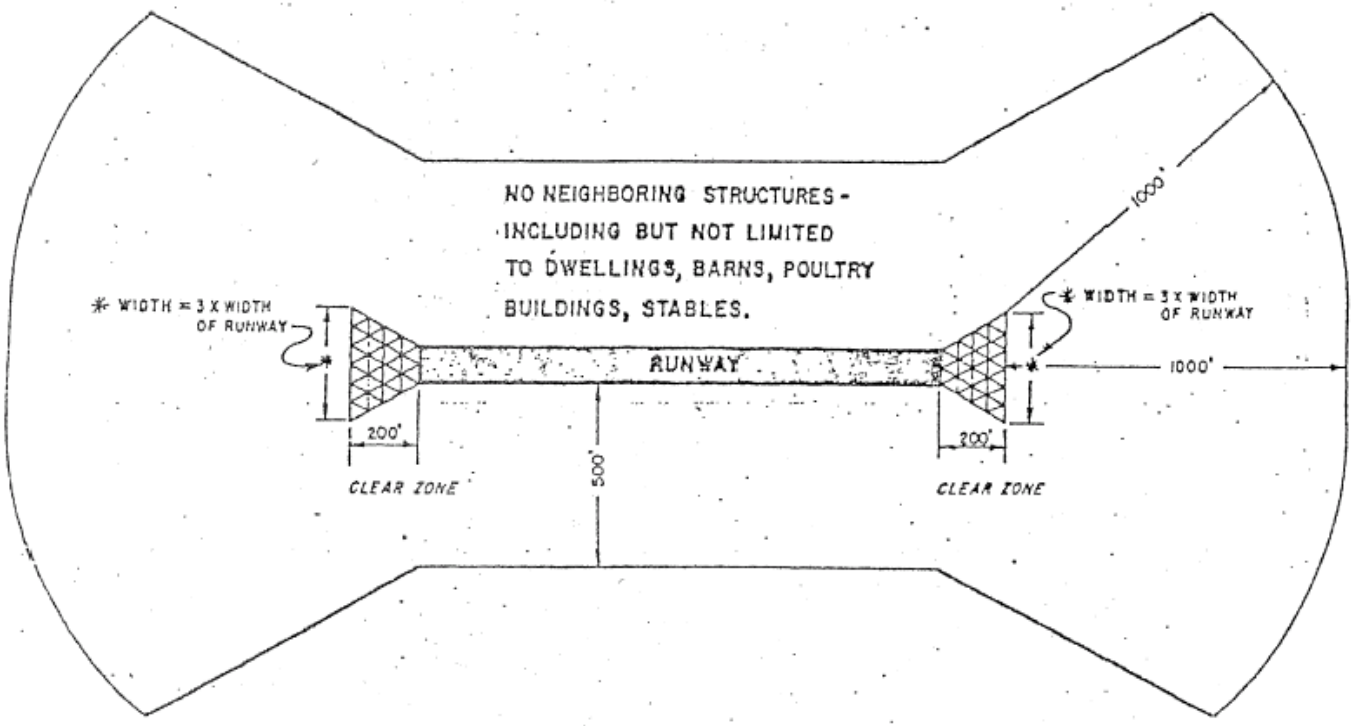
1. Provide a clear zone for a distance of two-hundred feet (200') from the end of the runway. The clear zone shall start at the ends of the runway and at a point two-hundred feet (200') from the end of the runway be three (3) times the width of the runway.

2. Be no closer to any neighboring dwelling, barn, shop, poultry building, or similar agricultural structure than: (a) 1000 feet from the ends of the runway, or (b) 500 feet to the sides of the runway. This shall not be construed so as to prohibit the owner of any airport from having their own dwelling(s), barn(s), shop(s), poultry building(s), or similar agricultural structure(s) within this area.

3. Be located so that air or surface traffic shall not constitute a nuisance or danger to neighboring property, farms, dwellings or structures.

4. Show that adequate controls or measures will be taken to prevent offensive dust, noise, vibrations, or bright lights.

5. Obtain when necessary approval of the California Department of Transportation, Division of Aeronautics and the Federal Aviation Administration prior to the issuance of the use permit.


NO NEIGHBORING STRUCTURES -
INCLUDING BUT NOT LIMITED
TO DWELLINGS, BARNS, POULTRY
BUILDINGS, STABLES.
* WIDTH = 3 X WIDTH OF RUNWAY
RUNWAY
* WIDTH = 3 X WIDTH OF RUNWAY
1000'
1000'
200'
200'
500'
CLEAR ZONE
CLEAR ZONE

Additions shown as red **Bold** text
Deletions shown as red ~~strike through~~ text

Agricultural Element

Chapter 7

AGRICULTURAL ELEMENT

Agriculture is the leading industry in Stanislaus County generating an annual gross agricultural value in excess of a billion dollars into the local economy. This initial value of farm production has a ripple, or multiplier, effect in the economy by generating related activities such as food processing, retail and wholesale trade, marketing, transportation, and related services. Located in the Central Valley, which has long been known as California's agricultural heartland, Stanislaus County consistently ranks among the top ten agricultural counties in the state. Stanislaus County also plays a major role in agriculture at the national level, based on market value of agricultural product sold.

The success of agriculture in Stanislaus County is largely due to our favorable climate and the flat, fertile soils that comprise the resource base of our biggest industry. The availability of affordable, high quality irrigation water and low-cost electrical power also gives local agriculture a competitive advantage. Agriculture in Stanislaus County is characterized by a broad diversity of commodities. While overall production trends for leading commodities have continued to grow, these trends are not always reflective of the overall health of agriculture in Stanislaus County.

The same elements that make Stanislaus County so well suited for agriculture – favorable climate, flat land, available water and low-cost power – also make the County attractive for urban development. Like other areas of the Central Valley, the County has become a magnet for those in search of affordable housing within commuting distance of the San Francisco Bay Area and other major employment centers.

Confronted with unprecedented population growth, diminishing agricultural resources, and increased production costs, it can no longer be assumed local agriculture will always be a major supplier to the nation with fresh fruits and vegetables and remain the mainstay of our economy. The challenge of solving the problems confronting agriculture in Stanislaus County requires the coordinated efforts of both government and private citizens. The goals to sustain a healthy agricultural economy, conserve our agricultural land, and protect our natural resources are goals for which our community as a whole can strive, from which our community as a whole will benefit.

Purpose

The purpose of the Agricultural Element is to promote and protect local agriculture through the adoption of policies designed to achieve three main goals:

1. Strengthen the agricultural sector of our economy.
2. Conserve our agricultural lands for agricultural uses.
3. Protect the natural resources that sustain agriculture in Stanislaus County.

The policies are intended to provide clear guidelines for County decision-making. The policies also are intended to express the County's commitment to specific programs and strategies that will ensure the continued success of our agricultural industry and productivity of our agricultural lands.

Focus

The overall focus of the Agricultural Element is on the mitigation of negative economic and environmental impacts to agricultural land and the natural resources needed to support local agriculture. The Agricultural Element establishes policies to protect the economy of Stanislaus County by minimizing conflicts between agriculture, the environment, and urban development. By minimizing the impacts of urbanization on agriculture, the County will help protect local agriculture and ensure its continued success.

Scope

This document represents a broad-based effort to analyze the status of local agriculture, address agricultural issues, consolidate existing County policies and propose strategies to solve problems that exist. Not limited to land use issues, this document goes beyond the scope of most agricultural elements to include strategies for economic development and resource protection related to agriculture. Because of its comprehensive approach, this document can be considered a strategic plan for agriculture in Stanislaus County.

Authority & Relationship to Other General Plan Elements

In recognition of the importance of agriculture to our local economy, the Stanislaus County General Plan includes an Agricultural Element to promote and protect local agriculture. Under Section 65303 of the California Government Code, optional elements of the General Plan, are authorized but not mandated by the state legislature. The Agricultural Element is coordinated with several other elements of the General Plan and must be consistent with the entire General Plan. It interacts primarily with agriculture-related policies of the Land Use, Conservation/Open Space, and Housing Elements. To avoid duplication, policies in these elements that affect or relate to agriculture are not repeated in this element. However, such policies are cross-referenced whenever appropriate. The policies in this document have the same legal status as any state-mandated element of the general plan.

Review Period

The adoption of the Agricultural Element reflects the County's commitment for a strong agricultural economy. As a means of insuring the goals, objectives, policies, and implementation measures of this document remain relevant to the needs of local agriculture, periodic review of the this document is required. Adoption of this document includes a commitment to reviewing it every five years. Reviews shall be conducted by the Agricultural Advisory Board with assistance from both the County Agricultural Commissioner's Office and the Planning Department.

GOAL ONE

Strengthen the agricultural sector of our economy.

Growth in Stanislaus County is both an opportunity for local agriculture and a threat to its stability. There are opportunities to expand markets for local agricultural products and opportunities for the expansion of existing businesses and the formation of new enterprises. However, growth typically results in increased conflicts between farm and non-farm residents as well as contributing to the loss of productive farmland, the deterioration of air quality, increased competition for water supplies and other resource problems.

Goal One addresses these opportunities and threats by presenting strategies for agriculture-related economic development. These strategies include ways to improve marketing and promotion, provide education and technical assistance, minimize conflicts between farm and non-farm residents, provide adequate housing for farm workers, and ensure food safety.

Because many of these issues are not unique to Stanislaus County alone, but involve the entire Central Valley, the close cooperation of local governments through a voluntary multi-county association or confederation is essential for the continued success of agriculture and the health of our regional economy as a whole.

Objective Number 1.1: Enhance the marketing and promotion of agriculture in Stanislaus County

The ability to market and promote agriculture on both a county-wide and farm level is essential to the success of agriculture in Stanislaus County. Direct marketing is one method farmers can use to gain market control, but for many crops a local infrastructure for marketing and promotion is needed for success. This local infrastructure is comprised of land, services, and the workforce needed for support industries such as food-processors, manufactures, distributers, suppliers, and retailers. A key factor to attracting and retaining the necessary infrastructure includes a strong local focus on economic development.

Stanislaus County plays an active role in economic development through its participation with private industry in efforts to add value to existing local economic development programs. The ability to market the productivity of agriculture in Stanislaus County is essential to the development of the support industry needed to enhance the sales of agricultural products. Marketing boards for the various agricultural commodities grown and raised in Stanislaus County serve as a link between the farmer, processor, and consumer.

Efforts to highlight the rich agricultural heritage of Stanislaus County help to bridge the gap between consumers and farmers by promoting the value of agriculture to the community as a whole. With the increase in population, the majority of Stanislaus County citizens now reside in urban areas. Clearly community education of farming practices and the economic role of agriculture is important to the long-term health of agriculture as an industry in Stanislaus County. Direct marketing provides an opportunity for farmers to deliver their products directly to consumers, while allowing the farmer to maximize revenues.

The County supports direct marketing opportunities through the permitting of produce stands and produce markets meeting adopted standards and incidental retail sales and tasting rooms in

conjunction with authorized agricultural processing facilities in the agricultural zoning district. For many consumers farm-based direct marketing offers them their only physical connection to agriculture. However, to limit the potential for conflict, the county must take measures to insure direct marketing is conducted in a manner which promotes the health, safety, and welfare of both county residents and agricultural business in the county.

In addition to a strong local market, a strong export market for Stanislaus County agricultural products is a key element to sustaining our agricultural economy. Each year an increasing amount of agricultural products grown in and raised in Stanislaus County are shipped worldwide. Economic development efforts assist companies interested in exporting local agricultural products. In addition to local efforts, the County encourages state and federal efforts to expand agricultural export programs.

Policy 1.1

Efforts to promote the location of new agriculture-related business and industry in Stanislaus County shall be supported.

Implementation Measure

1. The County shall continue to participate in economic development efforts to bring new agriculture-related business and industry to Stanislaus County
   Responsible Departments: Board of Supervisors

Policy 1.2

The marketing and promotion of local agricultural products shall be encouraged.

Implementation Measures

1. The County shall continue to implement existing ordinance provisions relating to direct-marketing of locally grown produce.
   Responsible Departments: Agricultural Commissioner, Department of Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

2. The County shall encourage efforts to establish direct marketing programs and a market identity for Stanislaus County.
   Responsible Departments: Planning Department, Chief Executive Office and Board of Supervisors

3. The County shall encourage the presence of agricultural marketing boards in Stanislaus County.
   Responsible Departments: Planning Department, Chief Executive Office and Board of Supervisors

Policy 1.3

Efforts to expand markets for the export of local agricultural products shall be encouraged.

Implementation Measure

1. The County shall support and encourage efforts to create and expand export programs which seek to expand markets for commodities produced in Stanislaus County.
   Responsible Departments: Agricultural Commissioners Office, Board of Supervisors.

Objective Number 1.2: Support the development of agriculture-related uses

Given its broad diversity, Stanislaus County agriculture involves a variety of commercial and industrial activities and requires a range of supplies and services. Roadside stands, processing services, maintenance and repair of farm machinery and equipment, custom farming services and similar agriculture-related uses are all important for the success of agriculture.

Some of these activities and support services may be most appropriately located on agricultural lands, where they are convenient and accessible to farmers and ranchers. On the other hand, some of these uses may interfere with agricultural operations. The determination of which commercial activities and support services belong on agricultural lands depends on their connection to agriculture, the potential for conflicts, the size, scale and adaptability of the use, and the amount of land lost to farming.

The A-2 (General Agriculture) zoning district of the County Zoning Ordinance encourages vertical integration of agriculture by organizing uses requiring use permits into three tiers based on the type of uses and their relationship to agriculture. Tier one includes uses closely related to agriculture such as nut hulling and drying, wholesale nurseries, and warehouses for storage of grain and other farm produce grown on-site or in proximity to the site. Tier two includes uses such as agricultural service establishments serving the immediately surrounding area and agricultural processing plants of limited scale. Tier three includes uses that are not directly related to agriculture but may be necessary to serve the A-2 district or difficult to locate in urban areas. Since tier three uses can be people-intensive and thus can adversely impact agriculture, they are generally directed to lands within LAFCO-adopted Spheres of Influence.

Agricultural service establishments designed to serve the immediate area and agricultural processing plants such as wineries and canneries are allowed when the Planning Commission finds that (1) they will not be substantially detrimental to or in conflict with the agricultural use of other property in the vicinity; (2) the establishment as proposed will not create a concentration of commercial and industrial uses in the vicinity; and (3) it is necessary and desirable for such establishment to be located within the agricultural area as opposed to areas zoned commercial or industrial. Limited visitor-serving commercial uses including retail sales, tasting rooms and/or facilities for on-site consumption of agricultural products are allowed in conjunction with agricultural processing facilities.

In general, agricultural service establishments can be difficult to evaluate due to their wide diversity of service types and service areas. This diversity often leads to requests for uses which provide both agricultural and non-agricultural services and/or have a wide-spread service area. Maintaining a focus on production agriculture is key to evaluating agricultural service establishments in the agricultural area. In order to control the scale and intensity of processing facilities, such as wineries and canneries, the County requires such facilities in the agricultural area to show a direct connection to production agriculture in Stanislaus County and applies limitations on the number of employees.

Visitor-serving commercial uses can be especially problematic. Direct marketing and promotion of local products is beneficial to the agricultural industry, yet the people who come to enjoy the rural setting may interfere with necessary farming practices. This "people versus practice" conflict makes it necessary to limit the location and intensity of visitor-serving commercial uses in agricultural areas.

Policy 1.4

Limited visitor-serving commercial uses shall be permissible in agricultural areas if they promote agriculture and are secondary and incidental to the area's agricultural production.

Policy 1.5

Agricultural service establishments shall be permissible in agricultural areas if they are designed to serve production agriculture in the immediately surrounding area as opposed to having a widespread service area, and if they will not be detrimental to agricultural use of other property in the vicinity.

Policy 1.6

Processing facilities and storage facilities for agricultural products either grown or processed on the site shall be permissible in agricultural areas.

Policy 1.7

Concentrations of commercial and industrial uses, even if related to surrounding agricultural activities, are detrimental to the primary use of the land for agriculture and shall not be allowed.

Policy 1.8

To encourage vertical integration of agriculture, the County shall allow research, production, processing, distribution, marketing, and wholesale and limited retail sales of agricultural products in agricultural areas, provided such uses do not interfere with surrounding agricultural operations.

Implementation Measure

1. The County will continue to implement its existing General Agriculture (A-2) zoning provisions for agriculture-related uses consistent with policies 1.6 - 1.10 of the Agricultural Element.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Objective Number 1.3: Minimizing Agricultural Conflicts:

Urbanization and the proliferation of rural residences throughout the County has led to increased conflicts over agricultural operations. Homeowners complain about noise, odors, flies, chemical spraying and similar impacts of commercial agricultural practices; farmers complain about vandalism, theft and trespassing on farm properties. To minimize these conflicts, the County can implement a variety of tools designed to minimize the interaction between people and agriculture which results in the conflict. These tools include continuing to implement its right-to-farm ordinance, requiring buffers between non-agricultural development and adjacent agricultural operations, and establishing setbacks from agricultural zones.

Stanislaus County is one of many counties in California to have enacted a right-to-farm ordinance to protect farmers from nuisance suits as a result of normal farming practices. The ordinance requires disclosure to home buyers in farming areas that they are subject to noise, dust, odors, and other impacts of commercial agricultural operations. The ordinance also provides a notification system to make residents more aware of the right-to-farm policy and provides a voluntary agricultural grievance procedure as an alternative to court proceedings.

In practice, the right-to-farm ordinance primarily serves as a tool for making adjacent landowners aware of a right which cannot be fully protected by the ordinance. When faced with non-agricultural development in agricultural areas, farmers often lose their rights to implement normal farming practices, such as spraying, due to the increased risk of exposure to surrounding people. Without question, the right-to-farm ordinance is a critical tool in the effort to protect agricultural land, but beyond awareness it is limited in the true protection it can provide. The success of the right-to-farm ordinance is dependent on supporting policies limiting non-agricultural development in and around agricultural areas.

To lessen the impacts of development by minimizing conflicts between agricultural and non-agricultural uses, buffers should be required when incompatible development is approved in or adjacent to agricultural areas. A buffer is a physical separation such as a topographic feature, a substantial stand of trees, a water course, a landscaped berm or similar feature. Buffers serve as both a physical and visual barrier between agricultural uses and the people in non-agricultural areas. By separating incompatible uses, a buffer minimizes the impacts of non-agricultural development on surrounding agricultural operations and decreases the likelihood of conflict. Buffers are not intended to stop people from entering an area, but rather to limit people as a means of avoiding a situation where conflict is known. Buffers need to take into account 'no spray' policies enforced by the Agricultural Commissioner.

Setbacks from agricultural zones also help minimize conflicts over agricultural practices. For example, standards for residential zones may be amended to require all structures be setback a specified distance from an adjacent agricultural zone. Standards will need to take into account existing residential areas where lots may be too small to accommodate effective setbacks. However, the purpose for adopting setback standards is to insure existing circumstances which have resulted in conflict over agricultural practices are not repeated. As with buffers, setbacks need to take into account 'no spray' policies.

Impacts to agriculture also occur when lands are removed from agricultural production and remain fallow or crops are abandoned. While this type of impact generally occurs on the edge of urban development, it can also occur in the middle of an agricultural area. Fallow and abandoned farmland becomes habitat to invasive and noxious pests which may damage plants, lower production, and cause the need to increase the use of pesticides and rodenticides on adjacent farmland. State law grants authority to the County Agricultural Commissioner to address these type of nuisances, but it ultimately is the responsibility of individual property owners to avoid impacting adjacent farmland.

Policy 1.9

The County shall continue to protect agricultural resources by limiting the circumstances under which agricultural operations may be deemed to constitute a nuisance.

Implementation Measures

1. The County shall continue to implement the Right-to-Farm ordinance.
   Responsible Departments ***Tax Collector, Clerk Recorder, Planning Department (Planning and Building Permits Divisions), Planning Commission, Board of Supervisors***

2. The County shall utilize complaints related to agricultural activities as educational opportunities.
   Responsible Departments: ***Agricultural Commissioner, Planning Department, Board of Supervisors***

Policy 1.10

The County shall protect agricultural operations from conflicts with non-agricultural uses by requiring buffers between proposed non-agricultural uses and adjacent agricultural operations.

Implementation Measures

1. The County shall require buffers and setbacks for all discretionary projects introducing or expanding non-agricultural uses in or adjacent to an agricultural area consistent with the guidelines presented in Appendix "A".
   Responsible Departments: ***Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors***

Policy 1.11

The County shall support state regulations requiring landowners to manage noxious weeds and pests on fallow or abandoned lands.

Implementation Measure

1. The Agricultural Commissioner shall enforce state regulations requiring landowners to manage noxious weeds and pests on fallow or abandoned lands.
   Responsible Departments: ***Agricultural Commissioner, Board of Supervisors***

Objective Number 1.4: Provide Housing for Farmworkers

Efficient farm management requires a stable work force to provide labor when needed. To ensure the availability of that labor, adequate numbers of employees must be housed on both a temporary and a permanent basis. Farmworker housing issues involve the location, amount and type of housing for seasonal and year-round farm workers.

State and federal housing programs for farm workers in Stanislaus County are administered by the Stanislaus County Housing Authority, which is an independent public agency entirely separate from County government. Farmworker housing projects currently administered by the Housing Authority are located throughout the County. Other efforts to provide farmworker housing come mainly from individual farmers. The Stanislaus County Department of Environmental Resources is the local agency responsible for enforcing state regulations of farmworker housing.

The County appoints the Housing Authority Board, which is the agency's policy-making body, and otherwise assists the Housing Authority as outlined in a cooperative agreement. The Housing Element of the General Plan includes a commitment that the County shall continue to assist the Housing Authority in its administration of state and federal housing programs for farm workers.

The General Agriculture (A-2) zoning district allows, with use permit, farm labor camps and permanent housing for persons employed on a full-time basis in connection with any agricultural work or place where agricultural work is being performed. The County Zoning Ordinance also recognizes the use of manufactured housing (mobile homes) under a temporary permit when specific criteria can be met to substantiate the need to provide housing for a full-time employee. Manufactured housing (mobile homes) are preferred over standard housing because they can be moved off the property if circumstances change and the employees are no longer needed.

Policy 1.12

To help provide a stable work force for agriculture, the County shall continue to facilitate efforts of individuals, private organizations and public agencies to provide safe and adequate housing for farm workers.

Implementation Measures

1. The County shall continue to implement the farm worker housing policies of the Housing Element of the General Plan. The County also shall facilitate the efforts of other public agencies, private organizations and individuals to provide safe and adequate housing for farm workers.
   Responsible Departments: Planning Department, Board of Supervisors

2. The Stanislaus County Department of Environmental Resources shall continue to enforce state regulations regarding farmworker housing.
   Responsible Departments: Department of Environmental Resources

3. The County shall consider adoption of expedited permitting procedure for construction of temporary farmworker housing.
   Responsible Departments: Department of Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

Policy 1.13

Temporary housing for full-time farm employees in connection with any agricultural work or place where agricultural work is being performed shall be supported.

Policy 1.14

Permanent, new housing for seasonal farm workers preferably shall be located in areas supplied with public sewer and water services.

Policy 1.15

Housing for year-round, full-time farm employees shall be permissible in addition to the number of dwellings normally allowed by the density standard.

Implementation Measure

1. The County shall continue to implement existing General Agriculture (A-2) zone provisions for farmworker housing consistent with policies 1.16 - 1.18 of the Agricultural Element.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Objective Number 1.5: Support Education and Technical Assistance

Farmers and ranchers often lack the means to undertake the wide range of activities necessary to pursue new agricultural market opportunities and develop new products. Public educational institutions, including the University of California, California State University Stanislaus, and Modesto Junior College all provide some form of technical assistance to agriculture. However, these public institutions can be better utilized to help agricultural groups and individuals conduct market analyses, identify direct marketing opportunities, promote exports, and coordinate other economic development activities in support of local agriculture.

Vocational agriculture programs provide education and hands-on experience for high school and MJC students in Stanislaus County. The 4-H and Future Farmers of America (FFA) programs also play an important role in agricultural education. 4-H programs are part of the U.C. Cooperative Extension, which receives County funding. FFA programs operate in conjunction with vocational agriculture programs in the public high schools and are not directly related to U.C. Cooperative Extension. However, U.C. Cooperative Extension works with vocational agriculture teachers and provides assistance to vocational agriculture programs, both at the high school and the junior college levels.

Several public agencies conduct agricultural research and provide educational services at the County level: the U.S.D.A. Natural Resource Conservation Center, the East and West Stanislaus Resource Conservation Districts, U.C. Cooperative Extension and the Stanislaus County Agricultural Commissioner's office. Three of these agencies are centrally located in the County Agricultural Center.

Policy 1.16

Public education institutions shall be encouraged to provide more technical assistance related to agricultural economic development in Stanislaus County.

Policy 1.17

The County shall continue to encourage vocational agriculture programs in local high schools and at Modesto Junior College.

Policy 1.18

Public agencies providing agricultural services shall be encouraged to continue agricultural research and education.

Policy 1.19

The County shall continue to encourage 4-H and FFA programs for local youth.

Implementation Measures

1. Local 4-H programs will be encouraged by continued support of U.C. Cooperative Extension.
   Responsible Departments: ***U.C. Cooperative Extension, Agricultural Advisory Board, Board of Supervisors***

2. The County will continue to support the County fair, which involves vocational agriculture, FFA and 4-H programs.
   Responsible Departments: ***U.C. Cooperative Extension, Agricultural Advisory Board, Board of Supervisors***

Policy 1.20

The County shall continue to support the Agricultural Center where offices of public agencies providing agricultural services are centrally located.

Implementation Measure

1. The County will continue to support the County Agricultural Center that houses the public agencies directly related to agriculture, including the U.C. Cooperative Extension, the Agricultural Commissioner, the U.S. Department of Agriculture, and the California Department of Food and Agriculture.
   Responsible Departments: ***U.C. Cooperative Extension, Agricultural Commissioner, Board of Supervisors***

Objective Number 1.6: Protect Food Safety

~~The lack of consumer confidence in food can be costly to the agricultural community.~~ **A safe food supply is a major concern to all consumers and, as such, is critical to the economic health of our agricultural community. Food borne pathogen outbreaks, t**~~T~~he use of chemicals in growing and storing crops, the use of antibiotics and hormones in raising poultry and livestock, and the use of radiation to prolong the shelf-life of our food are types of ~~agricultural practices~~ issues that worry consumers who are concerned about food safety and its long-term impacts on their health.

Food borne pathogen outbreaks related to agricultural production practices and operations, whether confirmed or alleged through media sources, can be extremely costly and greatly impact agriculture. The Food Safety Modernization Act (FSMA) authorizes the United States Department of Agriculture (USDA) to develop more extensive regulations and guidelines designed to prevent food borne illness through recordkeeping and trace back requirements of agricultural commodities. The Agricultural Commissioner who is responsible for promoting and protecting the agricultural industry will likely be the local arm of government responsible to assist in implementing provisions of the FSMA. Such a program will be designed to quickly address reports of food borne pathogen outbreaks and to diminish impacts to the agricultural industry and the community in general.

The public is also concerned about the impact of agricultural chemicals on the environment. Air, soil and water quality problems can result from the unsafe application and disposal of agricultural chemicals. A viable agricultural industry requires a sustainable regulatory framework promoting economic viability and environmental safety.

The primary responsibility for regulating and monitoring the sale and use of pesticides rests with the California Department of Pesticide Regulation, which classifies and registers pesticides, and the Stanislaus County Agricultural Commissioner, who issues permits to possess and use restricted

pesticides. In general, no restricted **pesticide** material can be possessed or used in any way until the applicator has obtained a permit from the Agricultural Commissioner. The Agricultural Commissioner also operates programs for the inspection of fruits, vegetables and eggs to ensure quality produce; the inspection of nurseries and seed crops to guard against diseases and inferior plants; pest exclusion to prevent crop-destroying pests from becoming established in California; and pest detection to find pests at the lowest population and in the smallest area possible in order to minimize the effects and costs of an eradication program.

The U.C. Cooperative Extension conducts educational and applied-research programs in integrated pest management and all other aspects of pest control.

Policy 1.21

The County shall continue to work with local, state and federal agencies to ensure the safety of food produced in Stanislaus County and to maintain a local regulatory framework promoting environmental safety while ensuring the economic viability of agriculture.

Implementation Measures

1. The Agricultural Commissioner will continue to work with government agencies and farmers to ensure the safe use of agricultural chemicals.
   Responsible Departments: Agricultural Commissioner, U.C. CooperativeExtension

2. As regulations are established, the Agricultural Commissioner will work with state and federal agencies and the farming community in the implementation of a food safety program to include a record keeping and trace back system to ensure minimal impacts related to food borne pathogens and associated outbreaks.
Responsible Departments: Agricultural Commissioner

3. The County shall support the rights of growers to utilize the widest range of newest available technologies.
Responsible Departments: Agricultural Commissioner, U.C. Cooperative Extension, Board of Supervisors

~~42.~~ The U.C. Cooperative Extension will continue to conduct educational and applied-research programs to promote food safety and agricultural practices that are environmentally sound.
Responsible Departments: Agricultural Commissioner, U.C. Cooperative Extension

Objective Number 1.7: Encourage Regional Coordination in the Central Valley

The Central Valley has long been one of the premier agricultural regions in the world. Yet the Central Valley's population is growing rapidly, resulting in far-reaching demographic, social and economic changes. Some of the most obvious changes include crowded highways, polluted air, and homes and shopping centers sprouting from what used to be farmland. These types of regional impacts will likely have cumulative effects on agriculture, exerting a powerful influence over its future viability in the Central Valley.

One way to address regional impacts of growth and help ensure the continued success of agriculture in the Central Valley is to encourage regional coordination among the various counties and cities in the Central Valley. Currently there are nine councils of government in the Central Valley, including Stanislaus Council of Governments (StanCOG). These groups provide a forum for communication between the County government and municipalities within the County. However, there is no agency that coordinates planning and development activities of counties and cities for

the entire Central Valley.

Policy 1.22

The County shall encourage regional coordination of planning and development activities for the entire Central Valley.

Implementation Measure

1. The County shall participate in regional efforts to address long-range planning, infrastructure, conservation and economic development issues facing the Central Valley.

   Responsible Departments: Board of Supervisors

GOAL TWO

Conserve our agricultural lands for agricultural uses.

Agricultural land is a finite, irreplaceable resource. Once agricultural land has been taken out of production and paved over to provide streets for residential subdivisions and parking lots for shopping centers, it is not likely to be farmed again. The urbanization of productive agricultural land means the permanent loss of an irreplaceable resource.

With population in the Central Valley projected to increase dramatically, Stanislaus County faces greater pressure to convert agricultural lands to non-farm residential, commercial and industrial uses. The policies presented in Goal Two of this document are intended to provide a practical, effective framework for land-use decisions regarding agricultural lands, with the overall goal of conserving agricultural lands for agricultural uses.

While not all agricultural land in Stanislaus County can be conserved, it is possible to protect agricultural areas through a combination of agricultural zoning and policies that clearly direct growth to cities and unincorporated communities with appropriate services to foster a sustainable community. By balancing the need to create housing and job opportunities for an expanding population with the need to protect our agricultural lands, we will help ensure the continued success of local agriculture.

Unlike urbanization, the parcelization of farmland has the potential to result in a gradual loss of farmland associated with the creation of parcels for 'residential purposes' and not 'agricultural purposes'. Parcels created in the agricultural area for 'residential purpose' are commonly referred to as 'ranchette' parcels. Ranchettes are characterized as rural homesites valued primarily for their residential development potential. What is classified as a ranchette size will vary based on soil type, terrain, irrigation water availability and other such factors. The land costs associated with ranchettes are driven by residential potential which cannot be supported by the agricultural income potential of the land. As the use of land transitions from production agriculture to ranchettes, landowner priorities in the areas shift from the protection of agricultural rights to the protection of residential rights.

In recognition of the legitimate agricultural reasons for parcelization of farmland there are options available to insure ranchettes are not inadvertently created. These options include maintaining minimum parcel size requirements suitable for production agriculture, restricting use of farmland to production agriculture, and establishing 'no build' provisions for the development of dwellings on newly created parcels which are not used for production agriculture or capable of production agriculture. These option may also be applied to lot line adjustments of farmland, which also have the potential to result in the creation of ranchette parcels.

Objective Number 2.1: Continued Participation in the Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a tax relief measure for owners of farmland. The Williamson Act permits a landowner, whose land is used for farming, to sign a contract with the County guaranteeing that the land will continue to remain in farming for a period of at least ten years. In return for this guarantee, the County assesses taxes based on the agricultural value of the land rather than the market value. Generally, this means taxes for a farmer are reduced, sometimes greatly. Participation in the Williamson Act,

has been a fundamental part of Stanislaus County's agricultural land conservation program.

Local jurisdictions implement the Williamson Act by adoption of agricultural preserves and rules governing the administration of the agricultural preserves. Adopted rules must be applied uniformly throughout the preserves and, as such, are commonly termed uniform rules. Stanislaus County has adopted the A-2 (General Agricultural) zoning district as its agricultural preserve. While the Williamson Act itself does not establish permitted uses within an agricultural preserve, permitted uses must be consistent with Principles of Compatibility outlined within the Williamson Act. The Williamson Act does establish presumed minimum parcel sizes for lands enrolled under contract. Minimum parcel sizes apply to both the creation of new parcels and parcels involved in a lot line adjustment.

The local governing jurisdiction has the ability to establish compatible uses, alternative minimum parcel sizes, and criteria for lot line adjustment based on the individualized needs of the community, provided the overall purpose and minimum standards of the Act are maintained.

Generally, the Williamson Act enjoys widespread support among landowners and government officials. The Williamson Act has helped to stabilize farm income and keep many operators in business by limiting the tax burden on contracted parcels. The Open Space Subvention Program, which is the companion to the Williamson Act, requires the State to partially reimburse local governments for forgone property tax revenues.

Stanislaus County has voluntarily participated in the Williamson Act program since 1970. Although the County's participation rate is one of the highest in the state, the percentage of land enrolled under contract has declined by four percent since the height of enrollment in 1981-82. The decline is primarily attributed to lands annexed by cities and contracts which have expired as result of notices of nonrenewal filed by property owners. Notices of nonrenewal are common in areas adjacent to city boundaries and unincorporated communities where development pressures are increasing. The passage of state legislation in 2003 establishing procedures and penalties for material breach of contracts have resulted in an increase of notices of nonrenewal throughout the entire A-2 zoning district.

Despite the trend of increasing notices of nonrenewal, cancellation requests in Stanislaus County have remained low. Generally, the Williamson Act continues to be an effective tool to help keep agricultural land in agricultural use. One reason for the increase in notices of nonrenewal may be attributed to the significant number of undersized parcels currently enrolled under contract. Since the County started participating in the Williamson Act, there have been periods when no minimum parcels size requirements existed for enrollment under contract. Currently, a minimum of 10-acres is required for enrollment under contract. While these undersized parcels may not benefit, they do face restrictions. The County has taken action to notify owners of undersized parcels of the process of nonrenewal, but few have taken advantage of the process. Increases in notices of nonrenewal in recent years have been the result of changes in State legislation.

Policy 2.1

The County shall continue to provide property tax relief to agricultural landowners by participating in the Williamson Act.

Implementation Measure

1. The County shall continue to participate in the Williamson Act, thereby providing property tax relief to farmers and ranchers who volunteer to keep their land in agricultural use.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors.

Policy 2.2

The County shall support reasonable measures to strengthen the Williamson Act, making it a more effective tool for the protection of agricultural land.

Implementation Measures

1. The County shall encourage the State Legislature to increase Williamson Act subvention payments to local governments based on cost-of-living increases and/or a restructuring of the Williamson Act subventions schedule.
   Responsible Departments: Chief Executives Office, Board of Supervisors.

2. The County will supplement the Williamson Act with other conservation tools in a comprehensive program for the protection of agricultural land.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Policy 2.3

The County shall ensure all lands enrolled in the Williamson Act are devoted to agricultural and compatible uses supportive of the long-term conservation of agricultural land.

Implementation Measure

1. The County shall initiate the filing of notices of nonrenewal on any parcel being used, or of a size, inconsistent with adopted uniform rules and applicable state regulations.
   Responsible Departments: Planning Department, Assessors Office, Board of Supervisors

Objective Number 2.2: Discourage urbanization and the conversion of agricultural land in unincorporated areas of the County

In Stanislaus County, urbanization and farmland conversion are like two sides of the same coin. As urban areas expand to accommodate a growing population, surrounding farmland is converted to residential subdivisions, shopping centers and industrial parks.

Like many other farming areas, the towns in Stanislaus County began as agricultural service centers and located where the farms were, on the valley floor. As these towns have expanded beyond their original functions, they have expanded outward onto our richest, most productive soils. Today, population growth continues to push urban development onto farmland once in agricultural production. If the trend continues outward onto productive agricultural land to accommodate population growth, the resource base of our biggest industry will be seriously threatened.

Remote development, or development that takes place away from existing cities or urban centers, has traditionally been discouraged by planners and County officials in favor of the compact expansion of already existing urban centers. Existing County policy regarding remote development is stated in Policy Ten of the Land Use Element: "New areas for urban development (as opposed to

expansion of existing areas) shall be limited to less productive agricultural areas." In theory remote development offers a better alternative to the unlimited expansion of established cities and towns into our most productive agricultural areas. However, the benefits of remote development are diminished by the impact to surrounding agricultural uses and the introduction of urban infrastructure in an agricultural area. In defining the County's most productive agricultural areas, it is important to recognize that soil types alone should not be the determining factor. With modern management techniques, almost any soil type in Stanislaus County can be extremely productive. At the same time, many of our most valuable agricultural commodities are produced on lesser quality soils. For example, milk is the County's top-grossing commodity and yet most of the dairy farms in Stanislaus County are located in areas that might be considered less productive agricultural lands, based solely on soil capability. Although soil types should be considered, the designation of "most productive agricultural areas" also should be based on existing uses and their contributions to the agricultural sector of our economy.

Conversion of agricultural land also occurs when nonagricultural uses are introduced into agricultural areas and when agricultural land is parceled or adjusted into sizes too small to sustain an agriculturally viable independent farming operation. The County's Agricultural land use designation and corresponding A-2 (General Agriculture) zoning recognize ranchette areas with minimum lot size requirements of 3, 5,10, and 20 acres. Ranchette areas have been identified based on significant existing parcelization of property, poor soil, location, and other factors which limit the agricultural productivity of the area. The inclusion of ranchette minimum parcel sizes in the A-2 zoning district creates the potential for future expansion of ranchette areas without the need to amend the lands Agricultural land use designation.

Policy 2.4

To reduce development pressures on agricultural lands, higher density development and in-filling shall be encouraged.

Implementation Measure

1. The County shall encourage higher density development and in-filling of already-existing urban areas.
   Responsible Departments: Planning Department, Board of Supervisors

Policy 2.5

To the greatest extent possible, development shall be directed away from the County's most productive agricultural areas.

Implementation Measure

1. Until the term "Most Productive Agricultural Areas" is defined on a countywide basis, the term will be determined on a case-by-case basis when a proposal is made for the conversion of agricultural land. Factors to be considered include but are not limited to soil types and potential for agricultural production; the availability of irrigation water; ownership and parcelization patterns; uniqueness and flexibility of use; the existence of Williamson Act contracts; existing uses and their contributions to the agricultural sector of the local economy. As an example, some grazing lands, dairy regions and poultry-producing areas as well as farmlands can be considered "Most Productive Agricultural Areas." Failure to farm specific parcels will not eliminate them from being considered "Most Productive Agricultural Areas." Areas considered to be "Most Productive Agricultural Areas" will not include any land within LAFCO-approved Spheres of Influence of cities or community

services districts and sanitary districts serving unincorporated communities.
Responsible Departments: ***Planning Department, Agricultural Commissioner, Planning Commission, Board of Supervisors***

2. Uses on agricultural land located outside a LAFCO-adopted Sphere of Influence shall be primarily devoted to agricultural and compatible uses supportive of the long-term conservation of agricultural land. Agriculturally - related uses needed to support production agriculture and uses which by their unique nature are not compatible with urban uses, may be allowed on agricultural land provided they do not conflict with the agricultural use of the area.
Responsible Departments: ***Planning Department, Planning Commission, Board of Supervisors***

3. The County shall encourage the development of alternative energy sources on lands located outside "Most Productive Agricultural Areas".
Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Policy 2.6

Agricultural lands restricted to agricultural use shall not be assessed to pay for infrastructure needed to accommodate urban development.

Implementation Measure

1. The County shall continue to exempt agricultural buildings designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products from payment of Public Facility Fees. Exempt structures shall not be a place of human habitation or a place of employment where agricultural products are processed, treated or packaged, nor shall it be a place used by the public.
Responsible Departments: ***Board of Supervisors***

Policy 2.7

Proposed amendments to the General Plan Diagram (map) that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they are consistent with the County's conversion criteria.

Implementation Measure

1. Procedures for processing General Plan amendments shall incorporate the following requirements for evaluating proposed amendments to the General Plan Diagram (map) that would allow the conversion of agricultural land to urban uses:

   Conversion Consequences. The direct and indirect effects, as well as the cumulative effects, of the proposed conversion of agricultural land shall be fully evaluated.

   Conversion Considerations. In evaluating the consequences of a proposed amendment, the following factors shall be considered: plan designation; soil type; adjacent uses; proposed method of sewage treatment; availability of water, transportation, public utilities, fire and police protection, and other public services; proximity to existing airports and airstrips; impacts on air and water quality, wildlife habitat, endangered species and sensitive lands; and any other factors that may aid the evaluation process.

   Conversion Criteria. Proposed amendments to the General Plan Diagram (map) that would allow the conversion of agricultural land to urban uses shall be approved only if the Board of Supervisors makes the following findings:

   A. Overall, the proposal is consistent with the goals and policies of the General Plan.
   B. There is evidence on the record to show a demonstrated need for the proposed project based on population projections, past growth rates and other pertinent data.
   C. No feasible alternative site exists in areas already designated for the proposed uses.
   D. Approval of the proposal will not constitute a part of, or encourage, piecemeal conversion of a larger agricultural area to non-agricultural uses, and will not be growth-inducing (as used in the California Environmental Quality Act).
   E. The proposed project is designed to minimize conflict and will not interfere with agricultural operations on surrounding agricultural lands or adversely affect agricultural water supplies.
   F. Adequate and necessary public services and facilities are available or will be made available as a result of the development.
   G. The design of the proposed project has incorporated all reasonable measures, as determined during the CEQA review process, to mitigate impacts to agricultural lands, fish and wildlife resources, air quality, water quality and quantity, or other natural resources.

   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Policy 2.8

In order to further the conservation of agricultural land, the subdivision of agricultural lands shall not result in the creation of parcels for 'residential purposes'. Any residential development on agriculturally zoned land shall be incidental and accessory to the agricultural use of the land.

Implementation Measure

1. The subdivision of agricultural land consisting of unirrigated farmland, unirrigated grazing land, or land enrolled under a Williamson Act contract, into parcels of less than 160-acres in size shall be allowed provided a "no build" restriction on the construction of any residential development on newly created parcel(s) is observed until one or both of the following criteria is met:
   - 90% or more of the parcel shall be in production agriculture use with its own on-site irrigation infrastructure and water rights to independently irrigate. For land which is not irrigated by surface water, on-site irrigation infrastructure may include a self-contained drip or sprinkler irrigation system. Shared off-site infrastructure for drip or sprinkler irrigation systems, such as well pumps and filters, may be allowed provided recorded long-term maintenance agreements and irrevocable access easements to the infrastructure are in place .
   - Use of the parcel includes a confined animal facility (such as a commercial dairy, cattle feedlot, or poultry operation) or a commercial aquaculture operation.

   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors.

Policy 2.9

Lot-line adjustments involving agricultural land shall be primarily created and properly designed for agricultural purposes without materially decreasing the agricultural use of the project site.

Implementation Measure

1. In terms of minimum parcel size and residential building intensity, a greater number of nonconforming parcels shall not be created by lot-line adjustment. The following criteria shall apply when nonconforming parcels are involved in a lot-line adjustment:
   - Nonconforming parcels greater than 10-acres in size shall not be adjusted to a size smaller than 10-acres, unless the adjustment is needed to address a building site area or correct for a physical improvement which is found to encroach upon a property line. In no case shall a parcel enrolled in the Williamson Act be reduced to a size smaller than 10-acres.
   - Nonconforming parcels less than10-acres in size may be adjusted to a larger size, 10 acres or greater in size if enrolled in the Williamson Act, or reduced, if not enrolled in the Williamson Act, as needed to address a building site area or correct for a physical improvement which is found to encroach upon a property line.

   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors.

Policy 2.10

Minimum parcel sizes allowed for lands designated Agriculture shall not promote the expansion of existing, or creation of new, ranchette areas.

Implementation Measures

1. Minimum parcel sizes of 40- or 160- acres shall be appropriate for lands designated Agriculture.

   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. In recognition of 3-, 5-, 10, and 20- acre minimum parcel sizes being appropriate for ranchette areas, no additional land designated as Agriculture shall be rezoned to A-2-3, 5, 10, or 20.

   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

3. The County shall evaluate and modify as needed, the remote development policy of the Land Use element as part of a comprehensive General Plan update to insure such development does not impact surrounding agricultural uses or introduce urban infrastructure into an agricultural area.

   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Objective Number 2.3: Expansion of Cities and Unincorporated Communities

The Stanislaus Local Agency Formation Commission (LAFCO) is the local agency responsible for coordinating logical and timely changes in local governmental boundaries, including Spheres of Influence (SOI). The spheres of influence delineate the probable ultimate boundaries and service areas of the cities, and are intended to promote the efficient provision of urban services, including sewer, water, police protection and fire protection. Similarly, community services districts and sanitary districts serving unincorporated communities also have adopted spheres of influence that indicate their probable ultimate boundaries. LAFCO's efforts are directed to seeing that services are provided efficiently and economically while agricultural and open-space lands are protected.

With the approval of LAFCO, spheres of influence can be expanded to accommodate growth. The question of whether or not proposed expansions should be allowed is decided solely by LAFCO. LAFCO is an independent agency created by state law. In Stanislaus County the LAFCO is composed of two county supervisors; two city council representatives; and one public member. As an independent agency, LAFCO is not required to adhere to county policies, but state law requires LAFCO to consider conformity with all applicable general plans in the review of all proposals. As such, this agricultural element, and the county general plan as a whole, can have an effect on the actions of LAFCO.

In recognition that unincorporated land within the established spheres of influence will be urbanized, these lands generally are designated Agriculture and zoned General Agriculture (A-2) until annexed by the city or special district.

Existing policy in the Land Use Element delineates the County's role in managing the development of agriculturally zoned lands within city spheres of influence. Reflecting agreements between the County and all nine cities, these policies provide that the County shall refer all development proposals to the appropriate city to determine whether or not the proposal should be approved. Development, other than agricultural uses and churches, cannot be approved by the County unless written communication is received from the city memorializing their approval.

The Land Use Element also includes policies regarding the development of unincorporated communities and the expansion of urban boundaries (Policies Six and Thirteen). The County is actively encouraging the upgrading of unincorporated communities through the redevelopment and community development block grant programs, which provide significant tools for improving infrastructure and enhancing the quality of life in these areas.

Policy 2.11

The County recognizes the desire of cities and unincorporated communities to grow and prosper and shall not oppose reasonable requests consistent with city and county agreements to expand, provided the resulting growth minimizes impacts to adjacent agricultural land.

Implementation Measures

1. The County shall continue to urge LAFCO to strengthen its policies, standards and procedures for evaluating proposed annexations of agricultural land and proposed expansions of service districts or spheres of influence onto agricultural land to insure resulting urban growth minimizes impacts to adjacent agricultural lands.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors, Agricultural Commissioner

2. The County shall actively review LAFCO referrals to insure proposed projects are consistent with County General Plan polices.
   Responsible Departments: Planning Department, Agricultural Commissioner, Board of Supervisors

Policy 2.12

In order to minimize impacts to adjacent agricultural land, the County shall encourage LAFCO to use physical features such as roads and irrigation laterals as the boundaries for sphere of influence expansions.

Implementation Measure

1. The County shall encourage LAFCO to consider buffer guidelines adopted by the County when cities or community services districts and sanitary districts serving unincorporated communities propose to expand their boundaries.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors, Agricultural Commissioner

Policy 2.13

In recognition that unincorporated land within spheres of influence of cities or community services districts and sanitary districts serving unincorporated communities ultimately will be urbanized, the County shall cooperate with cities and unincorporated communities in managing development in sphere of influence areas.

Implementation Measures

1. The County will continue to implement its policies and agreements with cities regarding the development of unincorporated lands within spheres of influence.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

2. The County will continue to implement policies in the Land Use Element regarding the development of unincorporated communities and expansion of their urban, or service district, boundaries.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Objective Number 2.4: Assessing and mitigating Impacts of farmland conversion

The conversion of agricultural land to non-agricultural uses has far-reaching impacts on the land, water and air resources that support our biggest industry. For example, taking out an almond orchard to accommodate urban development may involve paving over groundwater recharge areas, which will have a long-term effect on groundwater resources. Similarly, new roads providing access to the development may increase traffic congestion, resulting in a cumulative impact on air quality.

The California Environmental Quality Act (CEQA) requires the County to consider the environmental consequences of development-related projects and to ensure that adverse environmental impacts are avoided or minimized as much as possible. If the County determines in its Initial Study that a project could have a significant adverse environmental effect, the County must require preparation of an Environmental Impact Report (EIR) to fully assess potential impacts, propose ways to minimize or mitigate those impacts, and consider alternatives to the proposed project. The County may approve a project only if mitigation measures are adopted whenever feasible to avoid or reduce all significant environmental impacts or findings of 'overriding considerations' are adopted.

Under CEQA Guidelines, the County has some discretion in determining whether the conversion of agricultural land will have a significant adverse effect on the environment. A project will normally have a significant effect on the environment if it will convert prime agricultural land to non-agricultural use or impair the productivity of prime agricultural land. "Prime agricultural land" is not defined under CEQA. Several attempts have been made in years past to allow or require local governments to establish a threshold of agricultural land loss for the purpose of determining a significant effect on the environment and thereby necessitating an EIR. However, instead of using an arbitrary threshold such as 100 acres to trigger an EIR, the County prefers to evaluate each project on a case-by-case basis. When the County determines that under the specific circumstances of the proposed project the conversion of agricultural land could have a significant effect, the County requires preparation of an EIR.

The analysis of the impacts of farmland conversion are often limited to a discussion of the prime soils that the project would make unavailable for farming, but rarely identifies the impacts on surrounding farming operations. Neither CEQA nor the State CEQA Guidelines contain detailed procedures or guidance concerning when and how agencies should address farmland conversion impacts. The County may amend its own CEQA Guidelines to include local guidelines for assessing the impacts of farmland conversion.

A common strategy for mitigating the loss of farmland is to require the permanent protection of farmland based on an identified ratio to the amount of farmland converted. A viable option for permanent protection is purchase of an agricultural conservation easement on farmland. Agricultural conservation easements generally restrict the non-agricultural use of property in perpetuity and are overseen by a trust established with a goal of promoting farmland conservation. The purchase of agricultural conservation easements is typically accomplished in one of two methods: 1) the developer works directly with a trust to purchase the required conservation easement prior to development or 2) the developer pays a fee to be used by a trust to purchase an agricultural conservation easement at a later date. While payment of a fee is typically easier for the developer, it is not always a guaranteed method to attaining the desired results. Fees paid at current cost may not keep pace with the escalating land costs and trusts must recover the cost of administering fees until a conservation easement is purchased. At the same time, a landowner wanting to sell an agricultural conservation easement may not be available at the time a development project is approved. A mitigation program focused on agricultural conservation easements must maintain a balance between the practical acquisition and actual cost of agricultural conservation easements.

To be effective, lands placed under easement must be strategically located to insure the viability of the surrounding farmland is protected. An isolated island of agricultural land surrounded by development or agriculturally non-viable parcels has little positive impact on efforts to protect farmland.

Policy 2.14

When the County determines that the proposed conversion of agricultural land to non-agricultural uses could have a significant effect on the environment, the County shall fully evaluate on a project-specific basis the direct and indirect effects, as well as the cumulative effects of the conversion.

Implementation Measures

1. The County will continue to evaluate each project on a case-by-case basis to determine whether the conversion of agricultural land will have a significant adverse effect on the environment.
   Responsible Departments: Agricultural Commissioner, UC Cooperative Extension, Planning Department, Planning Commission, Board of Supervisors.

2. When it determines that the conversion of agricultural land will have a significant adverse effect on the environment, the County will continue to require preparation of an EIR to fully assess the impacts of the conversion, propose mitigation measures, and consider alternatives to the proposed project.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors.

Policy 2.15

In order to mitigate the conversion of agricultural land resulting from a discretionary project requiring a General Plan or Community Plan amendment from 'Agriculture' to a residential land use designation, the County shall require the replacement of agricultural land at a 1:1 ratio with agricultural land of equal quality located in Stanislaus County.

Implementation Measure

1. Mitigation shall be applied consistent with the Farmland Mitigation Program Guidelines presented in Appendix "B".
   Responsible Departments: Agricultural Commissioner, UC Cooperative Extension, Planning Department, Planning Commission, Board of Supervisors.

Policy 2.16

The County shall participate in local efforts to identify strategic locations for the purchase of agricultural conservation easements by land trusts and shall promote the long-term viability of farmland in areas surrounding existing farmland held under conservation easements.

Implementation Measure

1. To facilitate the mitigation of the impacts of farmland conversion, the County may make information available on private, non-profit agricultural land trusts, may serve on committees that are formed for the purpose of establishing an agricultural land trust, and may coordinate County mitigation programs with the land trust once it is established.
   Responsible Departments: Agricultural Commissioner, UC Cooperative Extension, Planning Department, Planning Commission, Board of Supervisors.

Policy 2.17

The County shall work cooperatively with the nine cities within the County and to encourage them to adopt agricultural conservation policies or ordinances which are consistent with County policies or ordinances in order to undertake an integrated, comprehensive Countywide approach to farmland conservation. It is the ultimate goal of the County to have all nine cities participate in or adopt an agricultural mitigation ordinance that is the same as or substantially similar.

Implementation Measure

1. The County shall facilitate efforts to have all nine cities participate in or adopt an agricultural mitigation ordinance that is the same as or substantially similar to adopted County ordinances addressing agricultural mitigation.

Objective Number 2.5: Limit the Impact of Antiquated Subdivisions

One of the biggest threats to Stanislaus County's agricultural economy is the potential creation of hundreds of ranchettes in antiquated subdivisions.

Antiquated subdivisions are subdivisions created in the early part of the 1900's and exist on paper but have never been developed or sold in lots. Numerous antiquated subdivisions are located throughout Stanislaus County, involving more than 3,000 lots ranging in size from 3,250 square feet to 20 acres or more. If these lots were sold and developed, the loss of agricultural land coupled with the impact on surrounding agricultural operations could be devastating to the long-term viability of the agricultural economy.

Created prior to enactment of the State Subdivision Map Act and the California Environmental Quality Act, antiquated subdivisions were created without any kind of formal review to evaluate their economic and environmental consequences to the County. In addition to having adverse impacts on agriculture, antiquated subdivisions pose a variety of environmental threats including groundwater contamination from the concentration of on-site septic systems and the generation of dust and auto emissions from increased traffic on unimproved access roads. The County's ability to provide emergency services such as fire protection, sheriff and ambulance services also could be adversely affected. Similarly, potential impacts of antiquated subdivisions on schools, parks and recreation have never been fully evaluated.

In 2000 the Stanislaus County Board of Supervisors amended the County Zoning Ordinance to address antiquated subdivisions. The amendment addresses antiquated subdivisions in the General Agriculture (A-2) zoning district by limiting the ability to place a dwelling on parcels of less than 20-acres in size without approval of a discretionary permit. The ordinance is based on the need to find the dwelling will be consistent with the County's General Plan, will not likely create a concentration of residential uses in the vicinity or induce other similarly situated parcels to become developed with single-family dwellings, and will not be substantially detrimental to or in conflict with

agricultural uses of other property in the vicinity.

Policy 2.18

Construction of a dwelling on an antiquated subdivision parcel shall only be allowed when such development does not create a concentration of residential uses or conflict with agricultural uses of other property in the vicinity.

Implementation Measure

1. The County shall continue to implement existing zoning ordinance provisions addressing antiquated subdivisions.
   Responsible Departments: Planning Department, Planning Commission and Board of Supervisors

GOAL THREE

Protect the natural resources that sustain our agricultural industry.

Agriculture depends directly on the land, air, water and soil resources to sustain its productivity. The success of agriculture in Stanislaus County can be largely attributed to the availability of these resources for the production of a wide variety of products.

The continued availability of soil, high quality water and clean air cannot be taken for granted. In the process of urbanization to accommodate a booming population, Stanislaus County is losing farmlands to urban development by cities. At the same time, there is increasing competition between agriculture and urban uses for limited water resources. Ultimately these problems threaten the County's agricultural economy and our ability to help feed the nation.

Urbanization and the conversion of agricultural land are addressed under Goal Two, which focuses primarily on land-use issues regarding our agricultural lands. Other resource problems such as air quality, water quality and supply, and soil quality are addressed in the following section of this document. The policies presented under Goal Three are intended to ensure the long-term protection of the natural resources that sustain our agricultural industry.

Objective Number 3.1: Air Quality

Air quality in the San Joaquin Valley is monitored and standards are enforced by the California Air Resources Board and the San Joaquin Valley Air Pollution Control District, which is composed of the eight counties in the San Joaquin Valley air basin. The District was formed in recognition of the fact that air pollution is not limited by County lines--it is a regional problem affecting the entire valley. The lack of consistent standards and enforcement from one County to another makes it difficult to effectively address the cumulative impacts of pollution.

The Conservation/Open Space and Circulation Elements of the General Plan include policies and implementation measures to improve air quality by promoting communication, cooperation and coordination among agencies involved in air quality programs; working to accurately determine and mitigating air quality impacts of proposed projects; to ensure that circulation systems shall be designed and maintained to minimize traffic congestion and air pollution; and to support efforts to increase public awareness of air quality problems and solutions.

Policy 3.1

The County shall continue to coordinate with the San Joaquin Valley Air Pollution Control District.

Implementation Measure

1. The County shall continue to refer development proposals to the San Joaquin Valley Air Pollution Control District for their review and analysis of impacts on air quality.

Policy 3.2

The County shall assist the San Joaquin Valley Air Pollution Control District in implementation of adopted plans and regulations.

Implementation Measure

1. The County shall require development proposals to incorporate all applicable air quality regulations and, where required, to include reasonable mitigation measures.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

Policy 3.3

The County shall encourage the development and use of improved agricultural practices that improve air quality and are economically feasible.

Implementation Measure

1. The County shall encourage and support the development and use of improved agricultural practices aimed at reducing the production of fine particles and other sources of air pollution.
   Responsible Departments: Agricultural Commissioner, U.C. Cooperative Extension, Board of Supervisors

Objective Number 3.2: Water Resources

Water is the lifeblood of agriculture in Stanislaus County. To supplement an average rainfall of just 12 inches per year, local agriculture relies on a network of irrigation water delivery systems to sustain its broad diversity of valuable crops.

Compared to many other areas of the arid Central Valley, Stanislaus County has abundant water resources, at least in times of normal rainfall. The availability of high-quality, low-cost irrigation water traditionally has given local agriculture a competitive edge and has been largely responsible for its success. The main sources of irrigation water are the Stanislaus, Tuolumne and San Joaquin River watersheds, all of which originate in the Sierra Nevada Mountains. Groundwater is used to supplement irrigation supplies, and is the major source of domestic and industrial water.

The quality of groundwater is determined by the geological formations through which it filters and thereby cannot be controlled. Groundwater recharge occurs by water conducting through the gravels of major streams and rivers, seepage from reservoirs, irrigations and rainfall of well drained alluvial soils in the valley portions of the County. Decreasing groundwater quality in areas of the county is having adverse effects on domestic water suppliers, as well as the agricultural lands. As groundwater becomes unavailable for domestic use, other sources have to be found. As a result, urban and agricultural users are becoming more competitive for water supplies.

Conservation is the most cost-effective way to ensure adequate water supplies for all residents of Stanislaus County. Local farmers long have practiced conservation methods, and their ability to survive dry years is indicative of their success. Research is continually improving agricultural technology, and water-saving innovations are continually being adapted by local growers.

Domestic and industrial users also need to be informed about the need for conservation and methods of lowering their water requirements. All types of water sources in the County are

increasingly interdependent. The availability of irrigation water is affected by the use of water by city-dwellers and businesses; the availability of drinking water and industrial water is affected by agricultural practices.

Policy 3.4

The County shall encourage the conservation of water for both agricultural**, rural domestic,** and urban uses.

Implementation Measures

1. The County shall encourage water conservation by farmers by providing information on irrigation methods and best management practices and coordinating with conservation efforts of the Farm Bureau, Resource Conservation Districts, Natural Resource Conservation Service, and irrigation districts.
   Responsible Departments: Agricultural Commissioner, U.C. Cooperative Extension, Board of Supervisors

2. The County shall encourage urban water conservation and coordinate with conservation efforts of cities, local water districts and irrigation districts that deliver domestic water.
   Responsible Departments: Department of Environmental Resources, Board of Supervisors

3. The County shall continue to implement adopted landscape and irrigation standards designed to reduce water consumption in the landscape environment.
   Responsible Departments: Planning Department, Planning Commission, Board of Supervisors

4. The County shall work with local irrigation districts to preserve water rights and ensure that water saved through conservation may be stored and used locally, rather than "appropriated" and moved to metropolitan areas outside of Stanislaus County.
   Responsible Departments: Board of Supervisors

5. The County shall encourage the development and use of appropriately treated water (reclaimed wastewater and stormwater) for both agricultural and urban irrigation.
Responsible Departments: Board of Supervisors

Policy 3.5

The County will continue to protect the quality of water necessary for crop production and marketing.

Implementation Measures

1. The County shall continue to require analysis of groundwater impacts in Environmental Impact Reports for proposed developments.
   Responsible Departments: Department of Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

2. The County shall investigate and adopt appropriate regulations to protect water quality.
Responsible Departments: ***Department of Environmental Resources, Planning Department, Planning Commission, Board of Supervisors***

Policy 3.6

The County will continue to protect local groundwater for agricultural, rural domestic, and urban use in Stanislaus County.

Implementation Measures

1. The County shall implement the existing groundwater ordinance to ensure the sustainable supply and quality of local groundwater.
Responsible Departments: Agricultural Commissioner, Department of Environmental Resources, Planning Department, Planning Commission, Board of Supervisors

Objective Number 3.3: Soil Resources

The continued success of agriculture in Stanislaus County depends on conserving our soil resource. In addition to supporting the production of crops and livestock forage, soil is a vital part of the ecosystem and a record of past biological and physical processes. Formed slowly through the interaction of climate, living and decomposing organisms, local geology and erosion, soil is considered a non-renewable resource that requires proper management to ensure its continued productivity.

There are two main soil management problems in Stanislaus County: salinity, or the build-up of salts, and erosion caused by wind, water and irrigation. Salinity and irrigation induced salinity is especially problematic west of the San Joaquin River. Low quality irrigation water and poor drainage have resulted in the build up of salt and mineral concentrations in the soil. Wind erosion is more widespread in the coarse textured soils east of the San Joaquin River, resulting in the loss of productive topsoil and contributing to air and water quality problems.

Resource Conservation Districts (RCDs) provide assistance to control soil erosion and runoff, water conservation, stabilize soils, and protect water quality through cooperative agreements and grants with the USDA Natural Resources Conservation Service (NRCS). Through these agreements, the RCDs can prioritize resource concerns so that funding for conservation practices can be directed through NRCS.

The county is served by two Resource Conservation Districts. The East Stanislaus Resource Conservation District sphere of influence is east of the San Joaquin River and extends to the county lines. The West Stanislaus Resource Conservation District is located west of the San Joaquin River and extends to the county lines.

Policy 3.7~~6~~

The County shall encourage the conservation of soil resources.

Implementation Measures

1. The County shall continue to provide soil management information and coordinate with soil conservation efforts of local, state, and federal agencies.
   Responsible Departments: Agricultural Commissioner, U.C. Cooperative Extension

2. The County shall support efforts of local Resource Conservation Districts in their activities to support local agriculture.
   Responsible Departments: Board of Supervisors

3. The County shall continue to refer proposed developments whenever appropriate to Resource Conservation Districts and irrigation districts for their review and analysis of impacts on soil resources.
   Responsible Departments: Planning Department

DEFINITIONS

Agricultural Land - Any land suited for agriculture.

Agricultural Uses - Land uses that are directly connected with or customarily incidental to agriculture.

Agriculture - The tilling of the soil, the raising of crops, horticulture, viticulture, small livestock farming, dairying, aquaculture, or animal husbandry, including all uses customarily incidental thereto but not including slaughterhouses, fertilizer yards, bone yards or plants for the reduction of animal matter or any other industrial use which is similarly objectionable because of noise, odor, smoke, dust or fumes.

Agricultural Service Establishment - A business engaging in activities designed to aid production agriculture. Service does not include the provision of tangible goods except those sold directly to farmers and used specifically to aid in production of farm animals or crops. Nor does service include any business which has the primary function of manufacturing products.

Buffer - A physical separation such as a topographic feature, a substantial stand of trees, a water course or similar feature that serves to protect or insulate one type of land use from another.

Clustering - A development technique that involves the grouping together of residences and other structures in a relatively small area, as opposed to dispersing those structures over a larger area.

Farmland - The type of agricultural land best suited for growing crops. In this document, "farmland" is used synonymously with "agricultural land" to mean any land suited for agriculture.

Grazing Land - Land on which existing vegetation is suited for the grazing of livestock.

Non-Agricultural Uses - Land uses that are not directly connected with or customarily incidental to agriculture.

Production Agriculture - Agriculture for the purpose of producing any and all plant and animal commodities for commercial purposes.

Ranchette - An individual parcel of land in an agricultural zone valued for its residential potential which cannot be supported by the agricultural income potential of the land.

Remote Development - Development that takes place away from existing cities or urban centers.

Right-to-Farm Ordinance - Stanislaus County Ordinance Code, Section 9.32.010, Chapter 9. A local ordinance that protects the rights of farmers to carry on their "normal" agricultural practices with a decreased risk of nuisance lawsuits.

Rural - Characteristic of the country, as distinguished from city or town.

Setback - The distance between the nearest point of the building or structure and the right-of-way or easement borderline or property line.

Urban - Characteristic of the city, as distinguished from the country.

Urban Development - In incorporated areas, development that is served by both public water and public sewer services; in unincorporated areas, development that is served by public water and/or public sewer services.

Urbanization - The process of changing from rural to urban in character.

Modesto City-County Airport

Oakdale Municipal Airport

Crows Landing Airport

STANISLAUS COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

Stanislaus County
Striving to be the Best

Prepared by

Stanislaus County
Planning and Community
Development Department
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Prepared for

Stanislaus County
Airport Land Use Commission

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Chapter 1

INTRODUCTION

1

Introduction

Plan Overview

The *Stanislaus County Airport Land Use Compatibility Plan* (ALUCP) contains the individual Compatibility Plan for three airports in Stanislaus County: the Modesto City-County Airport, the Oakdale Municipal Airport, and the former Crows Landing Air Facility. As adopted by the Stanislaus County Airport Land Use Commission, the basic function of the plan is to promote compatibility between these airports and the land uses surrounding them to the extent that these areas have not already been devoted to incompatible uses. The plan accomplishes this function through establishment of a set of compatibility criteria applicable to new development around the airport. Neither this ALUCP nor the ALUC have authority over existing land uses or over operation of the airport.

Geographically, the *Compatibility Plan* pertains to portions of unincorporated areas within Stanislaus County, together with portions of the cities of Modesto, Oakdale, Ceres, and Patterson. Special districts, school districts, and community college districts within those jurisdictions are also subject to the provisions of the plan. The authority of the ALUC does not extend to state, federal, or tribal lands.

Airport Land Use Compatibility Planning

The creation of airport land use commissions (ALUCs) and the preparation of airport land use compatibility plans are requirements of the California State Aeronautics Act (Aeronautics Act/Public Utilities Code Section 21670 *et seq.*). Provisions for creation of ALUCs were first established under state law in 1967 (see Appendix B for a copy of the statutes). With limited exceptions, an ALUC is required in every county in the state and a compatibility plan is required for each public-use and military airport.

Powers and Duties of ALUCs

Although the Aeronautics Act has been amended numerous times since its original enactment, the fundamental purpose of ALUCs to promote land use compatibility around airports has remained unchanged. As expressed in the present statutes, this purpose is:

> "...to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses."

The compatibility plans that ALUCs adopt are the basic tools that ALUCs use to achieve this purpose. The primary objective of an ALUCP is to ensure that the land use actions taken by local agencies also adhere to this purpose. ALUCs pursue this objective by reviewing the general plans, specific plans, zoning ordinances, building regulations, and certain individual development actions of local agencies for consistency with the policies and criteria in the applicable compatibility plan. ALUCs also review master plans and other development plans for civilian airports proposed by airport operators to determine if those plans are consistent with the compatibility plan or if modifications should be made to the compatibility plan to reflect current airport planning.

Two specific limitations on the powers of ALUCs are set in the statutes. The first explicit limitation, as indicated above, is that ALUCs have no authority over areas "already devoted to incompatible uses." The common interpretation of this clause is that ALUCs have no jurisdiction over existing land uses, even if those uses are incompatible with airport activities. For example, an ALUC cannot require that an existing incompatible land use be converted to something compatible. The second explicit limitation is that the ALUCs have no "jurisdiction over the operation of any airport." This limitation includes anything concerning the configuration of runways and other airport facilities, the type of aircraft operating at the airport, or where aircraft fly.

Relationship of the ALUCs to County and City Governments

The relationship between ALUCs and the governments of the counties and the cities within their jurisdiction is set forth in the State Aeronautics Act. For the most part, ALUCs act independently from the local land use jurisdictions. ALUCs must consult with the involved agencies regarding the establishment of airport influence area (AIA) boundaries (Public Utilities Code Section 21675(c)), but otherwise have the authority to adopt compatibility plans without approval from county or city governing bodies. However, ALUCs do not have the authority to implement their own compatibility policies.

The responsibility for the implementation of ALUC-adopted compatibility plans rests with the affected local agencies. Government Code Section 65302.3 establishes that each county and city affected by an airport land use compatibility plan must make its general plan and any applicable specific plans consistent with the ALUC's compatibility plan. Alternatively, local agencies can take the series of steps listed in the Aeronautics Act and described later in this chapter to overrule the ALUC policies.

The other responsibility of local agencies is to refer their plans and certain other proposed land use actions to the ALUC for review. The ALUC will then determine whether the proposed plans or land use actions are consistent with the ALUCP. Proposed adoption or amendment of general plans, specific plans, zoning ordinances, and building regulations always must be referred to the ALUC. However, other actions, such as those associated with individual development proposals are subject to review by the ALUC only until the general plan and specific plan(s) of a local agency have been made consistent with the ALUCP or the agency has overruled the ALUC.

ALUCP Preparation

State Laws and Guidelines

Many of the procedures that govern how ALUCs operate are defined by state law, particularly the State Aeronautics Act. As noted earlier, statutory provisions in the Public Utilities Code establish the requirements for ALUC adoption of compatibility plans, which airports must have these plans, and some of the

steps involved in plan adoption. The Aeronautics Act also dictates the requirements for airport land use compatibility reviews by an ALUC. For example, the types of actions that local jurisdictions must refer to an ALUC for review are specified in the Aeronautics Act.

With respect to airport land use compatibility criteria, the statutes say little. Instead, a section of the law enacted in 1994 refers to another document, the *Airport Land Use Planning Handbook* published by the California Department of Transportation (Caltrans) Division of Aeronautics. Specifically, the Aeronautics Act says that, when preparing compatibility plans for individual airports, ALUCs shall "be guided by" the information contained in the *Handbook*. The *Handbook* is not regulatory in nature, however, and it does not constitute formal state policy except to the extent that it explicitly refers to state laws. Rather, its guidance is intended to serve as the starting point for compatibility planning around individual airports. The policies and maps in the *Stanislaus County Airport Land Use Compatibility Plan* take into account the guidance provided by the current edition of the *Handbook*, dated October 2011. The October 2011 edition of the Handbook is available for downloading from the Division of Aeronautics web site (www.dot.ca.gov/hq/planning/aeronaut).

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

ALUCP Relationship to Airport Plans

ALUCPs are distinct from airport master plans and other types of airport development plans, but they are closely connected to them. The issues addressed by airport master plans and development plans focus primarily on the airport facility and its property, whereas the issues addressed by an ALUCP focus primarily on areas outside of the airport and its property. The purpose of an airport master plan is to assess the demand for airport facilities and to guide the development necessary to meet those demands. An airport master plan is prepared for and adopted by the agency that owns and/or operates the airport. In contrast, the primary purpose of a compatibility plan is to ensure that incompatible development does not occur on lands surrounding the airport. The responsibility for the preparation and adoption of compatibility plans lies with each county's airport land use commission (ALUC).

The principal connection between the two types of plans stems from the Aeronautics Act. Specifically, Public Utilities Code Section 21675(a) requires that ALUC plans be based upon a long-range airport master plan that is adopted by the airport owner/proprietor or, if such a plan does not exist for a particular airport, an airport layout plan may be used with the approval of the California Division of Aeronautics. Furthermore, the compatibility plan must reflect "the anticipated growth of the airport during at least the next 20 years."

The connection works in both directions. While a compatibility plan must be based upon an airport master plan, Public Utilities Code Section 21676(c) requires that any proposed modification to an airport master plan be referred to the ALUC to determine if the proposal is consistent with the compatibility plan. Provided that the off-airport compatibility implications of the proposed modifications are adequately addressed in the master plan, the outcome of this process usually is that the compatibility plan will need to be updated to mirror the new master plan.

AIRPORT LAND USE COMPATIBILITY PLANNING

Airports in Stanislaus County

The responsibility for preparation of a compatibility plan for the public-use airports in Stanislaus County and environs rests with the Stanislaus County Airport Land Use Commission (ALUC). The ALUC is composed of the Stanislaus County Planning Commission and two additional members with expertise in aviation. Although the ALUC is an independent body, it operates under the auspices of the County of Stanislaus.

Staff for the ALUC is provided by the County's Planning and Community Development Department. Although a small portion of the overflight impact area associated with the Modesto City-County Airport extends into Merced County, the policies of this Compatibility Plan are strictly advisory with respect to lands in that county.

In 1978, the ALUC adopted the County's first Airport Land Use Commission Plan, which was amended in 2004. That plan provided height restrictions and building standards for areas adjacent to the five public and privately owned airport that resided in the County at that time:

- Modesto City-County Airport
- Oakdale Municipal Airport
- Patterson Airport
- Turlock Airpark
- Crows Landing Airport, formerly the Crows Landing Naval Auxiliary Landing Field

In 2010, the ALUC initiated a comprehensive update of the 2004 ALUCP to reflect changes in statewide guidance in Airport Land Use Compatibility Plan development, as documented in the 2011 *California Airport Land Use Planning Handbook*.

The current ALUCP update provides policies for three airports: the Modesto City-County Airport, the Oakdale Municipal Airport, and the Crows Landing Airport (forthcoming) (see Map 1-1). The Patterson Airport has closed, and the Turlock Airpark is in the process of being sold for non-aeronautical use.[1] Safety inspectors from the Caltrans Division of Aeronautics report that the Airport Operating permit associated with Turlock Airpark is no longer valid.[2]

Modesto City-County Airport/Harry Sham Field

Modesto City-County Airport (MOD) is located in the City of Modesto. The airport opened in 1920 and was used during World War II as a training center for the Army Air Corps. The airport is owned by the City of Modesto and is the only commercial-service airport in the County, although it is used primarily for general aviation. The Airport Advisory Committee, which is a nine-member committee appointed by

[1] Airport owner responded to an inquiry of September 4, 2013, by County consultants regarding airport status. The airpark phone number had been disconnected, and the owner reported that the airport was being offered for sale for non-aeronautical purposes.

[2] Mr. Don Haug, Safety Inspector, Caltrans Division of Aeronautics, stated on August 8, 2013, stated that the airport operating permit for Turlock Airpark is no longer valid, and ongoing airport operations under new ownership would require the procurement of new airport operating permit from the Division of Aeronautics. The status of current operations is unknown.

the member agencies of the Modesto City Council, Stanislaus County Board of Supervisors, and the cities of Ceres and Turlock, acts in an advisory capacity on airport policy matters.

MOD includes two parallel runways: Runway 10L-28R is 5,911 feet long and 150 feet wide and designated as the air carrier runway. The smaller runway, 10R-28L, is 3,459 feet long and 100 feet wide. The ALUCP is based on the Airport Layout Plan and Narrative Report that were published by the airport in 2009. Based on the 2009 ALP, MOD will remain classified as an Airport Reference Code (ARC) C-III airport. (the ARC designation refers to the size and type of aircraft that an airport can accommodate). Runway 10L-28R is designated as ARC C-III to accommodate commercial aircraft (e.g., Boeing 737), and Runway 10R-28L is designated as ARC B-I to accommodate general aviation traffic (e.g., Cessna 421).

MOD is located approximately 2 miles southeast of the Modesto city center. Some unincorporated land is present between the City and the airport. The airport is located south of Yosemite Boulevard (Highway 132), with Mitchell Road serving as the primary access route to the airport. The airport is adjacent to the City of Ceres to the south and unincorporated areas to the east. Areas characterized by industrial use are northeast of the airport, and agricultural areas are located to the southeast. Densely developed urban areas are located to the north, south, and west, with the Tuolumne River and an associated open space corridor adjacent to the south side of the airport.

The City of Modesto undertook a master planning effort for the Modesto City-County Airport in 2002. However, due to changes in airport management and the expiration of the federal grant, the plan was never completed.

In 2008, the City prepared a noise compatibility study in accordance with FAR Part 150. This noise study was updated in February 2009. The Part 150 study included a baseline (2008) and two forecast levels of activity (2015 and "Long Range"). The "Long Range" forecast presented in the Part 150 study is the basis for the forecast operations and resulting noise contours used in this ALUCP.

In December 2009, an Airport Layout Plan (ALP) and Narrative Report were published for Modesto City-County Airport, which was approved by the Federal Aviation Administration (FAA) on February 8, 2011. The purpose of the ALP is to depict the currently planned airport improvements for the airport.

Oakdale Municipal Airport

The 117-acre Oakdale Municipal Airport (O27 or Oakdale Airport) is exclusively a general aviation facility that is owned and operated by the City of Oakdale. Although the airport property is located within the city limits, the airport is not contiguous to the City. The airport is located approximately 2.5 miles east of the City, with access available from Sierra Road and Laughlin Road.

The Oakdale Airport has a single paved runway (Runway 10-28), which is 3,013 feet long and 75 feet wide. The runway is aligned with the prevailing winds in an approximately west-south alignment. The airport is classified as an ARC A-I airport, which indicates that it can accommodate small aircraft weighing less than 12,500 lbs. (e.g., Cessna 172).

The Oakdale City Council adopted a Master Plan for Oakdale Municipal Airport in 1998 (Resolution 98-88). The 1998 Master Plan included a long-term development plan for the airport covering planning horizon of 20 years. The 1998 Airport Layout Plan (ALP) drawing showed a 1,300-foot extension of the airport's single runway (Runway 10-28) to the southeast for a total length of 4,400 feet. In addition to this extension, the 1998 ALP showed an upgrade of the Airport Reference Code (ARC) classification from the current classification of ARC A-I (small) to a classification of B-II.

In 2006, the City of Oakdale prepared an Airport Layout Plan to assist airport staff in implementing short-term improvements to the airfield. The 2006 ALP does not depict the long-term Master Plan development projects such as the runway extension and upgrade to ARC B-II.

Conversations with the City's Department of Public Works, which is the department responsible for airport operations and management, indicate that the 1998 Master Plan no longer reflects the City's long-term vision for the airport. The FAA informed the City that it will not a support runway extension, and the City prepared a revised Airport Layout Plan and Narrative Report in November 2013 that do not depict a runway extension or upgrade to ARC B-II. The City submitted the November 2013 ALP to the FAA, and staff have stated that the 2013 ALP provided the best available data to serve as the basis for the Compatibility Plan. In accordance with Section 21675(a) of the California Public Utilities Code, the 2013 ALP was submitted to Caltrans Division of Aeronautics for approval as the basis of the Oakdale Municipal Airport Land Use Compatibility Plan.

Crows Landing Airport

The former Crows Landing Naval Auxiliary Landing Field was commissioned in 1943 to serve as a training field during World War II. The airfield was used during the 1950s for fleet carrier and landing practice and used again throughout the 1970s and 1980s for practice operations by the United States Navy, Air Force, Army, and Coast Guard. The National Aeronautics and Space Administration (NASA) Ames Research Center took over facility operations in 1994 and ceased operations at the airfield in 1997, when it proposed to declare the base as excess. The United States Congress passed House Resolution (H.R.) 356 in 1999, which stated that as soon as practicable, the NASA Administrator would convey to Stanislaus County, all right, title, and interest of the United States in and to the former Crows Landing Air Facility.

Since the decommissioning of the facility by NASA in the late 1990s, the Stanislaus County Board of Supervisors has pursued and studied reuse opportunities for the former military property. In 2001, the Board adopted a reuse plan that would designate a portion of the property for use as a General Aviation (GA) airport. In 2004, the Stanislaus County Board of Supervisors accepted the conveyance of the land associated with the formers Crows Landing Air Facility pursuant to Public Law 106-82. The County envisions optimizing the site for economic development while maintaining an aviation use.

The County of Stanislaus has worked closely with the California Department of Transportation's (Caltrans) Division of Aeronautics since property conveyance, and it has developed an Airport Layout Plan (ALP) that includes the reuse of the prevailing wind runway. Following appropriate review of the proposed airport layout plan and accompanying ALUCP pursuant to the California Environmental Quality Act (CEQA), the County will submit an application to the Caltrans Division of Aeronautics to operate a public-use general aviation (GA) airport at the former Crows Landing Air Facility. The ALUCP will be amended to include the Crows Landing General Aviation Airport following the certification of the associated CEQA document and approval by the County Board of Supervisors. Until that time, the airport-specific ALUCP policies associated with the Crows Landing Air Facility set forth in the County's 2004 ALUCP shall remain in place.

PLAN ADOPTION

Although contained within this single volume, the *Stanislaus County Airport Land Use Compatibility Plan* consists of three separate ALUCPs, one for each airport addressed. Since the County's ALUCP and General Plan update were undertaken simultaneously, an Environmental Impact Report (EIR) will be

prepared in accordance with the California Environmental Quality Act (CEQA) that addresses both projects. The purpose of the EIR is to identify the potential environmental impacts associated with the implementation of the revised General Plan ALUCP following adoption; the issues addressed will include those identified in the 2007 California Supreme County decision in *Muzzy Ranch Company v. Solano County Airport Land Use Commission,* such as an assessment of the potential displacement of future residential and non-residential land use development.

PLAN IMPLEMENTATION

As noted above, each local agency having jurisdiction over land uses within an ALUC's planning area is required by state law to modify its general plan and any affected specific plans to be consistent with the compatibility plan. The law says that the local agency must take this action within 180 days (six months) of ALUC adoption or amends its compatibility plan.

General Plan Consistency

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

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

The land use jurisdictions affected by the *Stanislaus County Airport Land Use Compatibility Plan* may need to modify their general plans, specific plans, and other policy documents to be consistent with the *Compatibility Plan*. It must be emphasized, however, that local agencies need not change land use designations to make them consistent with the ALUC criteria if the current designations reflect existing development. In such cases, they would need to establish policies to ensure that the nonconforming uses would not be expanded in a manner inconsistent with this *Compatibility Plan* and that any redevelopment of the affected areas would be consistent with the *Compatibility Plan*.

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

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

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

- **Adopt Compatibility Plan as Stand-Alone Document**—Jurisdictions selecting this option would simply adopt as a local policy document the relevant portions of the *Stanislaus County Airport Land Use*

Compatibility Plan—specifically, the policies and maps in Chapters 2. Applicable background information from Chapter 3 could be included as well. Changes to the community's existing general plan would be minimal. Policy reference to the *Compatibility Plan* would need to be added and any direct land use or other conflicts with compatibility planning criteria would have to be removed. Limited discussion of compatibility planning issues could be included in the general plan, but the substance of most compatibility policies would appear only in the stand-alone document.

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

Overrule Process

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

Project Referrals

In addition to the types of land use actions for which referral to the ALUC is mandatory in accordance with state law—adoption or amendment of general plans, specific plans, zoning ordinances, or building codes affecting land within an airport influence area—the ALUCP specifies other land use projects that either must or should be submitted for review. These major land use actions are defined in Chapter 2. Beginning with plan adoption by the ALUC and continuing until such time as local jurisdictions have made the necessary modifications to their general plans, all of these major land use actions are to be referred to the commission for review. After local agencies have made their general plans consistent with the ALUCP, the ALUC requests that these major actions continue to be submitted on a voluntary basis.

These procedures must be indicated in the local jurisdiction's general plan or other implementing policy document for the general plan to be considered fully consistent with the ALUCP.

PLAN CONTENTS

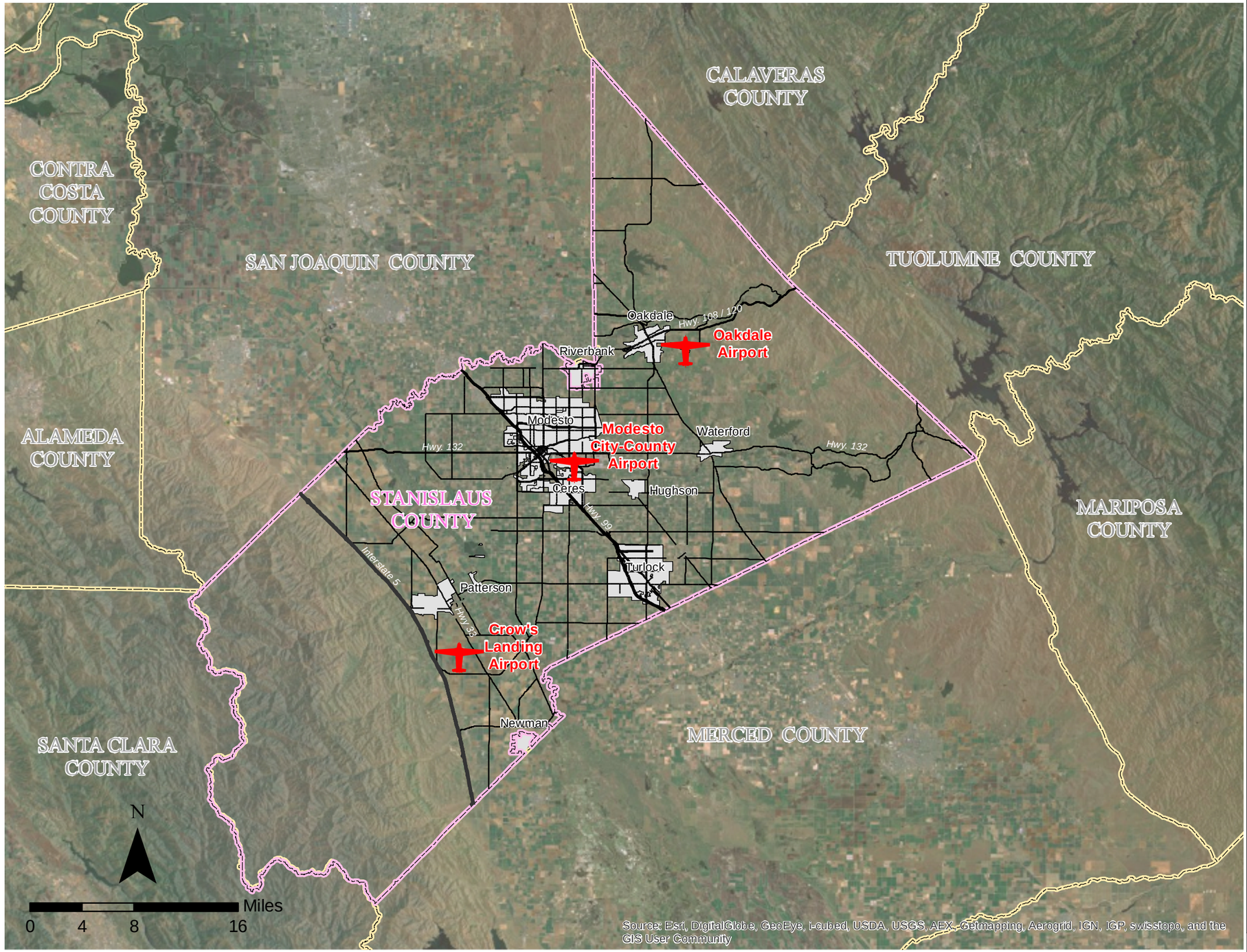
This *Stanislaus County Airport Land Use Compatibility Plan* is organized into six chapters and a set of appendices. The intent of this introductory chapter is to set the overall context of airport land use compatibility planning in general and for Stanislaus County in particular.

Chapters 2 presents airport compatibility and review policies that are applicable to each of the three airports addressed. Chapter 3 presents the compatibility policy maps associated with each airport as well as the individual policies for that airport. Chapters 4 through 6 present the airport land use background information regarding each of the airports in sequence: Modesto City-County Airport and Oakdale Municipal. The individual policies associated with the Crows Landing Airport, which will comprise Chapter 6, will not be presented at this time; specific policies for the Crows Landing Airport included following a separate CEQA process for the proposed Airport Layout Plan and its airport-specific ALUCP policies.

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

SOURCES OF INFORMATION AND GUIDANCE

As required by the Aeronautics Act, the *California Airport Land Use Planning Handbook* provides guidance for the compatibility policies set forth in this *Stanislaus County Airport Land Use Compatibility Plan*. The Handbook was used both to structure and define compatibility criteria and to establish the procedures to be followed by the ALUC and local agencies in implementation of the criteria.



Legend

- Road
- City
- Stanislaus County Boundary
- Other County Boundary
- Airport

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Map 1-1

Airport Locations
Stanislaus County

Mead&Hunt

Sources: City and County GIS Data (2009)

Chapter **2**

POLICIES

2

Policies

1. General Applicability

1.1. Purpose and Use

1.1.1. *Airport Land Use Commission:* Stanislaus County Airport Land Use Commission (ALUC) is formed and operates in accordance with the requirements of California State Law. The Stanislaus County Planning Commission plus two additional members with aviation expertise, comprise the ALUC which is designated to serve Stanislaus County.

1.1.2. *Airport Land Use Compatibility Plans for Individual Airports in Stanislaus County*. With limited exceptions, California law requires an Airport Land Use Compatibility Plan for each public use and military airport in the state. This document, the *Stanislaus County Airport Land Use Compatibility Plan (ALUCP)* contains the individual ALUCP for each of the three public-use airports in Stanislaus County: There are no military airports in the County.

(a) The three airports covered by this ALUCP are:

(1) Modesto City-County Airport, a publicly owned, commercial-service airport.

(2) Oakdale Municipal Airport, a publicly owned, general aviation airport.

(3) Crows Landing Airport, a publicly owned, public-use airport pending approval by the California Department of Transportation, Division of Aernautics. This ALUCP will be amended to include site-specific data pertaining to the Crows Landing Airport upon permit receipt.

(b) The policies in this document are divided into three chapters.

(1) Chapters 1 and 2, together with the respective airport-specific policies in Chapters 4 through 6, comprise the ALUCP for each of the three airports.

(2) Chapter 3 includes the Individual Airport Policies and Compatibility Maps for Modesto City-County and Oakdale Municipal airorts (Crows Landing Airport policies and maps will be added at a later date). The chapter includes a set of maps for each airport plus any compatibility criteria that are unique to that airport.

(3) Chapters 4 through 6 provide Specific data pertaining to each airport and summaries of the background data used to prepare the compatibility plans.

1.1.3. *Basic Purpose:* The basic purpose of this ALUCP is to establish procedures and criteria applicable to airport land use compatibility planning in the vicinity of the County's three: public-use airports: Modesto City/County Airport, Oakdale Municipal Airport, and Crows Landing Airport. The *Compatibility Plan* was prepared in accordance with the requirements

of the California State Aeronautics Act (Public Utilities Code Section 21670 *et seq*.) and guidance provided in the *California Airport Land Use Planning Handbook (Handbook)* published by the California Department of Transportation Division of Aeronautics in October 2011.

1.1.4. *Use by ALUC:* The *ALUC* shall:

(a) Formally adopt this *Compatibility Plan* in accordance with Public Utilities Code Section 21674(c).

(b) When a *Land Use Action* or *Airport-Related Action* is referred for review as provided by Section 1.5, make a determination as to whether such *Action* is consistent with the criteria set forth in this *Compatibility Plan*.

1.1.5. *Use by Affected Local Agencies:*

(a) This ALUCP and its policies shall apply to all of to the following affected *Local Agencies* (see Policy 1.2.23), each of which has or may in the future have jurisdiction over lands within parts of the *Airport Influence Areas* defined by this plan; specifically:

(1) County of Stanislaus

(2) City of Ceres

(3) City of Modesto

(4) City of Oakdale

(5) Any future city within Stanislaus County that may be incorporated within all or part of the airport influence area associated with the Modesto City-County Airport or Oakdale Municipal Airport.

(6) Special districts, school districts and community college districts within Stanislaus County to the extent that the district boundaries extend into an *Airport Influence Area*.

(b) *Local Agencies* preparing an environmental document for any *Project* within the *Airport Influence Area* for one of the airports addressed by this ALUCP shall address the compatibility criteria contained in this *Compatibility Plan* in addition to referencing guidance from the *Handbook*.[1]

(c) Stanislaus County and each of the affected municipalities shall:

(1) Modify its respective general plan, applicable specific plan(s), and zoning ordinance to be consistent with the policies in the *Compatibility Plan*.[2]

(2) Use the ALUCP, either directly or as reflected in the appropriately modified general plan and zoning ordinance, when making other planning decisions regarding proposed development of lands with the AIA for any of the three airports included in this document.

(3) Refer proposed *Land Use Actions* for review by the ALUC as specified by Policies 1.5.1 and 1.5.2 herein.

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[1] The California Environmental Quality Act (CEQA) requires environmental documents for *Projects* situated within an *Airport Influence Area* to evaluate whether the *Project* would expose people residing or working in the *Project* area to excessive levels of airport-related noise or to airport-related safety hazards (Public Resources Code Section 21096). In the preparation of such environmental documents, the law specifically requires that the *Airport Land Use Planning Handbook* published by the California Division of Aeronautic be utilized as a technical resource.

[2] Public Utilities Code Section 21676(a) specifically requires general plan consistency. Because specific plans and zoning ordinances are also subject to *ALUC* review, the consistency requirement also extends to them.

(d) Special districts, school districts, and community college districts shall:

(1) Apply the policies of this *Compatibility Plan* when creating plans and making other planning decisions regarding the proposed development of lands under their control within an *Airport Influence Area*.

(2) Refer proposed *Land Use Actions* for review by the ALUC as specified by Policies 1.5.1 and 1.5.2 herein.

(e) The entities owning each of the public-use airports addressed by this ALUCP shall refer proposed airport master plans and certain airport improvement plans to the ALUC for review (see Policy 1.5.5). In addition, any public or private entity proposing construction of a new airport or heliport for which a State Airport Permit is required must submit the proposed plans to the ALUC for land use compatibility review (see Policy 1.5.5).

1.1.6. *Use by Federal and State Entities:* Lands controlled by federal or state agencies or by Native American tribes are not subject to the provisions of the state ALUC statutes or this *Compatibility Plan*. However, the compatibility criteria included herein are intended as recommendations to these agencies.

1.1.7. *Effective Date:* The policies in this *Compatibility Plan* shall become effective as of the date that the *ALUC* adopts the ALUCP for each airport. is:

(a) The Effective Date of the ALUCP for each airport is:

(1) Modesto City-County Airport - [date to be inserted].

(2) Oakdale Municipal Airport - [date to be inserted].

(b) The previous ALUCP, referred to as the Airport Comprehensive Land Use Plan for the three airports was adopted by the ALUC in 1978 and revised in 2004. The earlier plan will remain in effect for each airport until the ALUC adopts these ALUCP policies and the ALUCP data associated with each airport covered in this document. If the present ALUCP for one or more of the individual airports should be come invalidated by court action, the site-specific data presented in the earlier plan for the affected airport or airports shall again become effective. The ALUCP for each unaffected airport, as contained within this document, shall remain in effect.

(c) Any project or phase of a project that has received local agency approvals sufficient to qualify as an existing land use (Policies 1.2.17 and 1.4.4) prior to the date of the ALUCs adoption of the respective ALUCP shall not be required to comply with the policies herein. Rather, the policies of the earlier ALUCP shall apply. *Examples:* Where an example is used in this ALUCP , such example or examples are provided for purposes of illustration only and any such example or set of examples are not intended nor shall such be construed as an exhaustive list of the subject to which it corresponds.

1.2. Definitions

The following definitions apply for the purposes of the policies set forth in this *Compatibility Plan*. Additional terms are defined in the *Glossary* (**Appendix H**).

1.2.1. *Aeronautics Act:* Except as indicated otherwise, the article of the California Public Utilities Code (Sections 21670 *et seq.*) pertaining to airport land use commissions and airport land use compatibility planning (also known as the California State Aeronautics Act).

1.2.2. *Airport:* Modesto City-County Airport, Oakdale Municipal Airport, or any new a public-use or military airport created within Stanislaus County.

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

1.2.4. *Airport Land Use Commission (ALUC):* The Stanislaus County Planning Commission augmented by two members with aviation expertise.

1.2.5. *Airport Land Use Commission Secretary:* A member of the Stanislaus County Planning Department assigned by the Stanislaus County Planning Director to assist the ALUC or another person designated by the Board of Supervisors with the concurrence of the Planning Director.

1.2.6. *Airport Proximity Disclosure:* A form of buyer awareness documentation required by California state law and applicable to many transactions involving residential real estate including previously occupied dwellings. The disclosure notifies a prospective purchaser that the property is located in proximity to an airport and may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around the airport. See Policy 3.5.3 for applicability. Also see Policy 1.2.32 for a related buyer awareness tool, *Recorded Overflight Notification*.

1.2.7. *Airspace Protection Area:* The area beneath the *Airspace Protection Surfaces* for each airport as depicted on **Maps MOD-4** and **OAK-4**.

1.2.8. *Airspace Protection Surfaces:* Imaginary surfaces in the airspace surrounding each airport as defined in accordance with criteria set forth in Federal Aviation Regulations (FAR) Part 77. These surfaces establish the maximum height that objects on the ground can reach without potentially creating constraints or hazards to the use of the airspace by aircraft approaching, departing, or maneuvering in the vicinity of the *Airpor*t.

1.2.9. *Ancillary Use:* A use related to the primary use and occupying no more than 10% of total building floor area.

1.2.10. *Aviation-Related Use:* Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. Such uses specifically include, but are not limited to, runways, taxiways, and their associated protection areas defined by the Federal Aviation Administration (FAA), together with aircraft aprons, hangars, fixed base operations facilities, terminal buildings, etc. Hotels or other commercial/industrial facilities on airport property do not qualify as an aviation-related use.

1.2.11. *Avigation Easement:* An easement that conveys rights associated with aircraft overflight of a property, including but not limited to creation of noise and limits on the height of structures and trees, etc. (see **Appendix G**).

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

1.2.13. *Compatibility Plan:* This document, the *Stanislaus County Airport Land Use Compatibility Plan (ALUCP)*, which includes individual *ALUCPs* for the Modesto City-County Airport, Oakdale Municipal Airport, and Crows Landing Airport.

1.2.14. *Compatibility Zone:* Any of the noise, safety, airspace protection, or overflight zones established herein.

1.2.15. *Critical Airspace Protection Zone:* A *Compatibility Zone* consisting of each airport's Federal Aviation Regulations (FAR) Part 77 primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface.

1.2.16. *Density:* The number of dwelling units per acre. *Density* is used in this *Compatibility Plan* as the measure by which proposed *Residential Development* is evaluated for compliance with safety compatibility criteria (compare *Intensity*).

1.2.17. *Existing Land Use:* A land use that either physically exists or for which *Local Agency* (see Policy 1.2.23) commitments to the proposal have been obtained (see Policy 1.4.3).

1.2.18. *Federal Aviation Regulations (FAR) Part 77:* The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. FAR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace. (See **Appendix C** of this *Compatibility Plan* for the text of FAR Part 77).

1.2.19. *Handbook:* The *California Airport Land Use Planning Handbook* published by California Department of Transportation, Division of Aeronautics in October 2011. The *Handbook* provides guidance to ALUCs for the preparation, adoption, and amendment of compatibility plans.

1.2.20. *Infill:* Development of vacant or underutilized land within areas that are already largely developed or used more intensively. See Policy 4.1.12 for criteria used to identify *Infill* areas for the purposes of this *Compatibility Plan*.

1.2.21. *Intensity:* The number of people per acre. Intensity is used in this *Compatibility Plan* as the measure by which most proposed *Nonresidential Development* is evaluated for compliance with safety compatibility criteria (compare *Density*).

1.2.22. *Land Use of Special Concern:* A land use that represents special safety concerns irrespective of the number of people associated with the use. Specifically: uses with vulnerable occupants; hazardous materials storage; or critical community infrastructure.

1.2.23. *Local Agency:* Any county, city, or other local governmental entity such as a special district, school district, or community college district—including any future city or district—having any jurisdictional territory lying within the an *Airport Influence Area* as defined herein. These entities are subject to the provisions of this *Compatibility Plan*.

1.2.24. *Major Land Use Action:* Actions related to proposed land uses for which compatibility with *Airport* activity is a particular concern, but for which *ALUC* review is not always mandatory under state law. These types of actions are listed in Policy 1.5.4.

1.2.25. *Noise Impact Area:* The area within which the noise impacts, measured in terms of CNEL, generated by aircraft operating at an airport may represent a land use compatibility concern.

The *Noise Impact Area* associated with each airport is depicted on **Maps MOD-2** and **OAK-2**, *Compatibility Policy Map: Noise*.

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

1.2.27. *Nonconforming Use: An existing land use* that does not comply with the compatibility criteria set forth in this *Compatibility Plan*. See Policy 4.1.3 for criteria applicable to *Land Use Actions* involving *Nonconforming Uses*.

1.2.28. *Object Free Area (OFA):* An area on the ground surrounding an airport runway within which the Federal Aviation Administration (FAA) prohibits all objects except certain ones necessary for aircraft navigation or maneuvering. The OFA dimensions to be applied for the purposes of this *Compatibility Plan* are as established by the FAA.

1.2.29. *Overrule:* An action that a *Local Agency* can take in accordance with provisions of state law if the *Local Agency* wishes to proceed with adoption or amendment of a general plan or specific plan, adoption or approval of a zoning ordinance or building regulation, or modification of an airport master plan[3] or, under conditions specified in Section 1.5.24, a *Major Land Use Action*[4] affecting the *Airport Influence Area* in spite of an *ALUC* finding that the *Land Use Action* is inconsistent with this *Compatibility Plan*. See Section 1.6 for process required to overrule the *ALUC*.

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

1.2.31. *Reconstruction*: The rebuilding of an existing nonconforming structure that has been fully or partially destroyed as a result of a calamity (not planned *Reconstruction* or *Redevelopment*). See Policy 4.1.3(c)(3).

1.2.32. *Recorded Overflight Notification:* A form of buyer awareness documentation recorded in the chain-of-title for a property stating that the property may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around a nearby airport. Unlike an *Avigation Easement* (see Policy 1.2.11), a *Recorded Overflight Notification* does not convey property rights from the property owner to the airport and does not restrict the height of objects. See Policy 3.5.2 for applicability. Also see Policy 1.2.6 for a related buyer awareness tool, *airport proximity disclosure*.

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

1.2.34. *Residential Development:* Any subdivision of land for residential purposes or any construction of residential units other than on an existing designated single-family residential parcel.

[3] Public Utilities Code Sections 21676(a), (b), and (c).
[4] Public Utilities Code Section 21676.5(a).

1.2.35. *Routine Overflight Zone:* The area commonly overflown by aircraft at an altitude of approximately 1,500 feet or less as they approach, depart, or engage in flight training at an airport.

1.3. Geographic Scope

1.3.1. *Airport Influence Area*: As defined in accordance with state law, an influence area encompasses all lands on which the uses could be negatively affected by present or future aircraft operations at the *Airport* as well as lands on which the uses could negatively affect *Airport* use.

(a) The *Airport Influence Area* constitutes the area within which certain *Land Use Actions* are subject to *ALUC* review to determine consistency with the *Compatibility Plan*.

(b) In delineating the *Airport Influence Area* for each airport, the geographic extents of four types of compatibility concerns are considered:

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

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

(3) Airspace Protection: Places where height and various other land use characteristics need to be restricted in order to prevent creation of physical, visual, or electronic hazards to flight within the airspace required for operation of aircraft to and from the *Airport*.

(4) Overflight: Locations where aircraft overflying can be intrusive and annoying to many people.

(c) Each of these four concerns is separately addressed in this *Compatibility Plan* within its own "layer" representing that particular compatibility factor. See Section 3 for the policies and maps associated with each layer.

(d) Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are not addressed herein and are not factors that the *ALUC* shall consider in reviewing land use *Projects*.

1.3.2. *Referral Areas:* Each *Airport Influence Area* is divided into two areas, *Referral Area 1* and *Referral Area 2*. Requirements for referral of *Land Use Actions* to the *ALUC* for review differ between these two areas (see Section 1.4). The airport influence area maps presented as **MOD-1** and **OAK-1** illustrate these areas.

(a) *Referral Area 1* encompasses locations where noise and/or safety represent compatibility concerns and airspace protection and overflight may also be concerns.

(b) *Referral Area 2* includes locations where airspace protection and/or overflight are compatibility concerns, but not noise or safety.

1.4. Limitations of this Compatibility Plan

1.4.1. *Agencies Not Affected by the ALUCP:* Lands controlled by federal or state agencies or by Native American tribes are not subject to the provisions of this ALUCP.

1.4.2. *Airport Operations:* In general, neither the *ALUC* nor this *Compatibility Plan* have authority over the planning and design of on-airport facilities or over *Airport* operations including

where and when aircraft fly, the types of aircraft flown, and other aspects of aviation.[5] Exceptions to this limitation are as follows:

(a) State law requires *ALUC* review of airport master plans and certain development plans to the extent that aviation-related facilities or activities could have off-airport land use compatibility implications (see Policy 1.5.5).[6]

(b) *Non-aviation Development* of *Airport* property is subject to *ALUC* review in the same manner that *ALUC* review is required for non-aviation development actions off *Airport* property. The review may take place as part of an airport master plan or on an individual development *Project* basis (see Policy 1.5.4(c)).

1.4.3. *Existing Land Uses:* The policies of this *Compatibility Plan* do not apply to *Existing Land Uses*.[7] A land use is considered to be "existing" when one or more of the below conditions has been met prior to the adoption date of the *Compatibility Plan* by the *ALUC*.

(a) Qualifying Criteria: An *Existing Land Use* is one that either physically exists or for which *Local Agency* commitments to the proposal have been obtained in one or more of the following manners:

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

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

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

(4) A final subdivision map has been recorded;

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

(6) A valid building permit has been issued and not yet expired.

(b) Revisions to Approved Development: Filing of a new version of any of the approval documents listed in Paragraph (a) of this policy means that the use no longer qualifies as existing and, therefore, is subject to *ALUC* review in accordance with the policies of ALUCP Chapter 2, Section 2.

(c) Expiration of Local Agency Commitment: If a *Local Agency*'s commitment to a *Development Proposal*, as set forth in Paragraph (a) of this policy, expires, the proposal will no longer qualify as an *Existing Land Use*. As such, the proposal shall be subject to the criteria of this *Compatibility Plan*.

(d) Existing Nonconforming Uses: The *ALUC* has no ability to reduce or remove *Nonconforming* or otherwise incompatible *Existing Land Uses* from the airport environs. However, proposed changes to existing uses (i.e., *Reconstruction*, *Redevelopment*) *are* subject to *ALUC* review if the changes would result in increased nonconformity with the compatibility criteria (see Policy 4.1.3).

1.4.4. *Development by Right*:

(a) Nothing in this *Compatibility Plan* prohibits:

[5] This is an explicit limitation of state law under Public Utilities Code Section 21674(e).
[6] See Public Utilities Code Sections 21676(c) and 21664.5.
[7] This is an explicit limitation of Public Utilities Code Sections 21670(a) and 21674(a).

(1) Construction of a single-family home on a legal lot of record as of the date of adoption of this *Compatibility Plan* provided that the home is not within Safety Zone 1 or the CNEL 65 dB contour and the use is permitted by local land use regulations.

(2) Construction of a secondary unit as defined by state law.

(3) Lot line adjustments provided that new developable parcels would not be created and the resulting *Density* or *Intensity* of the affected property would not exceed the applicable safety criteria indicated in **Table 2**, *Safety Compatibility Criteria*.

(4) Construction or establishment of a family day care home serving 14 or fewer children either in an existing dwelling or in a new dwelling permitted by the policies of this *Compatibility Plan*.

(b) The sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.2.4 and 4.1.1 shall apply to development permitted under this policy.

1.5. Types of Actions Subject to ALUC Review

1.5.1. *Land Use Actions for which Referral is Always Mandatory:* Prior to approving any of the following types of *Land Use Actions*, the *Local Agency* (see Policy 1.2.23) always must refer the *Land Use Action* to the *ALUC* for determination of consistency with the *Stanislaus County Airport Land Use Compatibility Plan*:[8]

(a) *Local Agency* adoption or approval of any new general or specific plan or any amendment thereto that affects lands within the *Airport Influence Area*.

(b) *Local Agency* adoption or approval of a zoning ordinance or building regulation, including any proposed change or variance to any such ordinance or regulation, that (1) affects land within the *Airport Influence Area* and (2) involves the types of airport impact concerns listed in Policy 1.3.1(b).

1.5.2. *Interim Mandatory Referral of Major Land Use Actions:* In addition to the actions listed in Policies 1.5.1 and 1.5.5 for which referral to the *ALUC* is always required, referral of certain other actions is mandatory as follows.

(a) *Local Agencies* must refer all *Major Land Use Actions* (see list in Policy 1.5.4) to the *ALUC* for review until such time as:

(1) The *ALUC* finds that a *Local Agency*'s general plan or specific plan is consistent with the *Compatibility Plan*; or

(2) The *Local Agency* has overruled the *ALUC* determination of inconsistency (see Section 1.6).

(b) Referral of lesser actions of types not included on the *Major Land Use Actions* list is optional.[9]

[8] Public Utilities Code Section 21676(b).

[9] Under the conditions indicated in Policy 1.5.2(a), state law (Public Utilities Code Section 21676.5(a)) allows ALUCs to require *Local Agencies* to refer all actions, regulations, and permits involving land within an *Airport Influence Area* to the *ALUC* for review. The *ALUC* has opted to reduce this all inclusive list to just *Major Land Use Actions*.

1.5.3. *Voluntary Referral of Major Land Use Actions:* After a *Local Agency* has revised its general plan or specific plan to be consistent with this *Compatibility Plan* (see Section 4.3) or has overruled the *ALUC*, referral of *Major Land Use Actions* for *ALUC* review is voluntary.[10]

(a) The *ALUC* requests *Local Agencies* to continue to refer *Major Land Use Actions* as listed in Policy 1.5.4 for informal review and comment. *ALUC* review of these types of *Projects* can serve to enhance their compatibility with *Airport* activity.

(b) The *ALUC Secretary* is authorized on behalf of the *ALUC* to provide comments on *Major Land Use Actions* referred to the *ALUC* on a voluntary basis.

(c) Because the *ALUC* reviews of *Land Use Actions* under these circumstances do not represent formal consistency determinations as is the case with actions referred under Policies 1.5.1 or 1.5.5, *Local Agencies* are not required to adhere to the overruling process if they elect to approve a *Project* without incorporating design changes or conditions recommended by the *ALUC* or *ALUC Secretary*.

1.5.4. *Major Land Use Actions:* The scope or character of certain *Major Land Use Actions,* as listed below in Paragraphs (a) through (e), is such that their compatibility with *Airport* activity is a potential concern. Even though these actions may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better assessment of compliance with the compatibility criteria set forth herein, *ALUC* review of these actions may be warranted. The circumstances under which *ALUC* review of these actions is to be conducted are indicated in Policies 1.5.2 and 1.5.3 above.

(a) Actions Affecting Land Uses within *Referral Area 1*:

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

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

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

(4) Proposed *Residential Development*, including land divisions, consisting of 5 or more dwelling units or parcels.

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

(6) Any discretionary *Development Proposal* for *Projects* expected to attract more than 100 people (including employees, customers/visitors) to outdoor activities to the *Project* site during a typical busy period.

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

(8) Any proposal for non-aviation use of land within Safety Zone 1.

(9) Proposed land acquisition by a government entity for any facility (for example, a school or hospital) designed to accommodate more than 100 people during a typical busy period.

[10] Once the conditions indicated in Policy 1.5.2(a) have been met, the *ALUC* no longer has authority under state law to require that all actions, regulations, and permits be referred for review. However, the *ALUC* and the *Local Agency* can agree that the *ALUC* should continue to receive, review, and comment upon individual *Projects*.

(10) Any proposed object (including buildings, poles, antennas, and other structures) having a height that requires review by the Federal Aviation Administration in accordance with Part 77 of the Federal Aviation Regulations.

(11) Any project or plan (e.g., Habitat Conservation Plan) proposing open water areas or landscaping features having the potential to cause an increase in the attraction of birds or other wildlife that can be hazardous to aircraft operations in the vicinity of the airport.

(12) Any *Project* having the potential to create electrical or visual hazards to aircraft in flight, including:

- Electrical interference with radio communications or navigational signals;
- Lighting which could be mistaken for Airport lighting;
- Glare in the eyes of pilots of aircraft using the Airport; and
- Impaired visibility near the Airport.

(13) Any project having the potential to create a thermal plume extending to an altitude where aircraft fly.

(b) Actions Affecting Land Uses within *Referral Area 2*: Only the actions listed in Paragraphs (a)(10) through (a)(13) of this policy require referral to the *ALUC* for review.

(c) Proposed non-aviation development of *Airport* property if such development has not previously been included in an airport master plan or community general plan reviewed by the *ALUC*. (See Policy 1.2.10 for definition of *aviation-related use*.)

(d) Proposed Redevelopment (see Policy 1.2.33) if the *Project* is of a type listed in Paragraph (a) of this policy.

(e) Any other proposed *Land Use Action*, as determined by the *Local Agency*, involving a question of compatibility with *Airport* activities.

1.5.5. *Mandatory Referral of Airport Planning and Development Actions:* Prior to approving either of the following types of airport planning and development actions, the airport operator, including the County of Stanislaus for the proposed Crows Landing Airport, must refer the action to the *ALUC* for determination of consistency with the *Stanislaus County Airport Land Use Compatibility Plan*.

(a) Adoption or modification of a master plan for a public-use airport.[11]

(b) Any proposal for "expansion" of an airport that would require an amended Airport Permit from the State of California. As used in the statutes, "expansion" primarily includes construction of a new runway, extension or realignment of an existing runway, or related acquisition of land.[12]

(c) Any proposal for a new airport or heliport whether for public use or private use must be submitted for ALUCP review if the facility requires a State Airport Permit.

1.5.6. *Submittal of Environmental Documents:* The *ALUC* does not have a formal responsibility to review the environmental document associated with *Land Use Actions* or *Airport* actions referred to it for review.

[11] Public Utilities Code Section 21676(c).
[12] Public Utilities Code Section 21664.5.

(a) The *ALUC* authorizes the *ALUC Secretary* to provide comments on environmental documents submitted to the *ALUC* for comment.

(b) If an environmental document has been prepared at the time that the *Land Use Action* or *Airport* action is referred for review and the document contains information pertinent to the review, then a copy must be included with the referral.

1.6. Overruling the ALUC

1.6.1. *ALUC Determination of "Inconsistent":* If the *ALUC* determines that a proposed *Land Use Action*, regulation, or permit or a proposed *Airport* project is inconsistent with this *Compatibility Plan*, the *ALUC* must notify the *Local Agency* and shall indicate the reasons for the inconsistency determination.

1.6.2. *Overruling of ALUC by Local Agency:*

(a) If a *Local Agency* wishes to proceed with a proposed *Land Use Action*, regulation, permit, or *Project* or *Airport* project that the *ALUC* has determined to be inconsistent with the *Compatibility Plan*, or if the *Local Agency* wishes to ignore a condition for consistency, the *Local Agency* must overrule the *ALUC* determination in accordance with the provisions of state law.[13]

(b) The overruling process applies only to determinations made by the *ALUC*, not ones made by the *ALUC Secretary* in accordance with Policy 2.3.2. Disagreements over determinations made by the *ALUC Secretary* are first to be appealed to the *ALUC*. See Policy 2.3.4.

1.6.3. *ALUC Comments on Proposed Overruling:* The *ALUC* may provide comments on the proposed overruling decision. The *ALUC* delegates to the *ALUC Secretary* the authority to provide comments.

2. ALUC Review Process

2.1. General Requirements

2.1.1. *Timing of Project Submittal by Local Agency:* The precise timing of the *ALUC*'s or *ALUC Secretary*'s review of a proposed *Land Use Action* may vary depending upon the nature of the specific *Project*.

(a) Referrals to the *ALUC* should be made at the earliest reasonable point in time so that the *ALUC*'s review can be duly considered by the *Local Agency* prior to when the agency

[13] For a *Local Agency* to overrule the *ALUC*, that agency must: (1) prepare specific findings that the proposed action is consistent with the purposes of the ALUC statutes as defined in Public Utilities Code Section 21670(a); (2) provide the *ALUC* and the California Division of Aeronautics a copy of the proposed decision and findings at least 45 days prior to the decision to overrule; (3) hold a public hearing on the matter; (4) take action by a two-thirds vote of the agency's governing body; and (5) include the comments, if any, received from the *ALUC* and the Division of Aeronautics in the public record of the final decision to overrule the *ALUC*. See Public Utilities Code Sections 21676 and 21676.5 for specific procedures for overruling the *ALUC*. Further guidance is provided in the *California Airport Land Use Handbook* published by the California Division of Aeronautics (see beginning on page 5-15 of the 2011 edition). Also see Chapter 1 of this Compatibility *Plan* for a summary of the statutory requirements.

formalizes its actions. Depending upon the type of plan or *Project* and the normal scheduling of meetings, *ALUC* review can be completed before, after, or concurrently with review by the local planning commission and other advisory bodies, but *must* be accomplished before final action by the *Local Agency*.

(b) Completion of a formal application with the *Local Agency* is not required prior to a *Local Agency*'s referral of a proposed *Land Use Action* to the *ALUC*. Rather, a *Project* applicant may request, and the *Local Agency* may refer, a proposed *Land Use Action* to the *ALUC* for early review, so long as the *Local Agency* is able to provide the *ALUC* with the *Project* submittal information for the proposal, as specified and required in Section 2.3.1 of this *Compatibility Plan*.

2.1.2. *Responsibilities for Project Consistency Analysis:* The *ALUC* and *Local Agencies* are each responsible for analyzing a *Project* proposal for compliance with the compatibility criteria set forth in this *Compatibility Plan*.

(a) *Local Agency* staff may choose to initially evaluate proposed *Projects* and work with the *Project* applicant to bring the proposal into compliance with *Compatibility Plan* criteria. The *ALUC Secretary* will provide informal input at this stage if requested.

(b) When a proposed *Project* is formally referred to the *ALUC*, the *ALUC Secretary* shall review the proposal to determine if it is consistent with the *Compatibility Plan* policies. *Projects* of a type that require a formal consistency determination by the *ALUC* (those listed in Policy 1.5.1) will be placed on the agenda for action.

(c) Subsequent to when a *Local Agency*'s general plan and applicable specific plans have been determined by the *ALUC* to be consistent with the *Compatibility Plan*, the *Local Agency* and its staff are responsible for the consistency analysis of *Major Land Use Actions*. The *ALUC Secretary* will provide informal input if requested or the *Local Agency* can voluntarily refer the *Land Use Action* to the *ALUC* for a consistency determination. *Land Use Actions* for which referral to the *ALUC* is mandatory regardless of the general plan and specific plan consistency status (actions listed in Policy 1.5.1) must continue to be referred for a consistency determination by the *ALUC*.

(d) The *Local Agency* and its staff are responsible for ensuring that a development continues to comply with *Compatibility Plan* criteria on an on-going basis following completion of the *Project* (*Intensity* and height limitations in particular).

2.1.3. *Public Input:* Where applicable, the *ALUC* shall provide public notice and obtain public input before acting on any plan, regulation, or other land use proposal under consideration.[14]

2.1.4. *Fees:* Any applicable review fees as established by the *ALUC* shall accompany the submittal of actions for *ALUC* or *ALUC Secretary* review.[15]

2.2. Review Process for General Plans, Specific Plans, Zoning Ordinances, and Building Regulations

2.2.1. *Required Submittal Information:* Copies of the complete text and maps of the plan, ordinance, or regulation proposed for adoption or amendment must be submitted to the *ALUC*. Any

[14] In accordance with Public Utilities Code Section 21675.2(d).
[15] Public Utilities Code Section 22671.5(f) allows for ALUCs to charge fees for *Project* reviews.

supporting material, such as environmental documents, assessing the proposal's consistency with the *Compatibility Plan* should be included. If the amendment is required as part of a proposed *Major Land Use Action*, then the information listed in Policy 2.3.1 shall also be included to the extent applicable.

2.2.2. *Initial ALUC Review of General Plan Consistency:* In conjunction with adoption or amendment of this *Stanislaus County Airport Land Use Compatibility Plan*, the *ALUC* shall review the general plans and specific plans of affected *Local Agencies* to determine their consistency with the *ALUC*'s policies.

(a) State law[16] requires that, within 180 days of the *ALUC*'s adoption or amendment of this *Compatibility Plan*, each *Local Agency* affected by the plan must amend its general plan and any applicable specific plan(s) to be consistent with the *ALUC*'s *Compatibility Plan* or, alternatively, provide required notice, adopt findings, and overrule the *ALUC* in accordance with statutory requirements.[17]

(b) Prior to taking action on a proposed amendment of a general plan or specific plan as necessitated by Paragraph (a) of this policy, the *Local Agency* must submit a draft of the proposal to the *ALUC* for review and approval.

(c) In conjunction with its referral of a general plan or specific plan amendment to the *ALUC* in response to the requirements of Paragraphs (a) and (b) above, a *Local Agency* must identify areas that it requests the *ALUC* to consider as *Infill* in accordance with Policy 4.1.2 if it wishes to take advantage of the *Infill* policy provisions. The *ALUC* will include a determination on the *Infill* as part of its action on the consistency of the general plan and/or applicable specific plan(s).

2.2.3. *Subsequent Reviews of Related Land Use Development Proposals:* Once a *Local Agency*'s general plan and applicable specific plans have been made consistent with this *Compatibility Plan*, or the *Local Agency* has overruled an *ALUC* finding of inconsistency regarding those plans, subsequent land use development actions that are consistent both with those local plans and with any related ordinances and regulations also previously reviewed by the *ALUC* are subject to *ALUC* review only under the conditions indicated in Policies 1.5.2 and 2.3.7.

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

(a) Find the plan, ordinance, or regulation consistent with the *Compatibility Plan*. To make such a finding with regard to a general plan, the conditions identified in Section 4.3 must be met.

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

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

[16] Government Code Section 65302.3.
[17] Public Utilities Code Section 21676(b).

2.2.5. *Response Time:* The *ALUC* must respond to a *Local Agency*'s request for a consistency determination on a general plan, specific plan, zoning ordinance, or building regulation within 60 days from the date of referral.[18]

(a) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.2.1 is received by the *ALUC Secretary* and the *ALUC Secretary* determines that the application for a consistency determination is complete.

(b) If the *ALUC* fails to make a determination within the 60-day period, the proposed *Land Use Action* shall be deemed consistent with the *Compatibility Plan*.

(c) The 60-day review period may be extended if the referring *Local Agency* or *Project* applicant agrees in writing or so states at an *ALUC* public hearing on the *Land Use Action*.

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

(e) The referring *Local Agency* shall be notified of the *ALUC*'s action in writing.

2.3. Review Process for Major Land Use Actions

2.3.1. *Required Submittal Information:* A proposed *Major Land Use Action* referred for *ALUC* (or *ALUC Secretary*) review shall include the following information to the extent applicable:

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

(b) An accurately scaled map depicting the *Project* site location in relationship to the airport boundary and runways.

(c) A description of the proposed use(s), current general plan and zoning designations, and the type of *Land Use Action* being sought from the *Local Agency* (e.g., zoning variance, special use permit, building permit).

(d) A detailed site plan and supporting data showing: site boundaries and size; existing uses that will remain; location of existing and proposed structures, open spaces, and water bodies; ground elevations (above mean sea level) and elevations of tops of structures and trees. Additionally:

(1) For residential uses, an indication of the potential or proposed number of dwelling units per acre (excluding any secondary units as defined by state and local law).

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

(e) Identification of any features, during or following construction, that would increase the attraction of birds or cause other wildlife hazards to aircraft operations at the *Airport* or in its environs (see Policy 3.4.3). Such features include, but are not limited to the following:

(1) Open water areas.

(2) Sediment ponds, retention basins.

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

[18] Public Utilities Code Section 21676(d).

(4) Artificial wetlands.

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

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

(h) Staff reports regarding the *Project*.

(i) Other relevant information that the *ALUC* or *ALUC Secretary* determine to be necessary to enable a comprehensive review of the proposed *Land Use Action*.

2.3.2. *Review by ALUC Secretary:* The *ALUC* delegates to the *ALUC Secretary* the review and consistency determination of *Major Land Use Actions* referred on a mandatory basis under Policy 1.5.2 or on a voluntary basis under Policy 1.5.3. In reviewing these actions, the *ALUC Secretary* shall:

(a) Consult with the airport manager on *Land Use Actions* within the *Airport Influence Area*.

(b) Provide to the *ALUC*, at its next regular meeting, a list of all *Projects* reviewed and the determination made.

2.3.3. *ALUC Secretary's Choices:* The *ALUC Secretary* is authorized, on behalf of the *ALUC*, to make consistency determinations on *Major Land Use Actions* reviewed in accordance with Policy 1.5.2. Such determinations shall be made in writing and shall describe the consistency analysis and the basis for the determination. The *ALUC Secretary* may opt to forward complex or controversial actions to the *ALUC* for a consistency determination. For actions not forwarded to the *ALUC*, the *ALUC Secretary* has three choices of action:

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

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

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

2.3.4. *Appeal of ALUC Secretary's Action:* The affected *Local Agency*, *Project* applicant, the *Airport* owner, or other directly interested party may appeal to the *ALUC* a consistency determination made by the *ALUC Secretary* on a *Major Land Use Action* reviewed in accordance with Policy 1.5.2. The *ALUC* shall then review the proposed *Land Use Action*, the *ALUC Secretary*'s determination, and information supporting the appeal and make a final determination regarding the proposed *Land Use Action*'s consistency with the *Compatibility Plan*. Any appeal of the *ALUC Secretary*'s determination must be submitted within 30 days of the date when the determination was issued.

2.3.5. *ALUC Action Choices:* When reviewing appealed *Major Land Use Actions*, the *ALUC* has the same three action choices provided for the *ALUC Secretary* in Policy 2.3.3.

2.3.6. *Response Time:* In responding to *Major Land Use Actions* referred for review, the policy of the *ALUC* is that:

(a) When a *Major Land Use Action* is referred for review on a mandatory basis as required by Policy 1.5.2:

(1) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.3.1 is received by *ALUC Secretary* and the *ALUC Secretary* determines that the application for a consistency determination is complete.

(2) Reviews by the *ALUC Secretary* shall be completed within 30 days of the date of referral.

(3) Reviews of *Projects* appealed to the *ALUC* for a consistency determination shall be completed within 60 days of the date of the appeal.[19]

(4) If the *ALUC Secretary* or the *ALUC* fail to make a determination within the above time periods, the proposed *Land Use Action* shall be deemed consistent with the *Compatibility Plan*.

(b) When a *Major Land Use Action* is referred on a voluntary basis in accordance with Policy 1.5.3, review by the *ALUC Secretary* and/or the *ALUC* should be completed in a timely manner enabling the comments to be considered by decision-making bodies of the referring *Local Agency*.

(c) Regardless of action or failure to act on the part of the *ALUC Secretary* or the *ALUC*, the proposed *Land Use Action* must comply with other applicable local, state, and federal laws and regulations.

(d) The referring *Local Agency* shall be notified of the *ALUC Secretary*'s and/or the *ALUC*'s action in writing.

2.3.7. *Subsequent Reviews of Related Land Use Development Proposals:* Once a *Project* has been found consistent with the *Compatibility Plan*, it generally need not be referred for review at subsequent stages of the planning process (e.g., for a use permit after a zoning change has been reviewed). However, additional *ALUC* review is required if any of the following are true:

(a) At the time of the original *ALUC* review, the *Project* information available was only sufficient to determine consistency with compatibility criteria at a planning level of detail, not at the *Project* design level. For example, the proposed land use designation indicated in a general plan, specific plan, or zoning amendment may have been found consistent, but information on site layout, maximum *Intensity* limits, building heights, and other such factors that may also affect the consistency determination for a *Project* may not have yet been known.

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

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

(2) For nonresidential uses, a change in the types of proposed uses, any increase in the total floor area, and/or a change in the allocation of floor area among different

[19] For *Major Land Use Actions*, this 60-day limit is not a statutory requirement, but is set by the *ALUC* to be consistent with Policy 2.2.5 and Public Utilities Code Section 21676(d) regarding general plans, specific plans, zoning ordinances, and building regulations.

types of uses in a manner that could result in an increase in the *Intensity* of use (more people on the site) to a level exceeding the criteria set forth in this *Compatibility Plan*;

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

(4) Major site design changes (such as incorporation of clustering or modifications to the configuration of open land areas proposed for the site) if site design was a factor in the initial *Project* review;

(5) Any significant change to a proposed *Project* for which a special exception was granted in accordance with Policy 4.1.5;

(6) Any new design features that would create visual hazards (e.g., certain types of lights, sources of glare, and sources of dust, steam, or smoke);

(7) Any new equipment or features that would create electronic hazards or cause interference with aircraft communications or navigation; and/or

(8) Addition of features that could attract wildlife that is potentially hazardous to aircraft operations.

(c) At the time of original *ALUC* review, conditions were placed on the *Project* that require subsequent *ALUC* review.

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

2.4. Review Process for Airport Master Plans and Development Plans

2.4.1. *Required Submittal Information:* A master plan, airport layout plan, or development plan referred to the *ALUC* for review shall contain sufficient information to enable the *ALUC* to adequately assess the noise, safety, airspace protection, and overflight impacts of *Airport* activity upon surrounding land uses.

(a) When a new or amended master plan is the subject of the *ALUC* review, the noise, safety, airspace protection, and overflight impacts should be addressed in the plan report and/or in an accompanying environmental document. Proposed changes in *Airport* facilities and usage that could have land use compatibility implications should be noted.

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

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

(1) A layout plan drawing of the proposed facility or improvements showing the location of:

- Property boundaries;
- Runways or helicopter takeoff and landing areas;
- Runway or helipad protection zones; and
- Aircraft or helicopter approach/departure flight routes.

(2) A revised map of the *Airspace Protection Surfaces* as defined by Federal Aviation Regulations Part 77 if the proposal would result in changes to these surfaces. Maps

reflecting the current and future configurations of the *Airspace Protection Surfaces* associated with each airport are included in Chapters 3, 4, and 5.

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

(4) Proposed flight track locations and projected noise contours. Differences from the flight track data and noise contours presented in Chapter 3. 4, and 5 of this *Compatibility Plan* should be described.

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

(6) Identification and proposed mitigation of impacts on surrounding land uses to the extent that those impacts would be greater than indicated by the Policy Maps included in this chapter.

2.4.2. *ALUC Action Choices for Airport Plans:* When reviewing a proposed new or revised airport master plan or new development plans for an airport included in the *ALUCP*, the *ALUC* has three action choices (see Section 4.4 for policies pertaining to the substance of the *ALUC* review of *Airport* plans):

(a) Find the *Airport* plan consistent with the *Compatibility Plan*.

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

(c) Find the *Airport* plan inconsistent with the *Compatibility Plan.*

2.4.3. *Response Time:* The *ALUC* must respond to the referral of an airport master plan or development plan within 60 days from the date of referral.[20]

(a) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.4.1 is received by *ALUC Secretary* and the *ALUC Secretary* determines that the application for a consistency determination is complete.

(b) If the *ALUC* fails to make a determination within the specified period, the proposed *Land Use Action* shall be deemed consistent with the *Compatibility Plan*.

(c) Regardless of *ALUC* action or failure to act, the proposed *Land Use Action* must comply with other applicable local, state, and federal regulations and laws.

(d) The *Airport* owner shall be notified of the *ALUC*'s action in writing.

[20] Public Utilities Code Section 21676(d).

3. COMPATIBILITY CRITERIA

3.1. Evaluating Land Use Consistency

3.1.1. *Evaluating Compatibility of New Development:* The compatibility of proposed land uses within an *Airport Influence Area* shall be evaluated in accordance with:

(a) The specific noise, safety, airspace protection, overflight, and other compatibility policies set forth in Sections 3.2 through 3.5 and in Section 4;

(b) The criteria listed in **Table 1**, Noise Compatibility Criteria, and **Table 2**, Safety Compatibility Criteria, and

(c) The Compatibility Zones depicted on the Compatibility Policy Maps in this chapter.

3.1.2. *Compatibility Criteria Tables:* **Table 1**, *Noise Compatibility Criteria*, and **Table 2**, *Safety Compatibility Criteria*, list general land use categories and indicate each use as being either "normally compatible," "conditionally compatible," or "incompatible" depending upon the noise and safety *Compatibility Zones* in which it is located. These three compatibility determinations are defined in Policies 3.2.1 and 3.3.1 as well as in the respective criteria tables.

(a) When evaluating a proposed development, each component land use category (e.g., agriculture, industrial, office) of a *Project* shall be evaluated as a separate development and shall individually satisfy the criteria for the respective land use category in the noise and safety criteria tables.

(b) Land uses not specifically listed in the noise and safety criteria tables shall be evaluated using the criteria for similar listed uses.

3.2. Noise Compatibility

Background

The following Noise Policy Background Information has been considered in formulating the Noise Compatibility policies and criteria in this section, and it is provided for informational purposes only. For additional discussion of noise compatibility concepts, see **Appendix D**.

Policy Objective

The purpose of noise compatibility policies is to avoid establishment of *Noise-Sensitive Land Uses* in the portions of the *Airport* environs that are exposed to significant levels of aircraft noise.

Measures of Noise Exposure

As is standard practice in California, this *Compatibility Plan* uses the *Community Noise Equivalent Level* (CNEL) metric as the primary basis for evaluating the degree to which lands around the *Airport* are exposed to airport-related noise. CNEL is a cumulative noise metric in that it takes into account not just the loudness of individual noise events, but also the number of events over time. Cumulative exposure to aircraft noise is depicted by a set of contours, each of which represents points having the same CNEL value. The noise contours depict the greatest annualized noise impact, measured in terms of CNEL, which is anticipated to be generated by the aircraft operating at the *Airport* over the planning time frame.

The noise contours included in the noise conmpatibility maps (MOD-2 and OAK-2) were developed for each airport based upon the existing and project aircraft fleet mix and number of opertations forecasted for a 20-year period.

Factors Considered in Setting Noise Compatibility Criteria

Factors considered in setting the criteria in this section include the following:

- Established state regulations and guidelines, including noise compatibility recommendations in the *California Airport Land Use Planning Handbook* (2011).
- Ambient noise levels in the community, as well as noise from other transportation noise sources. Ambient noise levels influence the potential intrusiveness of aircraft noise upon a particular land use and vary greatly between rural, suburban, and urban communities.
- The extent to which noise would intrude upon and interrupt the activity associated with a particular use. Susceptibility to speech interference or sleep disturbance as a result of single-event noise levels is a factor in this regard. Noise levels above approximately 65 dBA are sufficient to cause speech interference. Highly Noise-Sensitive Land Uses include residences, schools, libraries, and outdoor theaters.
- The extent to which the land use activity itself generates noise.
- The extent of outdoor activity, particularly noise-sensitive activities, associated with a particular land use.
- The extent to which indoor uses associated with a particular land use may be made compatible with application of sound attenuation. (Typical new building construction provides sufficient insulation to attenuate outdoor-to-indoor noise by at least 20 dB.)

3.2.1. *Evaluating Noise Compatibility for New Development:* The noise compatibility of proposed land uses within the an *Airport Influence Area* shall be evaluated in accordance with the policies set forth in this section, including the criteria listed in **Table 1**, *Noise Compatibility Criteria* and the noise exposure contours depicted on the respective *Compatibility Policy Map: Noise* for the affected airport (see **Maps MOD-2** and **OAK-2**).

(a) The criteria in **Table 1** indicate the maximum acceptable *Community Noise Equivalent Level* (CNEL) exposure for new residential land uses and a range of nonresidential land uses. Within the various noise exposure ranges, each land use type is shown as being either "normally compatible," "conditional," or "incompatible."

(b) "Normally Compatible" means that the proposed land use shall be presumed to be acceptable within locations having the indicated noise exposure.

(1) Indoor uses are "normally compatible" if either: they involve activities that are inherently noisy; or, standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. For land use types that are compatible because of noise levels inherent with the activity, sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of CNEL 50 dB.

(2) Outdoor uses are "normally compatible" if the activities associated with the land use may be carried out with minimal interference from aircraft noise at the indicated CNEL.

(c) "Conditional" means that the conditions indicated in **Table 1** must be satisfied in order for the proposed land use to be acceptable.

(1) Indoor uses must have building structures that are capable of attenuating exterior noise from all noise sources to the indoor CNEL indicated by the number in the cell.

(2) The acceptability of outdoor uses is dependent upon characteristics of the specific use. Caution should be exercised with regard to *Noise-Sensitive Outdoor Land Uses* because these uses are likely to be disrupted by aircraft noise events. This caution is directed at the *Project* proponent and is not intended to preclude approval of the *Project*.

(d) "Incompatible" means that the proposed land use shall not be allowed under any circumstances except as noted in Paragraph (3) below.

(1) Indoor uses would have unacceptable noise levels if windows are open. At exposures above CNEL 65 dB, extensive mitigation techniques would be required to make the indoor environment acceptable for performance of activities associated with the land use even with windows closed.

(2) Outdoor uses would be exposed to severe noise interference that would prevent performance of activities associated with the land use.

(3) Exceptions to an "incompatible" designation may only be made if site-specific special conditions exist. See Policy 4.1.5.

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

(a) Residential Development and Children's Schools:

(1) All new *Residential Development* and children's schools are deemed incompatible within the projected CNEL 60 dB contour of each airport.

(2) The noise compatibility policy maps presented for each airport (Maps MOD-2, and OAK-2) depict the area within which this restriction applies.

(3) Exceptions are also provided for existing residential lots. See Policy 1.4.4.

(b) Nonresidential Development: New *Nonresidential Development* is deemed incompatible in locations where the airport-related noise exposure would be highly disruptive to the specific land use. Applicable criteria are indicated in **Table 1**.

3.2.3. *Maximum Acceptable Interior Noise Levels:* To the extent that the criteria in **Table 1** and other policies herein permit the development, land uses for which interior activities may be easily disrupted by noise shall be required to comply with the following interior noise level criteria.

(a) The maximum, aircraft-related, interior noise level that shall be considered acceptable for land uses near airports is:

(1) CNEL 45 dB in:

- Any habitable room of single- or multi-family residences
- Children's schools (K-12)
- Libraries
- Long-term lodging (e.g., dormitories), congregate care facilities, and nursing homes
- Hotels, motels, and other short-term lodging;
- Hospitals;
- Adult educational and institutional facilities;
- Places of worship, meeting halls, theaters, and mortuaries; and
- Miscellaneous other uses as listed in **Table 1**, *Noise Compatibility Criteria*.

(2) CNEL 50 dB in:

- Offices and office areas of industrial facilities and research and development facilities;
- Retail centers and stores; and
- Personal and miscellaneous services.

(b) The noise contours depicted in **Maps MOD-2** and **OAK-2** shall be used in calculating compliance with these criteria. The calculations should assume that windows are closed.

(c) When a proposed building lies within multiple CNEL range zones (e.g., partly in 60-65 dB and partly in 65-70 dB), the higher range zone shall apply for the purposes of determining sound attenuation requirements unless less than 25% of the building floor area is within that zone. In such case, the lower range zone may be used.

(d) Where **Table 1** indicates that buildings associated with a particular land use must be capable of attenuating exterior noise to the specified maximum interior noise level, acoustical data documenting that the structure will be designed to comply with the criterion shall be provided to the *Local Agency* as part of the building permit process. The *Local Agency* shall be responsible for assuring compliance.

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

3.2.4. *Avigation Easement Dedication Requirements:* Dedication of an *Avigation Easement* is required as a condition for approval of certain proposed development situated within the CNEL 60 dB contour in accordance with Policy 4.1.1 (see **Maps MOD-2** and **OAK-2** and **MOD-5** and **OAK-5**).

3.3. Safety Compatibility

Safety Policy Background Information

The following Safety Policy Background Information (in different typeface) has been considered in formulating the Safety Compatibility policies and criteria in this section, but is provided for informational purposes only does not itself constitute *ALUC* policy. For additional discussion of safety compatibility concepts, see **Appendix D**.

Policy Objective

The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing. The policies focus on reducing the potential consequences of such events should they occur. Risks both to people and property in the vicinity of an airport and to people on board the aircraft are considered (land use features that can be the *cause* of an aircraft accident are addressed under Airspace Protection, Section 3.4).

Measures of Risk Exposure

This *Compatibility Plan* evaluates the risk that potential aircraft accidents pose to lands and people around the *Airport* is in terms of two parameters: the likelihood of an accident occurring in a given location near the *Airport*; and the potential consequences if an accident occurs in that location.

- The accident likelihood is measured in terms of the geographic distribution of where accidents have historically occurred around other airports having similar types of activity. Because aircraft accidents are infrequent occurrences, the pattern of accidents at any one airport cannot be used to predict where future accidents are most likely to happen around that airport. Reliance must be placed on

data about aircraft accident locations at comparable airports nationally, refined with respect to information about the types and patterns of aircraft use at the individual airport. This methodology, as further described in **Appendix D**, is used to delineate the safety zones depicted in **Maps MOD-3** and **OAK-3,** *Compatibility Policy Map: Safety*.

- The consequences component of the risk considers the number of people in harm's way and their ability to escape harm. For most *Nonresidential Development*, potential consequences are measured in terms of the usage *Intensity*—the number of people per acre on the site. For *Residential Development*, *Density*—the number of dwelling units per acre—is substituted for *Intensity*. Additional criteria are applicable to specific types of uses.

Factors Considered in Setting Safety Compatibility Criteria

Factors considered in setting the criteria in this section include the following:

- The locations, delineated with respect to the Airport runway, where aircraft accidents typically occur near airports and the relative concentration of accidents within these locations. The most stringent land use controls are applied to the areas with the greatest potential accident exposure. The risk information utilized is the transport (air carrier) and general aviation accident data and analyses contained in the California Airport Land Use Planning Handbook.
- Handbook guidance is also used to delineate the safety zone boundaries for the Airport as depicted on Map 3, Compatibility Policy Map: Safety. The zone shapes and sizes reflect the existing and future runway length, approach categories, aircraft fleet mix, and normal flight patterns for the Airport. Specific factors considered in adjusting the generic Handbook zones to reflect the conditions at the Airport are indicated on the Safety Compatibility Factors map in Chapter 3.
- Handbook guidance regarding the maximum usage intensities (people per acre) considered acceptable is used for new development near airport runways.
- Residential Density limitations cannot be equated to the usage Intensity limitations for nonresidential uses. Consistent with pervasive societal views and as suggested by the Handbook guidelines, a greater degree of protection is warranted for residential uses.
- The presence of certain land use characteristics that represent safety concerns regardless of the number of people present; specifically: vulnerable occupants (children, elderly, disabled), hazardous materials, and critical community infrastructure.
- The extent to which development covers the ground and thus limits the options of where an aircraft in distress can attempt an emergency landing.

3.3.1. *Evaluating Safety Compatibility for New Development:* The safety compatibility of proposed land uses within the an *Airport Influence Area* shall be evaluated in accordance with the policies set forth in this section, including the criteria listed in **Table 2**, *Safety Compatibility Criteria*, and the safety zones depicted on **Maps MOD-3** and **OAK-3,** *Compatibility Policy Map: Safety*.

(a) The criteria in **Table 2** indicate whether a particular type of land use is "normally compatible," "conditional," or "incompatible" with the exposure to aircraft accident risks.

(b) "Normally Compatible" means that the proposed *Land Use Action* is presumed to comply with the indicated *Intensity* limits and other criteria for the zone. However, atypical examples of a use may require review to ensure compliance with the criteria.

(c) "Conditional" means that the proposed *Land Use Action* must comply with the conditions listed in the table.

(d) "Incompatible" means that proposed *Land Use Action* shall not be permitted under any normal circumstances within the indicated safety zone. Limited exceptions are possible for site-specific special conditions. See Policy 4.1.5.

3.3.2. *Residential Development Criteria:* Proposed *Residential Development* shall be evaluated in accordance with the following criteria:

(a) The *Density* of *Residential Development* shall be measured in terms of dwelling units per acre. The maximum allowable *Densities* in each safety zone are as follows. Exceptions are provided for existing single-family homes and residential lots (see Policy 1.4.4).

(1) Within Safety Zones 1, new *Residential Development* shall be prohibited.

(2) Within Safety Zone 2, portions of new residential lots are allowed as long as the dwelling unit site is not situated within zone boundaries.

(3) Within Safety Zones 3 and 4, new *Residential Development* shall be limited to a maximum *Density* of 1 dwelling unit per 5.0 acres (0.2 dwelling unit per acre).

(4) Within Safety Zone 5, new Residential Development shall be prohibited.

(5) Within Safety Zone 6, new *Residential Development* shall not be restricted for safety compatibility purposes.

(b) For *Projects* that are solely residential, the acreage evaluated equals the *Project* site size which may include multiple parcels. See Policy 3.3.8 with regard to mixed-use development.

(c) Density bonuses and other bonuses or allowances that *Local Agencies* may provide for affordable housing developed in accordance with the provisions of state and/or local law or regulation shall be included when calculating residential *Densities*. The overall *Density* of a development *Project*, including any bonuses or allowances, must comply with the allowable *Density* criteria in **Table 2**, *Safety Compatibility Criteria*.

(d) Secondary units, as defined by state and local law, shall be excluded from *Density* calculations.

(e) See Policy 1.4.4 regarding *Residential Development* by right on existing legal lots of record.

(f) In accordance with state law, a family day care home serving 14 or fewer children may be established in any existing dwelling or in any new dwelling permitted by the policies of this *Compatibility Plan*.

(g) See Policy 3.3.9(a) for limitations on clustering of development within a single acre and Policy 4.1.2 for *Infill* criteria.

3.3.3. *Nonresidential Development Criteria:* Proposed *Nonresidential Development* shall be evaluated in accordance with the following criteria:

(a) The usage *Intensity* (people per acre) limit indicated in **Table 2** for each safety zone is the fundamental criterion against which the safety compatibility of most nonresidential land uses shall be measured. The *Intensity* limits equals the total number of occupants allowed on the *Project* site during normal busy use. Other criteria may be applicable to uses of special concern (see Policy 3.3.7).

(b) All nonresidential uses, including uses listed in **Table 2**, *Safety Compatibility Criteria*, as "Normally Compatible," must comply with both the "sitewide average" and "single-acre" usage *Intensity* limits indicated below and listed in **Table 2** for each safety zone.

Safety Zone	*1*	*2*	*3*	*4*	*5*	*6*
	People per Acre					
Maximum Sitewide Average Intensity	10	60	100	150	100	300
Maximum Single-Acre Intensity	20	120	300	450	300	1,000

(1) The "sitewide average" *Intensity* equals the total number of people expected to be on the entire site divided by the site size in acres.

(2) The "single-acre" *Intensity* equals the number of people expected to occupy the most intensively used 1.0-acre area(s) of the site.

(c) The need to calculate the usage *Intensity* of a particular *Project* proposal for compliance with the *Intensity* criteria in the Paragraph (b) table is to be governed by the following:

(1) Land use categories indicated in **Table 2** as "Normally Compatible" for a particular safety zone are presumed to meet the *Intensity* criteria indicated in the Paragraph (b) table. Unless the particular *Project* proposal represents an atypical example of the usage type, calculation of the usage *Intensity* is not required.

(2) Calculation of the usage *Intensity* must be done for all proposed *Projects* where the land use category for the particular safety zone is indicated in **Table 2** as "Conditional" and the criteria column says "Ensure *Intensity* criteria are met."

(3) Where **Table 2** indicates that land use category is "Conditional" for the particular safety zone, but the criteria are other than "Ensure *Intensity* criteria are met," calculation of the usage *Intensity* is not necessary for typical examples of the use. However, the *Project* proposal must comply with the other criteria listed for the applicable land use category and safety zone.

(d) No new structures intended to be occupied regularly are allowed in Safety Zone 1.

(e) Usage *Intensity* calculations shall include all people (e.g., employees, customers/visitors) who may be on the *Project* site at any single point in time, whether indoors or outdoors.

(1) For the purposes of these calculations, the total number of occupants during normal busiest periods shall be used.[21]

(2) The *Project* site may be composed of multiple parcels.

(f) Each component use within a *Nonresidential Development* that has multiple types of uses shall comply with the safety criteria in **Table 2**, *Safety Compatibility Criteria*, unless the use is ancillary to the primary use.

(1) To be considered an *Ancillary Use*, the use must be associated with the primary use (e.g. a cafeteria in an office building) and occupy no more than 10% of total building floor area.

(2) *Ancillary Uses* must be considered in the sitewide average *Intensity* limits, but may be excluded from the single-acre *Intensity* calculations.

(3) An *Ancillary Use* may be more intensively occupied (more people in a given area) than the primary use, provided that the *Ancillary Use* is neither:

- An assembly room having more than 750 square feet of floor area (this criterion is intended to parallel building code standards) and a capacity of 50 people; nor

[21] This number will typically be lower than the absolute maximum number of occupants the facility can accommodate (such as would be used in determining compliance with building and fire codes).

- A K-12 school, day care center, or other risk-sensitive use that is "incompatible" within the safety zone where the primary use is to be located.

(g) Other criteria may be applicable to uses of special concern (see Policy 3.3.7 and conditions in **Table 2**, *Safety Compatibility Criteria*).

(h) *Local Agencies* may make exceptions for "Conditional" or "Incompatible" land uses associated with rare special events (e.g., an air show at the *Airport*) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

3.3.4. *Methods for Determining Compliance with Sitewide Average Intensity Criteria:* Determination of compliance with the sitewide average *Intensity* criteria indicated in Policy 3.3.3(b) requires calculating the total occupancy of the site at any given time under normal busy use (see Policy 3.3.3(e)), then dividing by the total acreage of the *Project* site (see **Exhibit 1**). Alternatively, the Floor Area Ratio (FAR) criteria indicated in **Table 2** for most nonresidential uses may be used. Additional guidance is found in **Appendix E**. Regardless of the method or methods used, the proposed *Project*'s compliance with the *Intensity* criteria in Policy 3.3.3(b) must be demonstrated by the applicant or referring *Local Agency*.

(a) Floor Area Ratio (FAR) Criteria: Where a floor area ratio limit is cited in **Table 2** as the condition to be met, the indicated numbers should be treated as a tool by which compliance with the usage *Intensity* criteria can be evaluated.

(1) The limit listed for each use is based upon a typical Occupancy Load Factor (floor area square footage per person) for that use. The allowable FAR in a particular safety zone thus varies from one land use category to another. The assumed Occupancy Load Factors are shown in the table.

(2) If a higher or lower Occupancy Load Factor can be documented for a particular *Project* (see Paragraph (b) of this policy), then the allowable FAR would be correspondingly lower or higher, but in all cases the basic usage *Intensity* criterion must be met.

(b) Alternative Methodologies for Calculation of Sitewide Average Usage Intensities: Application of the FAR methodology for determining compliance with usage *Intensity* criteria is not required. Usage intensities may also be determined by first calculating the total occupancy of the site. The following methods may be used to determine the total occupancy for any category of use. For *Projects* involving multiple nonresidential land

Exhibit 1: Intensity Calculation Example

In this example, both the sitewide and single-acre *Intensity* of a proposed warehouse facility is calculated using the common Occupancy Load Factors [number of square feet per person] information in Table 2, Safety Criteria together with *Project* specifications. The results are then compared with the maximum sitewide and single-acre *Intensity* limits in Table 2 to determine consistency of the *Project* with the safety criteria.

Table 2 Safety Criteria Data

Safety Zone 3 Intensity Limits

Max. Sitewide Average: 100 people per acre
Max. Single-Acre: 300 people per acre

Common Occupancy Load Factors

Office: approx. 215 s.f. per person
Light Industrial, Low Intensity: approx. 350 s.f. per person
Warehouse: approx. 1,000 s.f. per person

Project Data

Site Acreage: 3 acres
Office: 19,560 s.f.
Light Industrial: 24,000 s.f.
Warehouse: 65,000 s.f.

Occupancy

Office: $\frac{19{,}560 \text{ s.f}}{215 \text{ s.f. per person}} = 91$ people

L-industrial: $\frac{24{,}000 \text{ s.f.}}{350 \text{ s.f. per person}} = 69$ people

Warehouse: $\frac{65{,}000 \text{ s.f.}}{1{,}000 \text{ s.f. per person}} = 65$ people

Total: = 225 people

Intensity Results

The results of the *Intensity* calculations indicate that the proposed development satisfies the sitewide and single-acre *Intensity* criteria.

Sitewide Average *Intensity*

$\frac{\text{Total people}}{\text{Site Acreage}} = \frac{225 \text{ people}}{3 \text{ acres}} = 75$ people per acre

Single-Acre Intensity

$\frac{\text{Total people}}{\text{Single-Acre}} = \frac{91 + 69 \text{ people}}{1 \text{ acre}} = 160$ people per acre

use categories, the occupancy for each use must be calculated separately, then added to produce the total occupancy. See Policy 3.3.8 for criteria pertaining to mixed-use *Projects* having both residential and nonresidential components.

(1) Fixed Seating: For uses with fixed seats, such as restaurants and theaters, the occupancy should be based upon the number of customer seats plus the number of employees.

(2) Occupancy Load Factors: The square footage of the building divided by the typical square footage occupied by each person yields the total occupancy. **Table 2**, *Safety*

Compatibility Criteria, lists typical occupancy load factors for various land use categories.

(3) Vehicle Parking Requirements: For many commercial and industrial uses, the occupancy can be estimated by considering the number of parking spaces required by the *Local Agency* and multiplying by the average occupancy per vehicle. This method is not suitable for land uses where many users arrive on foot or by transit, bicycle, or other means of transportation (see **Appendix E**).

(4) Building and Fire Codes: This method is essentially the same as the Occupancy Load Factor method in that the codes provide a square footage per person for various types of building uses. Building and Fire Codes, though, are based on a maximum, never to be exceeded, number of occupants rather than the average busy period that is the basis for airport land use compatibility planning. As such, the total occupancy calculated using these codes must be reduced by some factor—approximately one half for most uses—to provide a number consistent with the *Intensity* limits listed in Policy 3.3.3(b).

(c) Projects Containing Mixed Nonresidential Uses: Where a proposed development will contain a mixture of the nonresidential uses listed separately in **Table 2**, the FAR values cannot be directly used as an evaluation tool unless each component use is to be situated on its own distinct site. Instead, it is necessary to apply the occupancy load factors or use other information to calculate the total number of occupants expected within the overall development. This number is then used to determine compliance with the usage *Intensity* criteria.

- See Policy 3.3.8 for mixed residential/nonresidential uses.
- See Policy 3.3.11 with regard to criteria for *Project* sites that occupy two or more safety zones.

(d) Selection of Calculation Method: When evaluating *Major Land Use Actions* referred for *ALUC* review on a mandatory basis in accordance with Policy 1.5.2, the *ALUC* shall normally use the Floor Area Ratio methodology (Paragraph (a) of this policy). Occupancy within a single acre shall normally be calculated as described in Paragraph 3.3.5 of this policy. However, the *ALUC* shall consider usage *Intensity* data that the *Local Agency* or *Project* applicant has provided for the *Project* using an alternative calculation method.

(1) If the *Local Agency* or *Project* applicant provides definitive information that a particular *Development Proposal* is atypical—that is, there would be more floor area per person and thus a lower usage *Intensity*—the *ALUC* may consider that information in determining the safety compatibility of the proposal. In considering any such exceptions, the *ALUC* shall also take into account the potential for the use of a building to change over time (see Paragraph 3.3.6 of this policy).

(2) In conjunction with modifying its general plan for consistency with this *Compatibility Plan* or as part of a separate ordinance or other adopted policy, a *Local Agency* may propose a particular method for measuring compliance with the usage *Intensity* limits.[22] The *ALUC* shall evaluate the proposed method to determine whether it would provide an equivalent *Intensity* outcome to that of the floor area ratio method. Once

[22] For example, a method based upon the agency's parking space requirements may be used together with an assumed number of people per vehicle as a means of determining the number of occupants for uses that are vehicle oriented.

the *ALUC* has determined that the general plan is consistent with this *Compatibility Plan*, referral of *Major Land Use Actions* to the *ALUC* becomes voluntary. Therefore, subject to *ALUC* acceptance of the alternative calculation method, the *Local Agency* may then use that method when internally reviewing individual development *Projects* for compliance with the usage *Intensity* criteria.

3.3.5. *Methodology for Calculation of Single-Acre Intensity:* The single-acre *Intensity* of a proposed development shall be calculated by determining the total number of people expected to be within any 1.0-acre portion of the site, typically the most intensively used building or part of a building. Calculation of the single-acre *Intensity* depends upon the building footprint and site sizes and the distribution of activities on the site.

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

(b) For sites more than 1.0 acre and a building footprint less than 1.0 acre, the single-acre *Intensity* equals the total number of building occupants unless the *Project* includes substantial outdoor occupancy in which case such usage should be taken into account.

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

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

(e) If a building has multiple floors, then the total number of occupants on all floors falling within the 1.0-acre footprint shall be counted.

3.3.6. *Long-Term Changes in Occupancy:* In evaluating compliance of a proposed *Nonresidential Development* with the usage *Intensity* criteria, the *ALUC* shall take into account the potential for the use of a building to change over time. A building could have planned low-*Intensity* use initially, but later be converted to a higher-*Intensity* use. *Local Agencies* must provide permit language or other mechanisms to ensure continued compliance with the usage *Intensity* criteria. (Note that this provision applies only to new development and *Redevelopment—Projects* for which discretionary *Local Agency* action is required—not to tenant improvements or other changes to existing buildings for which local approval is ministerial.)

3.3.7. *Land Uses of Special Concern:* Certain types of land uses represent special safety concerns irrespective of the number of people associated with those uses.

(a) Land uses of particular concern and the nature of the concern are:

(1) Uses Having Vulnerable Occupants: These uses are ones in which the majority of occupants are children, elderly, and/or disabled—people who have reduced effective mobility or may be unable to respond to emergency situations. The primary uses in this category are:

- Children's schools (grades K–12).

- Day care centers (facilities with 15 or more children, as defined in the California Health and Safety Code).
- Hospitals, mental hospitals, nursing homes, and similar facilities where patients remain overnight.
- Congregate care facilities including retirement homes, assisted living, and intermediate care facilitie.
- Penal institutions.

(2) Hazardous Materials Storage: Materials that are flammable, explosive, corrosive, or toxic constitute special safety compatibility concerns to the extent that an aircraft accident could cause release of the materials and thereby pose dangers to people and property in the vicinity. Facilities in this category include:

- Facilities such as oil refineries and chemical plants that manufacture, process, and/or store bulk quantities of hazardous materials generally for shipment elsewhere.
- Facilities associated with otherwise compatible land uses where hazardous materials are stored in smaller quantities primarily for on-site use.

(3) Critical Community Infrastructure: This category pertains to facilities the damage or destruction of which would cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Among these facilities are:

- Public safety facilities such as police and fire stations.
- Communications facilities inclueing emergency communications, broadcast, and cell phone towers.
- Primary, peaker, and renewable energy power plants, electrical substations, and other utilities.

(b) The safety criteria for the land uses in Paragraph (a) of this policy are included in **Table 2**, *Safety Compatibility Criteria*. These criteria shall be applied when evaluating these uses.

(1) In some cases, these uses are not allowed in portions of the *Airport* environs regardless of the number of occupants associated with the use.

(2) In other instances these uses should be avoided (that is, allowed only if a site outside the zone would not serve the intended function).

(3) When allowed, special measures for the particular use, such as those listed in **Table 2**, *Safety Compatibility Criteria*, must be taken as appropriate to minimize hazards to the facility and occupants if the facility were to be struck by an aircraft.

3.3.8. *Mixed-Use Development:* For *Projects* involving a mixture of residential and nonresidential uses, the following policies apply:

(a) Where the *Residential Development* and *Nonresidential Development* are proposed to be situated on separate parts of the *Project* site, the *Project* shall be evaluated as separate developments. The residential *Density* shall be calculated with respect to the area(s) to be devoted to *Residential Development* and the nonresidential *Intensity* calculated with respect to the area(s) proposed for nonresidential uses. This provision means that the residential *Density* cannot be averaged over the entire *Project* site when nonresidential uses will occupy some of the area. The same limitation applies in reverse—that is, the nonresidential *Intensity* cannot be averaged over an area that includes residential uses.

(b) Development in which *Residential Development* is proposed to be located in conjunction with *Nonresidential Development* in the same or nearby buildings on the same site must meet both residential *Density* and nonresidential *Intensity* criteria. The number of dwelling units shall not exceed the *Density* limits indicated in **Table 2**, *Safety Compatibility Criteria*. Additionally, the normal occupancy of the residential portion shall be added to that of the nonresidential portion and the total occupancy shall be evaluated with respect to the nonresidential usage *Intensity* criteria cited in **Table 2**.

(c) Mixed-use development shall not be allowed where the residential component would be exposed to noise levels above the limits set in **Table 1**, *Noise Compatibility Criteria*.

3.3.9. *Limits on Clustering:* As used in this *Compatibility Plan*, "clustering" refers to the concentration of development (measured in terms of dwellings or people per acre) into a portion of the site, leaving other portions of the site relatively less developed or as open land. To a degree, clustering of development can be desirable from an airport land use safety compatibility perspective if more places where an aircraft can attempt an emergency landing potentially remain. However, clustering can pose greater risks that an aircraft could strike the location where the development is clustered. To guard against this risk, limitations on the maximum concentrations of dwellings or people in a small area of a large *Project* site are appropriate.

(a) Clustering of new *Residential Development* in airport environs is limited as follows:

(1) Clustering is not applicable in Safety Zones 1 and 5 as new *Residential Development* is not permitted in these zones.

(2) In Safety Zones 3 and 4, up to 2 dwellings may be built in a single acre area, provided that the average *Density* of the development does not exceed 1 dwelling unit per 5.0 acres. Where new *Residential Development* is allowed as *Infill* in these zones, the single-acre *Density* shall not exceed that typical of the surrounding development.

(3) There is no limit on site-wide or single-acre residential *Densities* in Safety Zone 6.

(b) For nonresidential land uses, the usage *Intensity* on a single 1.0-acre portion of a *Project* site shall not exceed the limits specified in **Table 2**.

(c) For the purposes of the above policies, the 1.0-acre areas to be evaluated shall be rectangular (reasonably close to square, not elongated or irregular) in shape.

3.3.10. *Lot Coverage Limits:* In addition to the single-acre *Density* and *Intensity* limits set by Policy 3.3.9, new residential and *Nonresidential Development* shall also be limited with respect to lot coverage—the percentage of the *Project* site covered by buildings. The specific limits for each safety zone are as shown in **Table 2**.

3.3.11. *Parcels Lying within Two or More Safety Zones:* For the purposes of evaluating consistency with the compatibility criteria set forth in **Table 2**, any parcel that is split by safety zone boundaries shall be considered as if it were multiple parcels divided at the safety zone boundary line (see **Exhibit 2)**.

(a) The preceding notwithstanding, where no part of the building(s) or areas of outdoor congregation of people proposed on the *Project* site falls within the more restrictive safety zone, the criteria for the safety zone where the proposed building(s) or outdoor uses are located shall apply.

(b) Modification of the *Project* site plan so as to transfer the allowed *Density* of *Nonresidential Development* or *Intensity* of *Nonresidential Development* from the more restricted portion to

Exhibit 2: Site Split by Safety Zones

In this example, the restaurant and office uses are split between Safety Zones 4 and 6. When determining compliance with the Zone 4 *Intensity* limits, only the portions of the uses in Zone 4, together with the retail use that is fully in Zone 4 are considered and the site size is the 3.5 acres in Zone 4.

Safety Zone 4

Retail: 50,000 s.f. / 170 s.f. per person = 294 people

Restaurant: 50% of 18,000 s.f. / 60 s.f. per person = 150 people

Office: 50% of 24,000 s.f. / 215 s.f. per person = 56 people

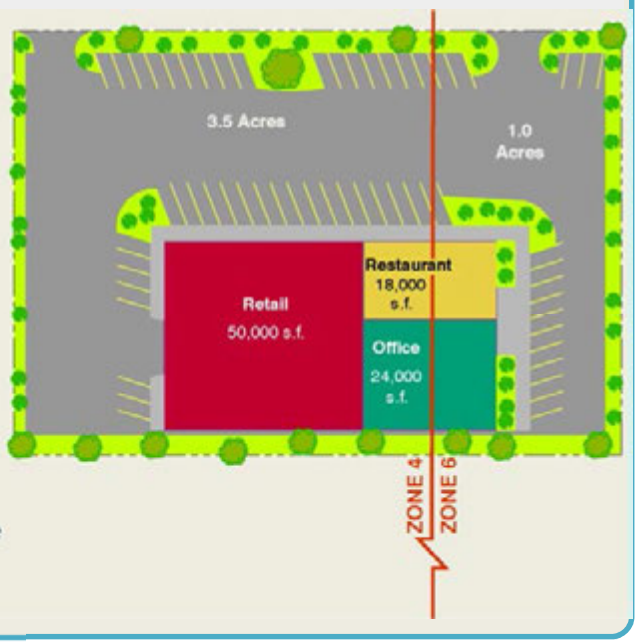
Total Occupancy = 500 people

Intensity: 500 people / 3.5 acres = 143 people/acre*

* Meets Zone 4 sitewide average limit of 150 people/acre

Safety Zone 6

All proposed uses are normally compatible.



the less restricted portion is encouraged. The purpose of this policy is to move people outside of the higher-risk zones.

(1) This full or partial reallocation of *Intensity* is permitted even if the resulting *Intensity* in the less restricted area would then exceed the sitewide average *Intensity* limits that apply within that safety zone (see **Exhibits MOD-3 and OAK-3)**.

(2) The single-acre criterion for the zone to which the use is transferred must still be satisfied.

3.3.12. *Avigation Easement Dedication Requirements:* Dedication of an *Avigation Easement* is required as a condition for approval of certain proposed development situated within Safety Zones 1 through 5 in accordance with Policy 4.1.1 (see **Maps MOD-3 and OAK-3 and MOD-5 and OAK-5**).

Exhibit 3: Transferring Usage Intensity

An example of transferring usage *Intensity* to the less restrictive safety zone is provided below.

Project Site

Zone 3: 1.0 acres
Zone 4: 2.0 acres

Allowable Total Occupancy

Zone 3: 100 *people*/acre = 100 people
Zone 4: 150 *people*/acre = 300 people
Total Allowed on Site: 400 people

Transfer People from Zone 3 to Zone 4

Zone 3: 0 *people*
Zone 4: 300 + *100* = 400 people
* 400 people in 2.0 acres exceeds 160 people/acre limit for Zone 4, but is allowable under usage *Intensity* transfer policy

3.4. Airspace Protection

Airspace Protection Policy Background Information

The following Airspace Protection Policy Background Information (in different typeface) has been considered in formulating the Airspace Protection Compatibility policies and criteria in this section, but is provided for informational purposes only and does not itself constitute *ALUC* policy. For additional discussion of airspace protection concepts, see **Appendix D**.

Policy Objective

Airspace protection compatibility policies seek to prevent creation of land use features that can pose hazards to the airspace required by aircraft in flight and have the potential for causing an aircraft accident.

Measures of Hazards to Airspace

Three categories of hazards to airspace are a concern: physical, visual, and electronic.

- *Physical* hazards include tall structures that have the potential to intrude upon protected airspace as well as land use features that have the potential to attract birds and certain other potentially hazardous wildlife to the *Airport* area.
- *Visual hazards* include certain types of lights, sources of glare, and sources of dust, steam, or smoke.
- *Electronic hazards* are ones that may cause interference with aircraft communications or navigation.

Factors Considered in Setting Airspace Protection / Object Height Compatibility Criteria

The *Compatibility Plan* airspace protection policies rely upon the regulations and standards enacted by the Federal Aviation Administration (FAA) and the State of California. The FAA has well defined standards by which potential hazards to flight, especially airspace obstructions, can be assessed. The following FAA regulations and documents, and any later versions of these documents, are specifically relevant.

- Federal Aviation Regulations (FAR) Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace* (provides standards regarding FAA notification of proposed objects and height limits of objects near airports).
- FAA Advisory Circular 150/5300-13, *Airport Design* (provides standards regarding safety-related areas in the immediate vicinity of runways).
- Advisory Circular 70/7460-1K, *Obstruction Marking and Lighting* (sets standards for how essential marking and lighting should be designed).

These regulations and standards do not give the FAA authority to prevent the creation of hazards to flight. That authority rests with state and local government. The State of California has enacted regulations enabling state and *Local Agencies* to enforce the FAA standards. The *ALUC* policies are intended to help implement the federal and state regulations.

Factors Considered in Setting Airspace Protection / Wildlife Hazard Compatibility Criteria

Natural features and agricultural practices near airports include open water and food sources that are attractive to wildlife, especially waterfowl and other bird species. FAA data indicates that aircraft using the *Airport* have experienced a high incidence of bird strikes compared to other airports nationwide. The *Compatibility Plan* relies upon the wildlife hazard guidelines established by the FAA in the following Advisory Circulars:

- FAA Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports* (provides guidance on types of attractants to be avoided).
- FAA Advisory Circular 150/5200-34A, *Construction or Establishment of Landfills near Public Airports* (sets guidelines on proximity of these facilities to airports).

3.4.1. *Evaluating Airspace Protection / Object Height Compatibility for New Development:* The object height compatibility of proposed land uses within an *Airport Influence Area* shall be evaluated in accordance with the policies in this section, including the *Airspace Protection Surfaces* depicted on **Maps MOD-4** and **OAK-4,** *Compatibility Policy Maps: Airspace Protection / Object Heights*.

(a) The airspace protection surfaces are drawn in accordance with FAR Part 77, Subpart C, and reflect the runway lengths, runway end locations, and approach types for each of the three runway configuration scenarios: existing, north-only extension of east runway, and split extension of east runway. **Maps MOD-4** and **OAK-4** depict the approach protection / height limit surfaces for these respective scenarios.

(b) The *Critical Airspace Protection Zone* consists of the FAR Part 77 primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface.

(c) The *High Terrain Area* encompasses locations where the ground elevation exceeds or is within 35 feet beneath an airspace protection surface as defined by FAR Part 77 for an airport.

3.4.2. *Airpspace Obstruction /Object Height Criteria:* The criteria for determining the acceptability of a *Project* with respect to height shall be based upon the standards set forth in Federal Aviation Regulations (FAR) Part 77, Subpart C, *Safe, Efficient Use and Preservation of the Navigable Airspace* and applicable airport design standards published by the FAA. Additionally, where an FAA aeronautical study of a proposed object is required as described in Policy 3.4.4, the results of that study shall be taken into account by the *ALUC* and the *Local Agency*.

(a) Except as provided in Paragraphs (b) and (c) of this policy, no object, including a mobile object such as a vehicle or temporary object such as construction crane, shall have a height that would result in penetration of an *Airspace Protection Surface* are depicted on **Maps MOD-4** and **OAK-4**. Any object that penetrates one of these surfaces is, by FAA definition, deemed an *obstruction*.[23]

(b) Objects not situated within a *Critical Airspace Protection Zone* (see Policy 3.4.1(b)) may be allowed to have heights that penetrate the *Airspace Protection Surfaces* defined by FAR Part 77 criteria.

(1) The maximum allowable height for these objects is 35 feet above ground level.

(2) The height of all objects is subject to *Local Agency* zoning limits.

(c) Unless exempted under Paragraph (b) of this policy, a proposed object having a height that exceeds the *Airport*'s *Airspace Protection Surface* shall be allowed only if *all* of the following apply:

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

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

[23] An *obstruction* may or may not be a *hazard*. The purpose of FAA aeronautical studies is to determine whether an obstruction is a hazard and, if so, what remedy is recommended. The FAA's remedies are limited to making changes to the airspace and an airport's approach procedures, but it also can indicate an objection to proposed structures that it deems to be a hazard.

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

(3) Marking and lighting of the object will be installed as directed by the FAA aeronautical study or the California Division of Aeronautics and in a manner consistent with FAA standards in effect at the time the construction is proposed.[24]

(4) An *Avigation Easement* is dedicated, in accordance with Policy 4.1.1, to the *Local Agency* that owns the *Airport*—County of Stanislaus, City of Modesto or City of Oakdale.

(5) The proposed *Project*/plan complies with all policies of this *Compatibility Plan* related to noise and safety compatibility.

3.4.3. *Other Flight Hazards:* Land uses that may cause visual or electronic hazards, to aircraft in flight or taking off or landing at the *Airport* shall be allowed within the *Airport Influence Area* only if the uses are consistent with FAA rules and regulations.

(a) Specific characteristics to be avoided include:

(1) Sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights and laser light displays);

(2) Distracting lights that could be mistaken for airport lights;

(3) Sources of dust, steam, or smoke that may impair pilots' vision;

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

(5) Sources of electrical interference with aircraft communications or navigation.

(6) Any proposed use that creates an increased attracton for wildlife and that is inconsistent with FAA rules and regulations. Of particular concern are landfills, conservation areas, open water, and certain recreational or agriculatural uses that attract large flocks of birds which pose hazards to aircraft operations.[25]

(b) To resolve any uncertainties with regard to the significance of the above types of flight hazards, *Local Agencies* should consult with FAA and airport officials.

3.4.4. *Requirements for FAA Notification of Proposed Construction or Alteration: Project* proponents are responsible for notifying the FAA about proposed construction that may affect navigable airspace.[26] The following is *ALUC* policy on this topic.

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[24] Advisory Circular 70/7460-1J, *Obstruction Marking and Lighting*, or any later FAA guidance.

[25] See FAA Advisory Circular 150/5200-33b, "Hazardous Wildlife Attractants On and Near Airports" and 150/5200-34A, "Construction or Establishment of Landfills Near Public Airports."

[26] FAR Part 77 requires that a *Project* proponent submit notification of a proposal to the FAA where required by the provisions of FAR Part 77, Subpart B. California Public Utilities Code Sections 21658 and 21659 likewise includes this requirement. FAA notification requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes. The FAA will conduct an "aeronautical study" of the object(s) and determine whether the object(s) would be of a height that would constitute a hazard to air navigation. (See **Appendix C** of this *Compatibility Plan* for a copy of FAR Part 77 and online procedures for filing Form 7460-1.) FAA notification is required under the following circumstances:

(a) The boundary of the FAA notification area for each airport is depicted on **Maps MOD-4** and **OAK-4**. Reference to FAA notification requirements is included here for informational purposes only, not as an *ALUC* policy.

(b) *Local Agencies* should inform *Project* proponents of the requirements for notification to the FAA.

(c) Any proposed development *Project* that includes construction of a structure or other object and that is required to be submitted to the *ALUC* for a consistency review in accordance with Policy 1.5.2 shall include a copy of the completed FAR Part 77 notification form (Form 7460-1) submitted to the FAA, if applicable, and of the resulting FAA findings from its aeronautical study (i.e., notice of determination letter). A proposed *Project* may be referred to the *ALUC* in advance of the completion of the FAA aeronautical study. However, the completed aeronautical study must be forwarded to the *ALUC* when available and the *ALUC* may reconsider its previous consistency determination if the FAA study provides new information and airspace protection was a factor in the *ALUC*'s determination.

3.4.5. *ALUC Review:* The requirement for notification to the FAA shall not by itself trigger an airport compatibility review of an individual *Project* by the *ALUC*. If the general plan of the *Local Agency* in which the *Project* is to be located has been determined by the *ALUC* to be consistent with this *Compatibility Plan*, then no *ALUC* review is required. If the general plan has not been made consistent, then the proposed *Project* must be referred to the *ALUC* for review if it qualifies as a *Major Land Use Action* (see Policy 1.5.2).

3.5. Overflight Compatibility

Overflight Policy Background Information

The following Overflight Compatibility Policy Background Information (in different typeface) has been considered in formulating the Overflight Compatibility policies and criteria in this section, but is provided for informational purposes only and does not itself constitute *ALUC* policy. For additional discussion of overflight compatibility concepts, see **Appendix D**.

Policy Objective

Noise from individual aircraft operations, especially by comparatively loud aircraft, can be intrusive and annoying in locations beyond the limits of the noise exposure areas addressed by the policies in Section 3.2. Sensitivity to aircraft overflight varies from one person to another.

The policies in this section serve primarily to establish the form and requirements for notification about airport proximity and aircraft overflight to be given in conjunction with *Local Agency* approval of new *Residential Development* and with certain real estate transactions involving existing *Residential Development*. Overflight policies do not apply to *Nonresidential Development*.

(a) The *Project* contains proposed structures or other objects that exceed the height standards defined in FAR Part 77, Subpart B. Objects shielded by nearby taller objects are exempted in accordance with FAR Part 77, Paragraph 77.15. Note that notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Also, the FAA notification area extends beyond the *Airport Influence Area* depicted on **Map 1**, *Airport Influence Area*.
(b) Any proposal for construction or alteration of a structure, including antennas, taller than 200 feet above the ground level at the site regardless of proximity to any airport.

Measures of Overflight Exposure

The loudness and frequency of occurrence of individual aircraft noise events are key determinants of where airport proximity and aircraft overflight notification is warranted. Single-event noise levels are especially important in areas that are overflown regularly by aircraft, but that do not produce significant CNEL contours.

Factors Considered in Setting Overflight Compatibility Criteria

Factors considered in establishing overflight criteria include the following:

- The boundary of the overflight area for the *Airport*, as depicted on **Maps MOD-5** and **OAK-5** *Compatibility Policy Map: Overflight*, is drawn to encompass locations where aircraft approaching and departing from a commercial service airport typically fly at an altitude of less than approximately 1,500 feet above the *Airport* elevation. For a general aviation airport, the overflight envelope encompasses the area where approximately 80% or more of the aircraft overflight occurs, but not where every aircraft or helicopter flies when using the airport.
- Note that the flight altitude above ground level will be more or less than this amount depending upon the terrain below. Areas of high terrain beneath the traffic patterns are exposed to comparatively greater noise levels, a factor that is considered in the overflight policies.
- To be most effective, overflight policies should establish notification requirements for transactions involving *Existing Land Uses*, not just future development. However, the *ALUC* only has authority to set requirements for new development and to define the boundaries within which airport proximity disclosure in conjunction with real estate transactions should be provided as specified under state law.
- State airport proximity disclosure law applies to existing development, but not to all transactions. [California state statutes (*Business and Professional Code Section 11010* and *Civil Code Sections 1102.6*, *1103.4*, and *1353*) require that, as part of many residential real estate transactions, information be disclosed regarding whether the property is situated within an *Airport Influence Area*. These state requirements apply to the sale or lease of newly subdivided lands and condominium conversions and to the sale of certain existing residential property. In general, *Airport Proximity Disclosure* is required with existing residential property transfer only when certain natural conditions (earthquake, fire, or flood hazards) warrant disclosure.]

3.5.1. *Evaluating Overflight Compatibility:* Unlike the function of the noise, safety, and airspace protection compatibility policies in this *Compatibility Plan*, the overflight compatibility policies set forth in this section do not restrict the manner in which land can be developed or used. The policies in this section serve primarily to establish the form and requirements for notification about airport proximity and aircraft overflights to be given in conjunction with *Local Agency* approval of new development and with certain real estate transactions involving existing development. An additional function of the overflight compatibility policies is to provide non-mandatory guidance to *Local Agencies* regarding the suitability of *Residential Development* within overflight impacted areas of the *Airport* environs. The boundaries of the overflight zones are shown on **Maps MOD-5** and **OAK-5,** *Compatibility Policy Map: Overflight*.

3.5.2. *Recorded Overflight Notification:* As a condition for *Local Agency* discretionary approval of residential land use development within the secondary approach area indicated on **Maps MOD-5** and **OAK-5,** an overflight notification shall be recorded.

(a) The notification shall be of a format similar to that indicated in **Appendix H** and shall contain the following language dictated by state law with regard to *Airport Proximity Disclosure i*n conjunction with real estate transfer:

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

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

(c) A separate *Recorded Overflight Notification* is not required where an *Avigation Easement* is provided.

(d) Recording of an *Overflight Notification* is not required for Nonresidential Development.

3.5.3. *Airport Proximity Disclosure:* State law requires that notice disclosing information about the presence of a nearby airport be given to prospective buyers of certain residential real estate within an *Airport Influence Area*. The statutes define an *Airport Influence Area* as "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission."[27] *ALUC* policy with regard to *Airport Proximity Disclosure* is as follows:

(a) For existing residences:

(1) State law indicates that the *ALUC* is responsible for delineating the area within which *Airport Proximity Disclosure* is appropriate. The recommended *Airport Proximity Disclosure* area for each airport is identified on **Maps MOD-5** and **OAK-5,** and includes the entire *Airport Influence Area*.

(2) To the extent that real estate transactions involve existing residences, *Airport Proximity Disclosure* is a matter between private parties. The *ALUC* has no authority to mandate that *Airport Proximity Disclosure* be provided and neither the *ALUC* nor *Local Agencies* have any enforcement responsibilities.

(3) *Airport Proximity Disclosure* should be provided as part of *all* real estate transactions (sale, lease, or rental) involving residential property anywhere within the *Airport Influence Area*.

(b) For proposed Residential Development:

(1) The disclosure provisions of state law are deemed mandatory for *new Residential Development* anywhere within the *Airport Influence Area* and shall continue in effect as *ALUC* policy even if the state law is made less stringent or rescinded. The disclosure shall be of a format similar to that indicated in **Appendix H** and shall contain the language dictated by state law (see Policy 3.5.2(a)).

(2) Signs providing the above notice and a map of the *Airport Influence Area* shall be prominently posted in the real estate sales office and/or other key locations at any new *Residential Development* within the *Airport Influence Area*.

[27] See *California Business and Professions Code Section 11010(b)* and *Civil Code Section 1353(a)*.

4. OTHER COMPATIBILITY POLICIES

4.1. Policies for Special Circumstances

4.1.1. *Avigation Easement Dedication:* As a condition for approval of *Projects* that are subject to the review provisions of this *Compatibility Plan* and that meet the conditions in Paragraphs (a) and (b) of this policy, the property owner shall be required to dedicate an *Avigation Easement* to the County of Stanislaus, City of Modesto, or City of Oakdale.

(a) Avigation easement dedication is required for all off-airport *Projects* situated within the following portions of the *Airport Influence Area* as depicted on **Maps MOD-5** and **OAK-5**:

(1) All locations within the Primary Approach Area. This area is comprised of:

- All locations within the CNEL 60 dB contour depicted on **Maps MOD-2** and **OAK-2**.
- All locations within Safety Zones 1 through 5 as depicted on **Maps MOD-3** and **OAK-3**.
- All locations within the *Critical Airspace Protection Zone* as depicted on **Maps MOD-4** and **OAK-4**.

(b) *Avigation Easement* dedication shall be required for any proposed development, including *Infill* development, for which discretionary local approval is required. *Avigation Easement* dedication is not required for ministerial approvals such as building permits. Further, unless previously required prior to the Effective Date of this *Compatibility Plan*, the requirement to dedicate an *Avigation Easement* shall not be applicable to *Existing Land Uses* located within the area where dedication is required for new land use *Projects*.

(c) The *Avigation Easement* shall:

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

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

(3) Restrict the height of structures, trees and other objects in accordance with the policies in Section 3.4;

(4) Permit access to the property for the removal or aeronautical marking of objects exceeding the established height limit (if not accomplished by the property owner, these actions can be taken by the *Airport* at the property owner's expense); and

(5) Prohibit electrical interference, glare, and other potential hazards to flight from being created on the property.

(d) An example of an *Avigation Easement* is provided in **Appendix H**.

4.1.2. *Infill:* Where land uses not in conformance with the criteria set forth in this *Compatibility Plan* exist at the time of the plan's adoption, *Infill* development of similar land uses may be allowed to occur in that area even if the proposed new land use is otherwise incompatible with respect to the compatibility criteria for that location.

(a) *Infill* development is not permitted in the following locations.

(1) Within Safety Zones 1 and 5 (the runway protection zones and within the runway primary surface), no infill development shall be permitted. .

(2) Within Safety Zone 2, residential *Infill* development shall not be permitted except as allowed by Policy 1.4.4 regarding existing residential parcels.

(3) Within the CNEL 65 dB noise contour as depicted on **Map 2**, *Compatibility Policy Map: Noise*, residential *Infill* development shall not be allowed.[28]

(b) In other locations within *Referral Area 1*, a *Project* site can be considered for *Infill* development if it either:

(1) Is part of a cohesive area, defined by the local land use jurisdiction and accepted by the *ALUC*, within which at least 65% of the uses were developed prior to the *Compatibility Plan* adoption with uses not in conformance with the plan; or

(2) Meets *all* of the following conditions:

- At least 65% of the site's perimeter is bounded (disregarding roads) by existing (as of the Effective Date of this *Compatibility Plan*) uses similar to, or more intensive than, those proposed;
- An individual *Project* site within an identified *Infill* area must be no larger than 20 acres;
- The proposed *Project* would not extend the perimeter of the area defined by the surrounding, already developed, incompatible uses; and
- Land uses proposed for the *Infill* area are consistent with the *Local Agency*'s zoning regulations governing the existing, already developed, surrounding area.

(c) The *Density* of *Infill Residential Development* in Safety Zones 3 and 4, the average development density (dwelling units per acre) of the site shall not exceed the median density represented by all existing residential lots that lie fully or partially within a distance of 300 feet from the boundary of the defined infill area.

(d) For *Infill Nonresidential Development*, the average usage *Intensity* (the number of people per acre) of the site's proposed use shall not exceed the lesser of:

(1) The median *Intensity* of all existing nonresidential uses that lie fully or partially within a distance of 300 feet from the boundary of the defined *Infill* area; or

(2) Double the *Intensity* permitted in accordance with the criteria for that location as indicated in **Table 2**.

(For example, if the zone allows 100 people per acre and the median of nearby *Existing Land Uses* is 150 people per acre, the *Infill* development would be limited to 150 people per acre rather than 200.)

(e) The single-acre *Density* and *Intensity* limits described in Policies 3.3.9 and listed in **Table 2** are applicable to *Infill* development. Also, the sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.2.3 and 4.1.1 shall apply to *Infill* development.

(f) The *ALUC* prefers that all parcels eligible for *Infill* be identified at one time by the *Local Agency*.

(1) The *Local Agency* is responsible for identifying, in its general plan or other adopted planning document approved by the *ALUC*, the qualifying locations that lie within that *Local Agency*'s boundaries. This action may take place in conjunction with the process of amending a general plan for consistency with the *ALUC* plan or may be submitted by the *Local Agency* for consideration by the *ALUC* at the time of initial adoption of this *Compatibility Plan*.

[28] The effect of this policy is that *Infill Residential Development* is allowed at a 5 dB higher noise level than is the acceptable limit for other new *Residential Development* as set by Policy 3.2.2(a).

(2) If a map identifying locations suitable for *Infill* has not been submitted by the *Local Agency* and approved by the *ALUC* or the site of an individual *Project* proposal does not fall within the identified *Infill* area, the *ALUC* may evaluate the *Project* to determine whether it would meet the qualifying conditions listed in Paragraphs (a) and (b) of this policy.

(3) In either case, the burden for demonstrating that an area or an individual site qualifies as *Infill* rests with the affected *Local Agency* and/or *Project* proponent and is not the responsibility of the *ALUC*.

4.1.3. *Existing Nonconforming Uses:* Proposed changes to *Existing Land Uses* that are not in conformance with the compatibility criteria in this *Compatibility Plan* are subject to *ALUC* review if the changes would result in increased nonconformity with the compatibility criteria. Proposed changes, whether to a parcel or building, are limited as follows:

(a) Residential uses:

(1) A *Nonconforming* residential land use may be continued, sold, leased, or rented without *ALUC* restriction or review.

(2) A *Nonconforming* single-family dwelling may be maintained, remodeled, reconstructed (see Policy 4.1.4(a)), or expanded in size. The lot line of an existing single-family residential parcel may be adjusted. Also, a new single-family residence may be constructed on an existing lot in accordance with Policy 1.4.4. However:

- Any remodeling, *Reconstruction*, or expansion must not increase the number of dwelling units. For example, a bedroom could be added to an existing residence, but an additional dwelling unit could not be built on the parcel unless that unit is a secondary dwelling unit as defined by state and local laws.
- A single-family residential parcel may not be divided for the purpose of allowing additional dwellings to be constructed.

(3) Nonconforming multi-family residential dwellings may be maintained, remodeled, or reconstructed (see Policy 4.1.4(a)). The size of individual dwelling units may be increased, but additional dwelling units may not be added.

(4) Sound attenuation and *Avigation Easement* dedication shall be provided where required by Policies 3.2.3 and 4.1.1.

(b) Nonresidential uses (other than children's schools):

(1) A nonconforming nonresidential use may be continued, sold, leased, or rented without *ALUC* restriction or review.

(2) Nonconforming nonresidential facilities may be maintained, altered, or, if required by state law, reconstructed (see Policy 4.1.4). However, any such work:

- Must not result in expansion of either the portion of the site devoted to the *Nonconforming Use* or the floor area of the buildings; and
- Must not result in an increase in the usage *Intensity* (the number of people per acre) above the levels existing at the time of adoption of this *Compatibility Plan*.

(3) Sound attenuation and *Avigation Easement* dedication shall be provided where required by Policies 3.2.3 and 4.1.1.

(c) Children's schools (including grades K-12, day care centers with more than 14 children, and school libraries):

(1) Land acquisition for new schools or expansion of existing school sites is not permitted where projected noise impacts exceed CNEL 60 dB (see **Map 2**) or in Safety Zones 1 through 5.

(2) Replacement or expansion of buildings at existing schools is also not allowed in these noise or safety zones, except that one-time expansion accommodating no more than 50 students is permitted where projected noise impacts are between CNEL 60 and 65 dB. This limitation does not preclude work required for normal maintenance or repair.

(3) Sound attenuation and *Avigation Easement* dedication shall be provided where required by Policies 3.2.3 and 4.1.1.

4.1.4. *Reconstruction:* An existing nonconforming development that has been fully or partially destroyed as the result of a calamity or natural and unavoidable catastrophe, and would otherwise not be reconstructed but for the calamity or catastrophe, may be rebuilt only under the following conditions:

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

(b) A nonresidential *Nonconforming Use* may be rebuilt provided that the *Reconstruction* does not increase the floor area of the previous structure or result in an increased *Intensity* of use (i.e., more people per acre).

(c) Reconstruction under Paragraphs (a) or (b) above:

(1) Must have a permit deemed complete by the *Local Agency* within twelve (12) months of the date the damage occurred.

(2) Shall incorporate sound attenuation features to the extent required by Policy 3.2.3.

(3) Shall comply with Federal Aviation Regulations Part 77 requirements (see Policy 3.4.2).

(d) *Reconstruction* in accordance with Paragraphs (a), (b), and (c) of this policy shall not be allowed where it would be in conflict (not in conformance) with the general plan or zoning ordinance of the *Local Agency*.

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

4.1.5. *Special Conditions Exception:* The compatibility criteria set forth in this *Compatibility Plan* are intended to be applicable to all locations within the *Airport Influence Area* for each airport that is hat are under the jurisdiction of the Airport Land Use Commission for Stanislaus County. However, there may be specific situations where a normally incompatible use can be considered compatible because of terrain, specific location, or other extraordinary factors or circumstances related to the site.

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

(b) In reaching such a decision, the *ALUC* shall make specific findings as to the nature of the extraordinary circumstances that warrant the policy exception and why the exception is being made. Findings also shall be made that the land use will neither create a safety

hazard to people on the ground or aircraft in flight nor result in excessive noise exposure for the proposed use.

(c) Approval of a special conditions exception for a proposed *Project* shall require a two-thirds approval of the *ALUC* members voting on the matter and shall not be delegated to the *ALUC Secretary* for approval.

(d) The burden for demonstrating that special conditions apply to a particular *Development Proposal* rests with the *Project* proponent and/or the referring *Local Agency*, not with the *ALUC*.

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

4.2. Site-Specific Exceptions

4.2.1. *General:* In adoption of this *Compatibility Plan*, the *ALUC* has determined that certain known *Projects* warrant special conditions treatment as envisioned by Policy 4.1.5. These site-specific exceptions and the criteria to be applied to them are as described in the following policies of this section. *[This is a placeholder policy to be included if a need for exceptions is identified during CEQA analysis and/or public review of the draft Compatibility Plan]*

4.3. General Plan Consistency with Compatibility Plan

4.3.1. *Statutory Requirement:* State law requires that each *Local Agency* having territory within an *Airport Influence Area* modify its general plan and any applicable specific plan to be consistent with the compatibility plan for the particular airport unless it takes the steps required to overrule the *ALUC*. In order for a general plan to be considered consistent with this *Compatibility Plan*, the following must be accomplished:[29]

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

(a) Direct conflicts primarily involve general plan land use designations that do not meet the *Density* or *Intensity* criteria specified in Section 3.3 of this *Compatibility Plan*. In addition, conflicts with regard to other policies—height limitations in particular—may exist.

(b) A general plan cannot be found inconsistent with the *Compatibility Plan* because of land use designations that reflect *Existing Land Uses* even if those designations conflict with the compatibility criteria of this *Compatibility Plan*. General plan land use designations that merely echo the *Existing Land Uses* are exempt from requirements for general plan consistency with the *Compatibility Plan*.[30]

(c) Proposed *Redevelopment* or other changes to *Existing Land Uses* are not exempt from compliance with this *Compatibility Plan* and are subject to *ALUC* review in accordance with Policies 1.5.1 and 1.5.2. To ensure that *Nonconforming Uses* do not become more nonconforming, general plans or implementing documents must include policies setting limitations on expansion and *Reconstruction* of *Nonconforming Uses* located within an the *Airport Influence Area* consistent with Policies 4.1.3 and 4.1.4.

[29] See Chapter 1 and **Appendix G** for additional guidance.
[30] This exemption derives from state law which proscribes *ALUC* authority over *Existing Land Uses*.

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

4.3.3. *Establishment of Review Process: Local Agencies* must define the process they will follow when reviewing proposed land use development within an *Airport Influence Area* to ensure that the development will be consistent with the policies set forth in this *Compatibility Plan*.

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

(b) The review process may be described either within the general plan or specific plan(s) themselves or in implementing ordinances. Local jurisdictions have the following choices for satisfying this review process requirement:

(1) Sufficient detail can be included in the general plan or specific plan(s) and/or referenced implementing ordinances and regulations to enable the local jurisdiction to assess whether a proposed development fully meets the compatibility criteria specified in the applicable compatibility plan (this means both that the compatibility criteria be identified and that *Project* review procedures be described);

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

(3) The general plan can indicate that all *Land Use Actions*, or a list of *Land Use Action* types agreed to by the *ALUC*, shall be submitted to the *ALUC* for review in accordance with the policies of Section 2.3.

4.4. Criteria for Review of Airport Plans

4.4.1. *Substance of Review:* In accordance with state law, any new or amended airport master plan or development plan is subject to *ALUC* review for consistency with this *Compatibility Plan* (see Policy 1.5.5). In conducting any such review, the *ALUC* shall evaluate whether the airport plan would result in greater noise, safety, airspace protection, or overflight impacts than indicated in this *Compatibility Plan*. Attention should specifically focus on:

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

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

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

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

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

(b) New activity forecasts that are: (1) significantly higher than those used in developing **Map 2**, *Compatibility Policy Map: Noise*; or (2) assume a higher proportion of larger or noisier aircraft.

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

(a) In locations having an existing ambient noise level of CNEL 60 dB or less, the *Project* would increase the noise level by 3.0 dB or more.

(b) In locations having an existing ambient noise level of more than CNEL 60 dB, the *Project* would increase the noise level by 1.5 dB or more.

4.4.3. *Consistency Determination:* The *ALUC* shall determine whether the proposed airport plan or development plan is consistent with this *Compatibility Plan*. The *ALUC* shall base its determination of consistency on:

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

(b) Consideration of:

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

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

(c) A determination that any nonaviation development proposed for locations within the *Airport* boundary (excluding federal- or state-owned property) will be consistent with the compatibility criteria and policies indicated in this *Compatibility Plan* with respect to the *Airport* (see Policy 1.2.10 for definition of aviation-related use).

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses	**Exterior Noise Exposure** [1] **(CNEL dB)**					**Criteria for Conditional Uses** › Interior noise level limits shown in yellow cells also apply *(see Policy 3.2.3)* › An acoustical study may be prudent for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater *(see Policy 3.2.3(d))*
	≤ 55	**55-60**	**60-65**	**65-70**	**≥ 70**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***		***Incompatible***
Outdoor Uses (limited or no activities in buildings)						
Natural Land Areas: woods, brush lands, desert						Compatible at levels indicated, but noise disruption of natural quiet will occur
Water: flood plains, wetlands, lakes, reservoirs						
Agriculture (except residences and livestock): crops, orchards, vineyards, pasture, range land						
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables						Exercise caution with uses involving noise-sensitive animals [2]
Outdoor Major Assembly Facilities (capacity ≥1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, zoos						Exercise caution if clear audibility by users is essential [3]
Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas						Exercise caution if clear audibility by users is essential [3]
Small/Non-Group Recreation: golf courses, tennis courts, shooting ranges						Exercise caution if clear audibility by users is essential [3]
Local Parks: children-oriented neighborhood parks, playgrounds						Exercise caution if clear audibility by users is essential [3]
Camping: campgrounds, recreational vehicle/motor home parks						
Cemeteries (excluding chapels)						Compatible at levels indicated, but noise disruption of outdoor activities will occur
Residential and Lodging Uses						
Single-Family Residential: individual dwellings, townhouses, mobile homes, bed & breakfast inns		**45**				
Multi-Family Residential (≥8 d.u./acre)		**45**				
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories		**45**				
Short-Term Lodging (≤30 nights): hotels, motels, other transient lodging (except conference/assembly facilities)		**45**				
Congregate Care: retirement homes, assisted living, nursing homes, intermediate care facilities		**45**				
Educational and Institutional Uses						
Family day care homes (≤ 14 children)		**45**				
Children's Schools: K-12, day care centers (>14 children); school libraries		**45**				

Table 1

Noise Compatibility Criteria

Modesto City-County Airport, Oakdale Municipal Airport

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses	**Exterior Noise Exposure** [1] **(CNEL dB)**					**Criteria for Conditional Uses** › Interior noise level limits shown in yellow cells also apply *(see Policy 3.2.3)* › An acoustical study may be prudent for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater *(see Policy 3.2.3(d))*
	≤ 55	**55-60**	**60-65**	**65-70**	**≥ 70**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***	***Incompatible***	
Adult Education classroom space: adult schools, colleges, universities (excluding aviation-related schools)		45	45			Applies only to classrooms (acoustical study may be warranted); offices, laboratory facilities, gymnasiums, outdoor athletic facilities, and other uses to be evaluated as indicated for those land use categories
Community Libraries		45				
Indoor Major Assembly Facilities (capacity ≥1,000 people): auditoriums, conference centers, concert halls, indoor arenas			45	45		
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries			45	45		Acoustical study may be warranted for noise-sensitive uses (e.g., places of worship) *See Policy 3.2.3(d)*
Indoor Small Assembly Facilities (capacity <300 people): places of worship, cemetery chapels, mortuaries, meeting halls			45	45		Acoustical study may be warranted for noise-sensitive uses (e.g., places of worship) *See Policy 3.2.3(d)*
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios				45		
In-Patient Medical: hospitals, mental hospitals			45			Acoustical study may be warranted *See Policy 3.2.3(d)*
Out-Patient Medical: health care centers, clinics			45	45		
Penal Institutions: prisons, reformatories			45			
Public Safety Facilities: police, fire stations				45		
Commercial, Office, and Service Uses						
Major Retail: regional shopping centers, 'big box' retail				50		Outdoor dining or gathering places incompatible above CNEL 65 dB
Local Retail: community/neighborhood shopping centers, grocery stores				50		Outdoor dining or gathering places incompatible above CNEL 65 dB
Eating/Drinking Establishments: restaurants, fast-food dining, bars						Outdoor dining or gathering places incompatible above CNEL 65 dB
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, lumber yards, nurseries						Noise attenuation required for office areas *See Policy 4.2.3*
Offices: professional services, doctors, finance, civic; radio, television & recording studios, office space associated with other listed uses				50		
Personal & Miscellaneous Services: barbers, car washes, print shops				50		
Vehicle Fueling: gas stations, trucking & transportation terminals					50	Noise attenuation required for office areas *See Policy 3.2.3*

Table 1, continued

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses	**Exterior Noise Exposure** [1] **(CNEL dB)**					**Criteria for Conditional Uses** › Interior noise level limits shown in yellow cells also apply *(see Policy 3.2.3)* › An acoustical study may be prudent for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater *(see Policy 3.2.3(d))*
	≤ 55	**55-60**	**60-65**	**65-70**	**≥ 70**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***		***Incompatible***
Industrial, Manufacturing, and Storage Uses						
Hazardous Materials Production: oil refineries, chemical plants				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Heavy Industrial				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Light Industrial, High Intensity: food products preparation, electronic equipment				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Light Industrial, Low Intensity: machine shops, wood products, auto repair				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Research & Development				**50**		Noise attenuation required for office areas *See Policy 3.2.3*
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses						
Outdoor Storage: public works yards, automobile dismantling						
Mining & Extraction						
Transportation, Communication, and Utilities						
Rail & Bus Stations					**50**	Noise attenuation required for public and office areas *See Policy 3.2.3*
Transportation Routes: road & rail rights-of-way, bus stops						
Auto Parking: surface lots, structures						
Communications Facilities: emergency communications, broadcast & cell towers						
Power Plants						
Electrical Substations						
Wastewater Facilities: treatment, disposal						
Solid Waste Disposal Facilities: landfill, incineration						
Solid Waste Transfer Facilities, Recycle Centers						

Table 1, continued

Land Use	Acceptability	Interpretation/Comments
	Normally Compatible	*Indoor Uses:* Either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor community noise equivalent level (CNEL). For land use types that are compatible because of inherent noise levels, sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of CNEL 45 dB. *Outdoor Uses:* Except as noted in the table, activities associated with the land use may be carried out with minimal interference from aircraft noise.
	Conditional	*Indoor Uses:* Building structure must be capable of attenuating exterior noise from all noise sources to the indoor CNEL indicated by the number in the cell (40, 45 or 50). See *Policy 4.2.3*. *Outdoor Uses:* Caution should be exercised with regard to noise-sensitive outdoor uses; these uses are likely to be disrupted by aircraft noise events; acceptability is dependent upon characteristics of the specific use.[2]
	Incompatible	*Indoor Uses:* Unacceptable noise interference if windows are open; at exposures above CNEL 65 dB, extensive mitigation techniques required to make the indoor environment acceptable for performance of activities associated with the land use. *Outdoor Uses:* Severe noise interference makes the outdoor environment unacceptable for performance of activities associated with the land use.

Notes

[1] For the purposes of these criteria, the exterior noise exposure generated by aircraft activity at airport involved is defined by the projected noise contours illustrated in Chapter 3 of this *Compatibility Plan*.

[2] This caution is directed at the project proponent and is not intended to preclude approval of the project.

[3] Noise-sensitive land uses are ones for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. See *Policy 1.2.26* for examples of noise-sensitive uses.

Table 1, continued

Land Use Category	Safety Zone						Criteria for Conditional Uses
▸ Multiple land use categories and compatibility criteria may apply to a project ▸ Land uses not specifically listed shall be evaluated using the criteria for similar uses ▸ Numbers in brackets for some uses are occupancy load factors [1]	1	2	3	4	5	6	▸ Numbers below indicate zone in which condition applies ▸ Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* ▸ Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* ▸ See *Policy 3.3.4* for information on how to calculate nonresidential intensity ▸ Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***		***Incompatible***	
Outdoor Uses (limited or no activities in buildings)							
Natural Land Areas: woods, brush lands, desert							1: Objects above runway elevation not allowed in Object Free Area (OFA) [3] All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Water: flood plains, wetlands, lakes, reservoirs [4]							1: Objects above runway elevation not allowed in Object Free Area (OFA) [3] All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Agriculture (except residences and livestock): crops, orchards, vineyards, pasture, range land							1: Not allowed in Object Free Area (OFA) [3] All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables [4]							All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Outdoor Major Assembly Facilities (capacity ≥1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, zoos [5]							6: Allowed only if alternative site outside zone would not serve intended function
Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas							3, 4: Allowed only if alternative site outside zone would not serve intended function
Small/Non-Group Recreation: golf courses,[4] tennis courts, shooting ranges							2: Allowed only if alternative site outside zone would not serve intended function and intensity criteria met
Local Parks: children-oriented neighborhood parks, playgrounds							
Camping: campgrounds, recreational vehicle/ motor home parks							3, 4: Allowed only if intensity criteria met
Cemeteries (except chapels)							
Residential and Lodging Uses							
Single-Family Residential (<8 d.u./acre): individual dwellings, townhouses, mobile homes, bed & breakfast inns [6]							2: Acceptable only if dwelling site is not within of zone boundaries 3, 4: Incompatible at density >1 d.u./5.0 acres sitewide average or >2.0 d.u. per any single acre *See Policy 3.3.2*
Multi-Family Residential (≥8 d.u./acre): condominiums, apartments, agricultural-related housing [6]							
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories							

Table 2

Safety Compatibility Criteria

Modesto City-County Airport, Oakdale Municipal Airport

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone** 1	2	3	4	5	6	**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
Max. Sitewide Average Intensity (people/acre)	**10**	**60**	**100**	**150**	**100**	**300**	
Max. Single-Acre Intensity (people/acre) *applicable to all nonresidential development*	**20** [2]	**120**	**300**	**450**	**300**	**1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
Short-Term Lodging (≤30 nights): hotels, motels, other transient lodging (except conference/assembly facilities) [approx. 200 s.f./person]							3, 4: Ensure intensity criteria met
Congregate Care: retirement homes, assisted living, nursing homes, intermediate care facilities [7]							
Educational and Institutional Uses							
Family day care homes (≤14 children)							3, 4: Allowed only in existing dwellings or where new single-family residential is allowed See *Policy 3.3.2(d)*
Children's Schools: K-12, day care centers (>14 children); school libraries [7]							3, 4: No new sites or land acquisition 6: No new sites or land acquisition within ½ mile of runway 3, 4, 6: Bldg replacement/expansion allowed for existing school sites; expansion limited to ≤50 students (not school staff) See *Policy 3.6.3(c)*
Adult Education classroom space: adult schools, colleges, universities [approx. 40 s.f./person]							3, 4: Ensure intensity criteria met; also see individual components of campus facilities (e.g., assembly facilities, offices, gymnasiums)
Community Libraries [approx. 100 s.f./person]							3, 4: Ensure intensity criteria met
Indoor Major Assembly Facilities (capacity ≥1,000 people): auditoriums, conference centers, concert halls, indoor arenas [4]							6: Allowed only if beyond ½ mile from runway and alternative site outside zone would not serve intended function; not allowed within ½ mile of runway
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries [4] [approx. 15 s.f./person]							3, 4: Ensure intensity criteria met
Indoor Small Assembly Facilities (capacity <300 people): places of worship, cemetery chapels, mortuaries, meeting halls [approx. 30 s.f./person]							3, 4: Ensure intensity criteria met
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios [approx. 60 s.f./person]							3, 4: Ensure intensity criteria met
In-Patient Medical: hospitals, mental hospitals [7]							3, 4: No new sites or land acquisition; replacement/expansion of existing facilities limited to existing size
Out-Patient Medical: health care centers, clinics [approx. 240 s.f./person]							3, 4: Ensure intensity criteria met

Table 2, continued

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone**						**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
	1	**2**	**3**	**4**	**5**	**6**	
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
Penal Institutions: prisons, reformatories [7]							
Public Safety Facilities: police, fire stations [7]							3, 4: Allowed only if alternative site outside zone would not serve intended public function 5: Allowed only if airport serving
Commercial, Office, and Service Use							
Major Retail: regional shopping centers, 'big box' retail [approx. 110 s.f./person]							3, 4: Ensure intensity criteria met; capacity <1,000 people per bldg; evaluate eating/ drinking areas separately if >10% of total floor area
Local Retail: community/neighborhood shopping centers, grocery stores [approx. 170 s.f./person]							3, 4: Ensure intensity criteria met; evaluate eating/ drinking areas separately if >10% of total floor area
Eating/Drinking Establishments: restaurants, fast-food dining, bars [approx. 60 s.f./person]							3-5: Ensure intensity criteria met
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, lumber yards, nurseries [approx. 250 s.f./person]							2, 5: Ensure intensity criteria met; design site to place parking inside and bldgs outside of zone if possible
Offices: professional services, doctors, finance, civic; radio, television & recording studios, office space associated with other listed uses [approx. 215 s.f./person]							2-5: Ensure intensity criteria met 6: Review intensity compliance if >3 story bldg and <½ mile from runway
Personal & Miscellaneous Services: barbers, car washes, print shops [approx. 200 s.f./perso							2-5: Ensure intensity criteria met
Vehicle Fueling: gas stations, trucking & transportation terminals							5: Allowed only if airport serving
Industrial, Manufacturing, and Storage Uses							
Hazardous Materials Production: oil refineries, chemical plants [7]							6: Allowed only if alternative site outside zone would not serve intended function
Heavy Industrial [7]							3, 4: Avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Light Industrial, High Intensity: food products preparation, electronic equipment [approx. 200 s.f./person]							2-4: Ensure intensity criteria met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft

Table 2, continued

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone**						**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
	1	**2**	**3**	**4**	**5**	**6**	
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
Light Industrial, Low Intensity: machine shops, wood products, auto repair [approx. 350 s.f./person]							2-4: Ensure intensity criteria met 5: Single story only; max. 10% in mezzanine 2-5: Avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses [approx. 1,000 s.f./person]							2, 5: Single story only; max. 10% in mezzanine
Research & Development [approx. 300 s.f./person]							3, 4: Ensure intensity criteria met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Outdoor Storage: public works yards, automobile dismantling							
Mining & Extraction [8]							2: Allowed only if intensity criteria met
Transportation, Communication, and Utilities							
Airport Terminals: airline, general aviation							
Rail & Bus Stations							2: Allowed only if alternative site outside zone would not serve intended public function 5: Allowed only if airport serving
Transportation Routes: road & rail rights-of-way, bus stops							1: Not allowed in Object Free Area (OFA) [2]
Auto Parking: surface lots, structures							1: Not allowed in Object Free Area (OFA) [2]
Communications Facilities: emergency communications, broadcast & cell towers [7, 9]							3-5: Allowed only if alternative site outside zone would not serve intended public function; not allowed within ½ of runway 6: Not allowed within ½ mile of runway
Power Plants [7, 9]							
Electrical Substations [7]							2, 5: Allowed only if alternative site outside zone would not serve intended public function
Wastewater Facilities: treatment, disposal [7]							2, 5: Allowed only if alternative site outside zone would not serve intended public function
Solid Waste Disposal Facilities: landfill, incineration [4]							2: Allowed only if alternative site outside zone would not serve intended public function
Solid Waste Transfer Facilities, Recycle Centers [3]							

Table 2, continued

Land Use Acceptability		Interpretation/Comments
	Normally Compatible	Normal examples of the use are compatible under the presumption that usage criteria will be met. Atypical examples may require review to ensure compliance with usage intensity criteria. Noise, airspace protection, and/or overflight limitations may apply.
	Conditional	Use is compatible if indicated conditions are met.
	Incompatible	Use should not be permitted under any circumstances.

Notes

1 Common occupancy load factors source (approx. number of square feet per person): compiled by Mead & Hunt, Inc. based upon information from various sources including building and fire codes, facility management industry sources, and ALUC surveys.
2 No new structures intended to be regularly occupied are allowed.
3 Object Free Area (OFA): Dimensions are established by FAA airport design standards for the runway and are depicted on the respective Safety Zones Policy Maps in Chapter 3.
4 These uses may attract birds or other wildlife that could pose hazards to flight. See *Section 3.4* for applicable airspace protection policies.
5 Occupancy limits for Large and Major Assembly Facilities coincide with International Building Code categories.
6 Construction of a single-family home, including a second dwelling unit as defined by state law, allowed on a legal lot of record if such use is permitted by local land use regulations. A family day care home (serving ≤14 children) may be established in any dwelling. See *Policies 2.3.4(a)(4)* and 3*.3.2(d).*
7 These uses constitute uses of special concern for which safety restrictions apply irrespective of usage intensities. See Policy 3.3.5.
8 These uses may generate dust or other hazards to flight. See *Section 3.4* for applicable policies.
9 Power lines or other tall objects associated with these uses may be hazards to flight. See *Section 3.4* for applicable policies.

Table 2, continued

Chapter **3**

INDIVIDUAL AIRPORT POLICIES AND COMPATIBILITY MAPS

Stanislaus County
Striving to be the Best

3

Individual Airport Policies and Compatibility Maps

CHAPTER OVERVIEW

This chapter presents policies and maps that are specific to each of the three airports addressed in this document: Modesto City-County Airport, Oakdale Municipal Airport, and Crows Landing Airport (forthcoming). The respective section for each airport, combined with the general policies that comprise Chapter 2, represents the *Compatibility Plan* for that particular airport.

To the extent that any of the policies in Chapter 2 are not intended to apply to a particular airport, those modifications are indicated here. Any additional policies that apply only to a specific airport are listed as well. These special policies are not to be generalized or considered as precedent applicable to other locations near the same airport or to the environs of other airports addressed by this *Compatibility Plan*. Where no special policies are listed, the policies in Chapter 2 prevail.

For each airport, a set of five policy maps is provided:

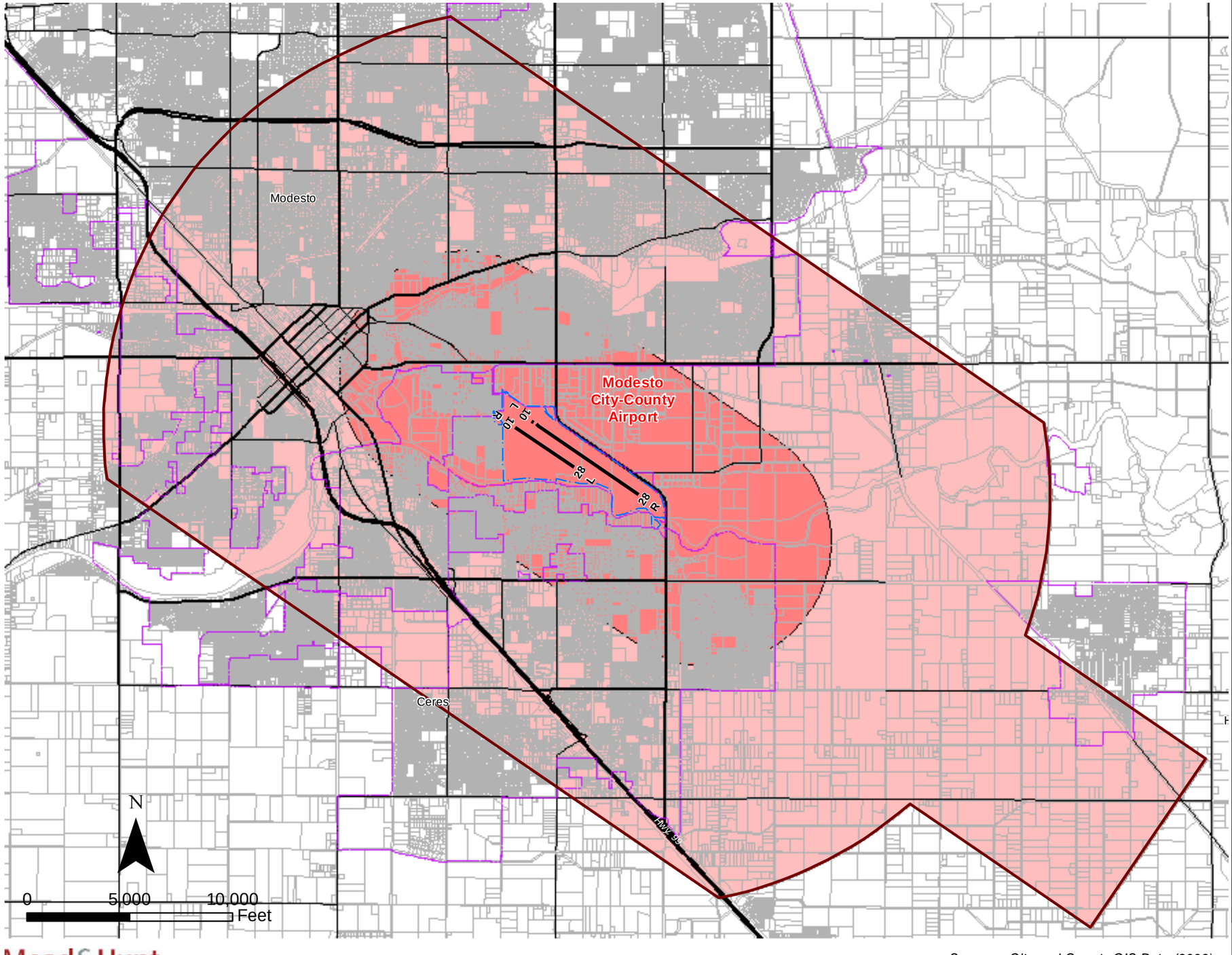
- *Airport Influence Area Policy Maps* indicate the overall boundary of the area, as well as the two subareas—Referral Areas 1 and 2—within which certain land use actions are subject to ALUC review.
- *Airport Noise Zones Policy Maps* depict the locations within which criteria addressing noise impacts are applicable.
- *Safety Zones Policy Maps* show locations where certain types of proposed development may be restricted on the basis of safety compatibility with the airport.
- *Airspace Protection Zones Policy Maps* define where limits on the heights of structures and other objects are necessary.
- *Overflight Areas Policy Maps* show where policies providing certain buyer awareness measures are applicable.

These maps provide the geographic context for the compatibility policies set forth in Chapter 2. Information and other factors considered in developing the maps for each airport are described and illustrated in the background data chapters for the respective airports (Chapters 4 through 6).

MOD. MODESTO CITY-COUNTY AIRPORT

MOD.1 Additional Compatibility Policies

MOD 1.1 None.



Legend

- Road
- City
- Airport Boundary
- Referral Area 2
- Referral Area 1
- Airport Influence Boundary

Stanislaus County

Airport Land Use Compatibility Plans

(January 2014, Draft)

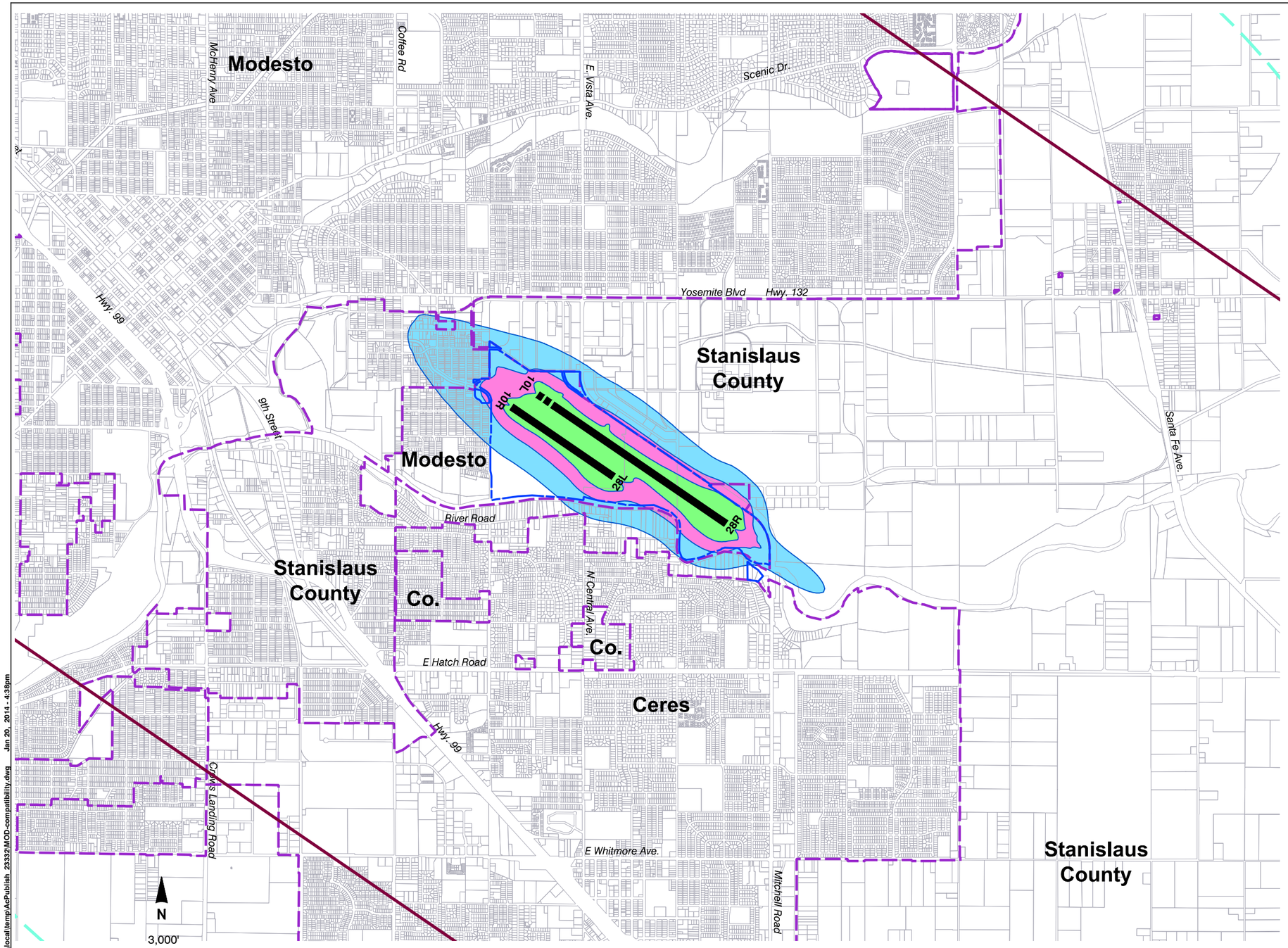
Map MOD-1

Airport Influence Area Policy Map

Modesto City-County Airport

Mead&Hunt

Sources: City and County GIS Data (2009)



Legend

Boundary Lines

- Airport Property Line
- City Limits
- Existing Runway
- Future Runway
- Airport Influence Area

Noise Impact Zones[1]

- 60 - 65 dB CNEL
- 65 - 70 dB CNEL
- 70+ dB CNEL

Notes

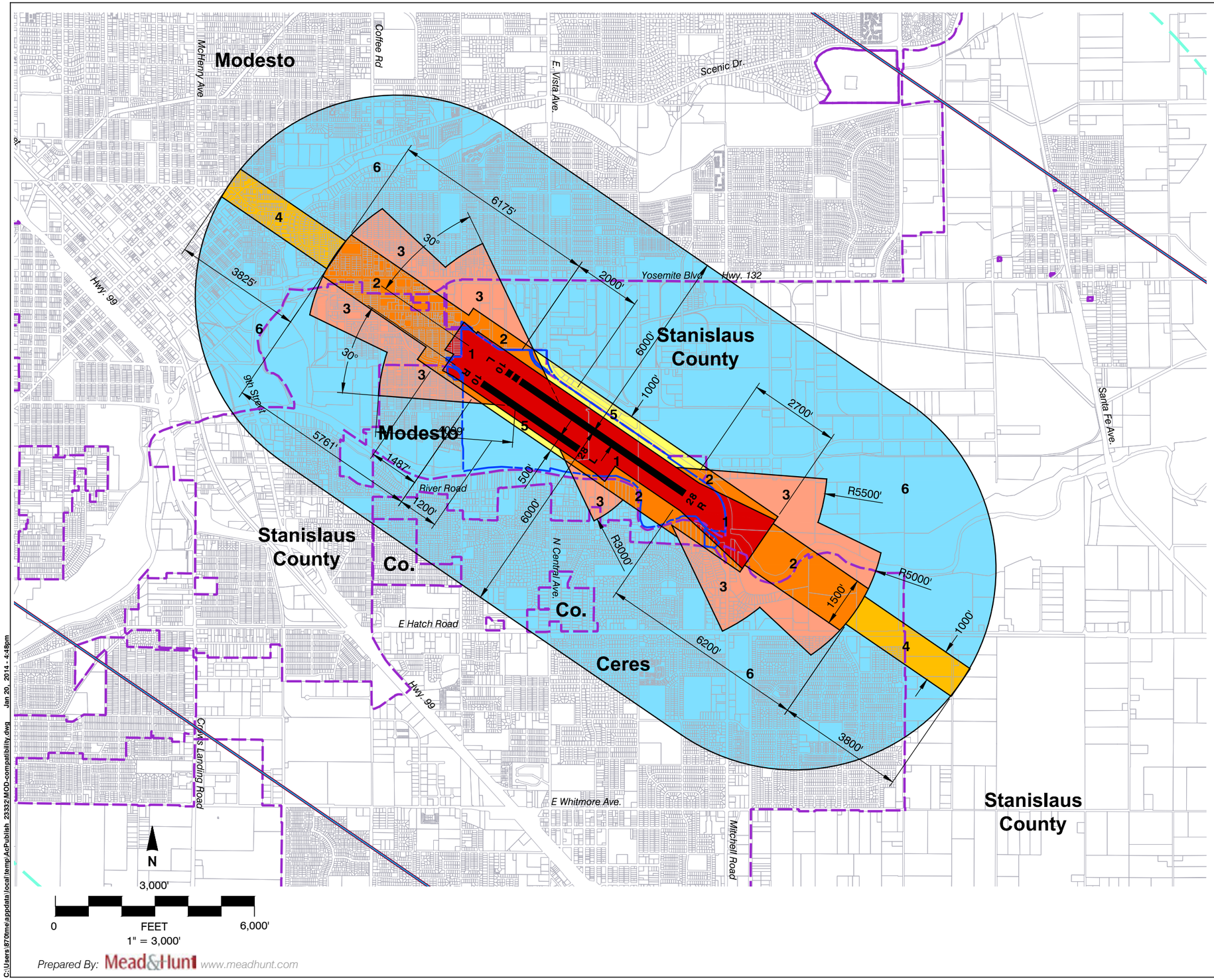
1. Noise Contours reflect long range scenario with 141,000 annual operations.

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Map MOD-2

Airport Noise Zones Policy Map

Modesto City-County Airport



Legend

Boundary Lines

- Airport Property Line
- City Limits
- Existing Runway
- Future Runway
- Airport Influence Area

Safety Zones (Composite)

- Zone 1 Runway Protection Zone
- Zone 2 Approach/Departure Zone
- Zone 3 Inner Turning Zone
- Zone 4 Outer Approach/Departure Zone
- Zone 5 Sideline Zone
- Zone 6 Traffic Pattern Zone

Notes

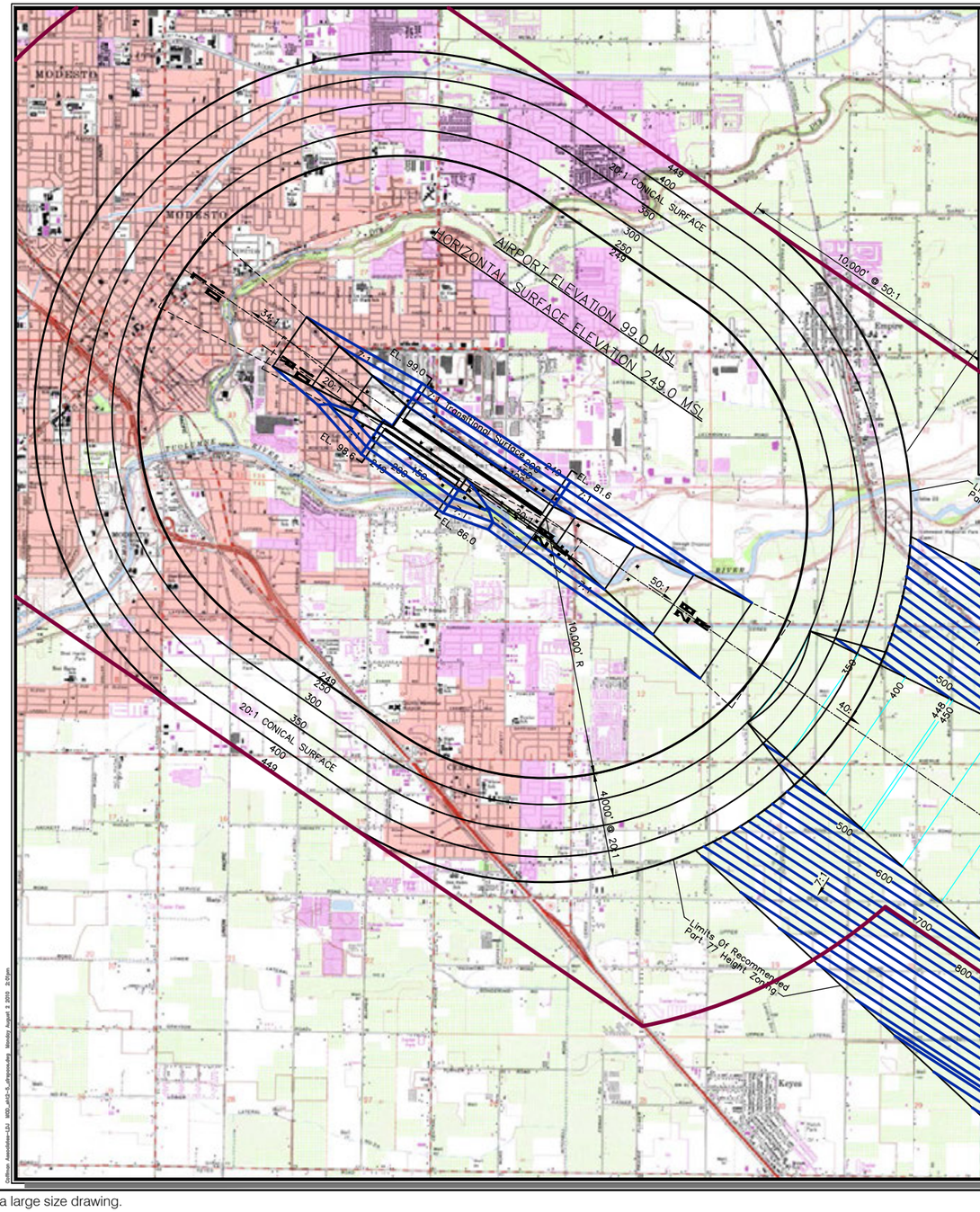
1. Safety zone source: California Airport Land Use Planning Handbook (January 2002).
2. Composite safety zones reflect existing runway configuation and 500' extension.Composite zones combine large air carrier runway zones, medium general aviation runway zones, and long general aviation runway zones for Runway 10L-28R.
3. Short general aviation zones were used for Runway 10R-28L.
4. Zone 1 has been adjusted to reflect runway protection zones depicted on the Airport Layout Plan (December 2009).

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Map MOD-3

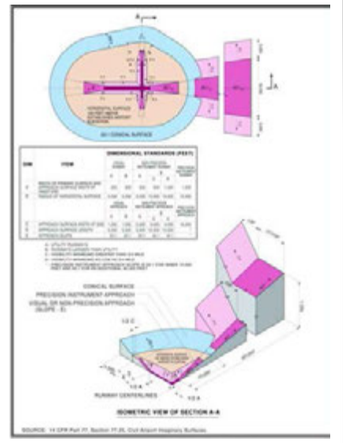
Airport Safety Zones Policy Map

Modesto City-County Airport



OBSTRUCTION TABLE

Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. OL TRANSMISSION TOWER	164	50:1 APPROACH SURFACE	160	4'	NO ACTION
2. OL TRANSMISSION TOWER	162	50:1 APPROACH SURFACE	160	2'	NO ACTION
3. TREE	115	50:1 APPROACH SURFACE	105	10'	TRIM/REMOVE
4. TREE	161	7:1 TRANSITIONAL SURFACE	121	40'	TRIM/REMOVE
5. TREE	173	7:1 TRANSITIONAL SURFACE	137	36'	TRIM/REMOVE
6. TREE	182	7:1 TRANSITIONAL SURFACE	163	19'	TRIM/REMOVE
7. TREE	124	50:1 APPROACH SURFACE	104	20'	TRIM/REMOVE
8. TREE	138	50:1 APPROACH SURFACE	95	43'	TRIM/REMOVE
9. TREE	149	7:1 TRANSITIONAL SURFACE	123	26'	TRIM/REMOVE
10. TREE	92	PRIMARY SURFACE	81	11'	REMOVE
11. TREE	138	7:1 TRANSITIONAL SURFACE	124	14'	TRIM/REMOVE
12. LIGHT POLE	124	7:1 TRANSITIONAL SURFACE	107	17'	ADD OBST. LIGHT
13. OL GLIDE SLOPE	110	PRIMARY SURFACE	84	26'	NO ACTION
14. WINDSOCK	99	PRIMARY SURFACE	83	16'	NO ACTION
15. TREE	149	7:1 TRANSITIONAL SURFACE	108	41'	TRIM/REMOVE
16. TREE	150	7:1 TRANSITIONAL SURFACE	100	50'	TRIM/REMOVE
17. TREE	134	PRIMARY SURFACE	85	49'	TRIM/REMOVE
18. OL HANGAR	123	7:1 TRANSITIONAL SURFACE	87	36'	NO ACTION
19. LIGHT POLE	128	7:1 TRANSITIONAL SURFACE	112	16'	ADD OBST. LIGHT
20. OL HANGAR	121	7:1 TRANSITIONAL SURFACE	88	33'	NO ACTION
21. OL HANGAR	134	PRIMARY SURFACE	90	44'	NO ACTION
22. TREE	131	7:1 TRANSITIONAL SURFACE	91	40'	TRIM/REMOVE
23. TREE	115	7:1 TRANSITIONAL SURFACE	107	8'	TRIM/REMOVE
24. TREE	150	7:1 TRANSITIONAL SURFACE	143	7'	TRIM/REMOVE
25. TREE	108	7:1 TRANSITIONAL SURFACE	103	5'	TRIM/REMOVE
26. TREE	123	7:1 TRANSITIONAL SURFACE	110	13'	TRIM/REMOVE
27. TREE	111	20:1 APPROACH SURFACE	104	7'	TRIM/REMOVE
28. ANTENNA ON OL ATCT	193	7:1 TRANSITIONAL SURFACE	97	96'	NO ACTION
29. LIGHT POLE	143	PRIMARY SURFACE	95	48'	ADD OBST. LIGHT
30. ANTENNA ON OL BEACON	158	7:1 TRANSITIONAL SURFACE	134	24'	NO ACTION
31. LIGHT POLE	143	PRIMARY SURFACE	96	47'	ADD OBST. LIGHT
32. ROD ON OL TOWER	115	PRIMARY SURFACE	96	19'	NO ACTION
33. ANTENNA ON OL VOR/DME	131	PRIMARY SURFACE	99	32'	NO ACTION
34. OL ON LIGHTED WINDSOCK	119	PRIMARY SURFACE	101	18'	NO ACTION
35. OL HANGAR	127	7:1 TRANSITIONAL SURFACE	123	4'	NO ACTION
36. TREE	154	34:1 APPROACH SURFACE	140	14'	TRIM/REMOVE
37. TREE	156	34:1 APPROACH SURFACE	151	5'	TRIM/REMOVE
38. ANTENNA	153	34:1 APPROACH SURFACE	145	8'	ADD OBST. LIGHT
39. POLE	135	7:1 TRANSITIONAL SURFACE	123	12'	ADD OBST. LIGHT
40. POLE	135	7:1 TRANSITIONAL SURFACE	128	7'	ADD OBST. LIGHT
41. TREE	143	7:1 TRANSITIONAL SURFACE	137	6'	TRIM/REMOVE
42. LT POLE	138	7:1 TRANSITIONAL SURFACE	137	1'	ADD OBST. LIGHT
43. WINDSOCK	106	7:1 TRANSITIONAL SURFACE	91	15'	ADD OBST. LIGHT
44. LT POLE	103	7:1 TRANSITIONAL SURFACE	102	1'	ADD OBST. LIGHT
45. TREE	140	7:1 TRANSITIONAL SURFACE	128	12'	TRIM/REMOVE
46. TREE	161	7:1 TRANSITIONAL SURFACE	147	14'	TRIM/REMOVE



OBSTRUCTION LEGEND

- ●1 OBSTRUCTION
- GROUP or MULTIPLE OBSTRUCTIONS TOPOGRAPHIC OBSTRUCTION

GENERAL NOTES:

1. Obstructions, clearances, and locations are calculated from ultimate runway end elevations and ultimate approach surfaces, unless otherwise noted.
2. Depiction of features and objects within the primary, transitional, and horizontal Part 77 surfaces, is illustrated on the PART 77 AIRSPACE DRAWING, sheets 2 and 3 of these plans.
3. Depiction of features and objects within the outer portion of the approach surfaces, is illustrated on the RUNWAY APPROACH SURFACE PROFILES, sheets 4 and 5 of these plans.
4. Depiction of features and objects within the inner portion of the approach surfaces, is illustrated on the INNER PORTION OF RUNWAY APPROACH SURFACE DRAWINGS, sheets 6, 7, 8 and 9 of these plans.

Airport Influence Area

Magnetic Declination
14° 7' E (August 2009)
Annual Rate of Change 6' West

SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D
3	-	-	-	-
2	Airport Layout Plans Approved	5/23/05	Coffman	FAA
1	Updated Per AIP 19 & AIP 20 Constructions	1/00	SMA	-

"THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION OF EXPENDED FUNDS UNDER 49 U.S.C. 47104, AS AMENDED. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN, NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

MODESTO CITY-COUNTY AIRPORT
HARRY SHAM FIELD

AIRPORT AIRSPACE DRAWING

Modesto, California

PLANNED BY: Stephen S. Wagner/Vicki L. Rogers
DETAILED BY: Larry S. Johnson
APPROVED BY: James M. Haven, P.E.
July 22, 2010 SHEET 2 OF 15

Coffman Associates
Airport Consultants
www.coffmanassociates.com

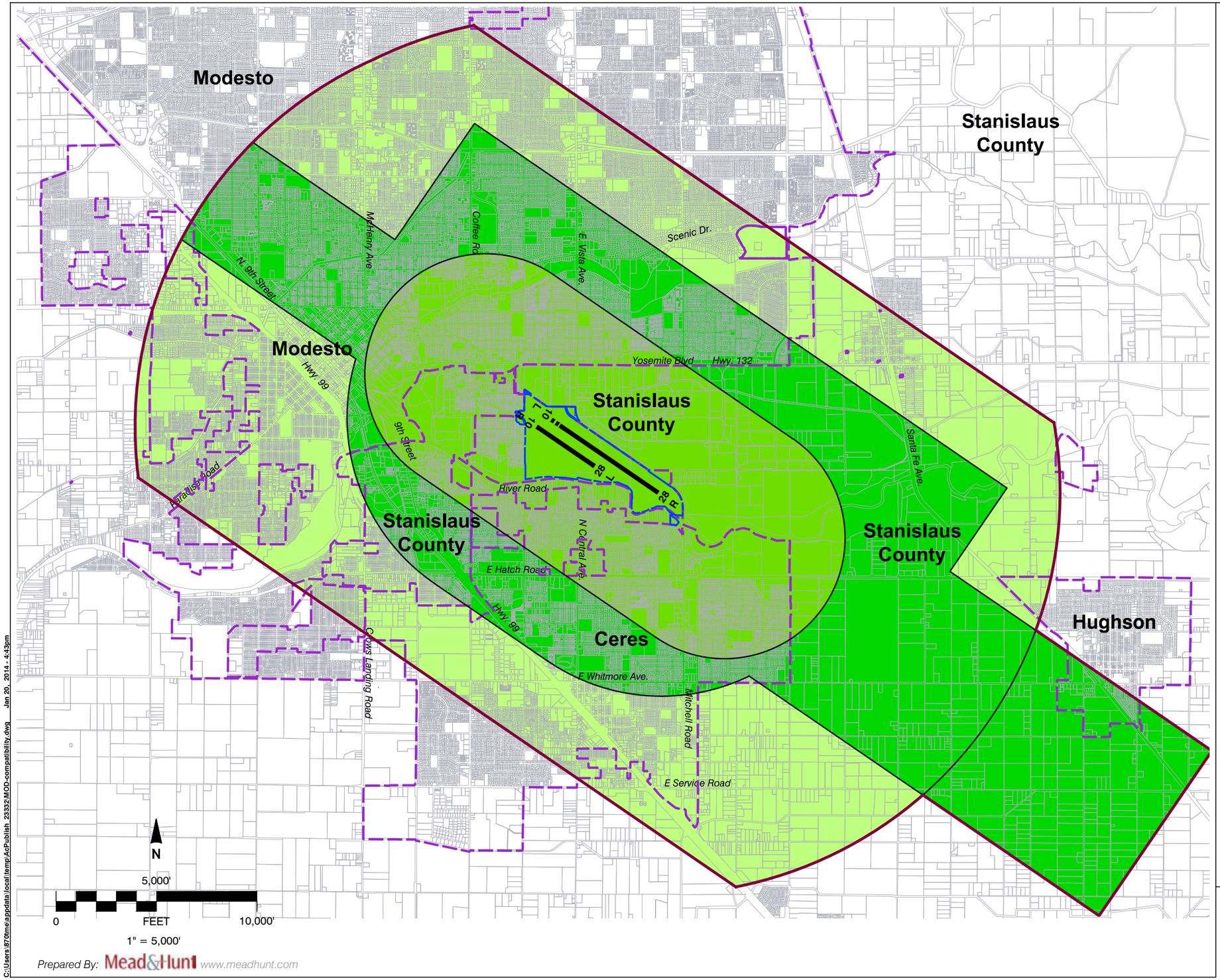
C:\Users\870tme\appdata\local\temp\AcPublish_23332.MOD-airspace.dwg Jan 20, 2014 - 5:33pm

This is a reduced version of a large size drawing.

Map MOD-4

Airspace Protection Zones Policy Map

Modesto City-County Airport



Legend

Boundary Lines

- Airport Property Line/Easements
- City Limits
- Existing Runway
- Future Runway
- Airport Influence Area

Overflight Zones

- Avigation Easement Dedication [1]
- Recorded Deed Notice [2]
- Real Estate Disclosure [3]

Notes

1. Avigation Easement Dedication required within CNEL 60dB noise contour and safety zones 1 through 6 and critical portions of approach and transitional surfaces to where these surfaces intersect the horizontal surface.

2. Recorded Deed Notice required in areas commonly overflown by low flying aircraft (1,500 feet or less above the airport elevation). Along the straight-in/straight-out corridors, zone boundary extends 30,000 feet southeast of Runway 28R and 20,000 feet northwest of Runway 10L. Lateral to the runways, this boundary encompasses the downwind pattern north and south of the airport. For the area south of the airport, zone boundary matches the outer limits of the horizontal surface as defined by FAR Part 77. For the area north of the airport, zone boundary extends 10,000 feet lateral (north) of Runway 10L-28R, 16,000 feet southeast of Runway 28R, and 12,000 feet northwest of Runway 10L. This boundary encompasses outermost touch-and-go pattern and extended downwind pattern used by pilots when the airport is busy (flight track not depicted). Recorded deed notice requirement applies to proposed residential development on parcels of more than 10 acres.

3. Real Estate Disclosure required within entire airport influence area. Zone boundary matches the outer boundary of the FAA height notification surface northwest and southeast of airport runways. Lateral of the runways, zone boundary matches outer limits of the conical surface as defined by FAR Part 77. Real Estate Disclosure requirement applies to existing and future residential development.

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Map MOD-5

Overflight Zones Policy Map

Modesto City-County Airport

OAK. OAKDALE MUNICIPAL AIRPORT

OAK.1 Additional Compatibility Policies

OAK.1.1 None.

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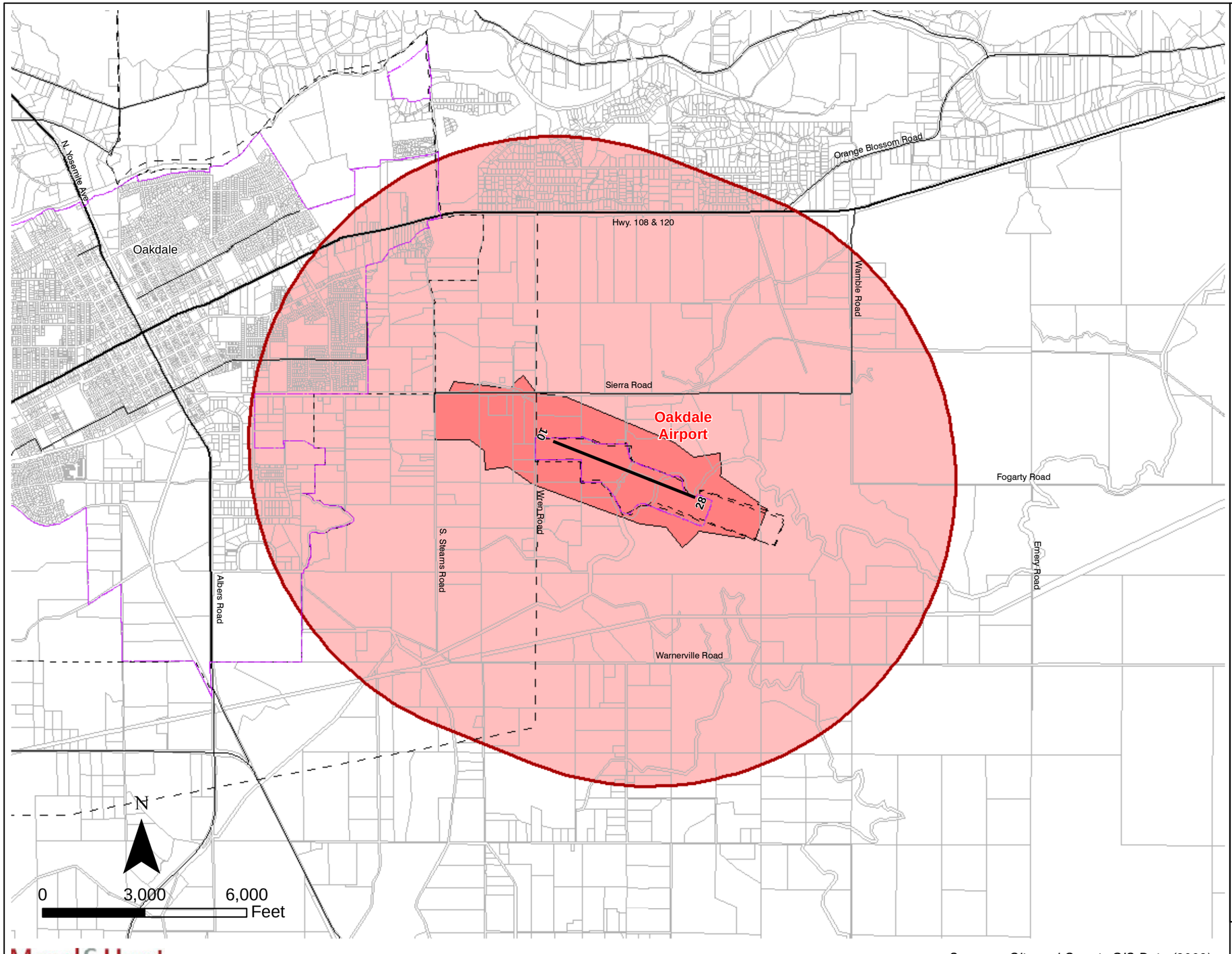


Legend

- Road
- City of Oakdale
- Existing Sphere of Influence
- Future Sphere of Influence
- Airport Boundary
- Referral Area 1
- Referral Area 2
- Airport Influence Area

Stanislaus County

Airport Land Use Compatibility Plans

(May 2014, Draft)

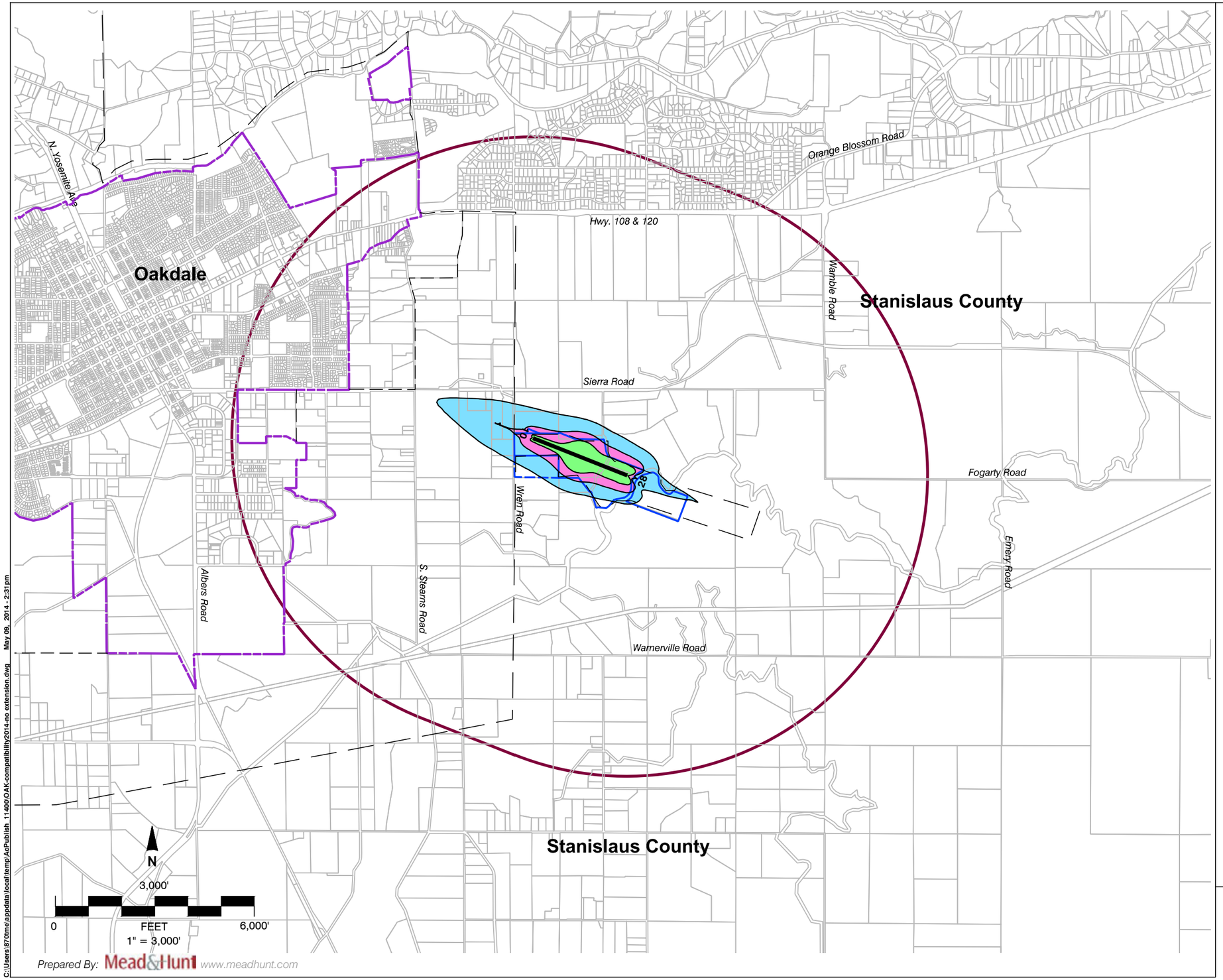
Map OAK-1

Airport Influence Area Policy Map

Oakdale Municipal Airport

Mead&Hunt

Sources: City and County GIS Data (2009)



Legend

Boundary Lines

- Existing Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Noise Zones

- 60 - 65 dB CNEL
- 65 - 70 dB CNEL
- 70+ dB CNEL

} 52,200 Annual Operations

Stanislaus County

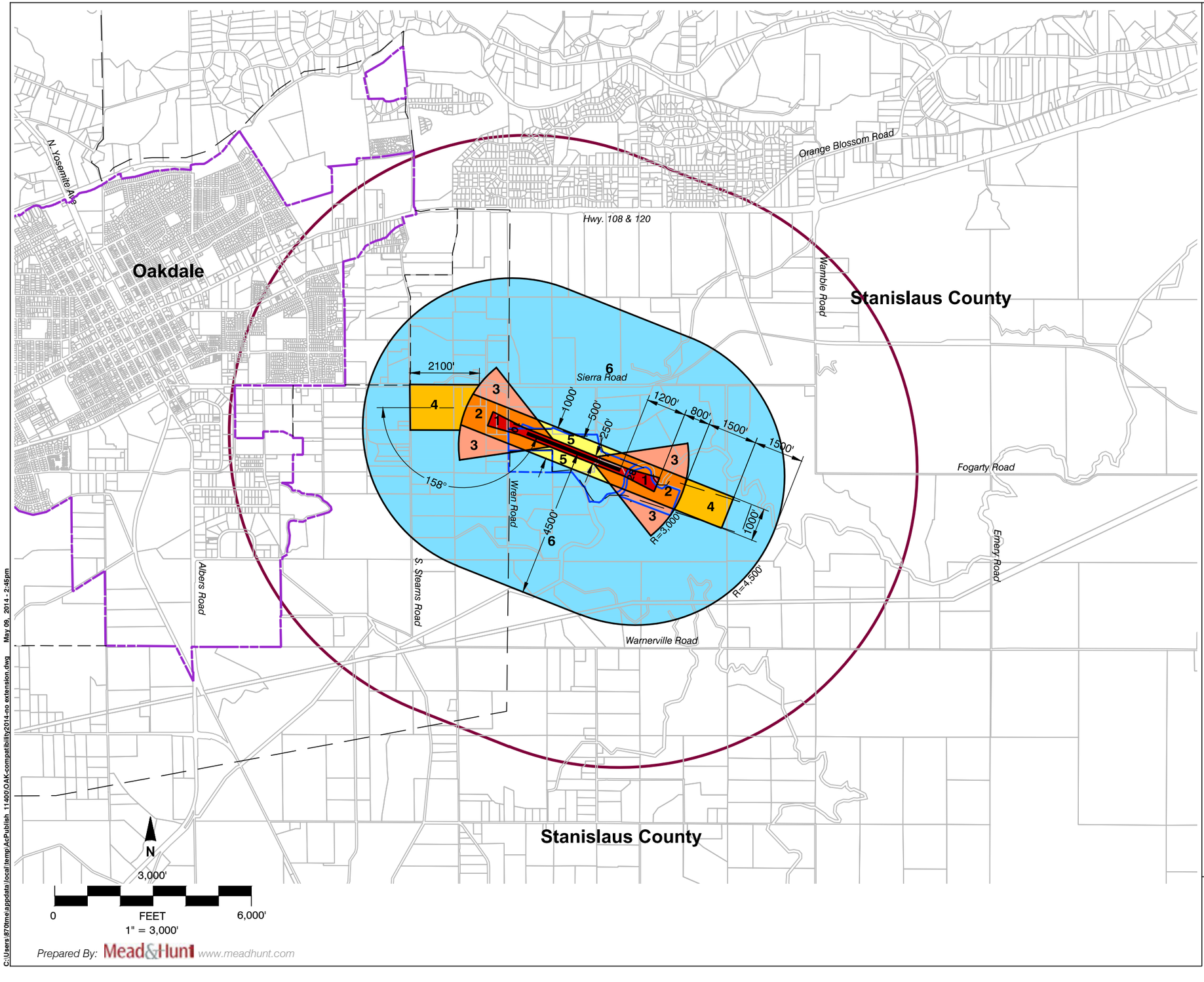
Airport Land Use Compatibility Plans

(May 2014, Draft)

Map OAK-2

Airport Noise Zones Policy Map

Oakdale Municipal Airport



Legend

Boundary Lines

- Existing Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Safety Zones

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6

Stanislaus County

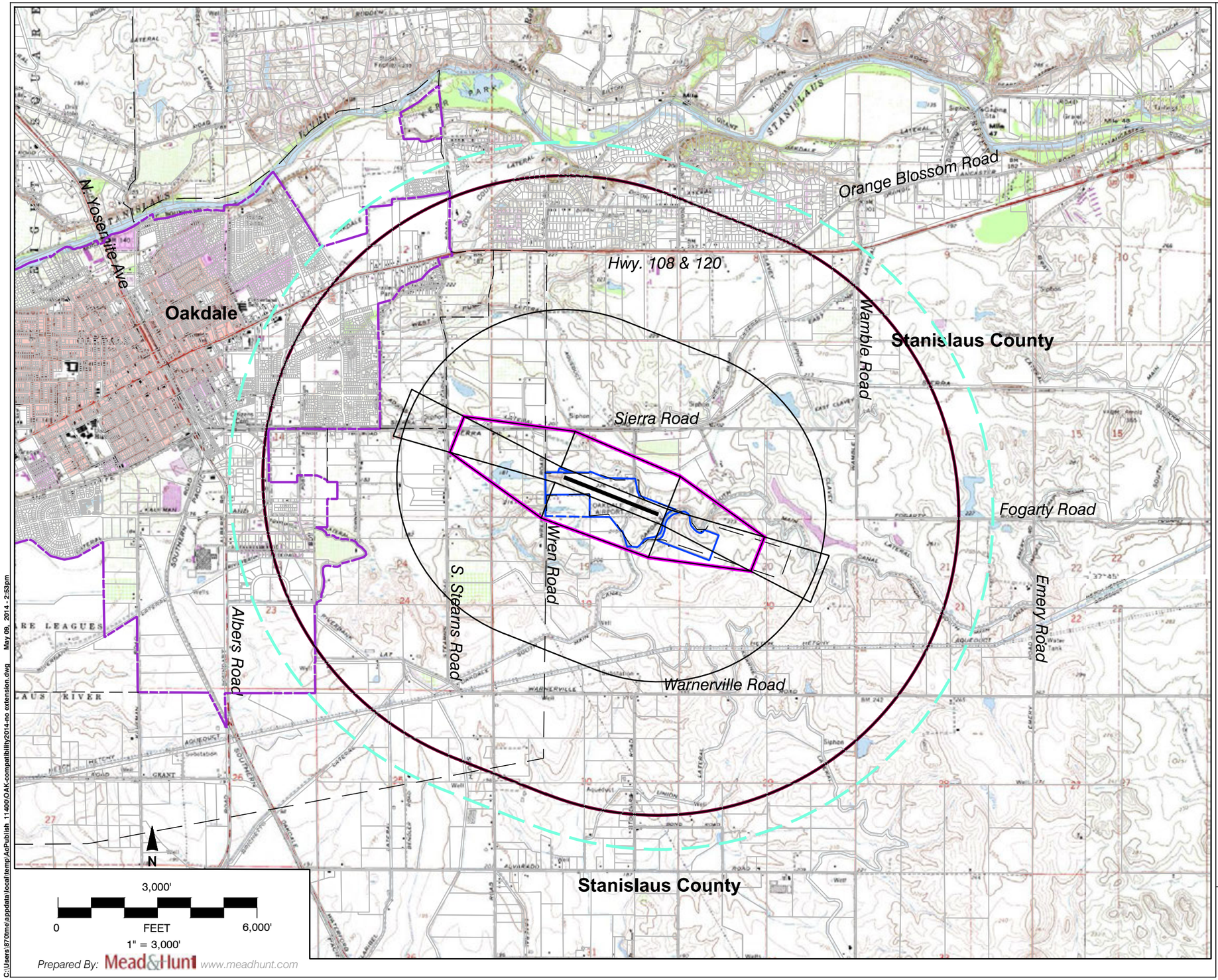
Airport Land Use Compatibility Plans

(May 2014, Draft)

Map OAK-3

Airport Safety Zones Policy Map

Oakdale Municipal Airport



Legend

Boundary Lines

- Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Airspace Protection Zones[1]

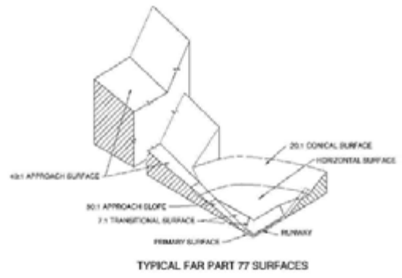
- FAA Height Notification Surface [2]
- FAR Part 77 Surfaces [3]
- Critical Airspace Protection Zone

Notes

1. Airspace surfaces reflect the existing runway configuration and nonprecision approaches to Runway 10-28. Airport elevation is 237.0' above mean sea level (MSL).

2. Based on FAR Part 77, Subpart B, which requires that the FAA be notified of any proposed construction or alteration having a height greater than an imaginary surface extending 50 feet outward and 1 foot upward (slope of 50 to 1) for a distance of 10,000 feet from the nearest point of any runway. Beyond FAA Height Notification Area boundary, any object taller than 200 feet requires FAA notification.

3. FAR Part 77 Obstruction Surfaces: Based on FAR Part 77, Subpart C, which establishes standards for determining obstructions to air navigation. Source: Oakdale Municipal Airport Airspace Drawing (November 2013 Draft).



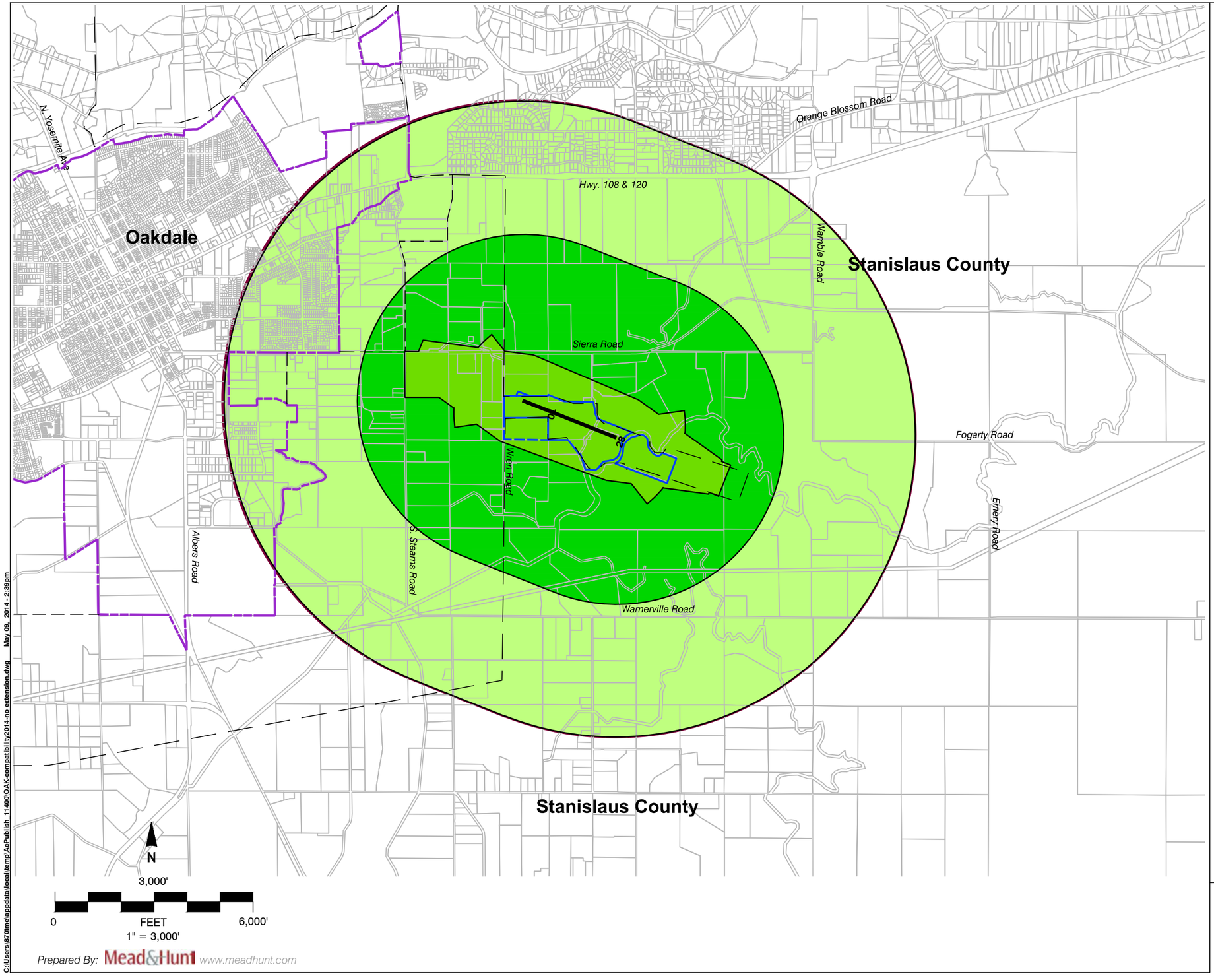
TYPICAL FAR PART 77 SURFACES

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Map OAK-4

Airspace Protection Zones Policy Map

Oakdale Municipal Airport



Legend

Boundary Lines

- Existing Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Overflight Zones

- Avigation Easement Dedication [1]
- Recorded Deed Notice [2]
- Real Estate Disclosure [3]

Notes

1. Avigation Easement Dedication required within CNEL 60dB noise contour, safety zones 1 through 5, and critical portions of approach and transitional surfaces to where these surfaces intersect the horizontal surface.

2. Recorded Deed Notice required in areas commonly overflown by low flying aircraft. Aircraft on straight-in/straight-out departure are less than 600 feet above the airport elevation. Aircraft entering the traffic pattern are flying at an altitude of about 1,000 feet above airport elevation. Zone boundary matches the outer boundary of the horizontal surface as defined by FAR Part 77.

3. Real Estate Disclosure required within all areas where aircraft are 1,500 feet or less above the airport elevation. Zone boundary matches the outer boundary of the conical surface as defined by FAR Part 77.

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Map OAK-5

Overflight Zones Policy Map

Oakdale Municipal Airport

CRO. CROWS LANDING AIRPORT

CRO.1 Additional Compatibility Policies

CRO 1.1 *FORTHCOMING*

Policies for the former Crows Landing Airfield, as presented in the 2004 ALUCP, will remain in force until the County receives an airport operating permit from the Caltrans Division of Aeronautics to re-open the airfield for general aviation use.

Chapter **4**

MODESTO CITY-COUNTY AIRPORT AND ENVIRONS BACKGROUND DATA

Stanislaus County
Striving to be the Best

4

Background Data: Modesto City-County Airport and Environs

INTRODUCTION

Modesto City-County Airport is located within the heart of the San Joaquin Valley The airport is located in the central portion of Stanislaus County approximately 2 miles southeast of the City of Modesto, 10 miles northwest of the City of Turlock and 18 miles southeast of the City of Manteca. Located south of Yosemite Boulevard (Highway 132), the primary means of accessing the airport is via Mitchell Road.

The airport opened in 1920 and was the nation's first municipally owned airport. Later in 1929, the airport was relocated to its current location. During World War II, the airport was used as a training center for the US Army. Today, the airport is owned by the City of Modesto, however, a nine-member committee appointed by the member agencies of Modesto City Council, Stanislaus County Board of Supervisors, and Cities of Ceres and Turlock act in an advisory capacity on airport policy matters. Modesto City-County Airport is the only commercial service airport in the County, although it primarily serves general aviation.

STATUS OF AIRPORT PLANS

The City of Modesto undertook a master planning effort for Modesto City-County Airport in 2002. However, due to changes in airport management and the expiration of the federal grant, the plan was never completed.

In 2008, the City prepared a noise compatibility study in accordance with FAR Part 150. This noise study was updated in February 2009. The Part 150 study included a baseline (2008) and two forecast levels of activity (2015 and "Long Range"). The "Long Range" forecast presented in the Part 150 study is the basis for the forecast operations and resulting noise contours used in this ALUCP update. The assumptions of the long-range forecast are discussed later in this paper.

In December 2009, an Airport Layout Plan (ALP) and Narrative Report were published for Modesto City-County Airport. The purpose of the ALP is to depict the currently planned airport improvements for the airport. The 2009 ALP and Narrative Report were approved by the FAA in February 2011. Pertinent airport data from the 2009 ALP are summarized in **Exhibit MOD-2**. The ALP is provided in **Exhibit MOD-3**.

The long term airport improvements as described in the 2009 ALP Narrative Report are not reflected in the 2004 ALUC Plan for the airport. For comparison purposes, **Exhibit MOD-4** summarizes pertinent airport data upon which the 2004 ALUC Plan and this ALUCP update are based.

AIRFIELD CONFIGURATION

Modesto City-County Airport has two parallel runways. Runway 10L-28R is 5,911 feet long and is designated as the air carrier runway for the airport. The smaller of the two runways is 10R-28L and is 3,459 feet long. The runways are aligned with the prevailing wind direction in a northwest/southeast alignment—winds are commonly out of the northwest.

Modesto City-County Airport is currently, and is planned to remain, designated Airport Reference Code (ARC) C-III. Runway 10L-28R is designated as ARC C-III to accommodate commercial aircraft (e.g., Boeing 737). The second runway, 10R-28L is designated as ARC B-I to accommodate general aviation aircraft (e.g., Cessna 421).

Runway 28R is equipped with straight-in precision instrument approach capabilities providing visibility minimums as low as ½ statute mile and a decision altitude of 288 feet MSL (200 AGL). Currently, this is the only runway at the airport with instrument approach procedures.

The principal change proposed for the airfield is extending Runway 28R–10L by 500 feet to the northwest for a total length of 6,411 feet. This extension is proposed so that the airport can fully accommodate the Canadair Challenger without payload or stage length restrictions.

The size of the runway protection zone (RPZ) at each runway end is a function of the type of aircraft and approach visibility minimums associated with that runway end. All four existing and ultimate RPZs meet current FAA standards. The established RPZs are as follows:

- 28R: Existing and Ultimate – 1,000 foot inner width, 1,750 foot outer width, and a length of 2,500 feet.
- 10L: Existing and Relocated – 500 foot inner width, 1,010 foot outer width, and a length of 1,700 feet.
- 28L: Existing and Ultimate – 500 foot inner width, 700 foot outer width, and a length of 1,000 feet.
- 10R: Existing and Relocated – 500 foot inner width, 700 foot outer width, and a length of 1,000 feet.

None of the four RPZs are contained entirely on airport. Additional information pertaining to the individual RPZs can be found in the Airport Features, **Exhibit MOD-2**.

The 2010 Airspace Plan for Modesto City-County Airport depicts the Federal Aviation Regulations (FAR) Part 77 imaginary airspace surfaces for a precision instrument runway. A precision instrument runway is a runway equipped with electronic and visual navigation aids for which a precision approach procedure having straight-in landing minimums has been approved. Precision instrument approaches provide both horizontal and vertical guidance for aircraft during approach and landing. The airspace surfaces for Modesto City-County Airport reflect the ultimate runway lengths (500' northwest extension to Runway 10L-28R), existing precision approach to Runway 28R and future non-precision approach to Runway 10L. Visual approaches are in place to Runways 10R and 28L. Portions of the airspace surfaces for the visual runways are included in the airspace plan, but are subsumed by the precision and non-precision approach surfaces for the primary runway.

ACTIVITY

The Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems (NPIAS) classifies Modesto City-County Airport as Non-Hub Commercial Service-Primary. The airport has an Airport Traffic Control Tower (ATCT), which operates during the hours of 7 am to 9 pm. The air traffic controllers direct the movement of aircraft on and around the airport.

In 2008, the airport experienced an estimated 84,185 annual operations. The majority (62%) of these operations were conducted by itinerant aircraft including air carrier, military, and general aviation. The balance of the activity (some 32,000 annual operations) is generated primarily by local general aviation aircraft conducting flight training.

Activity Forecast

The 2009 Part 150 Noise Compatibility Study provides a "Long Range" forecast of aviation activity for the airport. For airport planning purposes, it is recommended that this long range forecast (approximately 141,000 annual operations) be used as the basis for the ALUCP for Modesto City-County Airport as it represents the highest anticipated use of airport. Operations by all aircraft categories other than airlines were based on counts provided by the air traffic control tower.

Airline operations were based on the current schedule at the time the forecasts were generated. **Exhibit MOD-4** summarizes the existing and forecast aviation activity for Modesto City-County Airport.

Noise Contours

The "Long Range" noise contours depicted in **Exhibit MOD-5** are noticeably smaller than the noise contours which are provided in the current 2004 ALUC Plan for the airport. The ALUCP does not document the activity forecast and noise assumptions upon which the plan is based. It is presumed that the recently created "long range" forecast and noise contours contained assumptions of a much more modern fleet of aircraft. Advances in engine and airframe technology have effectively reduced noise contours even with an increase in annual operations.

Overflight Patterns

The 2009 Part 150 Study includes modeled flight tracks, which were used to create the noise contours for the study. These flight tracks depict the arrival and departure tracks, which aircraft use at the airport. The flight tracks are shown on **Exhibit MOD-5**.

For Modesto City-County Airport, three sets of generic safety zones are proposed to be applied to the existing and future runways configurations to derive a set of composite safety zones. The proposed safety zones are a composite of several types of generic safety zones because the airport does not necessarily fit into only one category. Runway 10L-28R is technically an air carrier runway. However, the vast majority of traffic using the runway is general aviation. For this reason, the following generic safety zones are applied:

- "Large Air Carrier" to represent the air carrier activity;
- "Medium General Aviation Runway (4,000 to 5,999 feet in runway length)" for the existing runway length and general aviation activity levels;
- "Long General Aviation Runway (≥ 6,000 feet in runway length)" for the ultimate runway length; and

- "Small General Aviation Runway (<4,000 feet in runway length)" which is used for Runway 10R-28L.

The recommended composite safety zones reflect the most restrictive set of safety zones for Modesto City-County Airport (see **Exhibit MOD-6**). FAR Part 77 Airspace surfaces are depicted in **Exhibit MOD-7**.

Airport Environs

Exhibits MOD-9A through **9-C** show a detailed summary of Modesto City-County Airport's existing and planned environs, including airport compatibility policies adopted by the local agencies. Stanislaus County and the cities of Modesto and Ceres are within the airport's influence area.

As shown in the exhibits, the airport is surrounded by urban development on all sides. An open space corridor exists south of the airport along the Tuolumne River. The City of Modesto is located north and west of the airport, although small areas of unincorporated lands separate the City from the airport. Planned uses within the City's sphere of influence for the unincorporated lands immediately adjacent to the airport include residential (<7.5 dwelling units per acre) immediately northwest of the airport and industrial uses west and east of the airport. Commercial uses are planned along Yosemite Boulevard (Highway 132) with residential uses to the north. The City of Ceres is located south of the airport and Tuolumne River. Planned land uses include residential uses of mixed densities and pockets of commercial and light industrial uses. Very Low Density Residential uses (<4.5 dwelling units per acre) are planned about 1 mile south of the approach end of Runway 28R. Unincorporated lands of Stanislaus County border the airport to the east. Planned land uses include industrial adjacent to the airport and agricultural to the southeast.

BACKGROUND INFORMATION

The following exhibits present the data upon which *Compatibility Plan* policy maps are based:

- **Exhibit MOD-1**—Airport Location: Presents the location of the airport in the context of existing environment (aerial photograph).
- **Exhibit MOD-2**—Airport Features Summary: Presents data pertaining to existing and proposed infrastructure (runways, taxiways, etc.), traffic patterns, and approach data.
- **Exhibit MOD-3**—Airport Layout Plan (ALP): Presents existing airport facilities and proposed facilities as conditionally approved by FAA.
- **Exhibit MOD-**4—Airport Activity: Presents aviation forecasts for the planning period.
- **Exhibit MOD-5**—Noise and Overflight Factors: Presents the geographic area over which aircraft operating at the airport routinely fly, as well as the noise contours based on the planning period forecasts.
- **Exhibit MOD-6**—Safety Factors: Presents the locations of safety zones using the guidance and templates presented by the California Division of Aeronautics in its manual, *California Airport Land Use Planning Handbook*. Adjustments to the generic zones are also depicted.
- **Exhibit MOD-7**—Part 77 Airspace Surfaces: Depicts the Federal Aviation Regulations Part 77 airspace surfaces which should be kept free of obstructions.

- **Exhibit MOD-8**—Airport Environs: Presents site data, existing and planned land uses, affected jurisdictions, and compatible land use measures.
- **Exhibit MOD-9A**—Existing Land Uses: Presents existing land uses from the City of Modesto General Plan.
- **Exhibit MOD-9B**—Existing Land Uses: Presents existing land uses from the City of Ceres General Plan.
- **Exhibit MOD-9C**—Existing Land Uses: Presents existing land uses from the County of Stanislaus General Plan.

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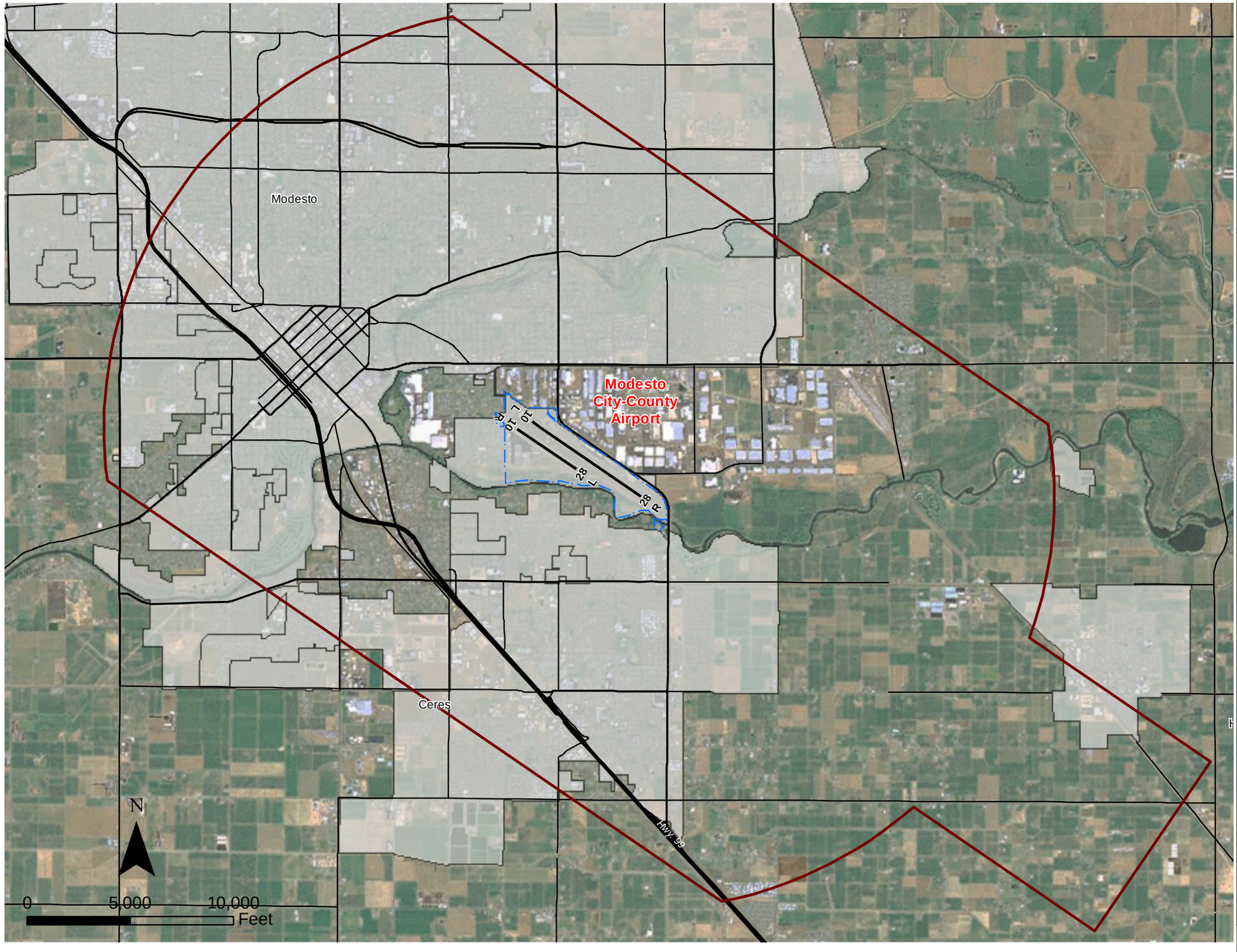


Legend

- Road
- City
- Airport Boundary
- Airport Influence Boundary

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-1

Mead&Hunt

Sources: City and County GIS Data (2009)

Airport Location
Modesto City-County Airport

GENERAL INFORMATION

- Airport Ownership – City of Modesto
- Property size
  - Fee title: 455 acres
  - Avigation easements: 275 acres
- Airport Classification – Primary Non-hub Commercial
- Airport Elevation — 99 feet MSL (surveyed)
- Access
  - Via Airport Way or Tioga Dr from Highway 132
  - 0.5 miles from Highway 132; 2 miles from central Modesto

RUNWAY SYSTEM

Runway 10L-28R

- Critical Aircraft — Boeing 737-300
- Classification — Airport Reference Code C-III
- Dimensions — 5,911 feet long; 150 feet wide
- Pavement Strength — 60,000 lbs for aircraft with single-wheel main landing gear; 200,000 lbs dual-wheel; 400,000 dual tandem wheel
- Average Gradient — 0.3%
- Lighting — High-intensity edge lighting
- Primary Taxiways — Full length parallel on northeast

Runway 10R-28L

- Critical Aircraft — Cessna 421
- Classification — Airport Reference Code B-I
- Dimensions — 3,459 feet long; 100 feet wide
- Pavement Strength — 30,000 lbs for aircraft with single-wheel main landing gear; Closed to aircraft over 12,500 lbs
- Average Gradient — 0.36%
- Lighting — Medium-intensity edge lighting
- Primary Taxiways — Full length parallel on southwest

APPROACH PROTECTION

Runway 10L-28R

- Runway Protection Zones
  - Runway 10L: 1,700 feet long; nearly all on airport
  - Runway 28R: 2,500 feet long; about 50% on airport property
  - All potions of RPZs off airport property fall on Stanislaus County land
- Approach Obstacles
  - Runway 10L: 73-foot tree , 2,700 feet from runway, 450 feet right of centerline, 34:1 to clear
  - Runway 28R: Road 1,600 feet from runway, on centerline, 50:1 to clear

Runway 10R-28L

- Runway Protection Zones
  - Runway 10R: 1,000 feet long; nearly all on airport
  - Runway 28L: 1,000 feet long; nearly all on airport
  - All portions of RPZs off airport property fall on unincorporated land
- Approach Obstacles
  - Runway 10R: 56-foot tree , 1,340 feet from runway, 75 feet left of centerline, 20:1 to clear
  - Runway 28L: 47-foot tree, 1,700 feet from runway, on centerline, 31:1 to clear

AIRPORT PLANNING

- Airport Planning Documents
  - Airport Layout Plan and Narrative Report (December 2009)
  - Part 150 Study (February 2009)
  - Airport Master Plan (not completed)

Source: Data compiled by Mead & Hunt, Inc. (October 2010)

BUILDING AREA

- Location – Northeast side of runway
- Aircraft Parking Capacity
  - Hangar spaces for 175 aircraft
  - Approx. 100 tiedown spaces on apron (incl. FBO/transient areas)
- Services
  - Maintenance, supplies, aircraft rental, charter, instruction, car rental
  - Fuel (aviation gasoline and jet fuel)
  - Airport has commuter airline service
- Other Major Facilities
  - Airline terminal building
  - Air traffic control tower
  - Fixed base operator

TRAFFIC PATTERNS AND APPROACH PROCEDURES

- Airplane Traffic Pattern
  - Right traffic on Runway 28R and 10R
  - Pattern altitude – 1,000 feet AGL (single-engine aircraft excluding warbirds); 1,500 AGL all other aircraft
- Instrument Approaches
  - Runway 28R GPS-LPV: precision straight-in (½-mile visibility, 288 ft. minimum descent height); missed approach straight-out
  - Runway 28R ILS: precision straight-in (½ mi. visibility, 200 ft. min. descent height); missed approach climbs to 1,500 feet AGL then climbing right turn
  - Runway 28R VOR: nonprecision straight-in (½-mile visibility, 392 ft. minimum descent height); missed approach climbs to 900 feet AGL then climbing right turn
- Visual Navigational Aids
  - Runway 10L: REILS, 4-VASI (3.0°)
  - Runway 28R: MALSR
  - Runway 10R: 2-PAPI (3.5°)
  - Runway 28L: 2-PAPI (3.0°)
- Noise Abatement Procedures
  - Runways 28R/28L designated as calm wind runways
  - During calm winds (less than 5 knots), departures on Runway 10L encouraged for all large and jet aircraft, when feasible
  - No turns until at least 1,500 feet MSL (single-engine 600 feet MSL) for departures on Runway 10L-28R and 600 feet MSL for departures on Runway 10R-28L
  - Remain at pattern altitude over residential areas, when practical
  - Additional procedures available at: http://modairport.com
- Helicopters
  - Avoid overflight of residential areas where possible
  - Climb to 500 feet MSL over the airport before departing enroute
  - Remain at or above 500 feet MSL until over airport when landing

PROPOSED FACILITY IMPROVEMENTS

- Runway/Taxiway System
  - Extend Runway 10L-28R 500 feet to east
- Approach Protection
  - ALP proposes easement for off airport portion of Runway 28R RPZ
- Building Area
  - Relocated and expanded terminal building
  - Expanded terminal parking area
  - Construction of additional Executive and T-hangars

Exhibit MOD -2

Airport Features Summary

Modesto City-County Airport

MODIFICATION OF AIRPORT DESIGN STANDARDS TABLE

DEVIATION DESCRIPTION	EFFECTED DESIGN STANDARD	EXISTING	PROPOSED DISPOSITION
Runway (10L-28R)–Taxiway 'A' Separation	400' Per Design Group C-II Precision	275'	Requested Modification Of Airport Design Standards (4/8/2005)
Runway (10R-28L)–Taxiway 'B' Separation	225' Per Design Group B-I Visual	215'	Requested Modification Of Airport Design Standards (4/8/2005)
Runway (10L-28R) – Hold Line Separations	250' Per Design Group C-II Precision	175'	Requested Modification Of Airport Design Standards (4/8/2005)
Runway (10L-28R)–Aircraft Parking Area Limit	500' Per Design Group C-II Precision	345'	Requested Modification Of Airport Design Standards (4/8/2005)

AIRPORT DATA

Modesto City-County-Harry Sham Field (MOD)			
OWNER: City of Modesto, CA/County of Stanislaus, CA		AIRPORT NPIAS CODE: Primary	
CITY: Modesto, California		COUNTY: Stanislaus, California	
RANGE: 9 East	TOWNSHIP: 3 South	CIVIL TOWNSHIP: N/A	
		EXISTING	ULTIMATE
AIRPORT SERVICE LEVEL		Commercial Service	Commercial Service
AIRPORT REFERENCE CODE		C-II	C-II
DESIGN AIRCRAFT		Canadair CL-600	CRJ-200
AIRPORT ELEVATION (NAVD 88)		99.0 MSL	99.0 MSL
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		94° F (July)	94° F (July)
AIRPORT REFERENCE POINT (ARP)	Latitude	37° 37' 32.942" N	37° 37' 33.764" N
COORDINATES (NAD 83)	Longitude	120° 57' 15.916" W	120° 57' 17.083" W
AIRPORT and TERMINAL NAVIGATIONAL AIDS		Rotating Beacon Segmented Circle VOR/DME ILS (28R) NDB, VORTAC (28R)	Rotating Beacon Segmented Circle VOR/DME ILS (28R) NDB, VORTAC (28R)
GPS AT AIRPORT		28R	10L/28R
Runway 10L – EL. 99.0	Latitude	37° 37' 47.100" N	37° 37' 49.871" N
Ult. 500' Extension Rwy 10L – EL. 99.0	Longitude	120° 57' 36.450" W	120° 57' 41.585" W
Runway 28R – EL. 81.6	Latitude	37° 37' 14.320" N	Same
	Longitude	120° 56' 35.620" W	
Runway 10R – EL. 98.6	Latitude	37° 37' 48.360" N	Same
	Longitude	120° 57' 50.600" W	
Runway 28L – EL. 86.0	Latitude	37° 37' 27.170" N	Same
	Longitude	120° 57' 15.010" W	

GENERAL NOTES:

1. The proposed runway extension project identified herein is for planning purposes only. This proposed project shall not be undertaken without prior NEPA environmental processing, submittal of an Airline Commitment Letter, and written FAA approval. Precondition will include FAA Forecast approval and FAA approval of the airfield standard design.
3. Sources for existing coordinates: http://oxnwww.jccbi.gov/datasheet/
4. This map was prepared using computer assisted, photogrammetric methods by HJW GeoSpatial, Inc., in Oakland California. In areas of dense vegetation, accuracy of contours may deviate from accepted accuracy standards. The grid is based on the California Coordinate System, Zone III, NAD 1983. Control survey performed by the City of Modesto, Modesto, CA. (Photography date 5/28/02).
5. Depiction of features and objects, including related elevations and clearances, within the approach surface are depicted on the VISUAL APPROACH SURFACE DRAWING or INNER PORTION OF THE APPROACH SURFACE DRAWINGS for Precision and Nonprecision Approach.
6. Details concerning terminal improvements are depicted on the TERMINAL AREA DRAWING.
7. Recommended land uses are depicted on the AIRPORT LAND USE DRAWING.
8. There are no PACS or SACS, http://www.ngs.noaa.gov/cgi-bin/ds_radius.pl.

RUNWAY DATA

	RUNWAY 10L–28R				RUNWAY 10R–28L			
	EXISTING		ULTIMATE		EXISTING		ULTIMATE	
	10L	28R	10L	28R	10R	28L	10R	28L
AIRCRAFT APPROACH CATEGORY–DESIGN GROUP	C-II		C-II		B-I		B-I	
APPROACH VISIBILITY MINIMUMS (Lowest)	Visual	1/2 Mile	1 Mile	1/2 Mile	Visual	Visual	Visual	Visual
F.A.R. PART 77 CATEGORY	Visual (BY)	Precision	Nonprecision	Precision	Visual (BY)	Visual (BY)	Visual (BY)	Visual (BY)
F.A.R. PART 77 APPROACH SURFACES	20:1	50:1	34:1	50:1	20:1	20:1	20:1	20:1
PERCENTAGE OF WIND COVERAGE (ALL WEATHER-MPH)	10.55-13.1/86.85-12.96/92.42/98.97-20		10.55-13.1/86.85-12.96/92.42/98.97-20		10.55-13.1/86.85-12.96/92.42/98.97-20		10.55-13.1/86.85-12.96/92.42/98.97-20	
MAXIMUM (NAVD 88) ELEVATION (Above MSL)	99.0 MSL		99.0 MSL		98.9 MSL		98.9 MSL	
RUNWAY DIMENSIONS	5,911' x 150'		5,411' x 150'		3,459' x 100'		3,459' x 100'	
RUNWAY AZIMUTH	124.1153 °		124.1153 °		124.1178 °		124.1178 °	
RUNWAY BEARING (Decimal Degrees)	124.11 °	304.02 °	124.11 °	304.02 °	124.12 °	304.12 °	124.12 °	304.12 °
RUNWAY SAFETY AREA (RSA) WIDTH	400'		400'		120'		120'	
RUNWAY SAFETY AREA (RSA) BEYOND RUNWAY STOP END	1,000'	1,000'	1,000'	1,000'	240'	240'	240'	240'
RUNWAY OBSTACLE FREE ZONE (OFZ) WIDTH	400'		400'		250'		250'	
RUNWAY (OFZ) BEYOND RUNWAY STOP END	200'	200'	200'	200'	200'	200'	200'	200'
RUNWAY OBJECT FREE AREA (OFA) WIDTH	800'		800'		400'		400'	
RUNWAY OBJECT FREE AREA (OFA) BEYOND RUNWAY STOP END	1,000'	1,000'	1,000'	1,000'	240'	240'	240'	240'
PERCISION OBSTACLE FREE ZONE (POFZ)	300' x 800' (Rwy 28R)		300' x 800' (Rwy 28R)		None		None	
RUNWAY PAVEMENT SURFACE MATERIAL	Asphalt		Asphalt		Asphalt		Asphalt	
RUNWAY PAVEMENT STRENGTH (in thousand lbs.)	60(S)/200(D)/400(DT)		60(S)/200(D)/400(DT)		30(S)		30(S)	
RUNWAY EFFECTIVE GRADIENT	0.30%		0.30%		0.36%		0.36%	
MAXIMUM GRADIENT	0.30%		0.30%		0.54%		0.54%	
RUNWAY MARKING	Nonprecision	Precision	Nonprecision	Precision	Basic	Basic	Basic	Basic
RUNWAY LIGHTING	MIRL		MIRL		MIRL		MIRL	
RUNWAY APPROACH LIGHTING	None	MALSR	None	MALSR	None	None	None	None
RUNWAY HOLD LINE POSITION (From Rwy Centerline)	175', 250.5' & 350'		175', 250.5' & 350'		125'		125'	
RUNWAY PAVEMENT SURFACE TREATMENT	None		None		None		None	
RUNWAY THRESHOLD DISPLACEMENT	0'	0'	0'	0'	0'	0'	0'	0'
RUNWAY STOPWAY	0'	0'	0'	0'	0'	0'	0'	0'
RUNWAY END ELEVATION (NAVD 88)	EL. 99.0	EL. 81.6	EL. 99.0	EL. 81.6	EL. 98.6	EL. 86.0	EL. 98.6	EL. 86.0
RUNWAY TOUCHDOWN ZONE ELEVATION (NAVD 88)	EL. 99.0	EL. 90.9	EL. 99.0	EL. 90.9	EL. 98.9	EL. 89.8	EL. 98.9	EL. 98.8
APPENDIX 2 THRESHOLD SITING SLOPE (TSS)	20:1	34:1	20:1	34:1	20:1	20:1	20:1	20:1
THRESHOLD SITING SURFACE REQUIREMENT (TSS)	ADR #6	ADR #9	ADR #6	ADR #9	ADR #2	ADR #2	ADR #2	ADR #2
THRESHOLD SITING SURFACE OBJECT PENETRATIONS	NO	NO	Yes	Yes	NO	NO	NO	NO
ELEVATION OF RUNWAY HIGH POINT (NAVD 88)	EL. 99.0		EL. 99.0		EL. 98.9		EL. 98.9	
ELEVATION OF RUNWAY LOW POINT (NAVD 88)	EL. 81.6		EL. 81.6		EL. 86.0		EL. 86.0	
LINE OF SIGHT REQUIREMENT MET	YES		YES		YES		YES	
APPROACH SPEED (Knots) OF DESIGN A/C	121-140.99 KNOTS		141-165.99 KNOTS		91-120.99 KNOTS		91-120.99 KNOTS	
MAX. CERTIFIED TAKEOFF WEIGHT OF DESIGN A/C	41,250 (lbs.)		47,450 (lbs.)		20,000 (lbs.)		20,000 (lbs.)	
TAXIWAY LIGHTING	MITL		MITL		MITL		MITL	
TAXIWAY MARKING	Centerline/Signage		Centerline/Signage		Centerline/Signage		Centerline/Signage	
TAXIWAY SURFACE MATERIAL	Asphalt		Asphalt		Asphalt		Asphalt	
TAXIWAY WIDTH	50'		50'		25'		25'	
TAXIWAY SAFETY AREA WIDTH	79'		79'		49'		49'	
TAXIWAY OBJECT FREE AREA WIDTH	131'		131'		89'		89'	
RUNWAY ELECTRONIC NAVIGATIONAL AIDS	None	ILS GPS	GPS	ILS GPS	None	None	None	None
RUNWAY VISUAL NAVIGATIONAL AIDS	VASI-4 L REIL	None	VASI-4 L REIL	None	PAPI-2 (L)	PAPI-2 (L)	PAPI-2 (L)	PAPI-2 (L)

Pavement strengths are expressed in Single(S), Dual (D) and Dual Tandem (DT), and/or Double Dual Tandem (DDT), wheel loading capacities.

FOR APPROVAL BY:

City of Modesto, California

APPROVED BY: ON THE DATE OF:

FAA APPROVAL STAMP

LEGEND

EXISTING	ULTIMATE	DESCRIPTION
	SAME	ABANDONED PAVEMENT (To Be Removed)
		AIRPORT PROPERTY LINE/FENCE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
	SAME	BUILDING ABANDONMENT (To Be Removed)
		BUILDING CONSTRUCTION (Off/on Airport)
	SAME	DRAINAGE
	SAME	FACILITY CONSTRUCTION
		FENCING
PAPI-2	SAME	NAVIGATIONAL AID INSTALLATION (GVGI)
REIL	SAME	RUNWAY END IDENTIFICATION LIGHTS
	SAME	RUNWAY THRESHOLD LIGHTS
	SAME	SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
	SAME	TOPOGRAPHY (2005)
	SAME	WIND INDICATOR (Lighted)
		HOLDING POSITION MARKING
BRL		BUILDING RESTRICTION LINE (BRL)
		DIRT ROAD
		TREES
Ext-OFZ	Ult-OFZ	RUNWAY OBSTACLE FREE ZONE
xRSA	xRSA	RUNWAY SAFETY AREA
xOFA	xOFA	RUNWAY OBJECT FREE AREA
		SURVEY MONUMENT (No PACS or SACS)
		RUNWAY SHADE
	SAME	HELICOPTER PARKING
	SAME	TIE-DOWNS
		RUNWAY PROTECTION ZONE (RPZ)

ULTIMATE BUILDINGS/FACILITIES

NO.	DESCRIPTION	Elevation
61	NEW TERMINAL BUILDING PARKING	LT Poles 25'
62	NEW TERMINAL BUILDING	40' AGL
57	T-HANGAR	23' AGL
58	T-HANGAR	23' AGL
59	T-HANGAR	23' AGL
60	T-HANGAR	23' AGL
61	T-HANGAR	23' AGL
62	T-HANGAR	23' AGL
63	T-HANGAR	23' AGL
64	T-HANGAR	23' AGL
65	T-HANGAR	23' AGL
67	EXECUTIVE HANGAR	25' AGL
68	EXECUTIVE HANGAR	25' AGL
69	EXECUTIVE HANGAR	25' AGL
70	EXECUTIVE HANGAR	25' AGL
71	EXECUTIVE HANGAR	25' AGL
72	EXECUTIVE HANGAR	25' AGL
73	EXECUTIVE HANGAR	25' AGL

THRESHOLD SITING SURFACE OBJECT PENETRATIONS

OBJECT	PENETRATION	DISPOSITION
Service Road Runway 10L	Yes	Relocate
Service Road Runway 28R	Yes	Closed

POFZ OBJECT PENETRATIONS

OBJECT	PENETRATION	DISPOSITION
Runway 28R POFZ 800' x 200'	Yes	Remove Trees
Unimproved Road at Runway 28R end	Yes	Close Road

EXISTING BUILDINGS/FACILITIES

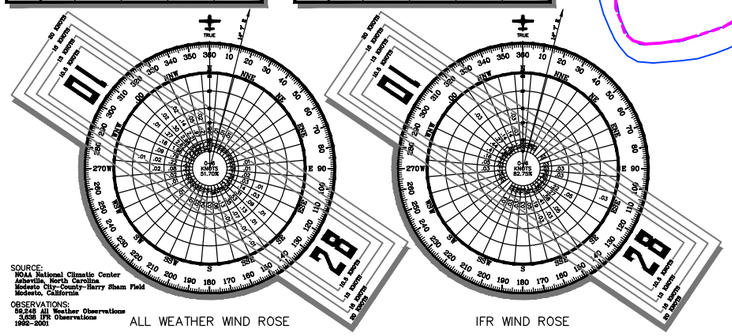
NO.	DESCRIPTION	ELEV.
1	ADMINISTRATION/TERMINAL BUILDING	114
2	AIR TRAFFIC CONTROL TOWER (ATCC)	132
3	AIRPORT RESCUE/FIREFIGHTING (ARFF)	110
4	SKY TREK AVIATION	124
5	SKY TREK AVIATION	122
6	SKY TREK AVIATION	111
7	SKY TREK AVIATION	115
8	SKY TREK AVIATION	112
9	SKY TREK AVIATION	116
10	DAN COSTA-DCAIR	126
11	FOSTER FARMS	121
12	T-HANGAR	114
13	T-HANGAR	109
14	T-HANGAR	109
15	T-HANGAR (To Be Removed)	105
16	T-HANGAR (To Be Removed)	106
17	T-HANGAR	107
18	FUEL ISLAND	N/A
19	T-HANGAR	109
20	T-HANGAR	103
21	T-HANGAR	104
22	T-HANGAR	106
23	T-HANGAR	105
24	T-HANGAR	104
25	HANGAR 7 (Tom Hiller Hangar/Museum)	113
26	HANGAR 6 (E and J Gallo Winery)	111
27	HANGAR 5 (Modesto Aviation)	111
28	HANGAR 3 (Pacific Aircraft Service)	111
29	OFFICE BUILDING (Vacant)	108
30	ADMINISTRATION (Modesto Aviation)	106
31	HANGAR 1 (Commemorative Air Force)	113
32	OFFICE BUILDING 2 (Vacant)	104
33	HANGAR 2 (Pacific Aircraft Maintenance)	114
34	HANGAR 4 (Pacific Aircraft Maintenance)	107
35	MAINTENANCE FACILITY	102
36	FUEL FACILITY	N/A
37	MODESTO POLICE DEPARTMENT	105
38	T-HANGAR	106

ALL WEATHER WIND COVERAGE

Runway	10.5 Knots 12 MPH	13 Knots 15 MPH	16 Knots 18 MPH	20 Knots 23 MPH
Runway 10–28	99.56%	99.86%	99.96%	99.97%

IFR WIND COVERAGE

Runway	10.5 Knots 12 MPH	13 Knots 15 MPH	16 Knots 18 MPH	20 Knots 23 MPH
Runway 10–28	99.83%	99.93%	100.00%	100.00%



SOURCE:
NOAA National Climatic Center
Asheville, North Carolina
Modesto City-County-Harry Sham Field
Modesto, California

OBSERVATIONS:
52,248 All Weather Observations
5,858 IFR Observations
1962–2001

Magnetic Declination
14° 7' E (August 2009)
Annual Rate of Change 6' West

0 400 800
SCALE IN FEET

MODESTO CITY-COUNTY AIRPORT
HARRY SHAM FIELD

AIRPORT LAYOUT PLAN

Modesto, California

No.	REVISIONS	DATE	BY	APP'D
1	-	-	-	-
2	Airport Layout Plans Approved	5/23/05	Coffman	FAA
3	Updated Per AIP 19 & AIP 20 Constructions	1/00	SMA	-

"THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION AS PROVIDED UNDER TITLE 49, U.S.C., SECTION 47104. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEW OR POLICY OF THE FAA, AND ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN, NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

PLANNED BY: Stephen E. Wagner/Vicki L. Rogers
DETAILED BY: Larry S. Johnson
APPROVED BY: James M. Harris, P.E.
July 22, 2010 SHEET 1 OF 15

Coffman Associates
Airport Consultants
www.coffmanassociates.com

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This is a reduced version of a large size drawing.

Exhibit MOD-3

Airport Layout Plan

Modesto City-County Airport

BASED AIRCRAFT [a]

Aircraft Type	Current	Future
Single Engine	150	181
Multi Engine	25	47
Jet	1	6
Helicopter	8	11
Total	184	245

AIRCRAFT OPERATIONS

	Current[b]	Future [b]
Total		
Annual	84,185	141,000
Average Day	230	386
Distribution by Aircraft Type		
Airline	7%	6%
GA/Air Taxi	56%	56%
GA Local	38%	38%
Military	<1%	<1%
Distribution by Type of Operation [b]		
Local		
(incl. touch-and-goes)	38%	No
Itinerant	62%	Change

TIME OF DAY DISTRIBUTION

	Current and Future [b]
Airlines	
Day	88%
Evening	12%
Night	<1%
GA/Air Taxi	
Day	87%
Evening	5%
Night	8%
Military	
Day	94%
Evening	3%
Night	2%
GA/Local	
Day	95%
Evening	3%
Night	2%

RUNWAY USE DISTRIBUTION [b]

	Current	Future
Business/Regional Jet & Turboprop/Multi-Engine		
Takeoffs and Landings		
Runway 10L	20%	No
Runway 28R	80%	Change
Runway 10R	0%	No
Runway 28L	0%	Change
Single & Multi-Engine Piston		
Takeoffs and Landings		
Runway 10L	12%	No
Runway 28R	48%	Change
Runway 10R	8%	No
Runway 28L	32%	Change

FLIGHT TRACK DISTRIBUTION

Data Not Available

Notes:

[a] Source: *Modesto City-County Airport Layout Plan Narrative Report* (December 2009)

[b] Source: *Modesto City-County Airport Part 150 Study* (February 2009).

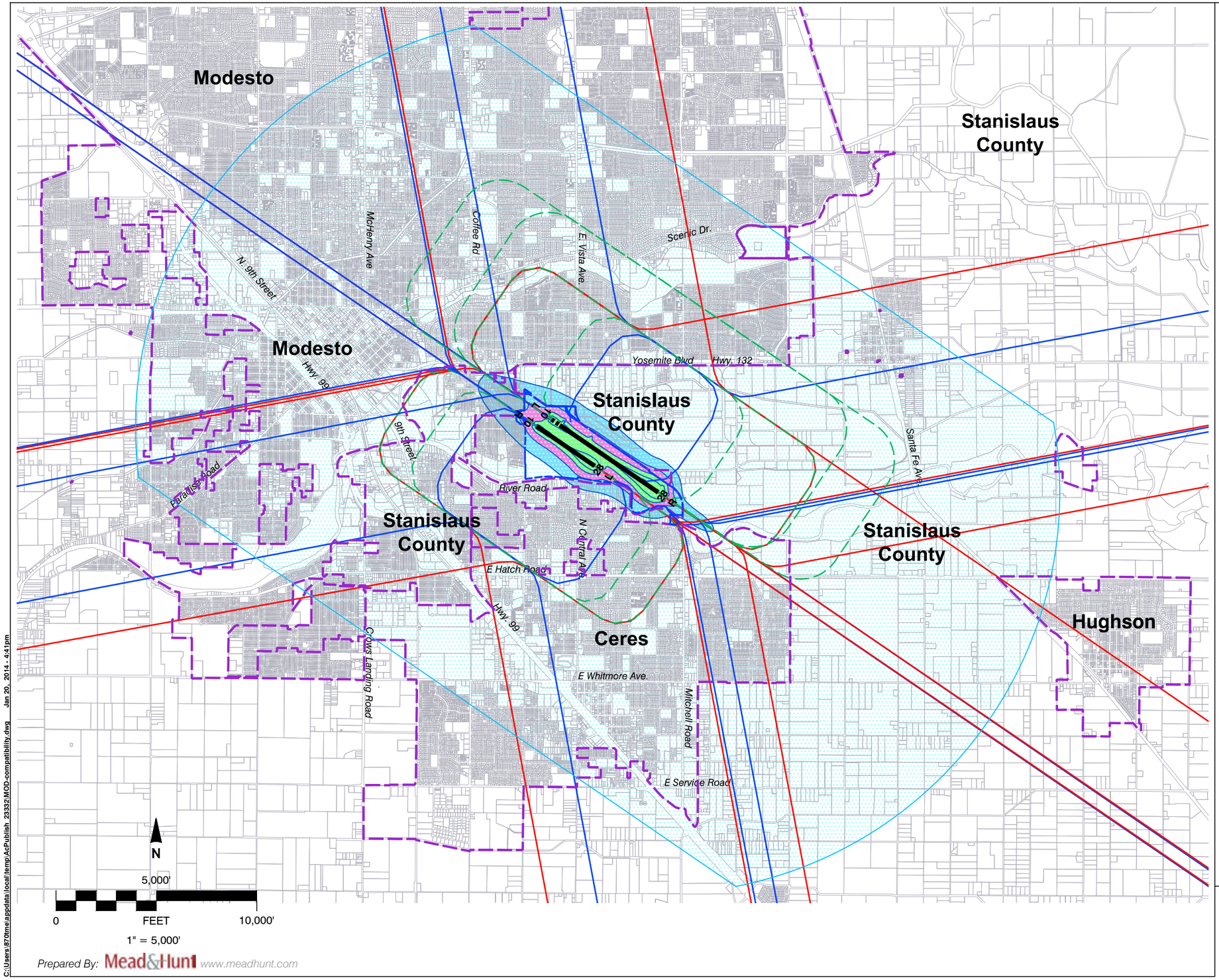
* Figures may not add up to 100%, due to rounding.

Exhibit MOD-4

Airport Activity Data

Modesto City-County Airport

Data compiled by Mead & Hunt, Inc.



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Legend

Boundary Lines

- Airport Property Line/Easements
- City Limits
- Existing Runway
- Future Runway

2009 Part 150 Study Noise Contours [1]

- 60 - 65 dB CNEL
- 65 - 70 dB CNEL
- 70+ dB CNEL

Overflight Factors [1]

- Arrival
- Departure
- Touch and Go
- Aircraft Traffic Envelope [2]

Notes

1. Flight track source: 2009 Part 150 study. Noise contours and flight tracks shown reflect long range scenario with 141,000 annual operations.

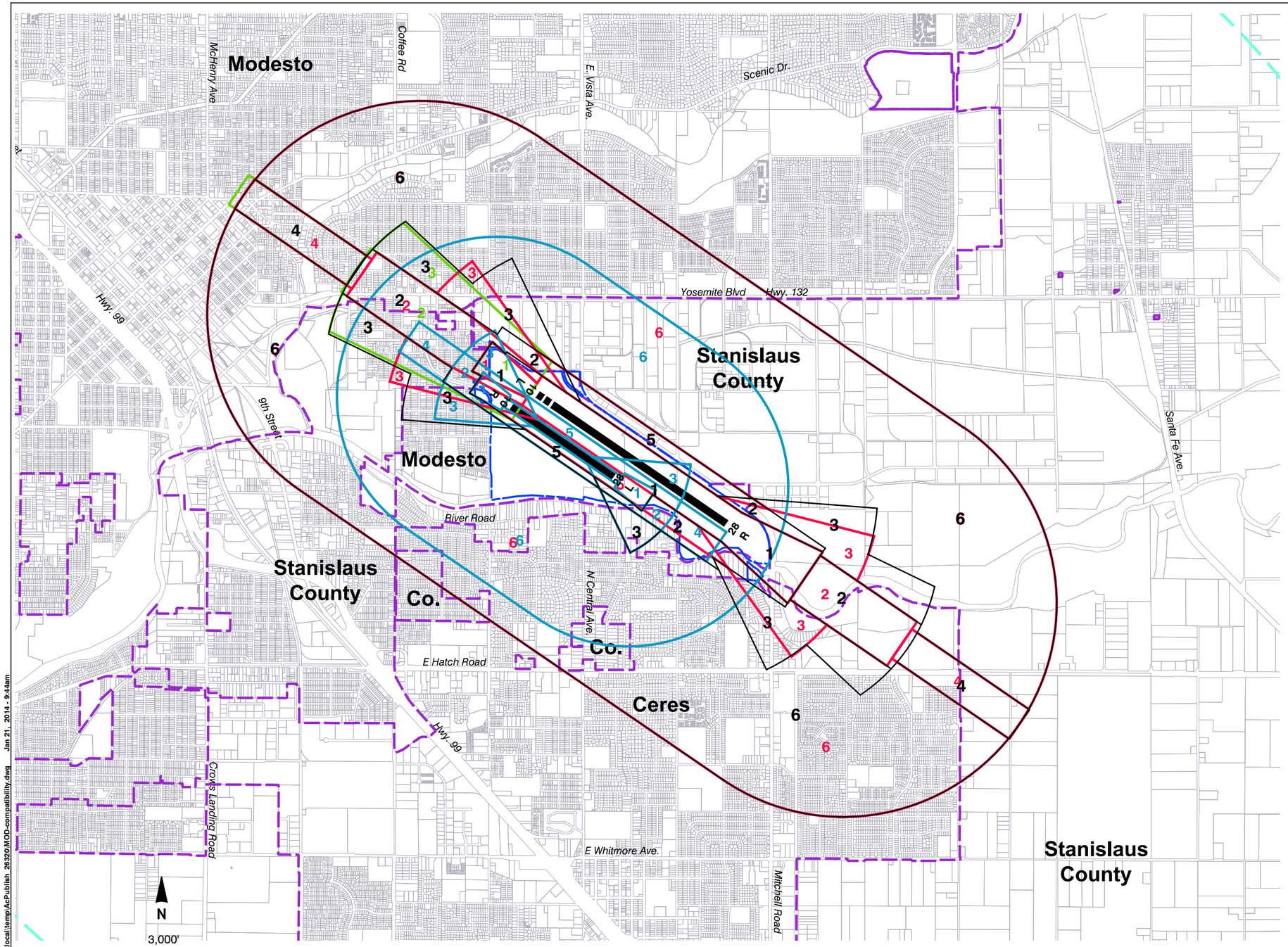
2. Approximately 80% of aircraft overflights estimated to occur within these limits at an altitude of 1,500 feet AGL or less. The traffic pattern altitude is established at 1,000 feet above the airport elevation for small aircraft and 1,500 feet for large aircraft.

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-5

Noise and Overflight Factors

Modesto City-County Airport



Legend

Boundary Lines

- Airport Property Line
- City Limits
- Existing Runway
- Future Runway

Safety Zone Factors

- Generic Long Length General Aviation Runway
- Generic Short Length General Aviation Runway
- Generic Large Air-Carrier Length General Aviation Runway
- Safety Policy Zones

Notes

1. Safety zone source: California Airport Land Use Planning Handbook (January 2002).
2. Composite safety zones reflect existing runway configuation and 500' extension.Composite zones combine large air carrier runway zones, medium general aviation runway zones, and long general aviation runway zones for Runway 10L-28R.
3. Short general aviation zones were used for Runway 10R-28L.
4. Zone 1 has been adjusted to reflect runway protection zones depicted on the Airport Layout Plan (December 2009).

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-6

Safety Factors

Modesto City-County Airport

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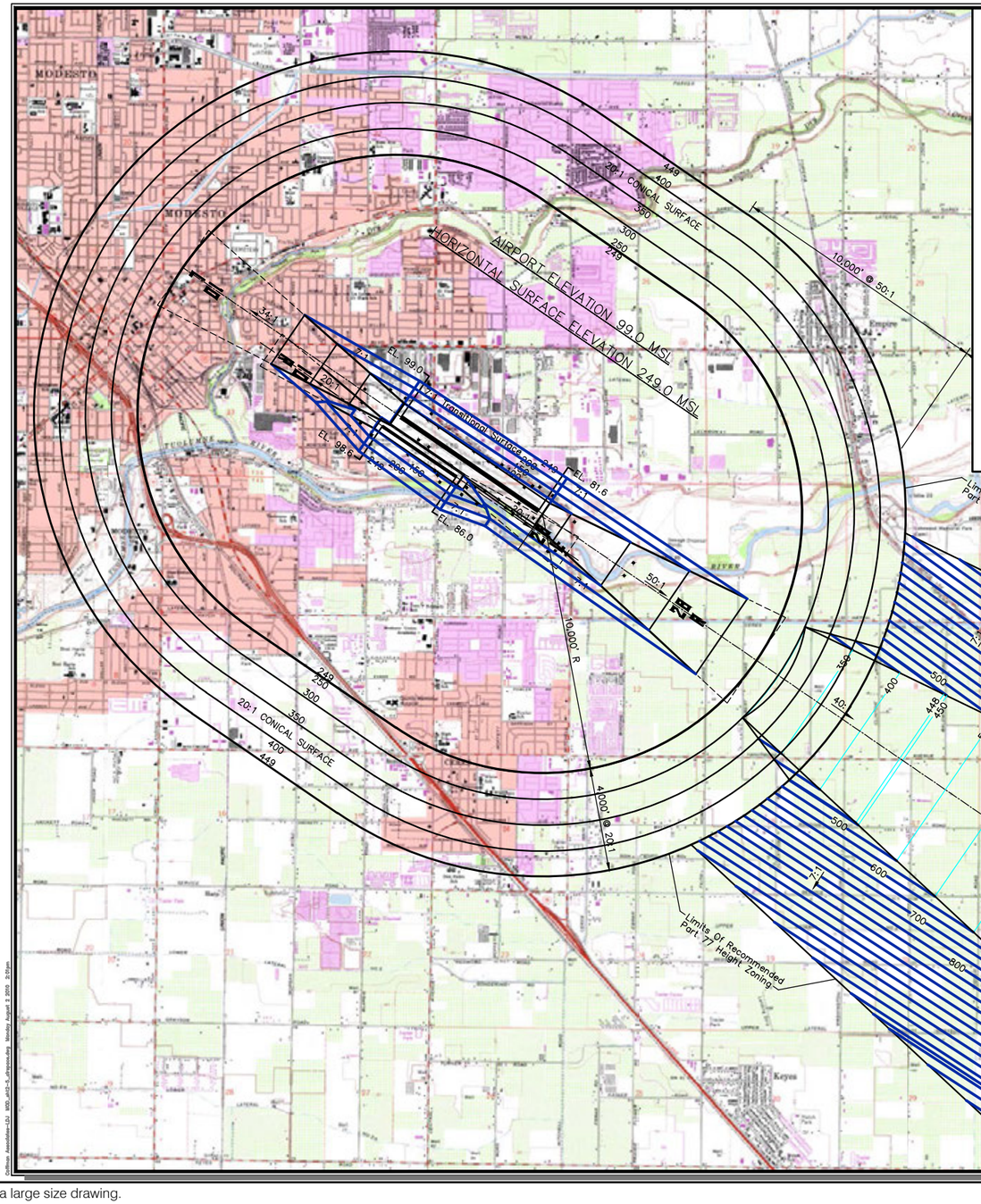
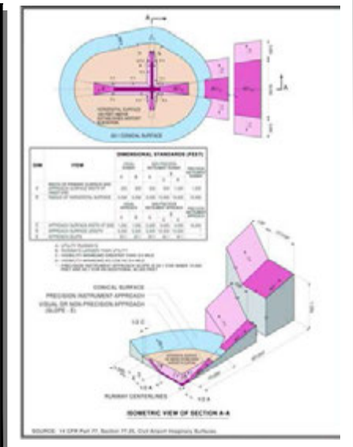


OBSTRUCTION TABLE

Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. OL TRANSMISSION TOWER	164	50:1 APPROACH SURFACE	160	4'	NO ACTION
2. OL TRANSMISSION TOWER	162	50:1 APPROACH SURFACE	160	2'	NO ACTION
3. TREE	115	50:1 APPROACH SURFACE	105	10'	TRIM/REMOVE
4. TREE	161	7:1 TRANSITIONAL SURFACE	121	40'	TRIM/REMOVE
5. TREE	173	7:1 TRANSITIONAL SURFACE	137	36'	TRIM/REMOVE
6. TREE	182	7:1 TRANSITIONAL SURFACE	163	19'	TRIM/REMOVE
7. TREE	124	50:1 APPROACH SURFACE	104	20'	TRIM/REMOVE
8. TREE	138	50:1 APPROACH SURFACE	95	43'	TRIM/REMOVE
9. TREE	149	7:1 TRANSITIONAL SURFACE	123	26'	TRIM/REMOVE
10. TREE	92	PRIMARY SURFACE	81	11'	REMOVE
11. TREE	138	7:1 TRANSITIONAL SURFACE	124	14'	TRIM/REMOVE
12. LIGHT POLE	124	7:1 TRANSITIONAL SURFACE	107	17'	ADD OBST. LIGHT
13. OL GLIDE SLOPE	110	PRIMARY SURFACE	84	26'	NO ACTION
14. WINDSOCK	99	PRIMARY SURFACE	83	16'	NO ACTION
15. TREE	149	7:1 TRANSITIONAL SURFACE	108	41'	TRIM/REMOVE
16. TREE	150	7:1 TRANSITIONAL SURFACE	100	50'	TRIM/REMOVE
17. TREE	134	PRIMARY SURFACE	85	49'	TRIM/REMOVE
18. OL HANGAR	123	7:1 TRANSITIONAL SURFACE	87	36'	NO ACTION
19. LIGHT POLE	128	7:1 TRANSITIONAL SURFACE	112	16'	ADD OBST. LIGHT
20. OL HANGAR	121	7:1 TRANSITIONAL SURFACE	88	33'	NO ACTION
21. OL HANGAR	134	PRIMARY SURFACE	90	44'	NO ACTION
22. TREE	131	7:1 TRANSITIONAL SURFACE	91	40'	TRIM/REMOVE
23. TREE	115	7:1 TRANSITIONAL SURFACE	107	8'	TRIM/REMOVE
24. TREE	150	7:1 TRANSITIONAL SURFACE	143	7'	TRIM/REMOVE
25. TREE	108	7:1 TRANSITIONAL SURFACE	103	5'	TRIM/REMOVE
26. TREE	123	7:1 TRANSITIONAL SURFACE	110	13'	TRIM/REMOVE
27. TREE	111	20:1 APPROACH SURFACE	104	7'	TRIM/REMOVE
28. ANTENNA ON OL ATCT	193	7:1 TRANSITIONAL SURFACE	97	96'	NO ACTION
29. LIGHT POLE	143	PRIMARY SURFACE	95	48'	ADD OBST. LIGHT
30. ANTENNA ON OL BEACON	158	7:1 TRANSITIONAL SURFACE	134	24'	NO ACTION
31. LIGHT POLE	143	PRIMARY SURFACE	96	47'	ADD OBST. LIGHT
32. ROD ON OL TOWER	115	PRIMARY SURFACE	96	19'	NO ACTION
33. ANTENNA ON OL VOR/DME	131	PRIMARY SURFACE	99	32'	NO ACTION
34. OL ON LIGHTED WINDSOCK	119	PRIMARY SURFACE	101	18'	NO ACTION
35. OL HANGAR	127	7:1 TRANSITIONAL SURFACE	123	4'	NO ACTION
36. TREE	154	34:1 APPROACH SURFACE	140	14'	TRIM/REMOVE
37. TREE	156	34:1 APPROACH SURFACE	151	5'	TRIM/REMOVE
38. ANTENNA	153	34:1 APPROACH SURFACE	145	8'	ADD OBST. LIGHT
39. POLE	135	7:1 TRANSITIONAL SURFACE	123	12'	ADD OBST. LIGHT
40. POLE	135	7:1 TRANSITIONAL SURFACE	128	7'	ADD OBST. LIGHT
41. TREE	143	7:1 TRANSITIONAL SURFACE	137	6'	TRIM/REMOVE
42. LT POLE	138	7:1 TRANSITIONAL SURFACE	137	1'	ADD OBST. LIGHT
43. WINDSOCK	106	7:1 TRANSITIONAL SURFACE	91	15'	ADD OBST. LIGHT
44. LT POLE	103	7:1 TRANSITIONAL SURFACE	102	1'	ADD OBST. LIGHT
45. TREE	140	7:1 TRANSITIONAL SURFACE	128	12'	TRIM/REMOVE
46. TREE	161	7:1 TRANSITIONAL SURFACE	147	14'	TRIM/REMOVE



OBSTRUCTION LEGEND

- ●1 OBSTRUCTION
- GROUP or MULTIPLE OBSTRUCTIONS TOPOGRAPHIC OBSTRUCTION

GENERAL NOTES:

1. Obstructions, clearances, and locations are calculated from ultimate runway end elevations and ultimate approach surfaces, unless otherwise noted.
2. Depiction of features and objects within the primary, transitional, and horizontal Part 77 surfaces, is illustrated on the PART 77 AIRSPACE DRAWING, sheets 2 and 3 of these plans.
3. Depiction of features and objects within the outer portion of the approach surfaces, is illustrated on the RUNWAY APPROACH SURFACE PROFILES, sheets 4 and 5 of these plans.
4. Depiction of features and objects within the inner portion of the approach surfaces, is illustrated on the INNER PORTION OF RUNWAY APPROACH SURFACE DRAWINGS, sheets 6, 7, 8 and 9 of these plans.

Magnetic Declination
14° 7' E (August 2009)
Annual Rate of Change 6' West

0 2000 4000 6000
SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D
3	-	-	-	-
2	Airport Layout Plans Approved	5/23/05	Coffman	FAA
1	Updated Per AIP 19 & AIP 20 Constructions	1/00	SMA	-

"THE PREPARATION OF THESE DOCUMENTS WAS FINANCED IN PART THROUGH A PLANNING GRANT FROM THE FEDERAL AVIATION ADMINISTRATION OF EXCLUDED PARTS WITHIN A PLANNING PROJECT AS OF THE DATE SO AMENDED. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN, NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS."

MODESTO CITY-COUNTY AIRPORT
HARRY SHAM FIELD

AIRPORT AIRSPACE DRAWING

Modesto, California

PLANNED BY: Stephen S. Wagner/Vicki L. Rogers
DETAILED BY: Larry S. Johnson
APPROVED BY: James M. Haven, P.E.
July 22, 2010 SHEET 2 OF 15

Coffman Associates
Airport Consultants
www.coffmanassociates.com

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This is a reduced version of a large size drawing.

Exhibit MOD-7

Part 77 Airspace Surfaces

Modesto City-County Airport

AIRPORT LOCATION AND NEARBY TOPOGRAPHY

- *Location*
  - Airport in city of Modesto, 2.0 miles southeast of city center
  - City of Ceres borders airport on south
  - Unincorporated land borders airport on east
- Topography
  - Situated on floor of San Joaquin Valley; no major high terrain in vicinity
  - Elevation: 97 feet Above Mean Sea Level (MSL)

EXISTING AIRPORT AREA LAND USES

- General Character
  - Urban development to north, east, west and southwest
  - Agricultural land to southeast
- Runway Approaches
  - Northwest (Rwy 10): residential neighborhoods and commercial and industrial uses
  - Southeast (Rwy 28): open space and residential neighborhoods
- Traffic Pattern
  - Industrial park to northeast and residential neighborhoods to southwest

AIRPORT ENVIRONS AND LAND USE JURISDICTIONS

- City of Modesto
  - Airport property and portions of Runway Protection Zones (RPZs) within city limits
- City of Ceres
  - Portions of southeastern RPZs, runway approaches and southwestern traffic pattern over city
- County of Stanislaus
  - Portions of southeastern RPZs and southwestern traffic pattern over unincorporated lands

STATUS OF LOCAL AGENCY PLANS

- City of Modesto
  - Urban Area General Plan adopted October 2008
- City of Ceres
  - General Plan adopted February 1997
- Stanislaus County
  - General Plan adopted December 1995
  - Undergoing a General Plan update; anticipated adoption early 2012

PLANNED AIRPORT AREA LAND USES

- City of Modesto General Plan
  - Planned residential (<7.5 du/ac) to west, commercial to northwest, and industrial to east
- City of Ceres General Plan
  - Very low density residential (<4.5 du/ac) proposed immediately south/southeast of airport
- Stanislaus County General Plan
  - Maintain agriculture to southeast

ESTABLISHED COMPATIBILITY MEASURES

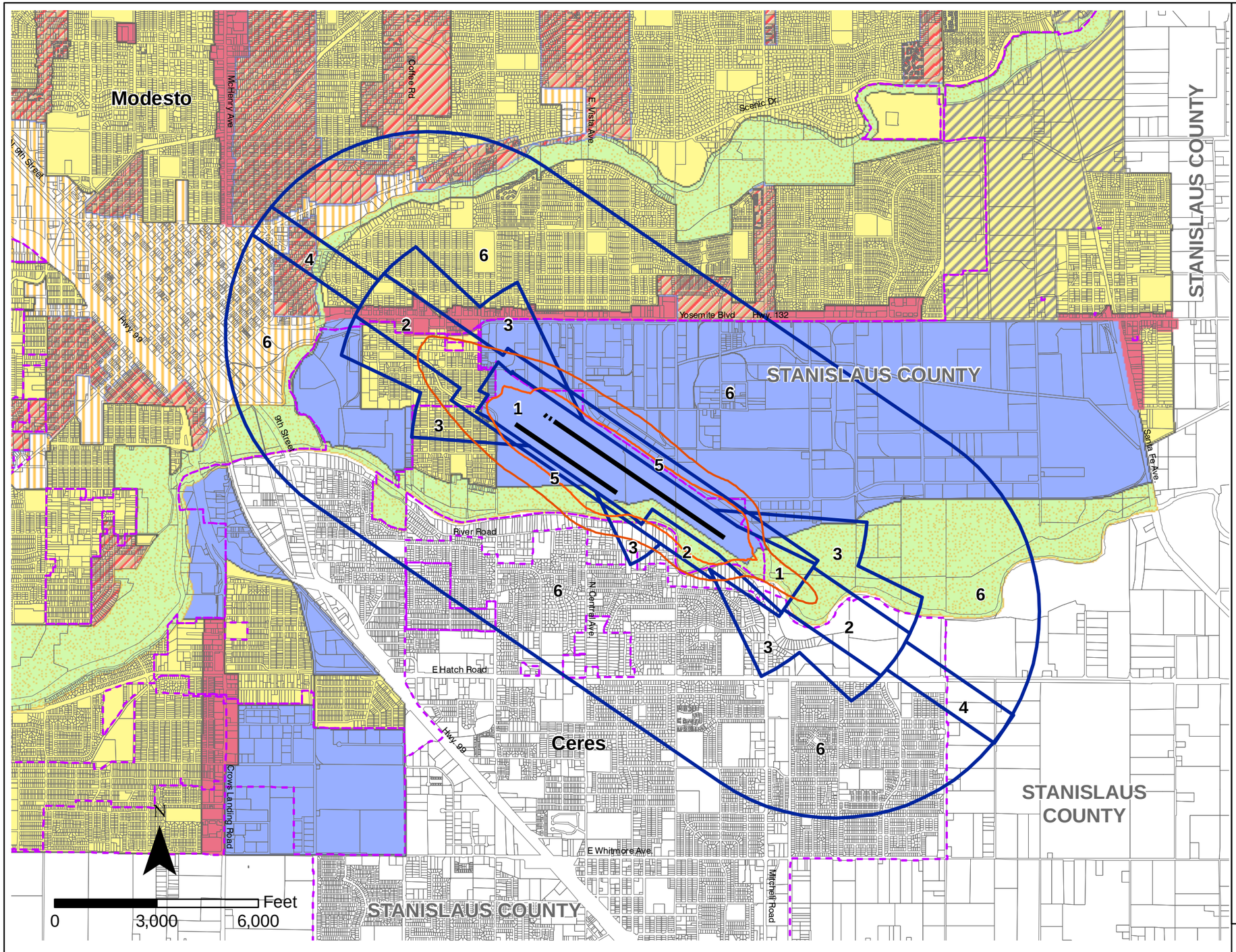
- City of Modesto 2008 Urban Area General Plan
  - Land use around Airport will be consistent with Stanislaus County Airport Land Use Commission (ALUC) Plan (p. V-26)
- City of Modesto 2008 Urban Area General Plan (continued)
  - Mitigation required for new construction to meet noise compatibility standards of General Plan (p. VII-25)

Data compiled by Mead & Hunt

ESTABLISHED COMPATIBILITY MEASURES (continued)

- City of Ceres 1997 General Plan
  - Emphasize compatibility of land uses for both urban development and for airport facilities to ensure availability of local air transportation services and a quality living environment (p. 1-25).
  - All new development within Airport Safety Zones to be developed according to General Plan standards (p. 1-27).
  - Work with appropriate agencies, including ALUC, to ensure compatibility of land uses with airport facilities and operations (p. 1-27).
  - Limit building heights for airspace protection in accordance with Federal Aviation Regulation Part 77 (p. 1-27).
  - Require dedication of overflight easements and/or deed notices when development is proposed on property within airport safety zones (p. 1-27).
  - Ensure new development around Airport does not create safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards (p. 7-6).
  - Oppose changes in flight patterns that would increase flight activity over Ceres and significantly increase noise or safety concerns (p. 7-6).
  - Prohibit new development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources, unless project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to specified levels (p. 7-11).
- Stanislaus County 1995 General Plan
  - Policy LU-4. Applications for development in areas with growth-limiting factors such as airport hazards shall include measures to mitigate problems. County will continue to enforce height limiting ordinance near airports (p. 1-3).
  - Policy LU-5. Residential development shall not be approved at maximum density if it does not comply with airport height limiting ordinance restrictions (p. 1-4).
  - Policy C-9. Support development of public use airports consistent with airport master plans developed for Oakdale Municipal and Modesto City-County Airports (p. 2-35).
  - Policy N-2. New development of noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into project design reducing noise levels to following levels: 60 CNEL or less in outdoor activity areas of single family residences, 65 CNEL or less in community outdoor space for multi-family residences, and 45 CNEL or less within noise-sensitive interior spaces. Where it is not practical to reduce exterior noise, an exterior level of up to 65 CNEL will be allowed. Under no circumstances will interior noise levels be allowed to exceed 45 CNEL with windows and doors closed in residential uses (p. 4-15).
  - Policy S-12. Development within areas protected by ALUC Plan shall only be approved if they meet requirements of the Plan. All amendments to a land use designation, zoning district, or zoning regulation affecting land within Plan boundary shall be referred to ALUC for comment. If ALUC recommends denial, Board of Supervisors may overrule that recommendation only by a two-thirds majority vote. Height and exterior materials of new structures in Airport Zone require review (p. 5-9).

Exhibit MOD-8
Airport Environs Table
Modesto City-County Airport



Sources: City and County GIS Data (2009)

Legend

- City Boundary
- Existing Runway
- Future Runway Extension
- 60dB CNEL Noise Contour
- 65dB CNEL Noise Contour
- Safety Zones (composite)

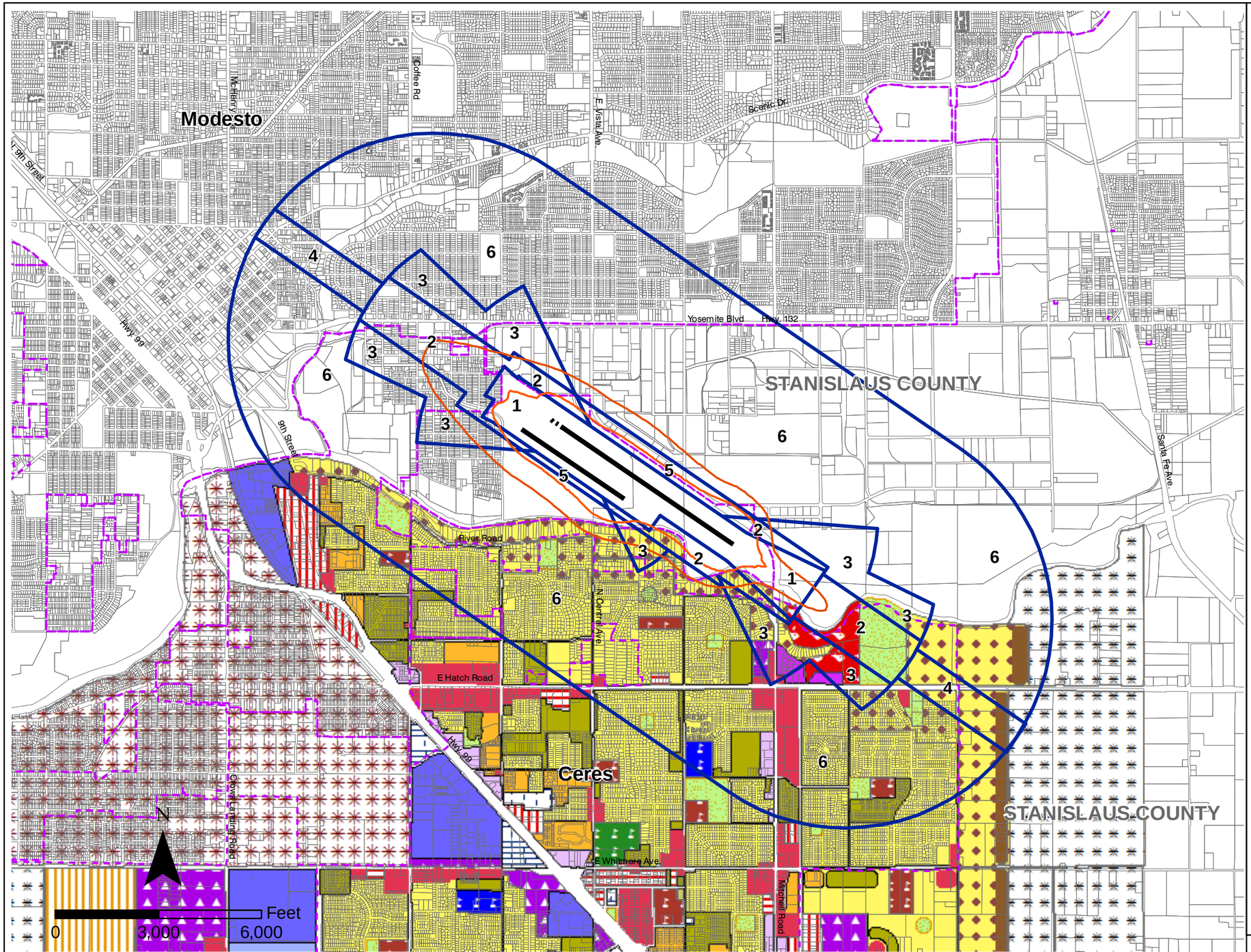
City of Modesto General Plan

- Business Park
- Commercial
- Industrial
- Mixed Use
- Open Space
- Residential
- Commercial - Regional
- Redevelopment Planning District
- Salida Community Plan
- Residential - Village

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-9A

Modesto General Plan
Modesto City-County Airport



Legend

- City Boundary
- Existing Runway
- Future Runway Extension
- 60dB CNEL Noise Contour
- 65dB CNEL Noise Contour
- Safety Zones (composite)

City of Ceres General Plan

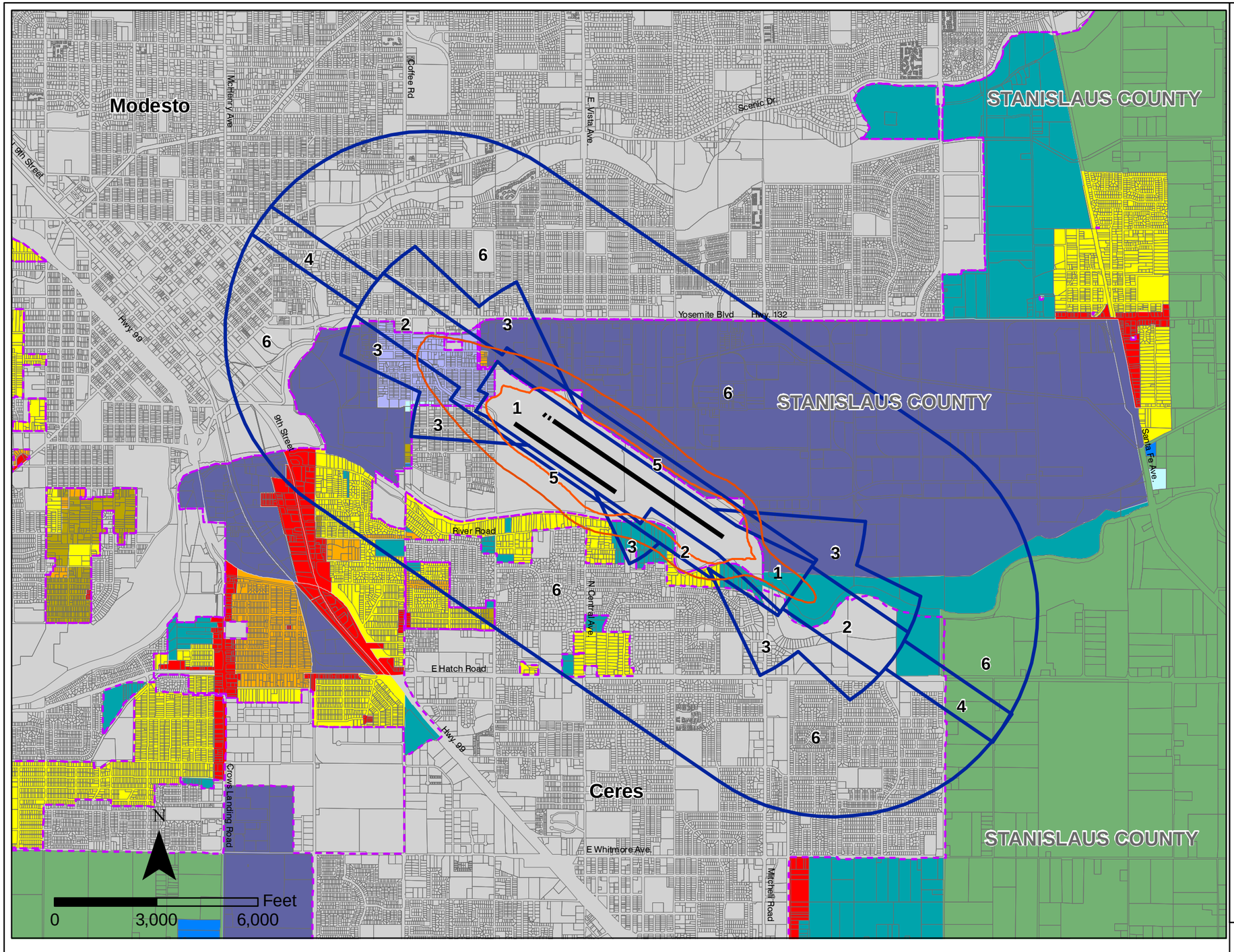
- Agriculture
- Adjacent Urban
- Business Park
- Commercial - General
- Community Facilities
- Community Facilities - PSF
- Commercial - Recreation
- School - Elementary
- Industrial - General
- School - High
- Residential - High Density
- School - High
- Industrial - Reserve
- School - Junior High
- Residential - Low Density
- Industrial - Light
- Residential - Medium Density
- Commercial - Neighborhood
- Office
- Parks
- Residential -Agriculture
- Residential - Reserve
- Commercial - Service
- Residential - Very Low Density

Sources: City and County GIS Data (2009)

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014 Draft)

Exhibit MOD 9B

Ceres General Plan
Modesto City-County Airport



Legend

- City Boundary
- Existing Runway
- Future Runway Extension
- 60dB CNEL Noise Contour
- 65dB CNEL Noise Contour
- Safety Zones (composite)

Stanislaus County General Plan

- Agriculture
- Commercial
- Estate Residential
- Hwy. Commercial/Planned Devpt.
- Historical
- Industrial Business Park
- Industrial
- Industrial Transition
- Low Density Residential
- Medium Density Residential
- Medium High Density Residential
- Planned Development
- Planned Industrial
- Specific Plan 1
- Urban Transition
- City

Sources: City and County GIS Data (2009)

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014 Draft)

Exhibit MOD 9C

Stanislaus County General Plan
Modesto City-County Airport

Chapter **5**

OAKDALE MUNICIPAL AIRPORT AND ENVIRONS BACKGROUND DATA

Stanislaus County
Striving to be the Best

5

Background Data: Oakdale Municipal Airport and Environs

INTRODUCTION

Oakdale Municipal Airport is a general aviation (GA) facility that is owned and operated by the City of Oakdale. The airport was established as a private aviation facility in 1947 and then purchased by the City of Oakdale in 1960. Although the airport is located on City property, the airport property is not contiguous to the remainder of the City. The City of Oakdale is located approximately 2.5 miles west of the airport. Access to the airport is from Laughlin Road from Sierra Road. The airport lies at an elevation of 237 feet above Mean Sea Level (MSL) and encompasses 117 acres.

STATUS OF AIRPORT PLANS

The Oakdale City Council adopted the most recent Master Plan for Oakdale Municipal Airport in 1998 (Resolution 98-88). The 1998 Master Plan includes a long-term development plan for the airport covering a planning horizon of 20 years. A legible copy of the Master Plan was not available for use in preparation of the ALUCP.

In 2006, the City prepared an Airport Layout Plan to assist airport staff in implementing short-term improvements to the airfield. As an administrative drawing, the 2006 ALP was never submitted or approved by the Federal Aviation Administration (FAA).

In 2013, the City prepared an ALP drawing set and associated Narrative Report. The ALP drawing set includes the ALP, Airspace Plan and Airport Property Map. The ALP Narrative report describes existing and planned airport facilities and documents existing and forecast aircraft activity. Based on discussions with FAA, the proposed ALP does not include all of the long-term Master Plan development projects, such as the runway extension and upgrade to ARC B-II. The ALP is FAA pending approval. In accordance with Section 21675(a) of the California Public Utilities Code, the 2013 ALP was presented to the Caltrans Division of Aeronautics with a request that it serve as the basis of the Oakdale Municipal Airport Land Use Compatibility Plan.

The 2013 ALP, together with supplemental information provided by airport personnel, forms the foundation for this ALUCP. Existing and future airport features are summarized in **Exhibit OAK-2** and discussed further below. The proposed 2014 ALP is presented as **Exhibit OAK-3.**

AIRFIELD CONFIGURATION

Oakdale Municipal Airport has a single paved runway (Runway 10-28) 3,013 feet long and 75 feet wide. The runway is aligned with the prevailing wind direction in a nearly northwest/southeast alignment. Winds at the airport are primarily out of the northwest. The airport building area is located north of the airfield. Air transportation services include flight instruction, charter service, rentals, and engine repair and maintenance.

Oakdale Municipal Airport has an Airport Reference Code (ARC) classification of B-I (small) which means that the airport is designed to accommodate small aircraft weighing less than 12,500 pounds (e.g., Cessna 172). Both ends of Runway 10-28 are equipped with straight-in, non-precision instrument (GPS) approach capabilities providing visibility minimums as low as one statute mile and a decision altitude of 519 feet MSL (295 feet above ground level [AGL]) for Runway 10 and 7/8 statute mile and a decision altitude of 532 feet MSL (295 feet AGL) for Runway 28.

The Runway Protection Zones (RPZs) for each runway reflect FAA criteria for an ARC B-I (small) runway. Each RPZ has an inner width of 250 feet, an outer width of 450 feet and a length of 1,000 feet. Less than 15% of the Runway 10 RPZ is located on airport property, while nearly 90% of the RPZ for Runway 28 is off-airport.

As described in the 2013 ALP and Narrative Report, the long-term development plans for the airport include:

- Property acquisition north and south of Runway 10 for future airport development; Acquisition of easements for the portions of the RPZs located outside of the airport property boundaries; and
- Construction of future aircraft hangars and parking aprons.

AIRSPACE PLAN

The 2013 ALP includes an Airspace Plan which depicts the future Federal Aviation Regulations (FAR) Part 77 imaginary airspace surfaces (see **Exhibit OAK-7**). The 2013 Airspace Plan reflects the existing airfield configuration and design of the runway (i.e., ARC B-I (small)) and non-precision instrument approaches to both runway ends.

EXISTING ACTIVITY

The FAA's National Plan of Integrated Airport Systems (NPIAS) classifies Oakdale Municipal Airport as a general aviation facility. As is typical with most small general aviation facilities, Oakdale Municipal Airport does not have an Airport Traffic Control Tower (ATCT). As such, existing aircraft activity levels must be estimated based upon observations by airport management, airport users, and activity data provided in the 2013 ALP Narrative Report. Current (2013) aircraft activity levels are estimated at 42,200 annual operations. Most of this activity (85%) is local operations, which includes flight training exercises known as touch-and-go's.

Based on information provided by airport personnel, up to one-third of the local operations are conducted by helicopters arriving from other airports to conduct training exercises at the airport. Helicopters enter the left-hand traffic pattern on the south side of the airport to land on the runway.

Helicopter training exercises can take place for up to 6 hours at a time, 2 to 3 times a month. The remaining local operations are by fixed-wing aircraft, typically single-engine aircraft, also flying the left-hand closed-circuit pattern south of the airport. Itinerant operations make up 15% of the total activity. Although the airport is used predominantly by single-engine aircraft, a small percentage of multi-engine (3%), turboprop (3%), and jet (1%) aircraft use the airport on a regular basis.

Activity Forecast

As provided in the 2013 ALP Narrative report, a forecast of 52,200 annual operations assumes that aircraft activity will increase at a rate of 1.1 percent from the base year level of some 42,200 annual operations (2012). No change in the fleet mix is anticipated over the planning horizon.

The activity forecast of 52,200 annual operations provided in the 2013 ALP Narrative Report is brought forward and used as the basis of this ALUCP. Existing and future aircraft activity assumptions are summarized in **Exhibit OAK-4**.

Noise Contours

Future noise contours were generated reflecting the new activity forecast of 52,200 annual operations. The future noise contours for Oakdale Municipal Airport are shown in **Exhibit OAK-5**.

Overflight Patterns

The typical aircraft traffic patterns at Oakdale Municipal Airport are illustrated on **Exhibit OAK-5**. The airport has standard left-hand traffic patterns to Runway 10 and Runway 28. Runway 28 is the primary runway for landings and takeoffs. Due to prevailing winds, an estimated 90% of operations take place on Runway 28 and operate into the wind in an east to west direction. Arriving aircraft usually enter the pattern downwind at a 45° angle. Airport management indicates that 30% of aircraft arrive from the west, 30% from the north, 30% from the south, and 10% from the east. It is also estimated that 40% of aircraft depart straight out and 60% turn left (westward). The traffic pattern altitude is established at 1,000 feet above the established airport elevation of 237 feet MSL. Aircraft following straight-in approach procedures will be at a lower altitudes relative to the runway ends than aircraft entering the traffic pattern.

Safety Zones

For Oakdale Municipal Airport, the generic safety zones for a short general aviation runway (< 4,000 feet in length) were applied to the existing runway configuration.[1] Adjustments to the generic safety zones were made to reflect the following:

- Zone 1 reflects the existing RPZs;
- Zone 4 at the northwest end of the runway is modified to reflect that aircraft departing the airport will typically make a left-hand turn at Sierra Road to head south or west.

The safety zones for Oakdale Municipal Airport are shown in **Exhibit OAK-6**.

[1] Source: *California Airport Land Use Planning Handbook* (October 2011).

Airport Environs

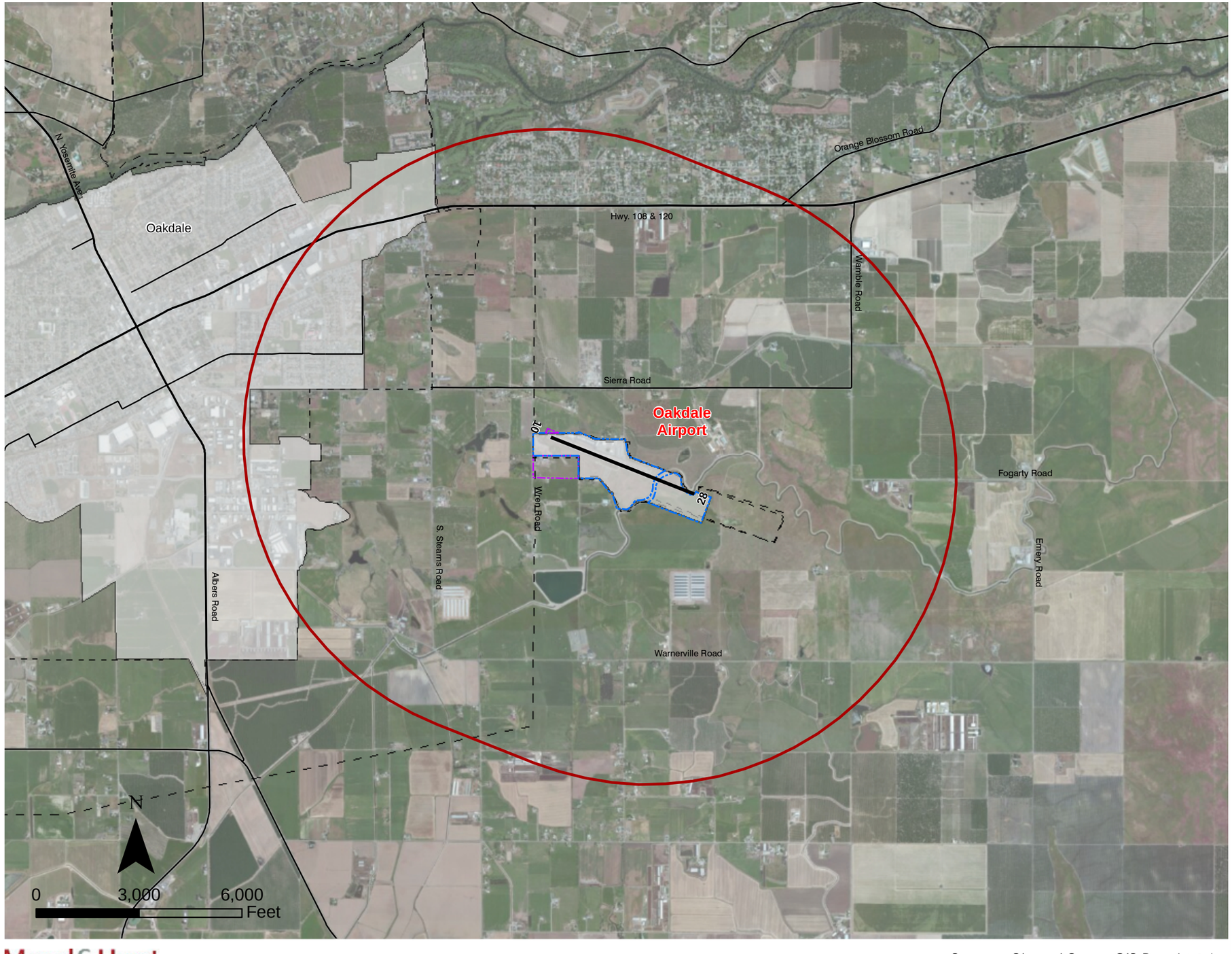
Exhibit OAK-8 provides a detailed summary of Oakdale Municipal Airport's existing and planned environs, including airport compatibility policies adopted by the local agencies. The City of Oakdale and Stanislaus County are within the airport's influence area. Planned land use designations are provided in **Exhibits OAK-9A** and **OAK-9B**.

As shown in the exhibits, unincorporated lands entirely surround the airport. Much of the airport is adjacent to large tracts of agricultural and undeveloped land. Some scattered housing is located on this agricultural land. The airport is located approximately 1 mile east of the nearest point of the urbanized areas of the City of Oakdale. Industrial uses exist 1.5 miles west of the airport. Low-density residential development is planned less than 0.5 mile northwest from the approach end of Runway 10.

BACKGROUND INFORMATION

The following exhibits present the data upon which *Compatibility Plan* policy maps are based:

- **Exhibit OAK-1**—Airport Location: Presents the location of the airport in the context of existing environment (aerial photograph).
- **Exhibit OAK-2**—Airport Features Information: Presents data pertaining to existing and proposed infrastructure (runways, taxiways, etc.), traffic patterns, and approach data.
- **Exhibit OAK-3**—Airport Layout Plan: Presents existing and proposed airport facilities as provided in the 2013 ALP and Narrative Report. FAA approval is anticipated in summer of 2014.
- **Exhibit OAK-4**—Airport Activity Data: Presents aviation forecasts for the 20-year planning period of this ALUCP based on forecast data provided in the 2013 ALP Narrative Report.
- **Exhibit OAK-5**—Noise and Overflight Factors: Presents the geographic area over which aircraft operating at the airport routinely fly, as well as the noise contours based on the planning period forecasts.
- **Exhibit OAK-6**—Safety Factors: Presents the locations of safety zones using the guidance and templates presented by the California Division of Aeronautics in its manual, *California Airport Land Use Planning Handbook*. Adjustments to the generic zones are also depicted.
- **Exhibit OAK-7**—Airspace Protection Surfaces: Depicts the Federal Aviation Regulations Part 77 airspace surfaces which should be kept free of obstructions.
- **Exhibit OAK-8**—Airport Environs: Presents site data, existing and planned land uses, affected jurisdictions, and compatible land use measures.
- **Exhibit OAK-9A**—Oakdale General Plan: Presents land uses based on City of Oakdale General Plan and GIS parcel data (adopted 2013).
- **Exhibit OAK-9B**—Stanislaus County General Plan: Presents land uses based on County of Stanislaus General Plan and GIS parcel data.



Legend

- Road
- City of Oakdale
- Existing Airport Property
- Future Airport Property
- Existing Sphere of Influence
- Future Sphere of Influence
- Airport Influence Area

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Exhibit OAK-1

Airport Location
Oakdale Municipal Airport

Mead&Hunt

Sources: City and County GIS Data (2012)

GENERAL INFORMATION

- Airport Ownership – City of Oakdale
- Property size
  - Fee title: 117 acres
  - Avigation easements: 21.2 acres
- Airport Classification –General aviation
- Airport Elevation — 237' feet MSL (surveyed)
- Access
  - Via Laughlin Road from Sierra Road
  - 2.5 miles from central Oakdale and Highway 108

RUNWAY SYSTEM

Runway 10-28

- Critical Aircraft — Cessna 421
- Classification — Airport Reference Code B-I (small)
- Dimensions —3,013 feet long; 75 feet wide
- Pavement Strength — 20,000 lbs for aircraft with single-wheel main landing gear
- Average Gradient — 0.48%
- Lighting — Medium intensity edge lighting, runway edge identifier lights
- Primary Taxiways — Full length parallel north of runway

APPROACH PROTECTION

- Established Runway Protection Zones
  - Runway 10: 1,000 feet long, outer width 450 feet; 14% on airport
  - Runway 28: 1,000 feet long, outer width 450 feet; 99% off airport
- Approach Obstacles
  - Runway 10: No close-in obstructions (50:1 clear)
  - Runway 28: No close-in obstructions (50:1 clear)

BUILDING AREA

- Location – North-northeast side of runway
- Aircraft Parking Capacity
  - Hangar spaces for 61 aircraft (2013 ALP)
  - 20 tiedown spaces (2013 ALP)
- Services
  - Airframe and powerplant maintenance
  - Fuel (100LL)

TRAFFIC PATTERNS AND APPROACH PROCEDURES

- Airplane Traffic Pattern
  - Left traffic
  - Pattern altitude – 1,000 feet AGL
- Instrument Approaches
  - Runway 10 RNAV (GPS): nonprecision straight-in (1-mile visibility, 519 ft. MSL [295 ft. AGL] minimum descent height); missed approach climbs to 2,000'
  - Runway 28 RNAV (GPS): nonprecision straight-in (7/8-mile visibility, 532 ft. MSL [295 ft. AGL] minimum descent height); missed approach climbs to 3,000'
- Visual Navigational Aids
  - Runway 10: REILS, 2-box VASI (2.50° glide path)
  - Runway 28: REILS, 2-light PAPI (3.00° glide path)
- Noise Abatement Procedures
  - None
- Helicopters
  - Substantial helicopter training activity
  - Typically fly pattern and hover on runway or parallel taxiway

PROPOSED FACILITY IMPROVEMENTS

- Property Acquisitions
  - 19 acres south of airport and east of Wren Road
  - 0.6 acres north of Runway 10 and east of Wren Road
- Approach Protection
  - Easements for off airport portions of RPZs for Runways 10 and 28
- Building Area
  - Construction of additional hangars

AIRPORT PLANNING

- Airport Planning Documents
  - Airport Master Plan and ALP (1998)
  - Airport Layout Plan (2006)
  - Airport Layout Plan and Narrative Report (2013 Draft)

Source: Data compiled by Mead & Hunt, Inc.

Exhibit OAK-2

Airport Features Information

Oakdale Municipal Airport

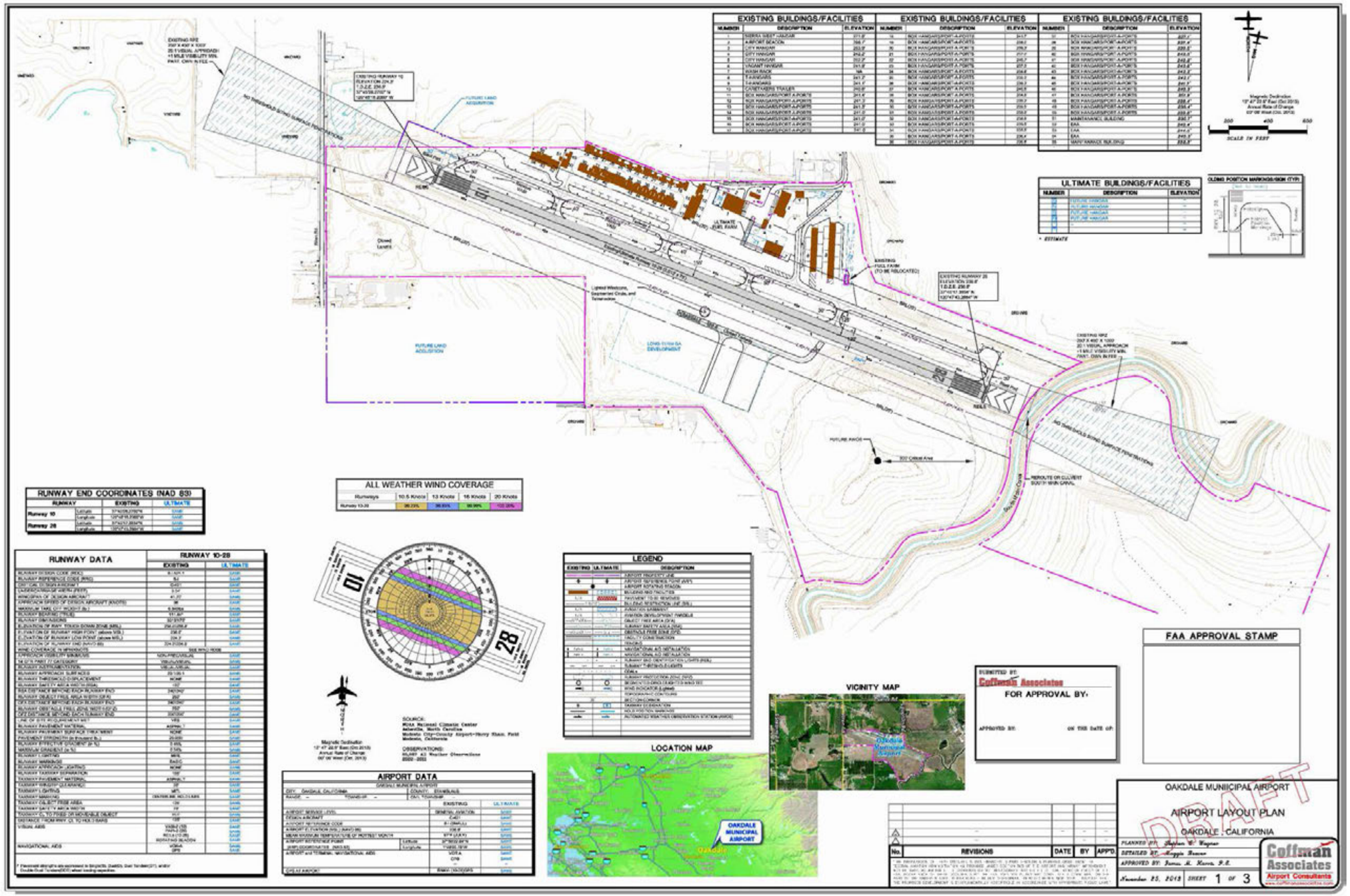


Exhibit OAK-3

Airport Layout Plan

Oakdale Municipal Airport

BASED AIRCRAFT

	Current	Future
Aircraft Type [a]		
Single Engine	73	79
Multi Engine	8	17
Jet	0	2
Helicopter	0	2
Total	81	100

AIRCRAFT OPERATIONS

	Current	Future
Total [a]		
Annual	42,200	52,200
Average Day	116	143
Peak Hour	25	31
(avg. day, peak month)		
Distribution by Aircraft Type [c]		
Single Engine	72%	
Multi-Engine	3%	No
Turboprop	3%	Change
Business Jet	1%	
Helicopter [d]	21%	
Distribution by Type of Operation [a]		
Local		
(incl. touch-and-goes)	85%	No
Itinerant	15%	Change

TIME OF DAY DISTRIBUTION [b]

	Current	Future
Fixed Wing		
Day	92%	
Evening	5%	No
Night	3%	Change
Helicopters [d]		
Day	55%	
Evening	35%	No
Night	10%	Change

RUNWAY USE DISTRIBUTION [b]

	Current	Future
All Aircraft		
Takeoffs		
Runway 10	10%	No
Runway 28	90%	Change
Landings		
Runway 10	10%	No
Runway 28	90%	Change

FLIGHT TRACK DISTRIBUTION [b]

	Current	Future
All Aircraft		
Takeoffs, Runway 10		
Straight Out	40%	No
Left Turn	60%	Change
Takeoffs, Runway 28		
Straight Out	40%	No
Left Turn	60%	Change
Landings, Runway 10		
Straight-in	5%	
45° to downwind	85%	No
Crosswind	10%	Change
Landings, Runway 28		
Straight-in	5%	
45° to downwind	85%	No
Crosswind	10%	Change

Notes:

a. Current and projected based aircraft mix and aircraft operations source: Oakdale Airport Layout Plan Narrative Report (Coffman Associates, 2013). Narrative Report uses 2012 for base year data.

b. Traffic patterns, time of day and runway use data source: Airport management and staff (October, 2010). Time of day activity, runway utilization, and flight tracks are expected to remain constant.

c. Aircraft distribution source: Mead & Hunt estimates using 1997 Master Plan. Aircraft distribution not provided in 2013 Narrative Report.

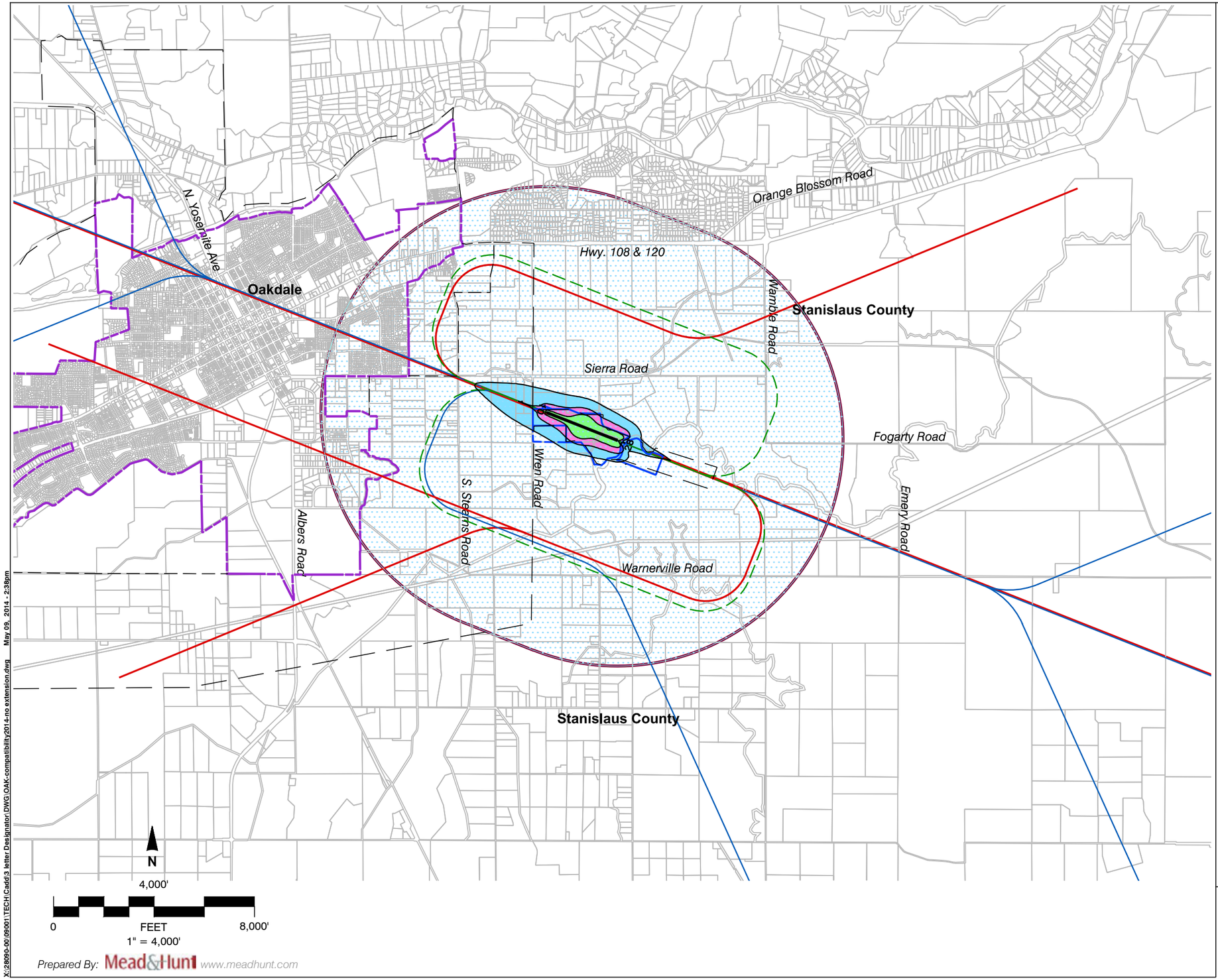
d. Helicopter training (touch-and-go) exercises are prominent at Oakdale. A dedicated helicopter flight school and some military training comprise the bulk of this activity. Helicopter training activity is expected to remain at Oakdale and growth in operations is projected.

Source: Data compiled by Mead & Hunt, Inc.

Exhibit OAK 4

Airport Activity Data

Oakdale Municipal Airport



Legend

Boundary Lines

- Existing Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Noise Contours[1]

- 60 - 65 dB CNEL
- 65 - 70 dB CNEL
- 70+ dB CNEL

} 52,200 Annual Operations

Overflight Factors[2]

- Arrival
- Departure
- Touch and Go
- General Traffic Pattern Envelope[3]

Notes

1. Noise contour source: Mead & Hunt, Inc. (May 2014) based on forecast data provided in 2013 ALP Narrative Report.

2. Flight track source: Mead & Hunt, Inc. (October 2010) based on input from Airport Management.

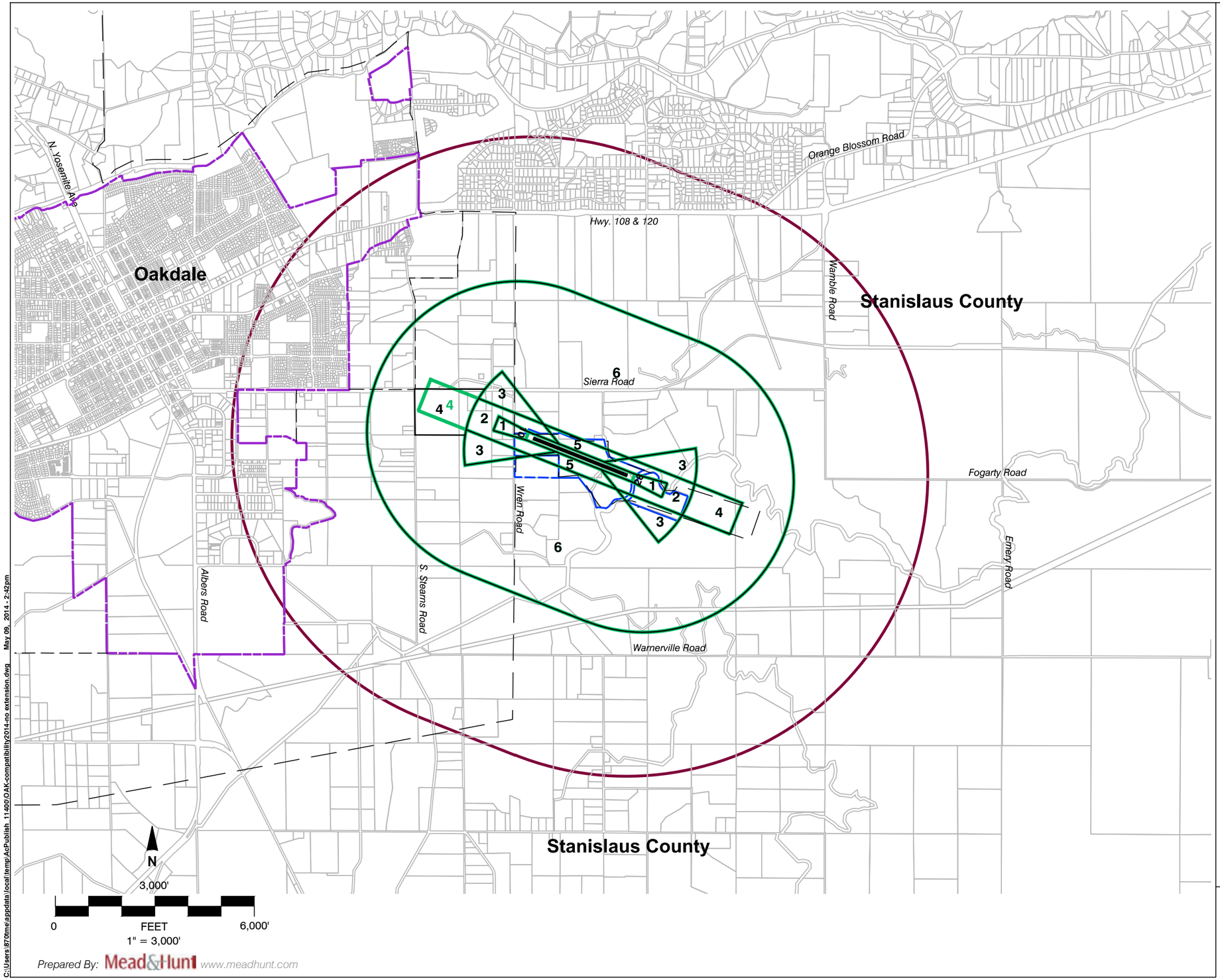
3. Approximately 80% of aircraft overflights estimated to occur within these limits at an altitude of 1,500' feet AGL or less. The traffic pattern altitude is established at 1,000' above the airport elevation.

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Exhibit OAK-5

Noise and Overflight Factors

Oakdale Municipal Airport



Legend

Boundary Lines

- Existing Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Safety Zone Factors

- Generic Short General Aviation Runway
- Safety Policy Zones

Notes

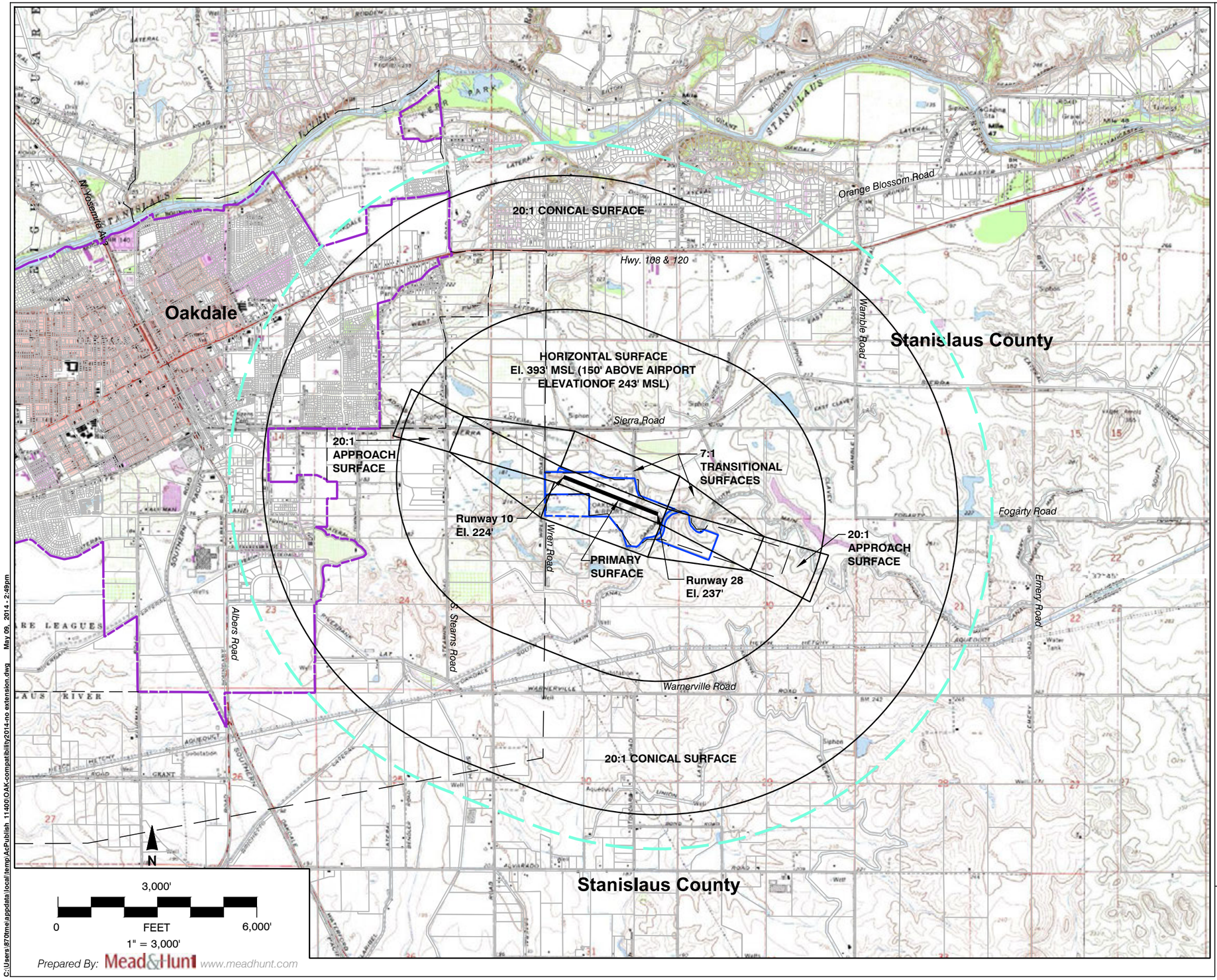
1. Generic safety zone source: California Airport Land Use Planning Handbook (October 2011).
2. Zone 1 reflects existing RPZs and Zone 4 at west end of runway reconfigured to reflect aircraft on departure typically turn left before Sierra Road when heading south or west.

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Exhibit OAK-6

Safety Factors

Oakdale Municipal Airport



Prepared By: Mead&Hunt www.meadhunt.com

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Legend

Boundary Lines

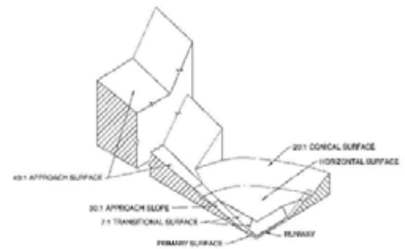
- Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Airspace Protection Surfaces [1]

- FAA Height Notification Surface [2]
- FAR Part 77 Surfaces [3]

Notes

1. Airspace surfaces reflect the existing runway configuration and nonprecision approaches to Runway 10-28. Airport elevation is 237.0' above mean sea level (MSL).
2. Based on FAR Part 77, Subpart B, which requires that the FAA be notified of any proposed construction or alteration having a height greater than an imaginary surface extending 50 feet outward and 1 foot upward (slope of 50 to 1) for a distance of 10,000 feet from the nearest point of any runway. Beyond FAA Height Notification Area boundary, any object taller than 200 feet requires FAA notification.
3. FAR Part 77 Obstruction Surfaces: Based on FAR Part 77, Subpart C, which establishes standards for determining obstructions to air navigation. Source: Oakdale Municipal Airport Airspace Drawing (November 2013 Draft).



TYPICAL FAR PART 77 SURFACES

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Exhibit OAK-7

Airspace Protection Surfaces

Oakdale Municipal Airport

AIRPORT LOCATION AND NEARBY TOPOGRAPHY

- Location
  - 2.5 miles east of central Oakdale
  - Airport property within city limits, but not contiguous to remainder of city
  - Unincorporated lands entirely surround airport
- Topography
  - Situated on floor of San Joaquin Valley; no major high terrain in vicinity
  - Elevation: 237 feet Above Mean Sea Level (MSL)

EXISTING AIRPORT AREA LAND USES

- General Character
  - Airport surrounded by agricultural and rural residential uses
  - Nearest urban area is 1.0 mile west
- Runway Approaches
  - West (Rwy 10): agricultural uses; residential neighborhood beyond 1 mile
  - East (Rwy 28): agricultural uses
- Traffic Pattern
  - Agricultural uses surround airport

AIRPORT ENVIRONS AND LAND USE JURISDICTIONS

- City of Oakdale
  - Airport property within city limits
- County of Stanislaus
  - Portions of Runway Protection Zones (RPZs) and traffic pattern over unincorporated lands

STATUS OF LOCAL AGENCY PLANS

- City of Oakdale
  - 2030 General Plan adopted August 2013
- Stanislaus County
  - General Plan adopted December 1995
  - General Plan map dated September 2007
  - Undergoing a General Plan update; anticipated adoption early 2014

PLANNED AIRPORT AREA LAND USES

- City of Oakdale General Plan
  - Agricultural uses on all sides, except small area of commercial north of runway
  - Low Density Residential less than 1/2 mile northwest
  - Industrial uses 1.5 miles west
- Stanislaus County
  - Agricultural uses on all sides
  - Urban Transition designation along westerly city limits

ESTABLISHED COMPATIBILITY MEASURES

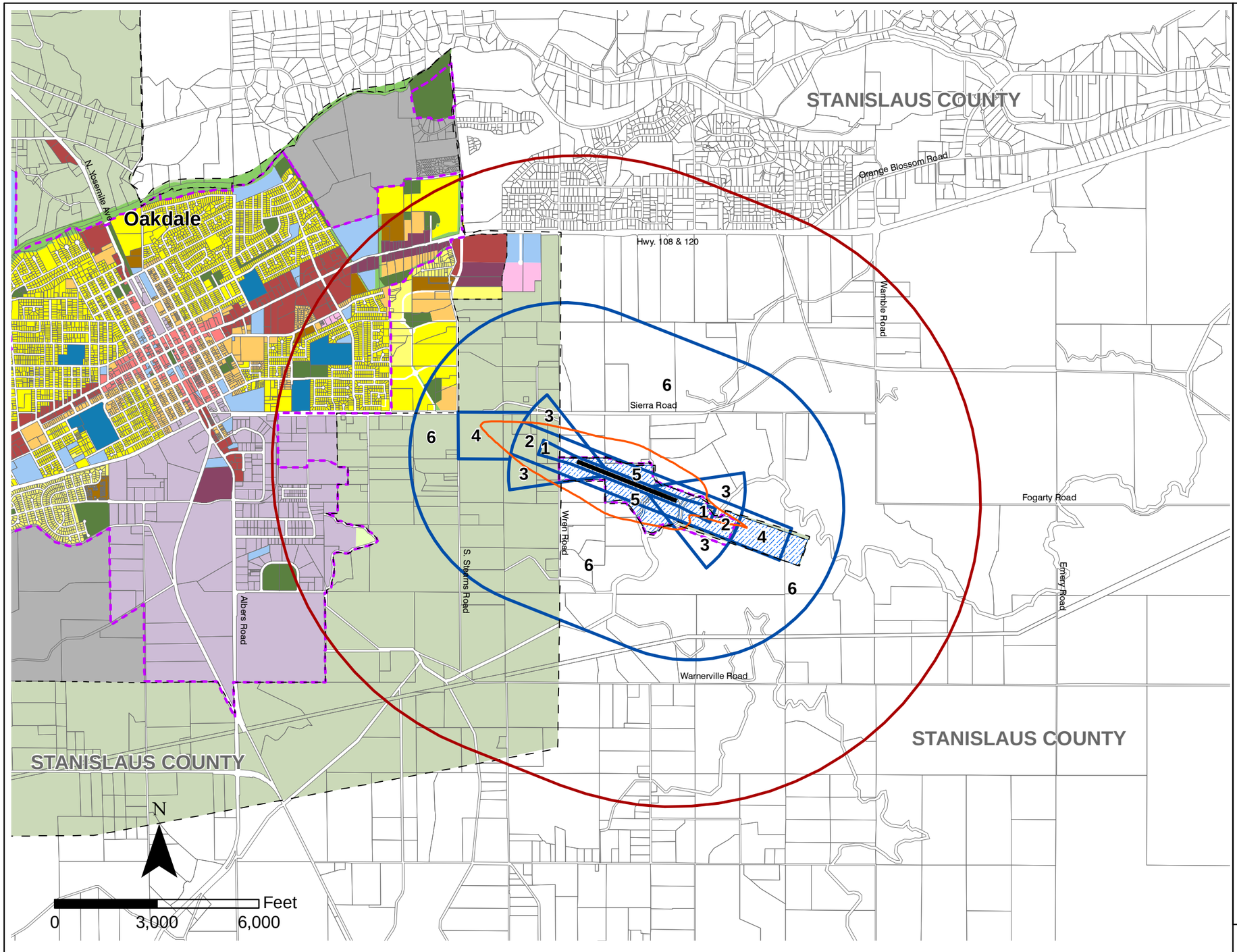
- City of Oakdale 2030 General Plan (2013)
  - LU-6.5 Airport Secondary Uses. Accommodate uses that sup-port or benefit from Oakdale Municipal Airport operations within and adjacent to the airport property when determined consistent with the City of Oakdale Municipal Airport Master Plan. (RDR, MP)
- City of Oakdale 2030 General Plan - *continued*
  - LU-6.6 Airport Operations. Protect Oakdale Municipal Airport from encroachment by ensuring that all new land uses and developments are compatible with airport operations, the adopted Oakdale Municipal Airport Master Plan and the adopted Airport Land Use Commission Plan. (RDR, MP, M-IP8). M6-1. Aviation Services. Encourage a full range of aviation services at the Oakdale Municipal Airport that meets the present and future needs of residents, businesses and the local aviation community. (MP, M-IP2)
  - M-6.2 Municipal Airport Master Plan. Update and implement the City of Oakdale Municipal Airport Master Plan to ensure that facilities keep pace with increased demand for aviation services. (MP)
  - M-6.3 Consistency with ALUC Policies. Require that all development is consistent with the policies adopted by the Stanislaus County Airport Land Use Commission. (RDR, M-IP8)
  - N-1.10 Airport Plans. Regulate development within the 65 dBA CNEL airport noise contour in accordance with plans adopted by the Airport Land Use Commission and the City. (RDR, IGC)
  - M-1P8 Participate with Stanislaus County in the update to the Airport Land Use Commission Plan.
- Stanislaus County General Plan (1995)
  - Policy LU-4. Applications for development in areas with growth-limiting factors such as airport hazards shall include measures to mitigate the problems. County will continue to enforce the height limiting ordinance near airports (p. 1-3).
  - Policy LU-5. Residential development shall not be approved at the maximum density if it does not comply with airport height limiting ordinance restrictions (p. 1-4).
  - Policy C-9. Continue to support the development of public use airports consistent with the airport master plans developed for the Oakdale Municipal Airport and Modesto City-County Airport (p. 2-35).
  - Policy N-2. New development of noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to the following levels: 60 CNEL or less in outdoor activity areas of single family residences, 65 CNEL or less in community outdoor space for multi-family residences, and 45 CNEL or less within noise-sensitive interior spaces. Where it is not possible to reduce exterior noise due to these sources to the prescribed level using a practical application of the best available noise-reduction technology, an exterior level of up to 65 CNEL will be allowed. Under no circumstances will interior noise levels be allowed to exceed 45 CNEL with the windows and doors closed in residential uses (p. 4-15).
  - Policy S-12. Development within areas protected by the ALUC Plan shall only be approved if they meet the requirements of the Plan. All amendments to a land use designation, zoning district, or zoning regulation affecting land within the ALUC Plan boundary shall be referred to the ALUC for comment. If that commission recommends denial, the Board of Supervisors may overrule that recommendation only by a two-thirds majority vote. The height and exterior materials of new structures in the Airport Zone of the Oakdale Airport as defined in the Stanislaus County Airport Regulations shall be reviewed to determine whether they conform to those regulations (p. 5-9).

Source: Data compiled by Mead & Hunt

Exhibit OAK-8

Airport Environs Table

Oakdale Municipal Airport



Legend

- 60dB CNEL Noise Contour
- Safety Zones
- Existing Runway
- Airport Influence Area
- City Boundary
- Existing Sphere of Influence
- Future Sphere of Influence

City of Oakdale 2030 General Plan

- Rural Estate (RE)
- Very Low Density Residential (VLDR)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- High Density Residential (HDR)
- General Commercial (GC)
- Central Business District (CBD)
- Office (OFF)
- Industrial (IND)
- Flex Use (FLEX)
- Public and Semi-Public (PSP)
- Airport (AP)
- School (SCH)
- Park (P)
- Open Space (OS)
- Agriculture (AG)

Other

- Future Specific Plan

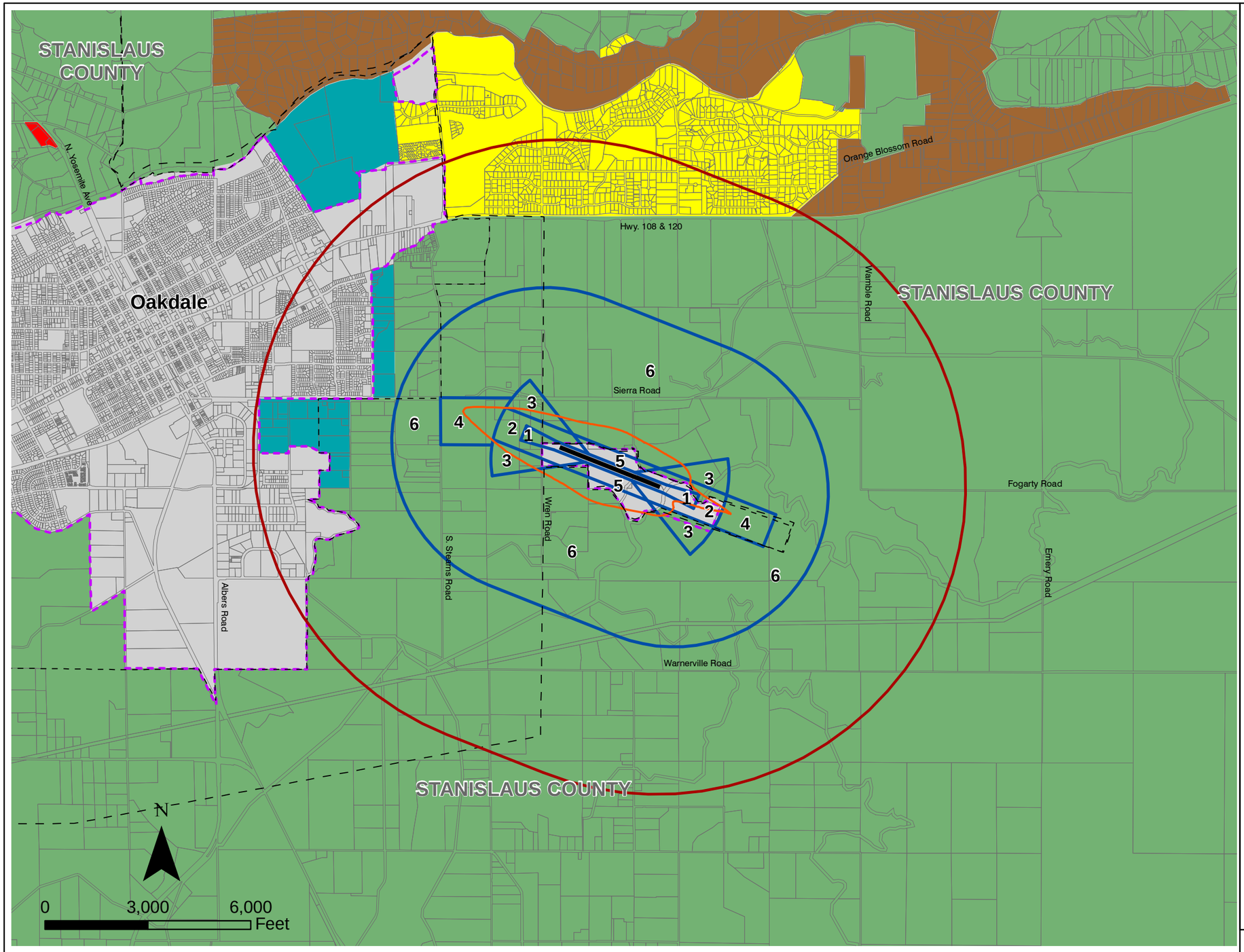
Stanislaus County
Airport Land Use Compatibility Plans
(May 2014 Draft)

Exhibit OAK-9A

Oakdale 2030 General Plan
Oakdale Municipal Airport

Sources: City and County GIS Data (2012)

Mead&Hunt



Legend

- 60dB CNEL Noise Contour
- City Boundary
- Existing Sphere of Influence
- Future Sphere of Influence
- Existing Runway
- Safety Zones
- Airport Influence Area

Stanislaus County General Plan

- Agriculture
- Commercial
- Estate Residential
- Hwy. Commercial/Planned Devpt.
- Historical
- Industrial Business Park
- Industrial
- Industrial Transition
- Low Density Residential
- Medium Density Residential
- Medium High Density Residential
- Planned Development
- Planned Industrial
- Specific Plan 1
- Urban Transition
- City

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Sources: City and County GIS Data (2009)

Exhibit OAK-9B

Stanislaus County General Plan
Oakdale Municipal Airport

Chapter 6

CROWS LANDING AIRPORT AND ENVIRONS BACKGROUND DATA

(FORTHCOMING)

APPENDICES

APPENDIX A

Foundations of Airport Land Use Compatibility Planning

INTRODUCTION

This appendix outlines the policy foundations upon which airport land use compatibility planning in California is based. Much of the material presented here is drawn from the October 2011 edition of the *California Airport Land Use Planning Handbook* published by the California Division of Aeronautics. (For those seeking more detail, the *Handbook* is available on-line at the Division's web site: www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.html.)

In beginning of this discussion, it is important to recognize that relatively little of the policy foundations for airport land use compatibility planning come directly from statutes or are otherwise regulatory in nature. The applicable California statutes deal primarily with the *process* of compatibility planning, not with *criteria* defining what land uses are or are not compatible with airports. The statutes require airport land use commissions to "be guided by" information in the state *Handbook*, but the *Handbook* does not constitute formal state policy or regulation. On the federal level, the guidance is even less regulatory in nature. The U.S. Constitution precludes federal government regulation of local land uses. Federal government direct involvement in airport land use compatibility planning occurs mostly because of the federal grant funding upon which airports rely. Beyond this type of involvement, various federal agencies have established nonregulatory guidelines that pertain to airport land use compatibility.

FEDERAL GOVERNMENT POLICIES

Federal airport land use compatibility policies are concerned mostly with noise issues. Several statutes deal specifically with aircraft noise. These statutes are implemented through regulations and policies of individual federal agencies, in particular the Federal Aviation Administration (FAA). Guidance with regard to safety is primarily limited to FAA regulations concerning airport design and protection of airport airspace.

Statutes

Three statutes are of particular relevance to airport land use compatibility planning in that they both support and limit the actions that airports can take to mitigate noise impacts.

- **Aviation Safety and Noise Abatement Act of 1979 (ASNA)**—Among the stated purposes of this act is "to provide assistance to airport operators to prepare and carry out noise compatibility programs." The law establishes funding for noise compatibility planning and sets the requirements by which airport operators can apply for funding. The law does not require any airport to develop a noise compatibility program—the decision to do so is the choice of each individual airport proprietor. Regulations implementing the act are set forth in Federal Aviation Regulations Part 150.

- **Airport and Airway Improvement Act of 1982 (AAIA)**—This act established the Airport Improvement Program (AIP) through which federal funds are made available for airport improvements and noise compatibility planning. The act has been amended several times, but remains in effect as of early 2009. Land use compatibility provisions of the act are implemented primarily by means of the assurances that airports must provide in order to receive federal airport improvement grants.

- **Airport Noise and Capacity Act of 1990 (ANCA)**—In adopting this legislation, Congress' stated intention was to try to balance local needs for airport noise abatement with national needs for an effective air transportation system. To accomplish this objective, the act did two things: (1) it directed the FAA to establish a national program to review noise and access restrictions on aircraft operations imposed by airport proprietors; and (2) it established requirements for the phase-out of older model, comparatively louder, "Stage 2" airline aircraft from the nation's airline fleet by January 2000. These two requirements are implemented by Federal Aviation Regulations Part 161 and 91, respectively.

Federal Aviation Administration

The most significant FAA policies having a bearing on airport land use compatibility are found in Federal Aviation Regulations and, secondarily, in certain Advisory Circulars.

- **Federal Aviation Regulations Part 36, *Noise Standards: Aircraft Type and Airworthiness Certification*—**This part of the Federal Aviation Regulations sets the noise limits that all newly produced aircraft must meet as part of their airworthiness certification.

- **Federal Aviation Regulations Part 91, *General Operating and Flight Rules*—**This part of the Federal Aviation Regulations sets many of the rules by which aircraft flights within the United States are to be conducted. Rules governing noise limits are set forth in Subpart I. Within this subpart is a provision which mandated that all Stage 2 civil subsonic aircraft having a maximum gross weight of more than 75,000 pounds be phased out of operation within the United States by January 1, 2000. These FAR implements the requirements set forth in the Airport Noise and Capacity Act of 1990.

- **Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning*—**As a means of implementing the Aviation Safety and Noise Abatement Act of 1979, the FAA adopted these regulations establishing a voluntary program that airports can utilize to conduct airport noise compatibility planning. "This part prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving these programs." Part 150 also prescribes a system for measuring airport noise impacts and presents guidelines for identifying incompatible land uses. Airports that choose to undertake a Part 150 study are eligible for federal funding both for the study itself and for implementation of approved components of the local program.

  The noise exposure maps are to be depicted in terms of average annual Day-Night Average Sound Level (DNL) contours around the airport. For the purposes of federal regulations, all land uses are considered compatible with noise levels of less than DNL 65 dB. At higher noise exposures, selected land uses are also deemed acceptable, depending upon the nature of the use and the degree of structural noise attenuation provided. In setting the various compatibility guidelines, however, the regulations state that the designations:

> "…do not constitute a Federal determination that any use of land covered by the [noise compatibility] program is acceptable or unacceptable under federal, state, or local law. *The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities.* FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses." [*emphasis added*]

Note that the DNL noise metric is the same as the CNEL (Community Noise Equivalent Level) metric used in California except that DNL does not include a penalty weighting for evening (7:00 to 10:00 p.m.) operations—each operation is counted as if it were three operations—as does CNEL. Both metrics apply a 10-fold weighting—each operation is counted 10 times—for nighttime activity (10:00 p.m. to 7:00 a.m.).

- **Federal Aviation Regulations Part 161, *Notice and Approval of Airport Noise and Access Restrictions***—This part of the federal regulations implements the Airport Noise and Capacity Act of 1990. It codifies the analysis and notification requirements for airport proprietors proposing aircraft noise and access restrictions on Stage 2 or Stage 3 aircraft weighing 75,000 pounds or more. Among other things, an extensive cost-benefit analysis of proposed restrictions is required. The analysis requirements are closely tied to the process set forth in FAR Part 150 and are more stringent with respect to the quieter, Stage 3 aircraft than for Stage 2.

- **Federal Aviation Regulations Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace*** —FAR Part 77 establishes standards for determining obstructions to navigable airspace and the effects of such obstructions on the safe and efficient use of that airspace. The regulations require that the FAA be notified of proposed construction or alteration of objects—whether permanent, temporary, or of natural growth—if those objects would be of a height that would exceed the FAR Part 77 criteria. The height limits are defined in terms of imaginary surfaces in the airspace extending about two to three miles around airport runways and approximately 9.5 miles from the ends of runways having a precision instrument approach. FAR Part 77 is applicable to both civilian and military airports although the specific standards differ.

  When notified of a proposed construction, the FAA conducts an aeronautical study to determine whether the object would constitute an airspace hazard. Simply because an object (or the ground) would exceed an airport's airspace surfaces established in accordance with FAR Part 77 criteria does not mean that the object would be considered a hazard. Various factors, including the extent to which an object is shielded by nearby taller objects, are taken into account. The FAA may recommend marking and lighting of obstructions.

  The FAA has no authority to remove or to prevent construction or growth of objects deemed to be obstructions. Local governments having jurisdiction over land use are typically responsible for establishing height limitation ordinances that prevent new, and enable removal of existing, obstructions to the FAR Part 77 surfaces. Federal action in response to new airspace obstructions is primarily limited to three possibilities:

  - For airports with instrument approaches, an obstruction could necessitate modification to one or more of the approach procedures (particularly greater visibility and/or cloud ceiling minimums) or even require elimination of an approach procedure.
  - Airfield changes such as displacement of a landing threshold could be required (especially at airports certificated for commercial air carrier service).

- The owner of an airport could be found in noncompliance with the conditions agreed to upon receipt of airport development or property acquisition grant funds and could become ineligible for future grants (or, in extreme cases, be required to repay part of a previous grant).

- **FAA Advisory Circular 150/5300-13, *Airport Design*—**The primary function of this Advisory Circular is to establish standards for dimensions and other features of civilian airport runways, taxiways, and other aircraft operating areas. For the most part, these airport components are all on airport property. One that is sometimes not entirely on airport is the runway protection zone (RPZ). RPZs are trapezoidal-shaped areas located at ground level beyond each end of a runway. The Advisory Circular describes their function as being "to enhance protection of people and property on the ground." The dimensions of RPZs vary depending upon:
  - The type of landing approach available at the airport (visual, nonprecision, or precision); and
  - Characteristics of the critical aircraft operating at the airport (weight and approach speed).

  Ideally, each runway protection zone should be entirely clear of all objects. The *Airport Design* Advisory Circular strongly recommends that airports own this property outright or, when this is impractical, to obtain easements sufficient to control the land use. Acquisition of this property is eligible for FAA grants (except at some small airports which are not part of the national airport system). Even on portions of the RPZs not under airport control, the FAA recommends that churches, schools, hospitals, office buildings, shopping centers, and other places of public assembly, as well as fuel storage facilities, be prohibited. Automobile parking is considered acceptable only on the outer edges of RPZs (outside the extended object free area).

Other Federal Agencies

- **U.S. Environmental Protection Agency (EPA)—**A report published in 1974 by the EPA Office of Noise Abatement and Control continues to be a source of useful background information. Entitled *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, this report is better known as the "Levels Document." The document does not constitute EPA regulations or standards. Rather, it is intended to "provide state and local governments as well as the federal government and the private sector with an informational point of departure for the purposes of decision-making." Using Yearly Day-Night Average Sound Level (DNL) as a measure of noise acceptability, the document states that "undue interference with activity and annoyance" will not occur if *outdoor* noise levels in residential areas are below DNL 55 dB and *indoor* levels are below DNL 45 dB. These thresholds include an "adequate margin of safety" as the document title indicates.

- **Department of Housing and Urban Development (HUD)—**HUD guidelines for the acceptability of residential land use are set forth in the Code of Federal Regulations Title 24, Part 51, "Environmental Criteria and Standards." The guidelines identify a noise exposure of DNL 65 dB or less as acceptable, between 65 and 75 dB as normally acceptable if appropriate sound attenuation is provided, and above DNL 75 dB as unacceptable. The goal for interior noise levels is DNL 45 dB. These guidelines apply only to new construction supported by HUD grants and are not binding upon local communities.

- **Department of Defense Air Installations Compatibility Use Zones (AICUZ) Program—**The AICUZ Program was established by the DOD in response to growing incompatible urban development around military airfields. DOD Instruction Number 4165.57 (November 8, 1977) provides the overall guidance for the program and mandates preparation of an AICUZ plan for each installa-

tion. Each of the military services has its own individual guidelines for implementing the basic instructions. The Air Force guidelines, for example, are defined in Air Force Instruction 32-7063, *Air Installation Compatible Use Zone Program* (April 17, 2002) and Air Force Handbook 32-7084, *AICUZ Program Manager's Guide* (March 1, 1999). The Air Force publications describe the two objectives of the AICUZ program as being: to assist local, regional, state, and federal agencies in protecting public health, safety, and welfare by promoting compatible development within the area of influence of military installations; and to protect Air Force operational capability from the effects of land uses which are incompatible with aircraft operations. AICUZ plans prepared for individual military airfields serve as recommendations to local land use jurisdictions, but have no regulatory function.

Each AICUZ plan delineates the installation's area of influence with respect to height limitations for airspace protection, accident potential, and noise. FAR Part 77 is used for airspace protection criteria. For safety compatibility, three accident potential zones (APZs) are defined: a clear zone (equivalent to the RPZ at civilian airports), and APZs I and II. These zones extend a total of 15,000 feet beyond the ends of runways. Noise contours using the DNL metric, or CNEL in California, indicate the extent of noise impacts. Land use compatibility guidelines are provided with respect to each of these factors. Residential development is considered incompatible within all three APZs except for low-density development in APZ II, as well as within all noise contours above 65 dB.

- **Department of Defense Joint Land Use Study (JLUS) Program**—In 1985, congress authorized the DOD to make available community planning assistance grants (Title 10 U.S.C. Section 2391) to state and local government to help better understand and incorporate the AICUZ technical data into local planning programs. The Office of Economic Adjustment (OEA) manages the JLUS program. A JLUS is a cooperative land use planning effort between the affected local government and the military installation. The JLUS presents a rationale, justification, and a policy framework to support the adoption and implementation of recommended compatible development criteria. These measures are designed to prevent urban encroachment; safeguard the military mission; and protect the public health, safety, and welfare.

STATE OF CALIFORNIA POLICIES

Unlike with federal government policies that are merely advisory as airport land use compatibility planning guidelines, some elements of state policy are regulatory in nature.

State Aeronautics Act

The California State Aeronautics Act—Division 9, Part 1 of the California Public Utilities Code—provides the policy guidance most directly relevant to compatibility planning. Three portions of the act are of particular interest. One, beginning with Section 21670, establishes requirements for airport land use compatibility planning around each public-use and military airport in the state and the creation of an airport land use commission in most counties. Another—Section 21669—requires the State Department of Transportation to adopt, to an extent not prohibited by federal law, noise standards applicable to all airports operating under a state permit. A third effectively makes FAR Part 77 a state law.

- **Airport Land Use Commission Statutes**—Although numerous changes have been made to the ALUC statutes over the years, the basic requirements for the establishment of ALUCs and the preparation of airport land use compatibility plans have been in place since the law's enactment in 1967.

The fundamental purpose of ALUCs to promote land use compatibility around airports has remained unchanged. As expressed in the present statutes, this purpose is:

> "...to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses."

As noted in the introduction to this chapter, the focus of the ALUC statutes is on the process of compatibility planning. Compatibility criteria are not defined. Rather, reference is made to other sources of compatibility criteria, specifically:

- The preamble to the law indicates that one of the purposes is "to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669" i.e., the California Airport Noise Regulations.
- Section 21674.7 requires that, when adopting or amending a compatibility plan, ALUCs "be guided by" information contained in the *Airport Land Use Planning Handbook*. This section further states that "prior to granting permits for the renovation or remodeling of an existing building, structure, or facility, and before the construction of a new building, it is the intent of the Legislature that local agencies shall be guided by the height, use, noise, safety, and density criteria that are compatible with airport operations" as outlined in the *Handbook*. Highlights of the compatibility criteria set forth in the *Handbook* are included later in this chapter.
- With regard to military airports, Section 21675(b) states that ALUCs must prepare a compatibility plan for them and that such plans "shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone [plan] prepared for that military airport."

With respect to the compatibility planning process, two sections of the law are particularly significant to local land use agencies:

- ALUC authority is limited to "areas not already devoted to incompatible uses." This phrase is generally taken to mean that ALUCs have no authority over existing land uses. However, changing an incompatible land use in a manner that would make it more incompatible is considered to be within the jurisdiction of ALUCs.
- Section 21676 describes the types of land use actions that must be submitted to an ALUC for review. These actions include adoption or amendment of a general plan or zoning ordinance. Section 21676.5 indicates that until such time as a local agency's general plan has been made consistent with the ALUC's plan, the ALUC may require the local agency to submit all "actions, regulations, and permits" for review. After the agency's general plan has been deemed consistent, then these additional actions are not subject to ALUC review unless agreed upon between the agency and the ALUC.

- **California Airport Noise Regulations**—The airport noise standards promulgated in accordance with the State Aeronautics Act are set forth in Section 5000 et seq. of the California Code of Regulations (Title 21, Division 2.5, and Chapter 6). The regulations establish criteria under which a county board of supervisors can declare an airport as having a "noise problem." The specifics of the regulations are applicable only to a few, primarily major airline, airports that have been declared as having a noise problem. Nevertheless, some of the provisions are of interest in a nonregulatory manner to other airports.

  Most relevant are the criteria that define what are considered incompatible land uses with respect to noise. Section 5006 states that:

> "The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a community noise equivalent level (CNEL) value of 65 dB for purposes of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep and community reaction."

Of particular note in the above is that the CNEL 65 dB criterion has been set specifically with respect to *urban* residential areas. The regulations provide no guidance with respect to other community settings.

Four types of land uses are defined as incompatible within the CNEL 65 dB contour:

- Residences of all types;
- Public and private schools;
- Hospitals and convalescent homes; and
- Churches, synagogues, temples, and other places of worship.

However, these uses are not deemed incompatible if any of several mitigative actions has been taken as spelled out in Section 5014. Among these measures are airport acquisition of an avigation easement for aircraft noise and, except for some residential uses, acoustical insulation adequate to ensure that the interior CNEL due to aircraft noise is 45 dB or less in all habitable rooms.

- **Regulation of Obstructions**—Section 21659 gives the state authority to enforce the standards set by FAR Part 77. No structure or tree is permitted to reach a height that exceeds FAR Part 77 obstruction standards unless the FAA has determined that the object would not constitute a hazard to air navigation or create an unsafe condition for flight.

Other State Regulations

Additional state regulations having a bearing on airport land use compatibility planning include the following:

- **Government Code**—Section 65302.3 requires that local agencies must either modify their general plans and any applicable specific plans to be consistent with the compatibility plan adopted by an ALUC or take the steps indicated in Public Utilities Code Section 21676 to overrule the ALUC. The local plans are to be amended within 180 days of when the ALUC plan is adopted or amended.

- **California Building Code**—California Code of Regulations Title 24, known as the California Building Code, contains standards for allowable interior noise levels associated with exterior noise sources. The standards apply to new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family residences.

  The standards state that:

  > "Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the Day- Night Average Sound Level (L_{dn}) or the Community Noise Equivalent Level (CNEL), consistent with the noise element of the local general plan. Worst-case noise levels, either existing or future, shall be used as the basis for determining compliance with [these standards]. Future noise levels shall be predicted for a period of at least 10 years from the time of building permit application."

With regard to airport noise sources, the code goes on to indicate that:

> "Residential structures to be located where the annual L_{dn} or CNEL exceeds 60 dB shall require an acoustical analysis showing that the proposed design will achieve the prescribed allowable interior level. For public use airports or heliports, the L_{dn} or CNEL shall be determined from the airport land use plan prepared by the county wherein the airport is located. For military bases, the L_{dn} shall be determined from the facility Air Installation Compatible Use Zone (AICUZ) plan. For all other airports or heliports, or public use airports or heliports for which a land use plan has not been developed, the L_{dn} or CNEL shall be determined from the noise element of the general plan of the local jurisdiction. When aircraft noise is not the only significant source, noise levels from all sources shall be added to determine the composite site noise level."

- **Real Estate Disclosure Laws**—State legislation that took effect in January 2004 (Building and Professions Code Section 11010 and Government Code Sections 1103 and 1353) requires that the presence of an airport nearby be disclosed as part of residential real estate transactions. For all new subdivisions plus those existing residences located where other hazards (flood, fire, and earthquake) are present. This requirement applies within the airport influence area as defined by the airport land use commission in the county. The law provides the following specific language to be used in the disclosure:

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

- **State Education Code**—Provisions of the Education Code applying to elementary and secondary schools (Section 17215) and community colleges (Section 81033) require the California Division of Aeronautics to review proposals for acquisition of a school site situated within two miles of an existing or planned airport runway. The Division must then investigate the proposed site and report back to the Department of Education its recommendations as to whether the site should be acquired for school purposes. The Division is also required to establish criteria to be used in this review process.

- **General Plan Guidelines**—Section 65302(f) of the California Government Code, requires that a noise element be included as part of local general plans. Airports and heliports are among the noise sources specifically to be analyzed. To the extent practical, both current and future noise contours (expressed in terms of either CNEL or DNL) are to be included. The noise contours are to be "used as a guide for establishing a pattern of land uses … that minimizes the exposure of community residents to excessive noise."

  Guidance on the preparation and content of general plan noise elements is provided by the Office of Planning and Research in its *General Plan Guidelines* publication (last revised in 2003). This guidance represents an updated version of guidelines originally published by the State Department of Health Services in 1976. Included in the document is a table indicating noise compatibility criteria for a variety of land use categories. Another table outlines a set of adjustment or "normalization" factors that "may be used in order to arrive at noise acceptability standards which reflect the noise control goals of the community, the particular community's sensitivity to noise…, and their assessment of the relative importance of noise pollution."

Airport Land Use Planning Handbook

Drawing from original research and a variety of other sources such as those described in this appendix, the 2011 edition of the *California Airport Land Use Planning Handbook* provides an extensive amount of information upon which local airport land use compatibility criteria can be based. Indeed, as noted earlier herein, local compatibility planning must "be guided by" the information in the *Handbook*. On most topics, the *Handbook* provides a significant degree of latitude in setting compatibility criteria to best suit the characteristics of a particular airport and its environs. Moreover, agencies can deviate from this guidance where there is strong rationale for doing so and compliance with the basic objectives of the statutes can still be demonstrated.

The *Handbook* discussion of compatibility issues is divided into chapters on noise and safety. The noise discussion includes overflight issues and safety includes airspace protection. A few highlights are worth noting.

- **Noise**—The *Handbook* notes that CNEL 65 dB is the maximum noise level normally compatible with urban residential land uses, but that this level is too high for many airports. The "normalization" process is cited as a means for adjusting this criterion to reflect community characteristics. Additional factors to be considered are listed in Table 7C.

- **Overflight**—Overflight concerns are addressed in terms of the need for buyer awareness measures and avoidance of particularly noise-sensitive land uses.

- **Safety**—Safety compatibility guidelines in the *Handbook* utilize accident location data to identify the areas of greatest risk near runways. Several sample sets of safety zones are depicted along with suggested maximum residential density and nonresidential intensity criteria. Distinctions between rural, suburban, and urban settings are taken into account in these criteria.

- **Airspace Protection**—The criteria for this topic stem directly from FAR Part 77 standards for avoidance of airspace obstructions and other FAA regulations with respect to bird strike concerns and other hazards to flight.

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APPENDIX B

State Laws Related to Airport Land Use Planning

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(as of January 2013)

Public Resources Code

Business and Professions Code

Civil Code

Legislative History Summary

AERONAUTICS LAW

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

21670. Creation; Membership; Selection

(a) The Legislature hereby finds and declares that:

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

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

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

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

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

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

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

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

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

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

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

21670.1. Action by Designated Body Instead of Commission

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21670.2. Application to Counties Having over 4 Million in Population

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

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

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

21670.3 San Diego County

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

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

21670.4. Intercounty Airports

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

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

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

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

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

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

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

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

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

21670.6. Court and Mediation Proceedings

Any action brought in the superior court relating to this article may be subject to mediation proceeding conducted pursuant to Chapter 9.3 (commencing with Section 66030) of Division I of Title 7 of the Government Code.

21671. Airports Owned by a City, District or County

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

21671.5. Term of Office

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

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

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

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

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

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

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

21672. Rules and Regulations

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

21673. Initiation of Proceedings for Creation by Owner of Airport

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

21674. Powers and Duties

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

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

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

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

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

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

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

21674.5. Training of Airport Land Use Commission's Staff

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

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

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

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

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

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

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

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

(1) By offering formal courses or training programs.

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

(3) By producing and making available written information.

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

21674.7. Airport Land Use Planning Handbook

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

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

authority of local agencies to overrule commission actions or recommendations pursuant to Sections 21676, 21676.5, or 21677.

21675. Land Use Plan

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

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

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

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

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

21675.1. Adoption of Land Use Plan

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

public notice is provided. If the applicant provides notice pursuant to this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

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

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

21676. Review of Local General Plans

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

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

(c) Each public agency owning any airport within the boundaries of an airport land use compatibility plan shall, prior to modification of its airport master plan, refer any proposed change to the airport

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

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

21676.5. Review of Local Plans

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

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

21677. Marin County Override Provisions

Notwithstanding the two-thirds vote required by Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its

governing body. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the public record of the final decision to overrule the commission, which may be adopted by a majority vote of the governing body.

21678. Airport Owner's Immunity

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

21679. Court Review

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

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

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

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

  (3) Rescinds the action.

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

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

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

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

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

21679.5. Deferral of Court Review

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

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

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

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

AERONAUTICS LAW

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

21402. Ownership; Prohibited Use of Airspace

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

21403. Lawful Flight; Flight Within Airport Approach Zone

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

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

(1) A forced landing.

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

(3) When the landing, takeoff, or taxiing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road or street.

The prosecution bears the burden of proving that none of the exceptions apply to the act which is alleged to be unlawful.

(c) The right of flight in aircraft includes the right of safe access to public airports, which includes the right of flight within the zone of approach of any public airport without restriction or hazard. The zone of approach of an airport shall conform to the specifications of Part 77 of the Federal Aviation Regulations of the Federal Aviation Administration, Department of Transportation.

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1
Chapter 4—Airports and Air Navigation Facilities
Article 2.7—Regulation of Obstructions
(excerpts)

21655. Proposed Site for Construction of State Building Within Two Miles of Airport Boundary

Notwithstanding any other provision of law, if the proposed site of any state building or other enclosure is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the state agency or office which proposes to construct the building or other enclosure shall, before acquiring title to property for the new state building or other enclosure site or for an addition to a present site, notify the Department of Transportation, in writing, of the proposed acquisition. The department shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the state agency or office which proposes to construct the building or other enclosure a written report of the investigation and its recommendations concerning acquisition of the site.

If the report of the department does not favor acquisition of the site, no state funds shall be expended for the acquisition of the new state building or other enclosure site, or the expansion of the present site, or for the construction of the state building or other enclosure, provided that the provisions of this section shall not affect title to real property once it is acquired.

21658. Construction of Utility Pole or Line in Vicinity of Aircraft Landing Area

No public utility shall construct any pole, pole line, distribution or transmission tower, or tower line, or substation structure in the vicinity of the exterior boundary of an aircraft landing area of any airport open to public use, in a location with respect to the airport and at a height so as to constitute an obstruction to air navigation, as an obstruction is defined in accordance with Part 77 of the Federal Aviation Regulations, Federal Aviation Administration, or any corresponding rules or regulations of the Federal Aviation Administration, unless the Federal Aviation Administration has determined that the pole, line, tower, or structure does not constitute a hazard to air navigation. This section shall not apply to existing poles, lines, towers, or structures or to the repair, replacement, or reconstruction thereof if the original height is not materially exceeded and this section shall not apply unless just compensation shall have first been paid to the public utility by the owner of any airport for any property or property rights which would be taken or damaged hereby.

21659. Hazards Near Airports Prohibited

(a) No person shall construct or alter any structure or permit any natural growth to grow at a height which exceeds the obstruction standards set forth in the regulations of the Federal Aviation Administration relating to objects affecting navigable airspace contained in Title 14 of the Code of Federal Regulations, Part 77, Subpart C, unless a permit allowing the construction, alteration, or growth is issued by the department.

(b) The permit is not required if the Federal Aviation Administration has determined that the construction, alteration, or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation. Subdivision (a) does not apply to a pole, pole line, distribution or transmission tower, or tower line or substation of a public utility.

(c) Section 21658 is applicable to subdivision (b).

AERONAUTICS LAW

PUBLIC UTILITIES CODE
Division 9, Part 1, Chapter 4
Article 3—Regulation of Airports
(excerpts)

21661.5. City Council or Board of Supervisors and ALUC Approvals

(a) No political subdivision, any of its officers or employees, or any person may submit any application for the construction of a new airport to any local, regional, state, or federal agency unless the plan for such construction is first approved by the board of supervisors of the county, or the city council of the city, in which the airport is to be located and unless the plan is submitted to the appropriate commission exercising powers pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9, and acted upon by such commission in accordance with the provisions of such article.

(b) A county board of supervisors or a city council may, pursuant to Section 65100 of the Government Code, delegate its responsibility under this section for the approval of a plan for construction of new helicopter landing and takeoff areas, to the county or city planning agency.

21664.5. Amended Airport Permits; Airport Expansion Defined

(a) An amended airport permit shall be required for every expansion of an existing airport. An applicant for an amended airport permit shall comply with each requirement of this article pertaining to permits for new airports. The department may by regulation provide for exemptions from the operation of this section pursuant to Section 21661, except that no exemption shall be made limiting the applicability of subdivision (e) of Section 21666, pertaining to environmental considerations, including the requirement for public hearings in connection therewith.

(b) As used in this section, "airport expansion" includes any of the following:

(1) The acquisition of runway protection zones, as defined in Federal Aviation Administration Advisory Circular 150/1500-13 [*sic.* – should be 150/5300-13], or of any interest in land for the purpose of any other expansion as set forth in this section.

(2) The construction of a new runway.

(3) The extension or realignment of an existing runway.

(4) Any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to the purpose of paragraph (1), (2), or (3).

(c) This section does not apply to any expansion of an existing airport if the expansion commenced on or prior to the effective date of this section and the expansion met the approval, on or prior to that effective date, of each governmental agency that required the approval by law.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7—Planning and Land Use
Division 1—Planning and Zoning
Chapter 3—Local Planning
Article 5—Authority for and Scope of General Plans
(excerpts)

65302.3. General and Applicable Specific Plans; Consistency with Airport Land Use Plans; Amendment; Nonconcurrence Findings

(a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

(b) The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code.

(c) If the legislative body does not concur with any of the provisions of the plan required under Section 21675 of the Public Utilities Code, it may satisfy the provisions of this section by adopting findings pursuant to Section 21676 of the Public Utilities Code.

(d) In each county where an airport land use commission does not exist, but where there is a military airport, the general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7, Division 1
Chapter 4.5—Review and Approval of Development Projects
Article 3—Application for Development Projects
(excerpts)

Note: The following government code sections are referenced in Section 21675.2(c) of the ALUC statutes.

65943. Completeness of Application; Determination; Time; Specification of Parts not Complete and Manner of Completion

(a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any resubmittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.

(b) Not later than 30 calendar days after receipt of the submitted materials, the public agency shall determine in writing whether they are complete and shall immediately transmit that determination to the applicant. If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for the purposes of this chapter.

(c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency of the appeal not later than 60 calendar days after receipt of the applicant's written appeal. The fact that an appeal is permitted to both the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

(d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

(e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65943.5.

(a) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving a permit application to a board, office, or department within the California Environmental Protection Agency shall be made to the Secretary for Environmental Protection.

(b) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving an application for the issuance of an environmental permit from an environmental agency shall be made to the Secretary for Environmental Protection under either of the following circumstances:

(1) The environmental agency has not adopted an appeals process pursuant to subdivision (c) of Section 65943.

(2) The environmental agency declines to accept an appeal for a decision pursuant to subdivision (c) of Section 65943.

(c) For purposes of subdivision (b), "environmental permit" has the same meaning as defined in Section 72012 of the Public Resources Code, and "environmental agency" has the same meaning as defined in Section 71011 of the Public Resources Code, except that "environmental agency" does not include the agencies described in subdivisions (c) and (h) of Section 71011 of the Public Resources Code.

65944. Acceptance of Application as Complete; Requests for Additional Information; Restrictions; Clarification, Amplification, Correction, etc; Prior to Notice of Necessary Information

(a) After a public agency accepts an application as complete, the agency shall not subsequently request of an applicant any new or additional information which was not specified in the list prepared pursuant to Section 65940. The agency may, in the course of processing the application, request the applicant to clarify, amplify, correct, or otherwise supplement the information required for the application.

(b) The provisions of subdivision (a) shall not be construed as requiring an applicant to submit with his or her initial application the entirety of the information which a public agency may require in order to take final action on the application. Prior to accepting an application, each public agency shall inform the applicant of any information included in the list prepared pursuant to Section 65940 which will subsequently be required from the applicant in order to complete final action on the application.

(c) This section shall not be construed as limiting the ability of a public agency to request and obtain information which may be needed in order to comply with the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

(d) (1) After a public agency accepts an application as complete, and if the project applicant has identified that the proposed project is located within 1,000 feet of a military installation or within special use airspace or beneath a low-level flight path in accordance with Section 65940, the public agency shall provide a copy of the complete application to any branch of the United States Armed Forces that has provided the Office of Planning and Research with a

single California mailing address within the state for the delivery of a copy of these applications. This subdivision shall apply only to development applications submitted to a public agency 30 days after the Office of Planning and Research has notified cities, counties, and cities and counties of the availability of Department of Defense information on the Internet pursuant to subdivision (d) of Section 65940.

(2) Except for a project within 1,000 feet of a military installation, the public agency is not required to provide a copy of the application if the project is located entirely in an "urbanized area." An urbanized area is any urban location that meets the definition used by the United State Department of Commerce's Bureau of Census for "urban" and includes locations with core census block groups containing at least 1,000 people per square mile and surrounding census block groups containing at least 500 people per square mile.

(e) Upon receipt of a copy of the application as required in subdivision (d), any branch of the United States Armed Forces may request consultation with the public agency and the project applicant to discuss the effects of the proposed project on military installations, low-level flight paths, or special use airspace, and potential alternatives and mitigation measures.

(f) (1) Subdivisions (d), (e), and (f) as these relate to low-level flight paths, special use airspace, and urbanized areas shall not be operative until the United States Department of Defense provides electronic maps of low-level flight paths, special use airspace, and military installations, at a scale and in an electronic format that is acceptable to the Office of Planning and Research.

(2) Within 30 days of a determination by the Office of Planning and Research that the information provided by the Department of Defense is sufficient and in an acceptable scale and format, the office shall notify cities, counties, and cities and counties of the availability of the information on the Internet. Cities, counties, and cities and counties shall comply with subdivision (d) within 30 days of receiving this notice from the office.

65945. Notice of Proposal to Adopt or Amend Certain Plans or Ordinances by City or County, Fee; Subscription to Periodically Updated Notice as Alternative, Fee

(a) At the time of filing an application for a development permit with a city or county, the city or county shall inform the applicant that he or she may make a written request to retrieve notice from the city or county of a proposal to adopt or amend any of the following plans or ordinances:

(1) A general plan.

(2) A specific plan.

(3) A zoning ordinance.

(4) An ordinance affecting building permits or grading permits.

The applicant shall specify, in the written request, the types of proposed action for which notice is requested. Prior to taking any of those actions, the city or county shall give notice to any applicant who has requested notice of the type of action proposed and whose development project is pending before the city or county if the city or county determines that the proposal is reasonably related to the applicant's request for the development permit. Notice shall be given only for those types of actions which the applicant specifies in the request for notification.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice.

If a fee is charged pursuant to this subdivision, the fee shall be collected as part of the application fee charged for the development permit.

(b) As an alternative to the notification procedure prescribed by subdivision (a), a city or county may inform the applicant at the time of filing an application for a development permit that he or she may subscribe to a periodically updated notice or set of notices from the city or county which lists pending proposals to adopt or amend any of the plans or ordinances specified in subdivision (a), together with the status of the proposal and the date of any hearings thereon which have been set.

Only those proposals which are general, as opposed to parcel-specific in nature, and which the city or county determines are reasonably related to requests for development permits, need be listed in the notice. No proposals shall be required to be listed until such time as the first public hearing thereon has been set. The notice shall be updated and mailed at least once every six weeks; except that a notice need not be updated and mailed until a change in its contents is required.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice, including the costs of updating the notice, for the length of time the applicant requests to be sent the notice or notices.

65945.3. Notice of Proposal to Adopt or Amend Rules or Regulations Affecting Issuance of Permits by Local Agency other than City or County; Fee

At the time of filing an application for a development permit with a local agency, other than a city or county, the local agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a rule or regulation affecting the issuance of development permits.

Prior to adopting or amending any such rule or regulation, the local agency shall give notice to any applicant who has requested such notice and whose development project is pending before the agency if the local agency determines that the proposal is reasonably related to the applicant's request for the development permit.

The local agency may charge the applicant for a development permit, to whom notice is provided pursuant to this section, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65945.5. Notice of Proposal to Adopt or Amend Regulation Affecting Issuance of Permits and Which Implements Statutory Provision by State Agency

At the time of filing an application for a development permit with a state agency, the state agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a regulation affecting the issuance of development permits and which implements a statutory provision.

Prior to adopting or amending any such regulation, the state agency shall give notice to any applicant who has requested such notice and whose development project is pending before the state agency if the state agency determines that the proposal is reasonably related to the applicant's request for the development permit.

65945.7. Actions, Inactions, or Recommendations Regarding Ordinances, Rules or Regulations; Invalidity or Setting Aside Ground of Error Only if Prejudicial

No action, inaction, or recommendation regarding any ordinance, rule, or regulation subject to this Section 65945, 65945.3, or 65945.5 by any legislative body, administrative body, or the officials of any state or local agency shall be held void or invalid or be set aside by any court on the ground of any error, irregularity, informality, neglect or omission (hereinafter called "error") as to any matter pertaining to notices, records, determinations, publications, or any matters of procedure whatever, unless after an examination of the entire case, including evidence, the court shall be of the opinion that the error complained of was prejudicial, and that by reason of such error the party complaining or appealing sustained and suffered substantial injury, and that a different result would have been probable if such error had not occurred or existed. There shall be no presumption that error is prejudicial or that injury was done if error is shown.

65946. [Replaced by AB2351 Statutes of 1993]

PLANNING AND ZONING LAW

GOVERNMENT CODE

Title 7, Division 1

Chapter 9.3—Mediation and Resolution of Land Use Disputes

(excerpts)

66030.

(a) The Legislature finds and declares all of the following:

(1) Current law provides that aggrieved agencies, project proponents, and affected residents may bring suit against the land use decisions of state and local governmental agencies. In practical terms, nearly anyone can sue once a project has been approved.

(2) Contention often arises over projects involving local general plans and zoning, redevelopment plans, the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), development impact fees, annexations and incorporations, and the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920)).

(3) When a public agency approves a development project that is not in accordance with the law, or when the prerogative to bring suit is abused, lawsuits can delay development, add uncertainty and cost to the development process, make housing more expensive, and damage California's competitiveness. This litigation begins in the superior court, and often progresses on appeal to the Court of Appeal and the Supreme Court, adding to the workload of the state's already overburdened judicial system.

(b) It is, therefore, the intent of the Legislature to help litigants resolve their differences by establishing formal mediation processes for land use disputes. In establishing these mediation processes, it is not the intent of the Legislature to interfere with the ability of litigants to pursue remedies through the courts.

66031.

(a) Notwithstanding any other provision of law, any action brought in the superior court relating to any of the following subjects may be subject to a mediation proceeding conducted pursuant to this chapter:

(1) The approval or denial by a public agency of any development project.

(2) Any act or decision of a public agency made pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(3) The failure of a public agency to meet the time limits specified in Chapter 4.5 (commencing with Section 65920), commonly known as the Permit Streamlining Act, or in the Subdivision Map Act (Division 2 (commencing with Section 66410)).

(4) Fees determined pursuant to Sections 53080 to 53082, inclusive, or Chapter 4.9 (commencing with Section 65995).

(5) Fees determined pursuant to Chapter 5 (commencing with Section 66000).

(6) The adequacy of a general plan or specific plan adopted pursuant to Chapter 3 (commencing with Section 65100).

(7) The validity of any sphere of influence, urban service area, change of organization or reorganization, or any other decision made pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Division 3 (commencing with Section 56000) of Title 5).

(8) The adoption or amendment of a redevelopment plan pursuant to the Community Redevelopment Law (Part 1 (commencing with Section 33000) of Division 24 of the Health and Safety Code).

(9) The validity of any zoning decision made pursuant to Chapter 4 (commencing with Section 65800).

(10) The validity of any decision made pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9 of the Public Utilities Code.

(b) Within five days after the deadline for the respondent or defendant to file its reply to an action, the court may invite the parties to consider resolving their dispute by selecting a mutually acceptable person to serve as a mediator, or an organization or agency to provide a mediator.

(c) In selecting a person to serve as a mediator, or an organization or agency to provide a mediator, the parties shall consider the following:

(1) The council of governments having jurisdiction in the county where the dispute arose.

(2) Any subregional or countywide council of governments in the county where the dispute arose.

(3) Any other person with experience or training in mediation including those with experience in land use issues, or any other organization or agency which can provide a person with experience or training in mediation, including those with experience in land use issues.

(d) If the court invites the parties to consider mediation, the parties shall notify the court within 30 days if they have selected a mutually acceptable person to serve as a mediator. If the parties have not selected a mediator within 30 days, the action shall proceed. The court shall not draw any implication, favorable or otherwise, from the refusal by a party to accept the invitation by the court to consider mediation. Nothing in this section shall preclude the parties from using mediation at any other time while the action is pending.

PLANNING AND ZONING LAW

GOVERNMENT CODE
Title 7—Planning and Land Use
Division 2—Subdivisions
Chapter 3—Procedure
Article 3—Review of Tentative Map by Other Agencies
(excerpts)

66455.9.

Whenever there is consideration of an area within a development for a public school site, the advisory agency shall give the affected districts and the State Department of Education written notice of the proposed site. The written notice shall include the identification of any existing or proposed runways within the distance specified in Section 17215 of the Education Code. If the site is within the distance of an existing or proposed airport runway as described in Section 17215 of the Education Code, the department shall notify the State Department of Transportation as required by the section and the site shall be investigated by the State Department of Transportation required by Section 17215.

EDUCATION CODE
Title 1—General Education Code Provisions
Division 1—General Education Code Provisions
Part 10.5—School Facilities
Chapter 1—School Sites
Article 1—General Provisions
(excerpts)

17215.

(a) In order to promote the safety of pupils, comprehensive community planning, and greater educational usefulness of school sites, before acquiring title to or leasing property for a new school site, the governing board of each school district, including any district governed by a city board of education or a charter school, shall give the State Department of Education written notice of the proposed acquisition or lease and shall submit any information required by the State Department of Education if the site is within two miles, measured by air line, of that point on an airport runway or a potential runway included in an airport master plan that is nearest to the site.

(b) Upon receipt of the notice required pursuant to subdivision (a), the State Department of Education shall notify the Department of Transportation in writing of the proposed acquisition or lease. If the Department of Transportation is no longer in operation, the State Department of Education shall, in lieu of notifying the Department of Transportation, notify the United States Department of Transportation or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the department or other agency any information or assistance that it may desire to give.

(c) The Department of Transportation shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the State Department of Education a written report of its findings including recommendations concerning acquisition or lease of the site. As part of the investigation, the Department of Transportation shall give notice thereof to the owner and operator of the airport who shall be granted the opportunity to comment upon the site. The Department of Transportation shall adopt regulations setting forth the criteria by which a site will be evaluated pursuant to this section.

(d) The State Department of Education shall, within 10 days of receiving the Department of Transportation's report, forward the report to the governing board of the school district or charter school. The governing board or charter school may not acquire title to or lease the property until the report of the Department of Transportation has been received. If the report does not favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school may not acquire title to or lease the property. If the report does favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school shall hold a public hearing on the matter prior to acquiring or leasing the site.

(e) If the Department of Transportation's recommendation does not favor acquisition or lease of the proposed site, state funds or local funds may not be apportioned or expended for the acquisition of that site, construction of any school building on that site, or for the expansion of any existing site to include that site.

(f) This section does not apply to sites acquired prior to January 1, 1966, nor to any additions or extensions to those sites.

EDUCATION CODE
Title 3—Postsecondary Education
Division 7—Community Colleges
Part 49—Community Colleges, Education Facilities
Chapter 1—School Sites
Article 2—School Sites
(excerpts)

81033. Investigation: Geologic and Soil Engineering Studies; Airport in Proximity

(c) To promote the safety of students, comprehensive community planning, and greater educational usefulness of community college sites, the governing board of each community college district, if the proposed site is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site and excluding them if the property is not so located, before acquiring title to property for a new community college site or for an addition to a present site, shall give the board of governors notice in writing of the proposed acquisition and shall submit any information required by the board of governors.

Immediately after receiving notice of the proposed acquisition of property which is within two miles, measured by air line, of that point on an airport runway, or a runway proposed by an airport master plan, which is nearest the site, the board of governors shall notify the Division of Aeronautics of the Department of Transportation, in writing, of the proposed acquisition. The Division of Aeronautics shall make an investigation and report to the board of governors within 30 working days after receipt of the notice. If the Division of Aeronautics is no longer in operation, the board of governors shall, in lieu of notifying the Division of Aeronautics, notify the Federal Aviation Administration or any other appropriate agency, in writing, of the proposed acquisition for the purpose of obtaining from the authority or other agency such information or assistance as it may desire to give.

The board of governors shall investigate the proposed site and within 35 working days after receipt of the notice shall submit to the governing board a written report and its recommendations concerning acquisition of the site. The governing board shall not acquire title to the property until the report of the board of governors has been received. If the report does not favor the acquisition of the property for a community college site or an addition to a present community college site, the governing board shall not acquire title to the property until 30 days after the department's report is received and until the board of governors' report has been read at a public hearing duly called after 10 days' notice published once in a newspaper of general circulation within the community college district, or if there is no such newspaper, then in a newspaper of general circulation within the county in which the property is located.

(d) If, with respect to a proposed site located within two miles of an operative airport runway, the report of the board of governors submitted to a community college district governing board under subdivision (c) does not favor the acquisition of the site on the sole or partial basis of the unfavorable recommendation of the Division of Aeronautics of the Department of Transportation, no state agency or officer shall grant, apportion, or allow to such community college district for expenditure in connection with that site, any state funds otherwise made available under any state law whatever for a community college site acquisition or college building

construction, or for expansion of existing sites and buildings, and no funds of the community college district or of the county in which the district lies shall be expended for such purposes; provided that provisions of this section shall not be applicable to sites acquired prior to January 1, 1966, nor any additions or extensions to such sites.

If the recommendations of the Division of Aeronautics are unfavorable, such recommendations shall not be overruled without the express approval of the board of governors and the State Allocation Board.

CALIFORNIA ENVIRONMENTAL QUALITY ACT STATUTES

PUBLIC RESOURCES CODE
Division 13—Environmental Quality
Chapter 2.6—General
(excerpts)

21096. Airport Planning

(a) If a lead agency prepares an environmental impact report for a project situated within airport land use compatibility plan boundaries, or, if an airport land use compatibility plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with Section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation of the environmental impact report as the report relates to airport-related safety hazards and noise problems.

(b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area.

BUSINESS AND PROFESSIONS CODE
Division 4—Real Estate
Part 2—Regulation of Transactions
Chapter 1—Subdivided Lands
Article 2—Investigation, Regulation and Report
(excerpts)

11010.

(a) Except as otherwise provided pursuant to subdivision (c) or elsewhere in this chapter, any person who intends to offer subdivided lands within this state for sale or lease shall file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire on a form prepared by the department.

(b) The notice of intention shall contain the following information about the subdivided lands and the proposed offering:

[Sub-Sections (1) through (12) omitted]

(13) (A) The location of all existing airports, and of all proposed airports shown on the general plan of any city or county, located within two statute miles of the subdivision. If the property is located within an airport influence area, the following statement shall be included in the notice of intention:

NOTICE OF AIRPORT IN VICINITY

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

(B) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

CIVIL CODE
Division 2—Property
Part 4—Acquisition of Property
Title 4—Transfer
Chapter 2—Transfer of Real Property
Article 1.7—Disclosure of Natural Hazards Upon Transfer of Residential Property
(excerpts)

1103.

(a) Except as provided in Section 1103.1, this article applies to any transfer by sale, exchange, installment land sale contract, as defined in Section 2985, lease with an option to purchase, any other option to purchase, or ground lease coupled with improvements, of any real property described in subdivision (c), or residential stock cooperative, improved with or consisting of not less than one nor more than four dwelling units.

(b) Except as provided in Section 1103.1, this article shall apply to a resale transaction entered into on or after January 1, 2000, for a manufactured home, as defined in Section 18007 of the Health and Safety Code, that is classified as personal property intended for use as a residence, or a mobilehome, as defined in Section 18008 of the Health and Safety Code, that is classified as personal property intended for use as a residence, if the real property on which the manufactured home or mobilehome is located is real property described in subdivision (c).

(c) This article shall apply to the transactions described in subdivisions (a) and (b) only if the transferor or his or her agent are required by one or more of the following to disclose the property's location within a hazard zone:

(1) A person who is acting as an agent for a transferor of real property that is located within a special flood hazard area (any type Zone "A" or "V") designated by the Federal Emergency Management Agency, or the transferor if he or she is acting without an agent, shall disclose to any prospective transferee the fact that the property is located within a special flood hazard area if either:

(A) The transferor, or the transferor's agent, has actual knowledge that the property is within a special flood hazard area.

(B) The local jurisdiction has compiled a list, by parcel, of properties that are within the special flood hazard area and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the parcel list.

(2) … is located within an area of potential flooding … shall disclose to any prospective transferee the fact that the property is located within an area of potential flooding …

(3) … is located within a very high fire hazard severity zone, designated pursuant to Section 51178 of the Public Resources Code … shall disclose to any prospective transferee the fact that the property is located within a very high fire hazard severity zone and is subject to the requirements of Section 51182 …

(4) … is located within an earthquake fault zone, designated pursuant to Section 2622 of the Public Resources Code … shall disclose to any prospective transferee the fact that the property is located within a delineated earthquake fault zone …

(5) … is located within a seismic hazard zone, designated pursuant to Section 2696 of the Public Resources Code … shall disclose to any prospective transferee the fact that the property is located within a seismic hazard zone …

(6) … is located within a state responsibility area determined by the board, pursuant to Section 4125 of the Public Resources Code, shall disclose to any prospective transferee the fact that the property is located within a wildland area that may contain substantial forest fire risks and hazards and is subject to the requirements of Section 4291 …

(d) Any waiver of the requirements of this article is void as against public policy.

1103.1.

(a) This article does not apply to the following transfers:

(1) Transfers pursuant to court order, including, but not limited to, transfers ordered by a probate court in administration of an estate, transfers pursuant to a writ of execution, transfers by any foreclosure sale, transfers by a trustee in bankruptcy, transfers by eminent domain, and transfers resulting from a decree for specific performance.

(2) Transfers to a mortgagee by a mortgagor or successor in interest who is in default, transfers to a beneficiary of a deed of trust by a trustor or successor in interest who is in default, transfers by any foreclosure sale after default, transfers by any foreclosure sale after default in an obligation secured by a mortgage, transfers by a sale under a power of sale or any foreclosure sale under a decree of foreclosure after default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale, or transfers by a mortgagee or a beneficiary under a deed of trust who has acquired the real property at a sale conducted pursuant to a power of sale under a mortgage or deed of trust or a sale pursuant to a decree of foreclosure or has acquired the real property by a deed in lieu of foreclosure.

(3) Transfers by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust.

(4) Transfers from one coowner to one or more other coowners.

(5) Transfers made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferors.

(6) Transfers between spouses resulting from a judgment of dissolution of marriage or of legal separation of the parties or from a property settlement agreement incidental to that judgment.

(7) Transfers by the Controller in the course of administering Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.

(8) Transfers under Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.

(9) Transfers or exchanges to or from any governmental entity.

(b) Transfers not subject to this article may be subject to other disclosure requirements, including those under Sections 8589.3, 8589.4, and 51183.5 of the Government Code and Sections 2621.9,

2694, and 4136 of the Public Resources Code. In transfers not subject to this article, agents may make required disclosures in a separate writing.

1103.2.

(a) The disclosures required by this article are set forth in, and shall be made on a copy of, the following Natural Hazard Disclosure Statement: [content omitted].

(b) If an earthquake fault zone, seismic hazard zone, very high fire hazard severity zone, or wildland fire area map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a natural hazard area, the transferor or transferor's agent shall mark "Yes" on the Natural Hazard Disclosure Statement. The transferor or transferor's agent may mark "No" on the Natural Hazard Disclosure Statement if he or she attaches a report prepared pursuant to subdivision (c) of Section 1103.4 that verifies the property is not in the hazard zone. Nothing in this subdivision is intended to limit or abridge any existing duty of the transferor or the transferor's agents to exercise reasonable care in making a determination under this subdivision.

[Sub-Sections (c) through (h) omitted]

[Section 1103.3 omitted]

1103.4.

(a) Neither the transferor nor any listing or selling agent shall be liable for any error, inaccuracy, or omission of any information delivered pursuant to this article if the error, inaccuracy, or omission was not within the personal knowledge of the transferor or the listing or selling agent, and was based on information timely provided by public agencies or by other persons providing information as specified in subdivision (c) that is required to be disclosed pursuant to this article, and ordinary care was exercised in obtaining and transmitting the information.

(b) The delivery of any information required to be disclosed by this article to a prospective transferee by a public agency or other person providing information required to be disclosed pursuant to this article shall be deemed to comply with the requirements of this article and shall relieve the transferor or any listing or selling agent of any further duty under this article with respect to that item of information.

(c) The delivery of a report or opinion prepared by a licensed engineer, land surveyor, geologist, or expert in natural hazard discovery dealing with matters within the scope of the professional's license or expertise, shall be sufficient compliance for application of the exemption provided by subdivision (a) if the information is provided to the prospective transferee pursuant to a request therefor, whether written or oral. In responding to that request, an expert may indicate, in writing, an understanding that the information provided will be used in fulfilling the requirements of Section 1103.2 and, if so, shall indicate the required disclosures, or parts thereof, to which the information being furnished is applicable. Where that statement is furnished, the expert shall not be responsible for any items of information, or parts thereof, other than those expressly set forth in the statement.

(1) In responding to the request, the expert shall determine whether the property is within an airport influence area as defined in subdivision (b) of Section 11010 of the Business and Professions Code. If the property is within an airport influence area, the report shall contain the following statement:

NOTICE OF AIRPORT IN VICINITY

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

[Remainder of Article 1.7 omitted]

CIVIL CODE
Division 2, Part 4
Title 6—Common Interest Developments
Chapter 2—County Documents
Article 1—Creation
(excerpts)

1353.

(a) (1) A declaration, recorded on or after January 1, 1986, shall contain a legal description of the common interest development, and a statement that the common interest development is a community apartment project, condominium project, planned development, stock cooperative, or combination thereof. The declaration shall additionally set forth the name of the association and the restrictions on the use or enjoyment of any portion of the common interest development that are intended to be enforceable equitable servitudes. If the property is located within an airport influence area, a declaration, recorded after January 1, 2004, shall contain the following statement:

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

(2) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

(3) [Omitted]

(4) The statement in a declaration acknowledging that a property is located in an airport influence area does not constitute a title defect, lien, or encumbrance.

(b) The declaration may contain any other matters the original signator of the declaration or the owners consider appropriate.

LEGISLATIVE HISTORY SUMMARY

PUBLIC UTILITIES CODE
Sections 21670 et seq.
Airport Land Use Commission Statutes
And Related Statutes

1967 Original ALUC statute enacted.

- Establishment of ALUCs required in each county containing a public airport served by a certificated air carrier.
- The purpose of ALUCs is indicated as being to make recommendations regarding height restrictions on buildings and the use of land surrounding airports.

1970 Assembly Bill 1856 (Badham) Chapter 1182, Statutes of 1970—Adds provisions which:

- Require ALUCs to prepare comprehensive land use plans.
- Require such plans to include a long-range plan and to reflect the airport's forecast growth during the next 20 years.
- Require ALUC review of airport construction plans (Section 21661.5).
- Exempt Los Angeles County from the requirement of establishing an ALUC.

1971 The function of ALUCs is restated as being to require new construction to conform to Department of Aeronautics standards.

1973 ALUCs are permitted to establish compatibility plans for military airports.

1982 Assembly Bill 2920 (Rogers) Chapter 1041, Statutes of 1982—Adds major changes which:

- More clearly articulate the purpose of ALUCs.
- Eliminate reference to "achieve by zoning."
- Require consistency between local general and specific plans and airport land use commission plans; the requirements define the process for attaining consistency, they do not establish standards for consistency.
- Eliminate the requirement for proposed individual development projects to be referred to an ALUC for review once local general/specific plans are consistent with the ALUC's plan.
- Require that local agencies make findings of fact before overriding an ALUC decision.
- Change the vote required for an override from 4/5 to 2/3.

1984 Assembly Bill 3551 (Mountjoy) Chapter 1117, Statutes of 1984—Amends the law to:

- Require ALUCs in all counties having an airport which serves the general public unless a county and its cities determine an ALUC is not needed.
- Limit amendments to compatibility plans to once per year.
- Allow individual projects to continue to be referred to the ALUC by agreement.
- Extend immunity to airports if an ALUC action is overridden by a local agency not owning the airport.

- Provide state funding eligibility for preparation of compatibility plans through the Regional Transportation Improvement Program process.

1987 Senate Bill 633 (Rogers) Chapter 1018, Statutes of 1987—Makes revisions which:

- Require that a designated body serving as an ALUC include two members having "expertise in aviation."
- Allows an interested party to initiate court proceedings to postpone the effective date of a local land use action if a compatibility plan has not been adopted.
- Delete *sunset* provisions contained in certain clauses of the law. Allows reimbursement for ALUC costs in accordance with the Commission on State Mandates.

1989 Senate Bill 255 (Bergeson) Chapter 54, Statutes of 1989—

- Sets a requirement that comprehensive land use plans be completed by June 1991.
- Establishes a method for compelling ALUCs to act on matters submitted for review.
- Allows ALUCs to charge fees for review of projects.
- Suspends any lawsuits that would stop development until the ALUC adopts its plan or until June 1, 1991.

1989 Senate Bill 235 (Alquist) Chapter 788, Statutes of 1989—Appropriates $3,672,000 for the payment of claims to counties seeking reimbursement of costs incurred during fiscal years 1985-86 through 1989-90 pursuant to state-mandated requirement (Chapter 1117, Statutes of 1984) for creation of ALUCs in most counties. This statute was repealed in 1993.

1990 Assembly Bill 4164 (Mountjoy) Chapter 1008, Statutes of 1990—Adds section 21674.5 requiring the Division of Aeronautics to develop and implement a training program for ALUC staffs.

1990 Assembly Bill 4265 (Clute) Chapter 563, Statutes of 1990—With the concurrence of the Division of Aeronautics, allows ALUCs to use an airport layout plan, rather than a long-range airport master plan, as the basis for preparation of a compatibility plan.

1990 Senate Bill 1288 (Beverly) Chapter 54, Statutes of 1990—Amends Section 21670.2 to give Los Angeles County additional time to prepare compatibility plans and meet other provisions of the ALUC statutes.

1991 Senate Bill 532 (Bergeson) Chapter 140, Statutes of 1991—

- Allows counties having half of their compatibility plans completed or under preparation by June 30, 1991, an additional year to complete the remainder.
- Allows ALUCs to continue to charge fees under these circumstances.
- Fees may be charged only until June 30, 1992, if plans are not completed by then.

1993 Senate Bill 443 (Committee on Budget and Fiscal Review) Chapter 59, Statutes of 1993—Amends Section 21670(b) to make the formation of ALUCs permissive rather than mandatory as of June 30, 1993. (Note: Section 21670.2 which assigns responsibility for coordinating the airport planning of public agencies in Los Angeles County is not affected by this amendment.)

1994 Assembly Bill 2831 (Mountjoy) Chapter 644, Statutes of 1994 —Reinstates the language in Section 21670(b) mandating establishment of ALUCs, but also provides for an alternative airport land use planning process. Lists specific actions which a county and affected cities must take in order for such alternative process to receive Caltrans approval. Requires that

ALUCs be guided by information in the Caltrans *Airport Land Use Planning Handbook* when formulating airport land use plans.

1994 Senate Bill 1453 (Rogers) Chapter 438, Statutes of 1994—Amends California Environmental Quality Act (CEQA) statutes as applied to preparation of environmental documents affecting projects in the vicinity of airports. Requires lead agencies to use the *Airport Land Use Planning Handbook* as a technical resource when assessing the airport-related noise and safety impacts of such projects.

1997 Assembly Bill 1130 (Oller) Chapter 81, Statutes of 1997—Added Section 21670.4 concerning airports whose planning boundary straddles a county line.

2000 Senate Bill 1350 (Rainey) Chapter 506, Statutes of 2000—Added Section 21670(f) clarifying that special districts are among the local agencies to which airport land use planning laws are intended to apply.

2001 Assembly Bill 93 (Wayne) Chapter 946, Statutes of 2001—Added Section 21670.3 regarding San Diego County Regional Airport Authority's responsibility for airport planning within San Diego County.

2002 Assembly Bill 3026 (Committee on Transportation) Chapter 438, Statutes of 2002—Changes the term "comprehensive land use plan" to "airport land use compatibility plan."

2002 Assembly Bill 2776 (Simitian) Chapter 496, Statutes of 2002—Requires information regarding the location of a property within an airport influence area be disclosed as part of certain real estate transactions effective January 1, 2004.

2002 Senate Bill 1468 (Knight) Chapter 971, Statutes of 2002—Changes ALUC preparation of airport land use compatibility plans for military airports from optional to required. Requires that the plans be consistent with the safety and noise standards in the Air Installation Compatible Use Zone for that airport. Requires that the general plan and any specific plans be consistent with these standards where there is military airport, but an airport land use commission does not exist.

2003 Assembly Bill 332 (Mullin) Chapter 351, Statutes of 2003—Clarifies that school districts and community college districts are subject to compatibility plans. Requires local public agencies to notify ALUC and Division of Aeronautics at least 45 days prior to deciding to overrule the ALUC.

Adds that prior to granting building construction permits, local agencies shall be guided by the criteria established in the Airport Land Use Planning Handbook and any related federal aviation regulations to the extent that the criteria has been incorporated into their airport land use compatibility plan.

2004 Senate Bill 1223 (Committee on Transportation) Chapter 615, Statutes of 2004—Technical revisions eliminating most remaining references to the term "comprehensive land use plan" and replacing it with "airport land use compatibility plan." Also replaces the terms "planning area" and "study area" with "airport influence area."

2005 Assembly Bill 1358 (Mullin) Chapter 29, Statutes of 2005—Requires a school district to notify the Department of Transportation before leasing property for a new school site. Also makes these provisions applicable to charter schools.

2007 Senate Bill 10 (Kehoe) Chapter 287, Statutes of 2007—The San Diego County Regional Airport Authority Reform Act of 2007. Restructures the airport authority established in 2001 by AB 93 (Wayne), with a set of goals related to governance, accountability, planning and operations at San Diego International Airport.

APPENDIX C

Federal Aviation Regulations Part 77

Safe, Efficient Use and Preservation of the Navigable Airspace

Amdt. 77-13, Effective January 18, 2011

Subpart A

GENERAL

77.1 Purpose.

This part establishes:

(a) The requirements to provide notice to the FAA of certain proposed construction, or the alteration of existing structures;

(b) The standards used to determine obstructions to air navigation, and navigational and communication facilities;

(c) The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and

(d) The process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

77.3 Definitions.

For the purpose of this part:

"Non-precision instrument runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

Planned or proposed airport is an airport that is the subject of at least one of the following documents received by the FAA:

(1) Airport proposals submitted under 14 CFR Part 157.

(2) Airport Improvement Program requests for aid.

(3) Notices of existing airports where prior notice of the airport construction or alteration was not provided as required by 14 CFR Part 157.

(4) Airport layout plans.

(5) DOD proposals for airports used only by the U.S. Armed Forces.

(6) DOD proposals on joint-use (civil-military) airports.

(7) Completed airport site selection feasibility study.

"Precision instrument runway" means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA-approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

"Public use airport" is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator.

"Seaplane base" is considered to be an airport only if its sea lanes are outlined by visual markers.

"Utility runway" means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

"Visual runway" means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

Subpart B
NOTICE REQUIREMENTS

77.5 Applicability.

(a) If you propose any construction or alteration described in §77.9, you must provide adequate notice to the FAA of that construction or alteration.

(b) If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in §77.9.

(c) Notice received by the FAA under this subpart is used to:

(1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;

(2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;

(3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460–1, Obstruction Marking and Lighting;

(4) Determine other appropriate measures to be applied for continued safety of air navigation; and

(5) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

77.7 Form and time of notice.

(a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

(1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications.

(2) A military airport under construction, or an airport under construction that will be available for public use.

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation.

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose.

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

77.11 Supplemental notice requirements.

(a) You must file supplemental notice with the FAA when:

(1) The construction or alteration is more than 200 feet in height AGL at its site; or

(2) Requested by the FAA.

(b) You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.

(c) If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.

(d) If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Subpart C
STANDARDS FOR DETERMINING OBSTRUCTIONS TO AIR NAVIGATION OR NAVIGATIONAL AIDS OR FACILITIES

77.13 Applicability.

This subpart describes the standards used for determining obstructions to air navigation, navigational aids, or navigational facilities. These standards apply to the following:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.

(b) The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

77.15 Scope.

(a) This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.

(b) Objects that are considered obstructions under the standards described in this subpart are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard. Once further aeronautical study has been initiated, the FAA will use the standards in this subpart, along with FAA policy and guidance material, to determine if the object is a hazard to air navigation.

(c) The FAA will apply these standards with reference to an existing airport facility, and airport proposals received by the FAA, or the appropriate military service, before it issues a final determination.

(d) For airports having defined runways with specially prepared hard surfaces, the primary surface for each runway extends 200 feet beyond each end of the runway. For airports having defined strips or pathways used regularly for aircraft takeoffs and landings, and designated runways, without specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for aircraft takeoffs and landings, a determination must be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those determined pathways must be considered runways, and an appropriate primary surface as defined in §77.19 will be considered as longitudinally centered on each such runway. Each end of that primary surface must coincide with the corresponding end of that runway.

(e) The standards in this subpart apply to construction or alteration proposals on an airport (including heliports and seaplane bases with marked lanes) if that airport is one of the following before the issuance of the final determination:

(1) Available for public use and is listed in the Airport/Facility Directory, Supplement Alaska, or Supplement Pacific of the U.S. Government Flight Information Publications; or

(2) A planned or proposed airport or an airport under construction of which the FAA has received actual notice, except DOD airports, where there is a clear indication the airport will be available for public use; or,

(3) An airport operated by a Federal agency or the DOD; or,

(4) An airport that has at least one FAA-approved instrument approach.

77.17 Obstruction standards.

(a) An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 499 feet AGL at the site of the object.

(2) A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service furnished by an airport traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) 15 feet for any other public roadway.

(3) 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) 23 feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

77.19 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end.

(a) Horizontal surface. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by Swinging arcs of a specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) Conical surface. A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) Primary surface. A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having non-precision instrument approaches.

(3) For other than utility runways, the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for non-precision instrument runways having visibility minimums greater than three-fourths statue mile.

(iii) 1,000 feet for a non-precision instrument runway having a non-precision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

(iv) The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface. A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is

applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a non-precision instrument approach;

(iv) 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater that three-fourths of a statute mile;

(v) 4,000 feet for that end of a non-precision instrument runway, other than utility, having a non-precision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all non-precision instrument runways other than utility; and

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) Transitional surface. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

77.21 Department of Defense (DoD) airport imaginary surfaces.

(a) Related to airport reference points. These surfaces apply to all military airports. For the purposes of this section, a military airport is any airport operated by the DOD.

(1) Inner horizontal surface. A plane that is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) Conical surface. A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) Outer horizontal surface. A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) Related to runways. These surfaces apply to all military airports.

(1) Primary surface. A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) Clear zone surface. A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) Approach clearance surface. An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) Transitional surfaces. These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

77.23 Heliport imaginary surfaces.

(a) Primary surface. The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) Approach surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) Transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subpart D

AERONAUTICAL STUDIES AND DETERMINATIONS

77.25 Applicability.

(a) This subpart applies to any aeronautical study of a proposed construction or alteration for which notice to the FAA is required under 77.9.

(b) The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation.

(c) The obstruction standards in subpart C of this part are supplemented by other manuals and directives used in determining the effect on the navigable airspace of a proposed construction or alteration. When the FAA needs additional information, it may circulate a study to interested parties for comment.

77.27 Initiation of studies.

The FAA will conduct an aeronautical study when:

(a) Requested by the sponsor of any proposed construction or alteration for which a notice is submitted; or

(b) The FAA determines a study is necessary.

77.29 Evaluating aeronautical effect.

(a) The FAA conducts an aeronautical study to determine the impact of a proposed structure, an existing structure that has not yet been studied by the FAA, or an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:

(1) The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules;

(2) The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules;

(3) The impact on existing and planned public use airports;

(4) Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;

(5) Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;

(6) The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;

(7) The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

(b) If you withdraw the proposed construction or alteration or revise it so that it is no longer identified as an obstruction, or if no further aeronautical study is necessary, the FAA may terminate the study.

77.31 Determinations.

(a) The FAA will issue a determination stating whether the proposed construction or alteration would be a hazard to air navigation, and will advise all known interested persons.

(b) The FAA will make determinations based on the aeronautical study findings and will identify the following:

(1) The effects on VFR/IFR aeronautical departure/arrival operations, air traffic procedures, minimum flight altitudes, and existing, planned, or proposed airports listed in §77.15(e) of which the FAA has received actual notice prior to issuance of a final determination.

(2) The extent of the physical and/or electromagnetic effect on the operation of existing or proposed air navigation facilities, communication aids, or surveillance systems.

(c) The FAA will issue a Determination of Hazard to Air Navigation when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard and would have a substantial aeronautical impact.

(d) A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but would not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include the following:

(1) Conditional provisions of a determination.

(2) Limitations necessary to minimize potential problems, such as the use of temporary construction equipment.

(3) Supplemental notice requirements, when required.

(4) Marking and lighting recommendations, as appropriate.

(e) The FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation.

77.33 Effective period of determinations.

(a) A determination issued under this subpart is effective 40 days after the date of issuance, unless a petition for discretionary review is received by the FAA within 30 days after issuance. The determination will not become final pending disposition of a petition for discretionary review.

(b) Unless extended, revised, or terminated, each Determination of No Hazard to Air Navigation issued under this subpart expires 18 months after the effective date of the determination, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(c) A Determination of Hazard to Air Navigation has no expiration date.

77.35 Extensions, terminations, revisions and corrections.

(a) You may petition the FAA official that issued the Determination of No Hazard to Air Navigation to revise or reconsider the determination based on new facts or to extend the effective period of the determination, provided that:

(1) Actual structural work of the proposed construction or alteration, such as the laying of a foundation, but not including excavation, has not been started; and

(2) The petition is submitted at least 15 days before the expiration date of the Determination of No Hazard to Air Navigation.

(b) A Determination of No Hazard to Air Navigation issued for those construction or alteration proposals not requiring an FCC construction permit may be extended by the FAA one time for a period not to exceed 18 months.

(c) A Determination of No Hazard to Air Navigation issued for a proposal requiring an FCC construction permit may be granted extensions for up to 18 months, provided that:

(1) You submit evidence that an application for a construction permit/license was filed with the FCC for the associated site within 6 months of issuance of the determination; and

(2) You submit evidence that additional time is warranted because of FCC requirements; and

(3) Where the FCC issues a construction permit, a final Determination of No Hazard to Air Navigation is effective until the date prescribed by the FCC for completion of the construction. If an extension of the original FCC completion date is needed, an extension of the FAA determination must be requested from the Obstruction Evaluation Service (OES).

(4) If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

Subpart E
PETITIONS FOR DISCRETIONARY REVIEW

77.37 General.

(a) If you are the sponsor, provided a substantive aeronautical comment on a proposal in an aeronautical study, or have a substantive aeronautical comment on the proposal but were not given an opportunity to state it, you may petition the FAA for a discretionary review of a determination, revision, or extension of a determination issued by the FAA.

(b) You may not file a petition for discretionary review for a Determination of No Hazard that is issued for a temporary structure, marking and lighting recommendation, or when a proposed structure or alteration does not exceed obstruction standards contained in subpart C of this part.

77.39 Contents of a petition.

(a) You must file a petition for discretionary review in writing and it must be received by the FAA within 30 days after the issuance of a determination under 77.31, or a revision or extension of the determination under 77.35.

(b) The petition must contain a full statement of the aeronautical basis on which the petition is made, and must include new information or facts not previously considered or presented during the aeronautical study, including valid aeronautical reasons why the determination, revisions, or extension made by the FAA should be reviewed.

(c) In the event that the last day of the 30-day filing period falls on a weekend or a day the Federal government is closed, the last day of the filing period is the next day that the government is open.

(d) The FAA will inform the petitioner or sponsor (if other than the petitioner) and the FCC (whenever an FCC-related proposal is involved) of the filing of the petition and that the determination is not final pending disposition of the petition.

77.41 Discretionary review results.

(a) If discretionary review is granted, the FAA will inform the petitioner and the sponsor (if other than the petitioner) of the issues to be studied and reviewed. The review may include a request for comments and a review of all records from the initial aeronautical study.

(b) If discretionary review is denied, the FAA will notify the petitioner and the sponsor (if other than the petitioner), and the FCC, whenever a FCC-related proposal is involved, of the basis for the denial along with a statement that the determination is final.

(c) After concluding the discretionary review process, the FAA will revise, affirm, or reverse the determination.

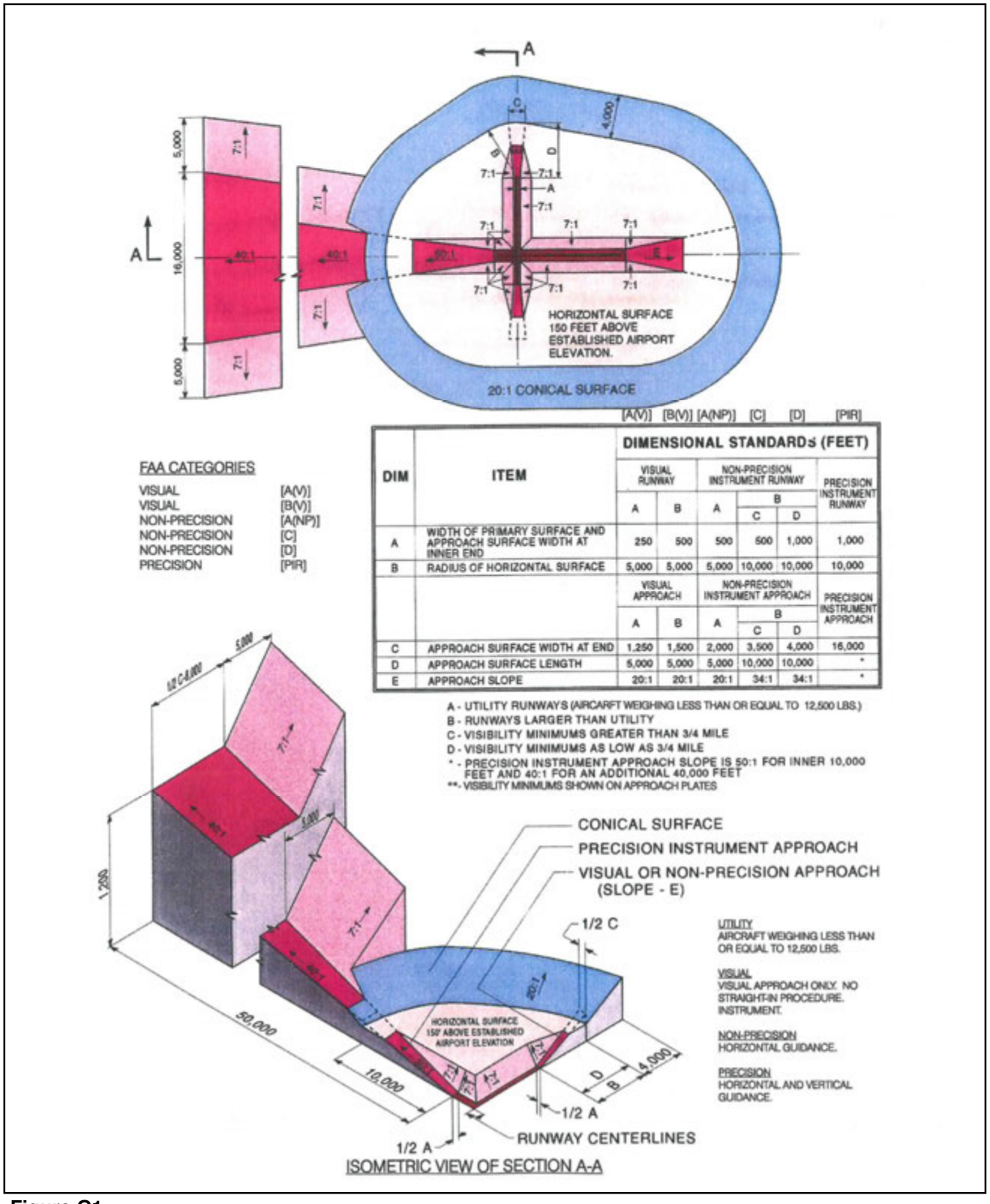
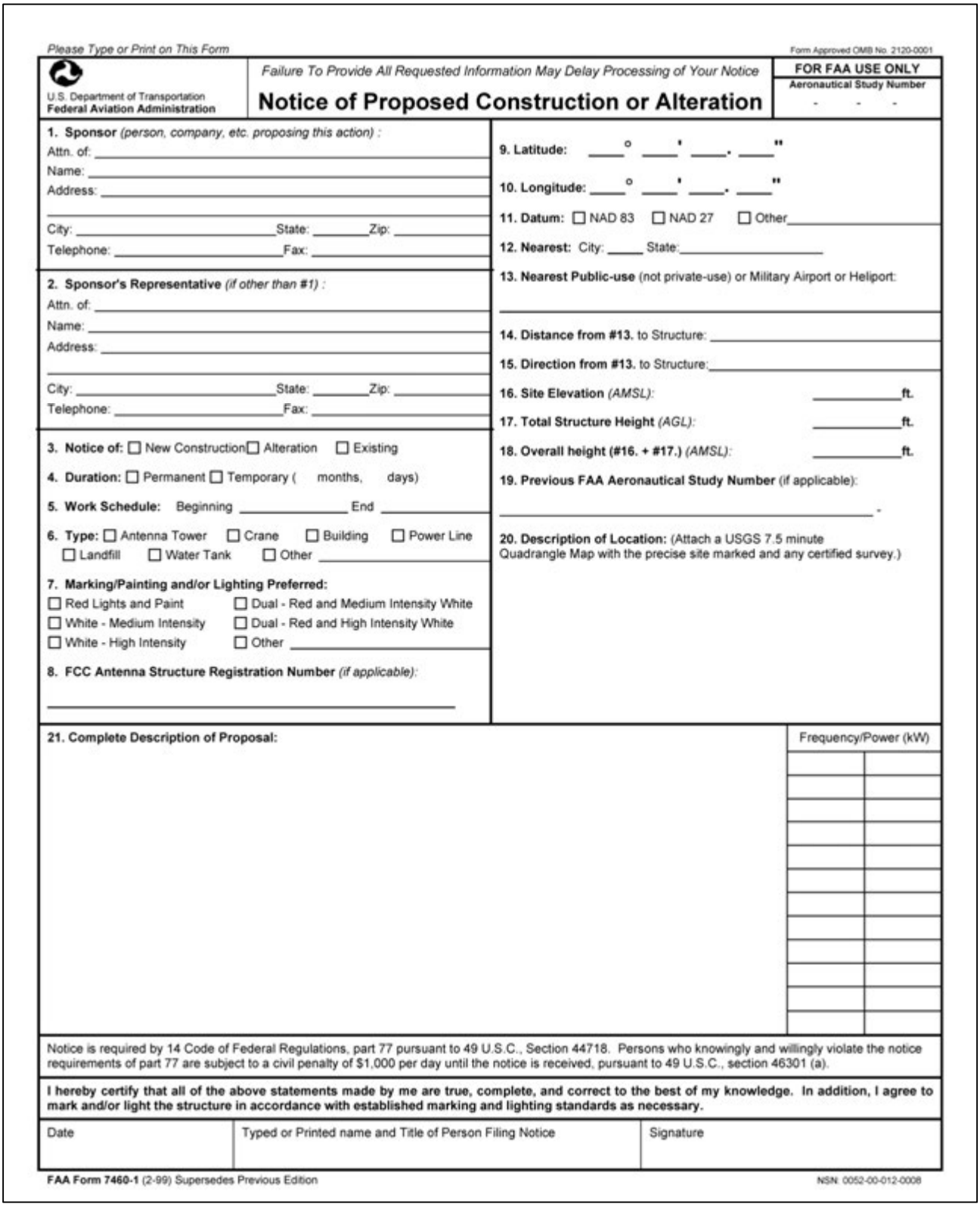


Figure C1

FAR Part 77 Imaginary Surfaces



Please Type or Print on This Form

Form Approved OMB No. 2120-0001

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY
Aeronautical Study Number
- - -

1. Sponsor *(person, company, etc. proposing this action) :*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

2. Sponsor's Representative *(if other than #1) :*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

3. Notice of: ☐ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☐ Temporary (months, days)

5. Work Schedule: Beginning _____ End _____

6. Type: ☐ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☐ Other _____

7. Marking/Painting and/or Lighting Preferred:
☐ Red Lights and Paint ☐ Dual - Red and Medium Intensity White
☐ White - Medium Intensity ☐ Dual - Red and High Intensity White
☐ White - High Intensity ☐ Other _____

8. FCC Antenna Structure Registration Number *(if applicable):*
_____

9. Latitude: ____° ____' ____.____"

10. Longitude: ____° ____' ____.____"

11. Datum: ☐ NAD 83 ☐ NAD 27 ☐ Other _____

12. Nearest: City: ____ State: _____

13. Nearest Public-use (not private-use) or Military Airport or Heliport:
_____

14. Distance from #13. to Structure: _____

15. Direction from #13. to Structure: _____

16. Site Elevation *(AMSL):* _____ ft.

17. Total Structure Height *(AGL):* _____ ft.

18. Overall height (#16. + #17.) *(AMSL):* _____ ft.

19. Previous FAA Aeronautical Study Number (if applicable):
_____ -

20. Description of Location: (Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey.)

21. Complete Description of Proposal:

Frequency/Power (kW)	

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U.S.C., section 46301 (a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking and lighting standards as necessary.

Date	Typed or Printed name and Title of Person Filing Notice	Signature

FAA Form 7460-1 (2-99) Supersedes Previous Edition

NSN: 0052-00-012-0008

Figure C2

FAR Part 77 Notification

FAA Form 7460-1

Figure C-3

Online Submittal of Form 7460-1: Notice of Proposed Construction or Alteration

Historically a paper form called a "7460-1" was required to be submitted to the FAA for any project proposed on airport property and certain projects near airports. Recently, the FAA has moved from paper forms to an on-line system of evaluating the effects of a proposed project on the national airspace system.

- The on-line system can be accessed at https://oeaaa.faa.gov.

This new system allows project proponents to submit and track their proposal as it progresses through the FAA evaluation process.
The purpose of this guidance is to supplement and clarify the FAA user guide for the 7460 website.

- available at: https://oeaaa.faa.gov/oeaaa/external/content/OEexternal_Guide_v3.1.pdf

We recommend that the user first read the entire guide provided by the FAA, and then use this document to clarify some of the more complicated aspects of the online 7460 system.

When a project must be submitted to the FAA

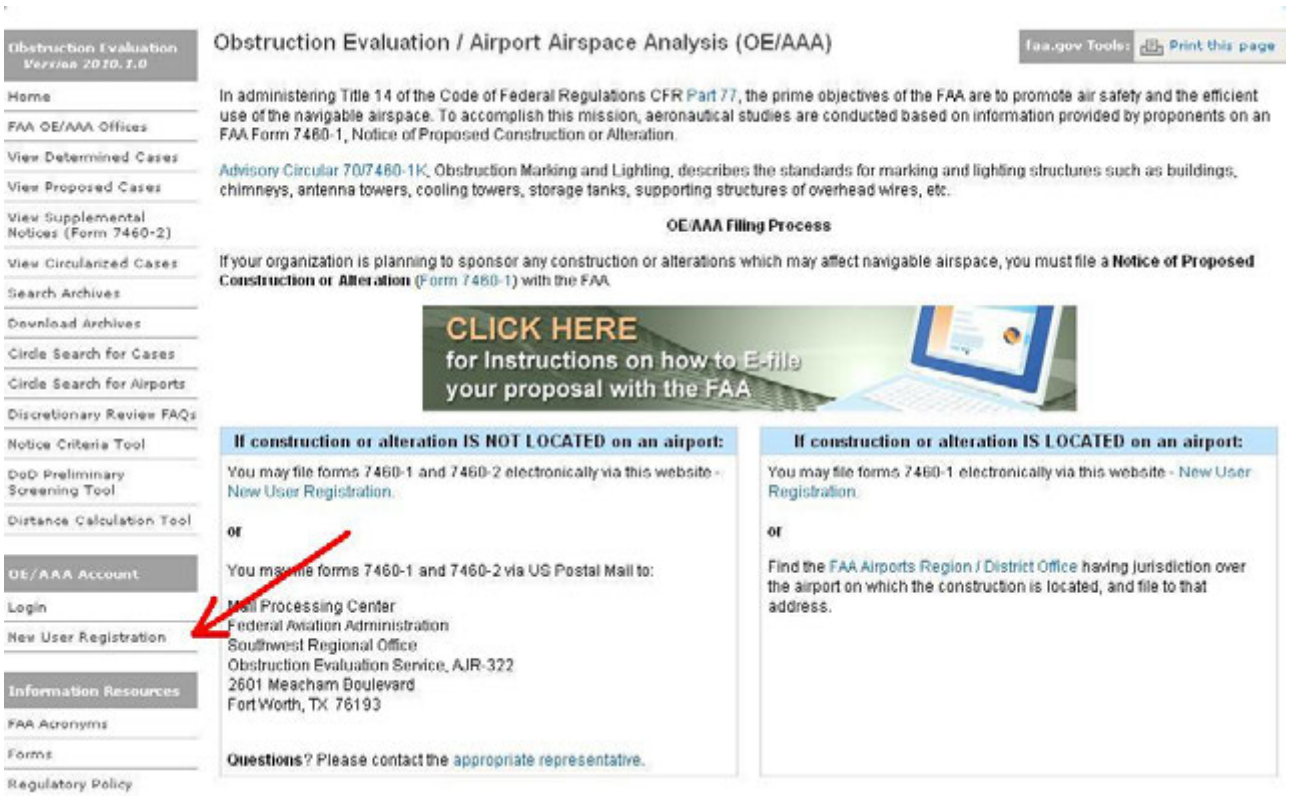
CFR Title 14 Part 77.13 states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 ft. above ground level
- Any construction or alteration:
  - within 20,000 ft. of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
  - within 10,000 ft. of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.
  - within 5,000 ft. of a public use heliport which exceeds a 25:1 surface
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards
- When requested by the FAA
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

The FAA has been continuously improving the oe/aaa website to be more user friendly and increase the on-line functionality. The look and feel of the website may change in the future, but the majority of the content should remain as is.

Create an account

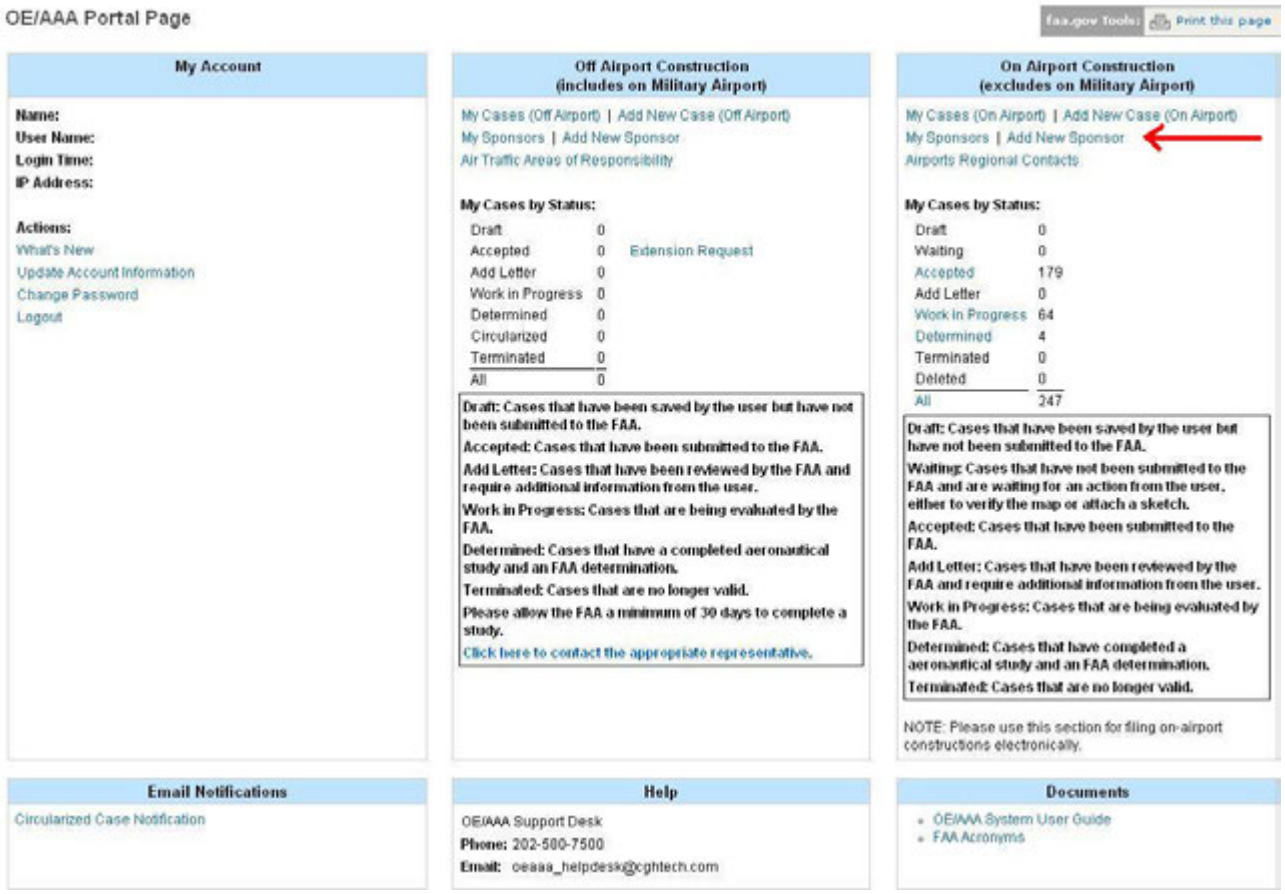
Before accessing the features of the website, the user will be required to create a username and password to access the website.



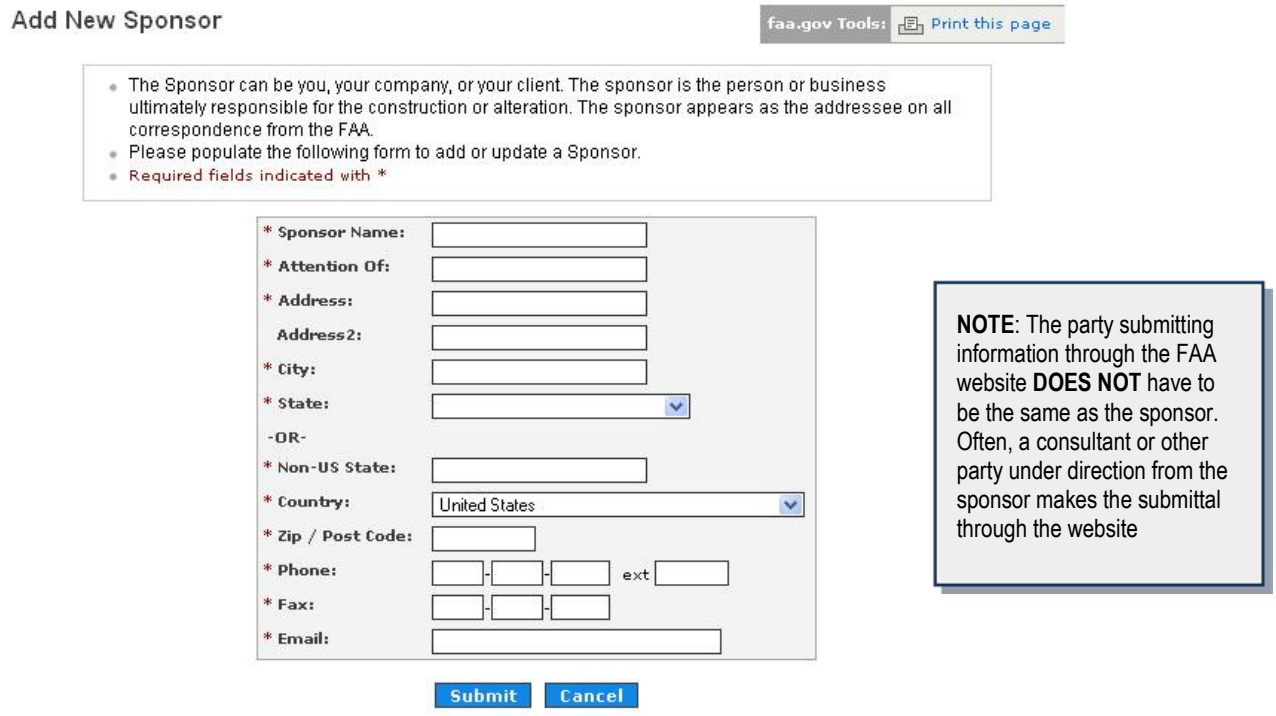
Once a user has created an account, they will be able to log in and will be directed to the OE/AAA Portal Page. This page displays a summary of any projects which have been entered into the website, categorized by off-airport and on-airport projects.

Adding a Sponsor

Before a user can enter project specific information, a project sponsor must be created. A sponsor is the person who is ultimately responsible for the construction or alteration. All FAA correspondence will be addressed to the sponsor. The sponsor could be the airport manager for projects proposed by the airport, or the developer proposing off airport construction. To create a sponsor contact, click "Add New Sponsor" on the "portal" page. From there the user can add sponsors for various projects.



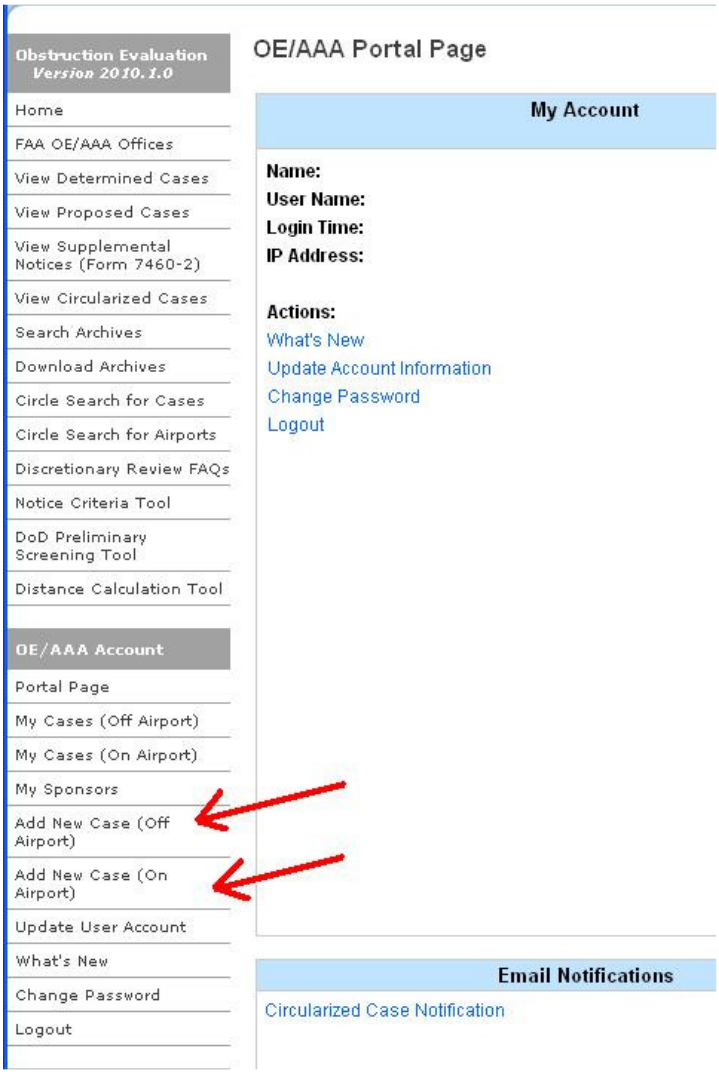
When the user selects "Add New Sponsor", they will be presented with the following screen:



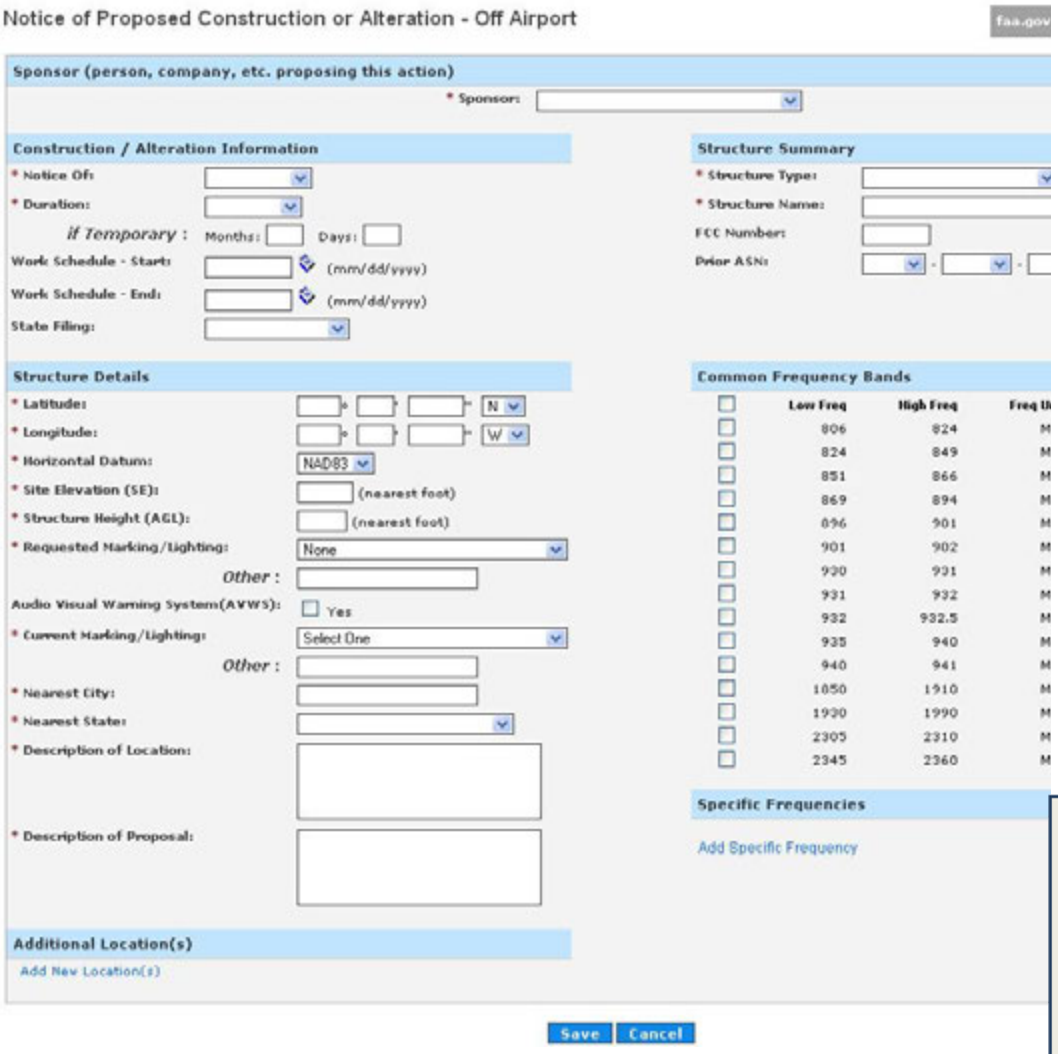
NOTE: The party submitting information through the FAA website **DOES NOT** have to be the same as the sponsor. Often, a consultant or other party under direction from the sponsor makes the submittal through the website

Creating a New Submittal

There are two options for creating a new 7460 submittal. Again on the left side, either click "Add New Case (off airport)" or "Add New Case (on airport)"



There are some differences in the required fields for "on airport" vs. "off airport" but the differences are minor and self-explanatory. One tip: for off airport submittals there is a field for "requested marking/lighting". If the user does not have a preference, select other from the pull down menu and in the "other field" state "no preference".

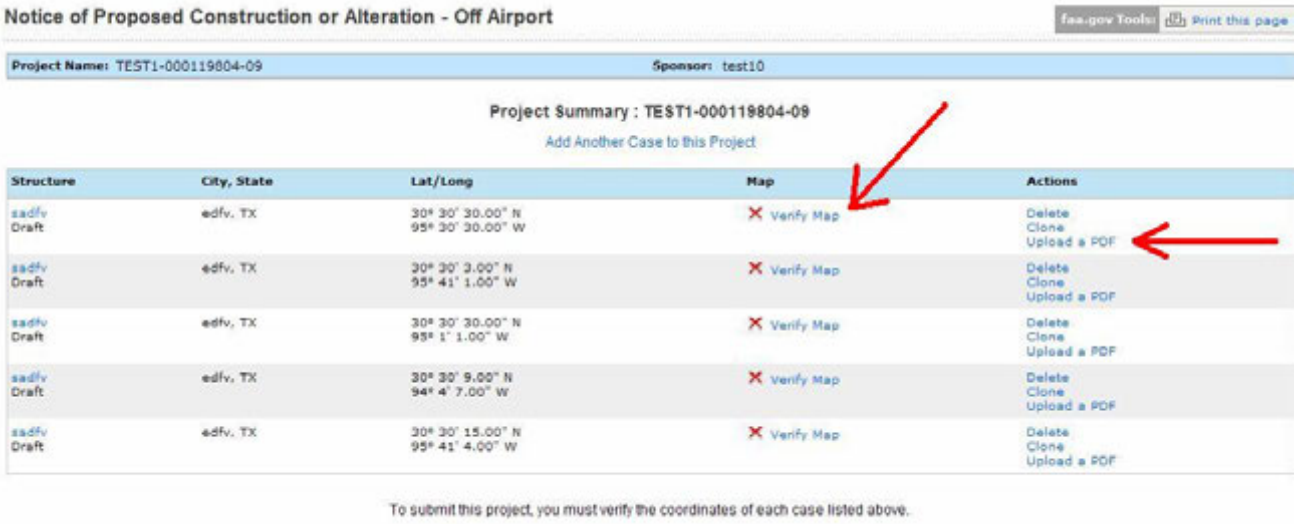


Accurate lat/long and site elevation is critical for an accurate airspace determination.

It is recommended that survey quality data be obtained from a recent survey, a GPS unit, or worst case, scaled from a topo quad.

- The most common "notice of" is construction. Select from pull down menu.
- Latitude and longitude must be entered for the structure/construction activity.
- Most 7460 submittals will require multiple points with lat/long unless the 7460 is for a pole/tower/ or other single point object. Buildings and construction areas all require points indicating the extents of the building or area. More information is provided below on how to add additional points to a submittal.
- There is a field to describe the activity taking place. In some complex activities the field does not provide enough room for the required text. An additional explanatory letter can be attached. Additional information is provided in this section on how to add a letter or document to the submittal.
- Red asterisks indicate the required fields.
- Unless there has been a previous aeronautical study for this submittal leave the "prior study" fields blank.
- Only select "common frequency bands" if the proposed structure will transmit a signal.

If the submittal is a building or construction area that is more than a single lat/long point the user must save the data first. Click save at the bottom of the page. This will bring up a summary screen of the case. To add more points click "clone" under the heading "actions".

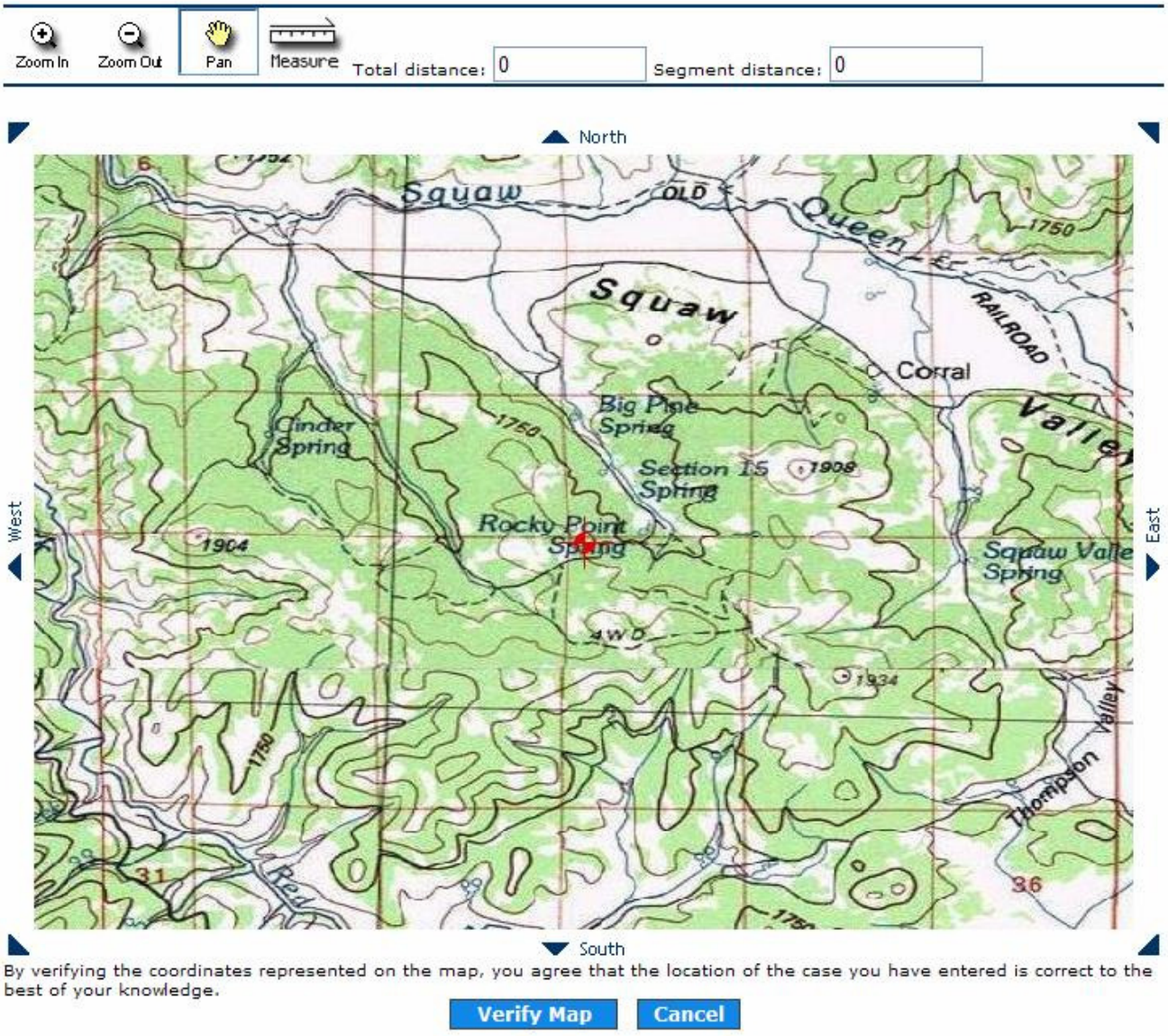


The clone tool copies all the relevant information to a new page where an additional lat/long and elevation can be entered. However, the clone process does not number the various points of a proposed project. When entering the details for a point (see Image 5) it is helpful if the user assigns a number to the point and references the total number of points for the project (e.g. point 2 of 20). The numbering can be included in the project "description/remarks" field for each point.

It should be noted that each individual point associated with a project (e.g. each corner of a building) is evaluated individually, thus the importance of including a numbering system (2 of 20) in the text/description box.

Once done, click "save" again. Now the user will see two records under the "project summary" heading. Continue this process of cloning for all the remaining points.

Once all the points have been entered, each point must be verified. There is a red X with the words "verify map" indicating the user has not verified the location. Click Verify Map, a popup will display the lat/long point on a topo map and the user must verify that it is in the correct location. After clicking "verify map" on the popup, the red X will become a blue checkmark. It seems to be more efficient to enter all of the points associated with a project and then return to verify each point on the map at one time.



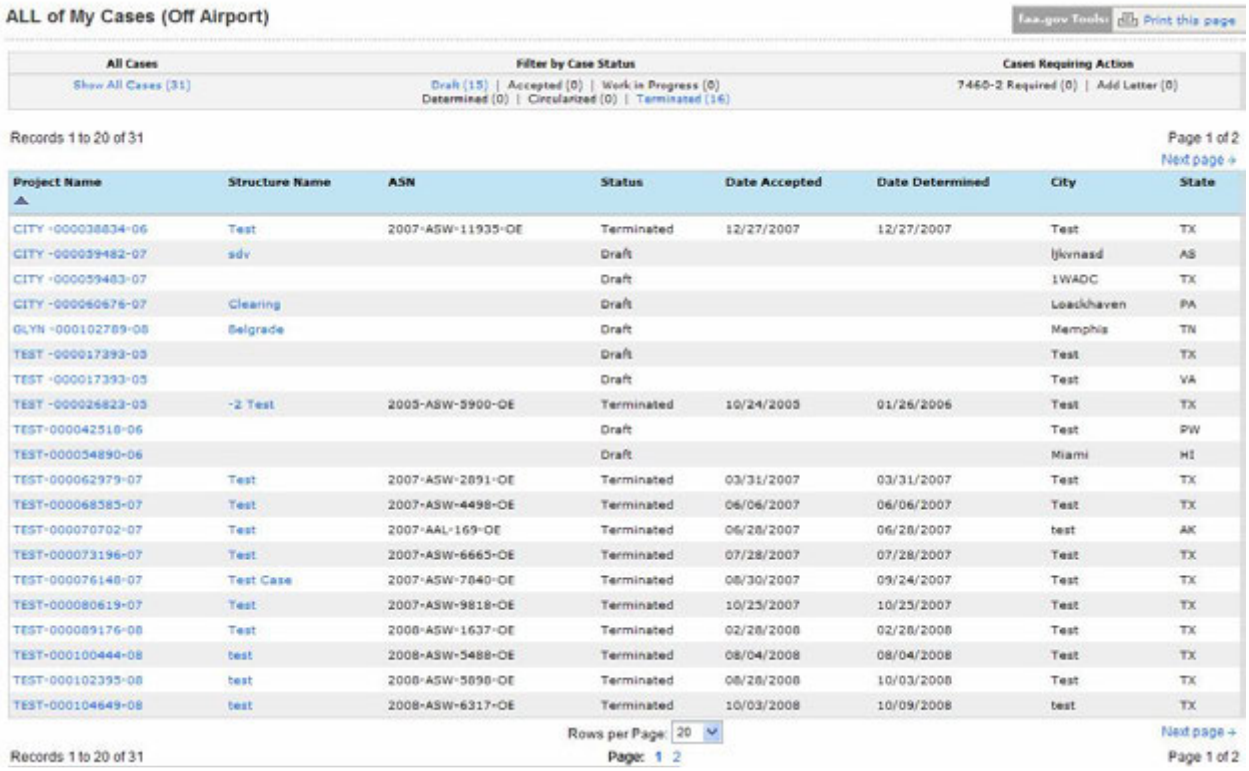
All on-airport project submittals must have a "project sketch" included. Under the "actions" column select "upload a PDF". Once you have uploaded a sketch for all the points associated with the project the red X under "sketch" will turn to a green check mark. Off-airport projects do not require a "project sketch", but the user can still upload one for informational purposes.

If the user needs to add any other information such as an explanatory letter, clicking on "upload a PDF" will allow the user to upload more documents, although only one at a time. Keep in mind that if additional PDFs or information are being provided, like the project sketch it must be uploaded to every point associated with the project.

Once the maps have been verified and sketches uploaded for all points associated with the case, the user will be able to submit the 7460 to the FAA for review.

Status of Submitted Projects

To check the status of a submittal, click on either "my cases (off airport)" or "my cases (on airport)" to see a list of what has been submitted. Each of the multiple points associated with one project will be listed as if they are separate, although still associated. The points will have a status:



ALL of My Cases (Off Airport)

faa.gov Tools | Print this page

All Cases	Filter by Case Status	Cases Requiring Action
Show All Cases (31)	Draft (15) | Accepted (0) | Work in Progress (0) Determined (0) | Circularized (0) | Terminated (16)	7460-2 Required (0) | Add Letter (0)

Records 1 to 20 of 31 — Page 1 of 2 — Next page »

Project Name	Structure Name	ASN	Status	Date Accepted	Date Determined	City	State
CITY -000038834-06	Test	2007-ASW-11935-OE	Terminated	12/27/2007	12/27/2007	Test	TX
CITY -000039482-07	sdv		Draft			ljkvnasd	AS
CITY -000059483-07			Draft			1WADC	TX
CITY -000060676-07	Clearing		Draft			Leadkhaven	PA
GLYN -000102789-08	Belgrade		Draft			Memphis	TN
TEST -000017393-03			Draft			Test	TX
TEST -000017393-03			Draft			Test	VA
TEST -000026823-03	-2 Test	2005-ASW-5900-OE	Terminated	10/24/2005	01/26/2006	Test	TX
TEST-000042518-06			Draft			Test	PW
TEST-000054890-06			Draft			Miami	HI
TEST-000062979-07	Test	2007-ASW-2891-OE	Terminated	03/31/2007	03/31/2007	Test	TX
TEST-000068585-07	Test	2007-ASW-4498-OE	Terminated	06/06/2007	06/06/2007	Test	TX
TEST-000070702-07	Test	2007-AAL-169-OE	Terminated	06/28/2007	06/28/2007	test	AK
TEST-000073196-07	Test	2007-ASW-6665-OE	Terminated	07/28/2007	07/28/2007	Test	TX
TEST-000076148-07	Test Case	2007-ASW-7040-OE	Terminated	08/30/2007	09/24/2007	Test	TX
TEST-000080619-07	Test	2007-ASW-9818-OE	Terminated	10/25/2007	10/25/2007	Test	TX
TEST-000089176-08	Test	2008-ASW-1637-OE	Terminated	02/28/2008	02/28/2008	Test	TX
TEST-000100444-08	test	2008-ASW-5488-OE	Terminated	08/04/2008	08/04/2008	Test	TX
TEST-000102395-08	test	2008-ASW-5898-OE	Terminated	08/28/2008	10/03/2008	Test	TX
TEST-000104649-08	test	2008-ASW-6317-OE	Terminated	10/03/2008	10/09/2008	test	TX

Rows per Page: 20 — Next page »

Records 1 to 20 of 31 — Page: 1 2 — Page 1 of 2

Project Status Definitions:

Draft: Cases that have been saved by the user but have not been submitted to the FAA.

Waiting: Cases that have not been submitted to the FAA and are waiting for an action from the user, either to verify the map or attach a sketch.

Accepted: Cases that have been submitted to the FAA.

Add Letter: Cases that have been reviewed by the FAA and require additional information from the user.

Work in Progress: Cases that are being evaluated by the FAA.

Determined: Cases that have a completed aeronautical study and an FAA determination.

Terminated: Cases that are no longer valid.

These definitions are also shown at the bottom of the summary screen.

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APPENDIX D

Airport Land Use Compatibility Concepts

INTRODUCTION

This appendix provides basic information regarding the concepts and rationale used to develop the compatibility policies and maps set forth in Chapter 2 of this *Stanislaus County Airport Land Use Compatibility Plan*. Some of the material is excerpted directly from the *California Airport Land Use Planning Handbook* published by the California Division of Aeronautics in October 2011. Other portions are based upon concepts that evolved from technical input obtained during review and discussion of preliminary drafts of key policies.

State law requires that airport land use commissions "be guided by" the information presented in the *Handbook*. Despite the statutory reference to it, though, the *Handbook* does not constitute formal state policy or regulation. Indeed, adjustment of the guidelines to fit the circumstances of individual airports is suggested by the *Handbook*. The *Handbook* guidance does not supersede or otherwise take precedence over the policies adopted by the Stanislaus County Airport Land Use Commission (ALUC) in this *Compatibility Plan*. Furthermore, this appendix itself does not constitute ALUC policy. If the material herein conflicts in any manner with the actual policy language or maps, the policies and maps prevail.

As outlined in the *Handbook*, the noise and safety compatibility concerns of ALUCs fall into four categories. This *Compatibility Plan* refers to these categories as "layers:"

- *Noise:* As defined by cumulative noise exposure contours describing noise from aircraft operations near an airport.
- *Overflight:* The impacts of routine aircraft flight over a community.
- *Safety:* From the perspective of minimizing the risks of aircraft accidents beyond the runway environment.
- *Airspace Protection:* Accomplished by limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

The documentation in the remainder of this appendix is organized under these four categories. Under each of the four compatibility category headings, the discussion is organized around four topics:

- *Compatibility Objective:* The objective to be sought by establishment and implementation of the compatibility policies;
- *Measurement:* The scale on which attainment of the objectives can be measured;
- *Compatibility Strategies:* The types of strategies which, when formulated as compatibility policies, can be used to accomplish the objectives; and
- *Basis for Setting Criteria:* The factors which should be considered in setting the respective compatibility criteria.

NOISE

Noise is perhaps the most basic airport land use compatibility concern. Certainly, it is the most noticeable form of airport impact.

Compatibility Objective

The purpose of noise compatibility policies is to avoid establishment of new noise-sensitive land uses in the portions of an airport environs that are exposed to significant levels of aircraft noise, taking into account the characteristics of the airport and the community surrounding the airport.

Measurement

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for measurement of airport noise, is the Community Noise Equivalent Level (CNEL). Cumulative noise level metrics measure the noise levels of all aircraft operating at an airport on an average day (1/365) of the year. The calculations take into account not only the number of operations of each aircraft type and the noise levels they produce, but also their distribution geographically (the runways and flight tracks used) and by time of day. To reflect an assumed greater community sensitivity to nighttime and evening noise, the CNEL metric counts events during these periods as being louder than actually measured.

Cumulative noise level metrics provide a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed over the course of a day. Although the maximum noise levels produced by individual aircraft are a major component of the calculations, cumulative noise level metrics do not explicitly measure these peak values. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures—ones affected by high concentrations of aircraft takeoffs and landings.

For civilian airports, noise contours are typically calculated using the Federal Aviation Administration's Integrated Noise Model (INM) computer program. For military airports, the similar Department of Defense NOISEMAP model is used. Inputs to these models are of two basic types: standardized data regarding aircraft performance and noise levels generated (this data can be adjusted for a particular airport if necessary); and airport-specific data including aircraft types and number of operations, time of day of aircraft operations, runway usage distribution, and the location and usage of flight tracks. Airport elevation and surrounding topographic data can also be entered. For airports with airport traffic control towers, some of these inputs can be obtained from recorded data. Noise monitoring and radar flight tracking data available for airports in metropolitan areas are other sources of valuable information. At most airports, though, the individual input variables must be estimated.

Compatibility Strategies

The basic strategy for achieving noise compatibility in an airport's vicinity is to limit development of land uses that are particularly sensitive to noise. The most acceptable land uses are ones that either involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses).

California state law regards any residential land uses as normally incompatible where the noise exposure exceeds 65 dB CNEL (although the state airport noise regulations explicitly apply only to identified "noise problem airports" in the context of providing the ability of these airports to operate under a noise variance from the State, the *Handbook* and other state guidelines extend this criterion to all airports as discussed below). This standard, however, is set with respect to high-activity airports, particularly major air carrier airports, in urban locations, where ambient noise levels are generally higher than in suburban and rural areas. As also discussed below and as provided in the *Handbook,* a lower threshold of incompatibility is often appropriate at certain airports, particularly around airports in suburban or rural locations where the ambient noise levels are lower than those found in more urban areas.

In places where the noise exposure is not so severe as to warrant exclusion of new residential development, the ideal strategy is to have very low densities—that is, parcels large enough that the dwelling can be placed in a less impacted part of the property. In urban areas, however, this strategy is seldom viable. The alternative for such locations is to encourage high-density, multi-family residential development with little, if any, outdoor areas, provided that the 65 dB CNEL standard and limitations based upon safety are not exceeded. Compared to single-family subdivisions, ambient noise levels are typically higher in multi-family developments, outdoor living space is less, and sound insulation features can be more easily added to the buildings. All of these factors tend to make aircraft noise less intrusive.

Sound insulation is an important requirement for residential and other noise-sensitive indoor uses in high noise areas. The California Building Code requires that sufficient acoustic insulation be provided in any habitable rooms of new hotels, motels, dormitories, dwellings other than detached single-family residences to assure that aircraft noise is reduced to an interior noise level of 45 dB CNEL or less. To demonstrate compliance with this standard, an acoustical analysis must be done for any residential structure proposed to be located where the annual CNEL exceeds 60 dB. This *Compatibility Plan* extends the 45 dB CNEL interior noise limit standard to single-family dwellings. The *Compatibility Plan* further requires dedication of an avigation easement (see later discussion in this appendix) as a condition for development approval in locations where these standards come into play.

Basis for Setting Criteria

Compatibility criteria related to cumulative noise levels are well-established in federal and state laws and regulations. The California Airport Noise Regulations (California Code of Regulations Section 5000 *et seq.*) states that:

> "The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a community noise equivalent level (CNEL) value of 65 dB for purposes of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep and community reaction."

No airport declared by a county's board of supervisors as having a "noise problem" is to operate in a manner that result in incompatible uses being located within the 65 dB CNEL contour. Incompatible uses are defined as being: residences of all types; public and private schools; hospitals and convalescent homes; and places of worship. However, these uses are not regarded as incompatible where acoustical insulation necessary to reduce the interior noise level to 45 dB CNEL has been installed or the airport proprietor has acquired an avigation easement for aircraft noise.

As noted in the regulations, the 65 dB CNEL standard is set with respect to urban areas. For many airports and many communities, 65 dB CNEL is too high to be considered acceptable to "reasonable per-

sons." Through a process called "normalization," adjustments can be made to take into account such factors as the background noise levels of the community and previous exposure to particular noise sources. This process suggests, for example, that 60 dB CNEL may be a more suitable criterion for suburban communities not exposed to significant industrial noise and 55 dB CNEL may be appropriate for quiet suburban or rural communities remote from industrial noise and truck traffic. On the other hand, even though exceeding state standards, 70 dB CNEL may be regarded as an acceptable noise exposure in noisy urban residential communities near industrial areas and busy roads.

Industrial activity and transportation noise are undoubtedly two of the most prominent contributors to background noise levels in a community. According to a U.S. Environmental Protection Agency (EPA) study however, the variable that correlates best with ambient noise levels across a broad range of communities is population density (*Population Distribution of the United States as a Function of Outdoor Noise Level*, EPA Report No. 550/9-74-009, June 1974). This study established the following formula as a means of estimating the typical background noise level of a community:

$$DNL_{EPA} = 22 + 10 * \log(p)$$

where "p" is the population density measured in people per square statute mile.

These factors are reflected in the policies of this *Compatibility Plan*. The ALUC considers 60 dB CNEL to be the maximum normally acceptable noise exposure for new residential development near Nevada County Airport. Based upon the above EPA equation, these criteria are a minimum of 5 dB above the predicted ambient noise levels in the respective communities.

Similar considerations come into play with respect to establishing maximum acceptable noise exposure for nonresidential land uses, particularly those that are noise sensitive. For schools, lodging, and other such uses, a higher noise exposure may be tolerated in noisy urban communities than in quieter suburban and rural areas. For uses that are not noise sensitive or which generate their own noise, the maximum acceptable noise exposure levels tend to be the same regardless of ambient noise conditions. The criteria listed in Chapter 2 of this *Compatibility Plan* are set with these various factors in mind.

OVERFLIGHT

Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contours. Many people are sensitive to the frequent presence of aircraft overhead even at low levels of noise. These reactions can mostly be expressed in the form of *annoyance*.

The *Handbook* notes that at many airports, particularly air carrier airports, complaints often come from locations beyond any of the defined noise contours. Indeed, heavily used flight corridors to and from metropolitan areas are known to generate noise complaints 50 miles or more from the associated airport. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive—or, in some circumstances, even distinctly audible—above the quiet, natural background noise level. Elsewhere, especially in locations beneath the traffic patterns of general aviation airports, a fear factor also contributes to some individuals' sensitivity to aircraft overflights.

While these impacts may be important community concerns, the question of importance here is whether any land use planning actions can be taken to avoid or mitigate the impacts or otherwise address the concerns. Commonly, when overflight impacts are under discussion in a community, the focus is on modification of the flight routes. Indeed, some might argue that overflight impacts should be addressed solely through the aviation side of the equation—not only flight route changes, but other modifications

to where, when, and how aircraft are operated. Such changes are not always possible because of terrain, aircraft performance capabilities, FAA regulations, and other factors. In any case, though, ALUCs are particularly limited in their ability to deal with overflight concerns. Most significantly, they have no authority over aircraft operations. The most they can do to bring about changes is to make requests or recommendations. Even with regard to land use, the authority of ALUCs extends only to proposed new development and the delineation of an airport's overall influence area. The authority and responsibility for implementing the *Compatibility Plan*'s policies and criteria rests with the local governments.

These limitations notwithstanding, there are steps which ALUCs can and should take to help minimize overflight impacts.

Compatibility Objective

In an idealistic sense, the compatibility objective with respect to overflight is the same as for noise: avoid new land use development that can disrupt activities and lead to annoyance and complaints. However, given the extensive geographic area over which the impacts occur, this objective is unrealistic except relatively close to the airport. A more realistic objective of overflight compatibility policies therefore is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas.

Measurement

Cumulative noise metrics such as CNEL are well-suited for use in establishing land use compatibility policy criteria and are the only noise metrics for which widely accepted standards have been adopted. However, these metrics are not very helpful in determining the extent of overflight impact areas. Locations where overflight concerns may be significant are typically well beyond where noise contours can be drawn with precision. Flight tracks tend to be quite divergent and noise monitoring data is seldom available. Moreover, even if the contours could be drawn precisely, the noise levels they would indicate may not be much above the ambient noise levels.

For the purposes of airport land use compatibility planning, two other forms of noise exposure information are more useful. One measure is the momentary, maximum sound level (L_{max}) experienced on the ground as the aircraft flies over while landing at and taking off from a runway. These noise levels can be depicted in the form of a noise "footprint" as shown in Figure D1 for a variety of airline and general aviation aircraft. Each of these footprints is broadly representative of those produced by other aircraft similar to the ones shown. The actual sound level produced by any single aircraft takeoff or landing will vary not only among specific makes and models of aircraft, but also from one operation to another of identical aircraft.

In examining the footprints, two additional points are important to note. One is the importance of the outermost contour. This noise level (65 dBA L_{max}) is the level at which interference with speech begins to be significant. Land uses anywhere within the noise footprint of a given aircraft would experience a noise level, even if only briefly, that could be disruptive to outdoor conversation. Indoors, with windows closed, the aircraft noise level would have to be at least 20 dBA louder to present similar impacts. A second point to note concerns the differences among various aircraft, particularly business jets. As the data shows, business jets manufactured in the 1990s are much quieter than those of 10 and 20 years earlier. The impacts of the 1990s era jets are similar to those of twin-engine piston aircraft and jets being made in the 2000s are quieter yet. At many general aviation airports, the size of the CNEL contours is driven by a relatively small number of operations by the older, noisier business jets. These aircraft are

gradually disappearing from the nationwide aircraft fleet and will likely be mostly gone within 20 years, but at this point in time it is uncertain when they will be completely eliminated.

Another useful form of overflight information is a mapping of the common flight tracks used by aircraft when approaching and departing an airport. Where available, recorded radar data is an ideal source for flight track mapping. Even more revealing is to refine the simple flight track mapping with data such as the frequency of use and/or aircraft altitudes. Chapter 3 includes maps showing areas frequently overflown by aircraft and the resulting noise contours.

Compatibility Strategies

As noted above, the ideal land use compatibility strategy with respect to overflight annoyance is to avoid development of new residential and other noise-sensitive uses in the affected locations. To the extent that this approach is not practical, other strategies need to be explored.

The strategy emphasized in this *Compatibility Plan* is to help people with above-average sensitivity to aircraft overflights—people who are highly *annoyed* by overflights—to avoid living in locations where frequent overflights occur. This strategy involves making people more aware of an airport's proximity and its current and potential aircraft noise impacts on the community before they move to the area. This can be accomplished through buyer awareness measures such as dedication of avigation or overflight easements, recorded deed notices, and/or real estate disclosure statements. In new residential developments, posting of signs in the real estate sales office and/or at key locations in the subdivision itself can be further means of alerting the initial purchasers about the impacts (signs, however, generally do not remain in place beyond the initial sales period and therefore are of little long-term value).

A second strategy is to minimize annoyance in by promoting types of land uses that tend to mask or reduce the intrusiveness of aircraft noise. Although this strategy does not directly appear in the overflight policies of this *Compatibility Plan*, the objectives of the plan would be well-served if local jurisdictions take this concept into consideration in their own planning efforts. To the extent that residential land uses must be located in aircraft overflight areas, multi-family residences—because they tend to have comparatively little outdoor living areas, fewer external walls through which aircraft noise can intrude, and relatively high noise levels of their own—are preferable to single-family dwellings. Particularly undesirable are "ranchette" style residential areas consisting of large (about an acre on average) lots. Such developments are dense enough to expose many people to overflight noise, yet sufficiently rural in character that background noise levels are likely to be low.

Basis for Setting Criteria

In California, the most definitive guidance on where overflight impacts are significant or what actions should be taken in response comes from a state law that took effect in January 2004. California statutes (Business and Profession Code Section 11010 and Civil Code Sections 1103 and 1353) now require most residential real estate transactions, including all involving new subdivisions, to include disclosure that an airport is nearby. The area encompassed by the disclosure requirements is two miles from the airport or the airport influence area established by the county's airport land use commission. The law defines the airport influence area as "the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission." This *Compatibility Plan* requires that the disclosure of airport proximity be applied to all new development within both the primary and secondary airport influence areas and recommends that disclosure be provided as part of all real estate transactions involving private property, especially any sale, lease, or rental of residential property.

SAFETY

Compared to noise, safety is in many respects a more difficult concern to address in airport land use compatibility policies. A major reason for this difference is that safety policies address uncertain events that *may occur* with *occasional* aircraft operations, whereas noise policies deal with known, more or less predictable events which *do occur* with *every* aircraft operation. Because aircraft accidents happen infrequently and the time, place, and consequences of an individual accident's occurrence cannot be predicted, the concept of *risk* is central to the assessment of safety compatibility.

Compatibility Objective

The overall objective of safety compatibility criteria is to minimize the risks associated with potential off-airport aircraft accidents and emergency landings beyond the runway environment. There are two components to this objective:

- *Safety on the Ground:* The most fundamental safety compatibility component is to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.
- *Safety for Aircraft Occupants:* The other important component is to enhance the chances of survival of the occupants of an aircraft involved in an accident that takes place beyond the immediate runway environment.

Measurement

Because aircraft accidents happen infrequently, measuring the risks associated with their occurrence is difficult. It is necessary to look beyond an individual airport in order to assemble enough data to be statistically valid. It is beyond the intent of this discussion to provide statistical data about aircraft accidents. Much can be found on that topic in the *Handbook*. However, certain aspects of aircraft accidents are necessary to discuss in that they have a direct bearing on land use compatibility strategies.

From the standpoint of land use planning, two variables determine the degree of risk posed by potential aircraft accidents: frequency and consequences.

The frequency variable measures *where* and *when* aircraft accidents occur in the vicinity of an airport. More specifically, these two elements can be described as follows:

- *Spatial Element:* The spatial element describes *where* aircraft accidents can be expected to occur. Of all the accidents that take place in the vicinity of airports, what percentage occurs in any given location?
- *Time Element:* The time element adds a *when* variable to the assessment of accident frequency. In any given location around a particular airport, what is the chance that an accident will occur in a specified period of time?

Spatial Distribution of Aircraft Accidents

Of these two elements, the spatial element is the one most meaningfully applied to land use compatibility planning around an individual airport. Looking at airports nationwide, enough accidents have occurred to provide useful data regarding where they mostly occur in the environs of airports. As described below, the *Handbook* uses this data to define a set of safety zones. Additionally, the relative con-

centration of accidents in certain parts of the airport environs is a key consideration in the establishment of compatibility criteria applicable within those zones.

In contrast, the time element is not very useful for land use compatibility planning purposes for several reasons. First, at any given airport, the number of accidents is, with rare exceptions, too few to be statistically meaningful in determining where future accidents might occur. Secondly, a calculation of accident frequency over time depends upon the size of the area under consideration—the smaller the area examined, the less likely it is that an accident will occur in that spot. Lastly, even if the accident frequency over a period of time is calculated, there are no clear baselines with which to compare the results—is once per 100 or 1,000 years significant or not?

The *Handbook* presents a set of diagrams indicating where accidents are most likely to occur around airline and general aviation airports. Figures D-2 and D-3 show the spatial distribution of general aviation aircraft accidents in the vicinity of airports. (Note that these charts show data for all general aviation accidents in the *Handbook* database. Data on accidents associated with different lengths of runway is also provided, though, and is considered in delineation of the safety zones depicted in Chapter 3 of this *Compatibility Plan*.)

The charts reveal several facts:

- About half of arrival accidents and a third of departure accidents take place within the FAA-defined runway protection zone for a runway with a low-visibility instrument approach procedure (a 2,500-foot long trapezoid, varying from 1,000 feet wide at the inner edge to 1,750 feet in width at the outer end). This fact lends validity to the importance of the runway protection zones as an area within which land use activities should be minimal.
- Although the runway protection zones represent the locations within which risk levels are highest, a significant degree of risk exists well beyond the runway protection zone boundaries. Among all near-airport (within 5 miles) accidents, over 80% are concentrated within 1.5 to 2.0 miles of a runway end.
- Arrival accidents tend to be concentrated relatively close to the extended runway centerline. Some 80% occur within a strip extending 10,000 feet from the runway landing threshold and 2,000 feet to each side of the runway centerline.
- Departure accidents are comparatively more dispersed laterally from the runway centerline, but are concentrated closer to the runway end. Many departure accidents also occur lateral to the runway itself, particularly when the runway is long. Approximately 80% of the departure accident sites lie within an area 2,500 from the runway centerline and 6,000 feet beyond the runway end or adjacent to the runway.

To provide some sense of order to the scatter of individual accident points, an analysis presented in the *Handbook* involves aggregating the accident location points (the scatter diagrams of where accidents have occurred relative to the runway) in a manner that better identifies where the accident sites are most concentrated. The results are presented as risk intensity contours—Figure D-2 shows arrival accident risks and Figure D-3 portrays departure accident risks. The two drawings divide the near-airport accident location points into five groups of 20% each (note that only accident sites that were not on a runway, but were within 5 miles of an airport are included in the database). The 20% contour represents the highest or most concentrated risk intensity, the 40% contour represents the next highest risk intensity, and so on up to 80%. The final 20% of the accident sites are beyond the 80% contour. Each contour is drawn so as to encompass 20% of the points within the most compact area. The contours are irregular in shape. No attempt has been made to create geometric shapes. However, the risk con-

tours can serve as the basis for creating geometric shapes that can then be used as safety zones. The *Handbook* contains several examples. The Department of Defense, through its *Air Installation Compatible Use Zones (AICUZ)* program, has followed a similar process to establish safety zone guidelines for military airports.

The *Handbook* takes the additional step of translating the risk contours into several sets of generic safety zones having regular geometric shapes. Generic safety zones are illustrated for different types and lengths of runways. The shapes of these zones reflect not just the accident distribution data, but also the ways in which different phases of aircraft operations create different accident risk characteristics near an airport. For most runways, the *Handbook* suggests creation of six zones. The locations, typical dimensions, and characteristics of the accident risks within each zone are outlined in Table D1. In more general terms, the relative degree of the risk exposure in each zone can be described as listed below.

- *Zone 1* clearly is exposed to the greatest risk of aircraft accidents. For civilian airports, the dimensions of this zone are established by FAA standards. The FAA encourages airport ownership of this zone and provides specific land use standards to the extent that land is airport owned. Where the land is not airport owned, the FAA says these standards serve as recommendations. Zone 1 at military airports matches the clear zones defined by the Department of Defense.
- *Zone 2* lies beyond Zone 1 and also has a significant degree of risk as reflected in both national and local accident location data. At military airports, this zone is equivalent to Accident Potential Zone I.
- *Zone 3* has less risk than Zone 2, but more than Zones 4, 5, or 6. Zone 3 encompasses locations where aircraft often turn at low altitude while approaching or departing the runway.
- *Zone 4* lies along the extended runway centerline beyond Zone 2 and is especially significant at airports that have straight-in instrument approach procedures or a high volume of operations that result in an extended traffic pattern. This zone is equivalent to Accident Potential Zone II at military airports.
- *Zone 5* is a unique area lying adjacent to the runway and, for most airports, lies on airport property. The risk is comparable to Zone 4.
- *Zone 6* contains the aircraft traffic pattern. Although a high percentage of accidents occur within Zone 6, for any given runway Zone 6 is larger than all the other zones combined. Relative to the other zones, the risks in Zone 6 are much less, but are still greater than in locations more distant from the airport.

Although accident location data, together with information on how aircraft flight parameters affect where accidents occur, are the bases for delineation of the generic safety zones, the *Handbook* indicates that adjustments to the zone sizes and shapes must be made in recognition of airport-specific characteristics. Among these characteristics are:

- The particular mix of aircraft types operating at the airport. Larger aircraft generally are faster than smaller planes and thus fly longer and wider traffic patterns or make straight-in approaches.
- The overall volume of aircraft operations. At busy airports, a larger traffic pattern is common because aircraft have to get in sequence for landing.
- Nearby terrain or other airports. These physical features may, for example, limit a traffic pattern to a single side of the airport or dictate "nonstandard" approach and departure routes.

- Instrument approach procedures. Aircraft following these procedures typically fly long, straight-in, gradual descents to the runway. In some cases, though, an approach route may be aligned at an angle to the runway rather than straight in.
- Existence of an air traffic control tower. When a tower is present, controllers may direct or allow pilots to fly unusual routes in order to expedite traffic flow. By comparison, at relatively busy but non-towered airports, aircraft mostly follow the "standard" pattern dictated by federal aviation regulations.
- A dominant direction of traffic flow. As reflected in the *Handbook* analysis of accident locations, landing aircraft tend to follow routes directly in line with the runway during final descent and thus accident sites also are concentrated along this alignment. Departing aircraft are more likely to turn to head to their intended destination and the accident pattern is thus more dispersed. On runways where the flow of aircraft operations is almost always in one direction, this distinction in accident patterns is considered.

Radar data is particularly helpful in showing exactly where aircraft fly when approaching or departing an airport. This data can be used to further support adjustments to the safety zones based upon the above characteristics. Radar data, though, is not available for many of outlying airports. In these instances, information on normal traffic pattern locations can be obtained through contact with local flight instructors and others highly familiar with a particular airport.

Accident Consequences

The consequences variable describes *what* happens when an aircraft accident occurs. Specific measures can be defined in terms of deaths, injuries, property damage, or other such characteristics. In many respects, the consequences component of aircraft accident risk assessment is a more important variable than accident frequency. Not only can a single accident cost many lives, it can indirectly force operational changes or even airport closure.

Relatively little data is available specifically documenting the consequences of aircraft accidents. Except with regard to numbers of deaths or injuries to people on the ground, data on various aspects of aircraft accidents must be used to infer what the consequences have been. Swath size is one useful piece of information. It indicates the area over which accident debris is spread. Swath size in turn depends upon the type of aircraft and the nature of the accident: was the aircraft in controlled flight (an engine failure for example), but then collided with something on the ground or did a catastrophic event (such as a mid-air collision or stall-spin) result in the aircraft making an uncontrolled descent? For small general aviation aircraft, the swath size data suggests that a controlled emergency landing in which the aircraft occupants have a strong chance of surviving is possible in an area about the size of a football field: 75 feet by 300 feet or about 0.5 acre. For larger aircraft, the minimum flight speed is so much higher that the consequences for people on board and anyone on the ground are likely to be high regardless of the land use or terrain characteristics.

Compatibility Strategies

The relatively low numbers of deaths and injuries from aircraft accidents is sometimes cited as indicating that the risks are low. Clearly, though, the more people occupying the critical areas around airports, the greater the risks are. Aircraft accidents may be rare occurrences, but when they occur, the consequences can be severe.

From a land use compatibility perspective, it is therefore essential to avoid conditions that can lead to catastrophic results. Basically, the question is: what land use planning measures can be taken to reduce the severity of an aircraft accident if one occurs in a particular location near an airport? Although there is a significant overlap, specific strategies must consider both components of the safety compatibility objective: protecting people and property on the ground; and, primarily for general aviation airports, enhancing safety for aircraft occupants. In each case, the primary strategy is to limit the intensity of use (the number of people concentrated on the site) in locations most susceptible to an off-airport aircraft accident. This is accomplished by three types of criteria.

Density and Intensity Limitations

Establishment of criteria limiting the maximum number of dwellings or people in areas close to the airport is the most direct method of reducing the potential severity of an aircraft accident. In setting these criteria, consideration must be given to the two different forms of aircraft accidents: those in which the aircraft is descending, but is flying and under directional control of the pilot; and those in which the aircraft is out of control as it falls. Additionally, these data do not include the incidents in which the pilot made a successful emergency landing—the latter generally are categorized as "incidents" rather than as accidents and do not appear in the National Transportation Safety Board data from which the database in the *Handbook* is drawn.

Limits on usage intensity—the number of people per acre—must take into account both types of potential aircraft accidents. To the extent that accidents and incidents are of the controlled variety, then allowing high concentrations of people in a small area would be sensible, as long as intervening areas are little populated. However, concentrated populations present a greater risk for severe consequences in the event of an uncontrolled accident at that location. The policies in Chapter 2 address both of these circumstances. Limiting the average usage intensity over a site reduces the risks associated with either type of accident. In most types of land use development, though, people are not spread equally throughout the site. To minimize the risks from an uncontrolled accident, the policies also limit the extent to which people can be concentrated and development can be clustered in any small area.

Open Land Requirements

Creation of requirements for open land near an airport addresses the objective of enhancing safety for the occupants of an aircraft forced to make an emergency landing away from a runway. If sufficiently large and clear of obstacles, open land areas can be valuable for light aircraft anywhere near an airport. For large and high-performance aircraft, however, open land has little value for emergency landing purposes and is useful primarily where it is an extension of the clear areas immediately adjoining a runway.

Highly Risk-Sensitive Uses

Certain critical types of land uses—particularly schools, hospitals, and other uses in which the mobility of occupants is effectively limited—should be avoided near the ends of runways regardless of the number of people involved. Critical community infrastructure also should be avoided near airports. These types of facilities include power plants, electrical substations, public communications facilities and other facilities, the damage or destruction of which could cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Lastly, aboveground storage of large quantities of highly flammable or hazardous materials may pose high risks if involved in an aircraft accident and therefore are generally incompatible close to runway ends.

Basis for Setting Criteria

As with noise contours, risk data by itself does not answer the question of what degree of land use restrictions should be established in response to the risks. Although most ALUCs have policies that restrict certain land use activities in locations beyond the runway protection zones, the size of the area in which restrictions are established and the specific restrictions applied vary from one county to another.

Data useful in defining the geographic extent of airport safety areas was discussed above. To set safety compatibility criteria applicable within these zones presents the fundamental question of what is safe. Expressed in another way: what is an *acceptable risk*? In one respect, it may seem ideal to reduce risks to a minimum by prohibiting most types of land use development from areas near airports. However, as addressed in the *Handbook*, there are usually costs associated with such high degrees of restrictiveness. In practice, safety criteria are set on a progressive scale with the greatest restrictions established in locations with the greatest potential for aircraft accidents.

Little established guidance is available to ALUCs regarding how restrictive to make safety criteria for various parts of an airport's environs. Unlike the case with noise, there are no formal federal or state laws or regulations which set safety criteria for airport area land uses for civilian airports except within *runway protection zones* (and with regard to airspace obstructions as described separately in the next section). Federal Aviation Administration safety criteria primarily are focused on the runway and its immediate environment. Runway protection zones—then called *clear zones*—were originally established mostly for the purpose of protecting the occupants of aircraft which overrun or land short of a runway. Now, they are defined by the FAA as intended to enhance the protection of people and property on the ground.

The most useful place from which ALUCs can begin to determine appropriate safety compatibility criteria for airport environs is the *Handbook* itself. Although not regulatory in nature, state law obligates ALUCs to "be guided by" the information presented in the *Handbook*. Suggested usage intensity limitations, measured in terms of people per acre, are set forth along with other safety criteria. Reference should be made to that document for detailed description of the suggested criteria. Three risk-related variables discussed in the *Handbook* are worth noting here, however.

- *Runway Proximity:* In general, the areas of highest risk are closest to the runway ends and secondarily along the extended runway centerline. However, many common aircraft flight tracks do not follow along the runway alignment, particularly on departures. Also, where an aircraft crashes may not be along the flight path that was intended to be followed. As indicated in Figures D2 and D3, these factors affect the risk distribution.

- *Urban versus Rural Areas:* Irrespective of airports, people living in urban areas face different types of risks than those living in rural areas. The cost of avoiding risks differs between these two settings as well. The *Handbook* acknowledges these differences by indicating that usage intensities can be higher in heavily developed urban areas compared to partially undeveloped suburban areas or minimally developed rural locations, yet be equivalent in terms of the level of acceptable risk.

- *Existing versus Proposed Uses:* Another distinction in compatibility policies can be drawn between existing and proposed development. It is reasonable for safety-related policies to be established which prohibit certain types of new development while considering identical existing development to be acceptable. The *Handbook* notes that cost is an important factor in this regard. The range of risks can be divided into three levels. At the bottom of this scale are negligible and acceptable risks for which no action is necessary. At the top are intolerable risks for which action is necessary regardless of the cost. In between are risks that are significant, but tolerable. Whether action

should be taken to reduce these risks depends upon the costs involved. Typically, the cost of removing an incompatible development is greater than the cost of avoiding its construction in the first place.

Preparation of this *Compatibility Plan* has been greatly guided by the *Handbook* information. The *Handbook*, though, also recognizes the importance of tailoring compatibility plans to local circumstances. Such has been the case with the safety compatibility criteria included in this *Compatibility Plan*.

AIRSPACE PROTECTION

Relatively few aircraft accidents are caused by land use conditions that are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. In addition, and importantly, land use conditions that are hazards to flight may impact the continued viability of airport operations and limit the ability of an airport to operate in the manner identified by the airport proprietor in an adopted airport master plan and airport layout plan.

Compatibility Objective

Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions that, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics that pose other potential hazards to flight by creating visual or electronic interference with air navigation.

The purpose of the airspace protection policies is to ensure that structures and other uses do not cause hazards to aircraft in flight in the airport vicinity. Hazards to flight include physical obstructions to the navigable airspace, wildlife hazards, particularly bird strikes and land use characteristics that create visual or electronic interference with aircraft navigation or communication. This purpose is accomplished by policies that place limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

Measurement

The measurement of requirements for airspace protection around an airport is a function of several variables including: the dimensions and layout of the runway system; the type of operating procedures established for the airport; and, indirectly, the performance capabilities of aircraft operated at the airport.

- *Airspace Obstructions:* Whether a particular object constitutes an airspace obstruction depends upon two factors: the height of the object relative to the runway elevation; and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Federal Aviation Regulations (FAR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an "obstruction" and may affect the aeronautical use of the airspace. Additionally, as described below, another set of airspace protection surfaces is defined by the *U.S. Standard for Terminal Instrument*

Procedures, known as TERPS. Although the intended function of these standards is in design of instrument approach and departure procedures, they can be important in land use compatibility planning in situations where ground elevations near an airport exceed the FAR Part 77 criteria.

- *Wildlife and Other Hazards to Flight:* The significance of other potential hazards to flight is principally measured in terms of the hazards' specific characteristics and their distance from the airport and/or its normal traffic patterns.

Compatibility Strategies

Compatibility strategies for the protection of airport airspace are relatively simple and are directly associated with the individual types of hazards:

- *Airspace Obstructions:* Buildings, antennas, other types of structures, and trees should be limited in height so as not to pose a potential hazard to flight.
- *Wildlife and Other Hazards to Flight:* Land uses that may create other types of hazards to flight near an airport should be avoided or modified so as not to include the offending characteristic.

Basis for Setting Criteria

The criteria for determining airspace obstructions have been long-established in FAR Part 77. Also, state of California regulation of obstructions under the State Aeronautics Act (Public Utilities Code, Section 21659) is based on FAR Part 77 criteria. A shortcoming of FAR Part 77 criteria, however, is that they often are too generic to fit the conditions specific to individual airports. The airspace protection surfaces defined in these regulations can be either more or less restrictive than appropriate for a particular airport. The surfaces can be less restrictive than essential in instances where an instrument approach procedure or its missed approach segment are not aligned with the runway. FAR Part 77 also does not take into account instrument departure procedures which, at some airports, can have critical airspace requirements. Oppositely, FAR Part 77 provides no useful guidance as to acceptable heights of objects located where the ground level already penetrates the airspace surfaces.

To define airspace protection surfaces better suited to these situations, reference must be made the TERPS standards mentioned above. These standards are used for creation of instrument approach and departure procedures. Thus they exactly match the procedures in effect at an individual airport. Unlike the FAR Part 77 surfaces, the elevations of which are set relative to the runway end elevations irrespective of surrounding terrain and obstacles, the TERPS surface elevations are directly determined by the location and elevation of critical obstacles. By design, neither the ground nor any obstacles can penetrate a TERPS surface. However, construction of a tall object that penetrates a TERPS surface can dictate immediate modifications to the location and elevation of the surfaces and directly cause minimum flight visibility and altitudes to be raised or the instrument course to be realigned. In severe instances, obstructions can force a procedure to be cancelled altogether. A significant downside to use of TERPS surfaces for compatibility planning purposes is that they are highly complex compared to the relative simplicity of FAR Part 77 surfaces. Also, the configuration and/or elevations of TERPS surfaces can change not only in response to new obstacles, but as implementation of new navigational technologies permits additional or modified instrument procedures to be established at an airport.

In the Compatibility Policy Map: Airspace Protection Zones presented in Chapter 3 of this *Compatibility Plan*, primary reliance is placed upon FAR Part 77 criteria. Where an instrument approach procedure is established, the associated TERPS surfaces are depicted as well. In most locations, the TERPS surfaces are well above the underlying terrain and present no significant constraint on land use development. As

a precaution to help ensure that tall towers or antennas located on high terrain do not penetrate a TERPS surface, places where the ground elevation comes within 100 feet of a TERPS surface are shown on the map.

Among other hazards to flight, bird strikes no doubt represent the most widespread concern. The FAA recommends that uses known to attract birds—sanitary landfills being a primary example—be kept at least 10,000 feet away from any runway used by turbine-powered aircraft. More information regarding criteria for avoidance of uses that can attract wildlife to airports can be found in FAA Advisory Circulars 150/5200-34A, *Construction or Establishment of Landfills near Public Airports*, and 150/5300-33B, *Hazardous Wildlife Attractants On or Near Airports.*

Other flight hazards include land uses that may cause visual or electronic hazards to aircraft in flight or taking off or landing at the airport. Specific characteristics to be avoided include sources of glare or bright lights, distracting lights that could be mistaken for airport lights, sources of dust, steam, or smoke that may impair pilot visibility, and sources of electrical interference with aircraft communications or navigation.

Zone	*Description*	***Nominal Dimensions*** (California Airport Land Use Planning Handbook)	***Relative Risk Level***	***Nature of Accident Risk***	***% of Accidents in Zone*** (Handbook Database)
1	Runway Protection Zone and within Runway Primary Surface primarily on airport property; airport ownership encouraged	Depending upon approach visibility minimums: 1,200 feet minimum, 2,700 feet maximum beyond runway ends; 125 to 500 feet from centerline adjacent to runway (zone dimensions established by FAA standards) Acreage (one runway end): 8 to 79 (RPZ only)	Very High	Landing undershoots and overshoots; overruns on aborted takeoffs; loss of control on takeoff	Arrivals: 28%–56% Departures: 23%–29% Total: 33%–39%
2	Inner Safety Zone	Along extended runway centerline, to a distance of 2,000 feet minimum, 6,000 feet maximum beyond runway ends Acreage (one runway end): 44 to 114	High	Aircraft at low altitude with limited directional options in emergencies: typically under 400 feet on landing; on takeoff, engine at maximum stress	Arrivals: 9%–15% Departures: 3%–28% Total: 8%–22%
3	Inner Turning Zone	Fan-shaped area adjacent to Zone 2 extending 2,000 feet minimum, 4,000 feet maximum from runway ends Acreage (one runway end): 50 to 151	Moderate	Turns at low altitude on arrival for aircraft flying tight base leg present stall-spin potential; likely touchdown area if emergency at low altitude on takeoff, especially to left of centerline	Arrivals: 2%–6% Departures: 5%–9% Total: 4%–7%
4	Outer Safety Zone	Along extended runway centerline extending 3,500 feet minimum, 10,000 feet maximum beyond runway ends Acreage (one runway end): 35 to 92	Low to Moderate	Low altitude overflight for aircraft on straight-in approaches, especially instrument approaches; on departure, aircraft normally complete transition from takeoff power and flap settings to climb mode and begin turns to en route heading	Arrivals: 3%–8% Departures: 2%–4% Total: 2%–6%
5	Sideline Zone primarily on airport property	Adjacent to runway, 500 feet minimum, 1,000 feet maximum from centerline Acreage: varies with runway length	Low to Moderate	Low risk on landing; moderate risk from loss of directional control on takeoff, especially with twin-engine aircraft	Arrivals: 1%–3% Departures: 5%–8% Total: 3%–5%
6	Traffic Pattern Zone	Oval area around other zones: 5,000 feet minimum, 10,000 feet maximum beyond runway ends; 4,500 feet minimum, 6,000 feet maximum from runway centerline Acreage: varies with runway length	Low	Significant percentage of accidents, but spread over wide area; widely varied causes	Arrivals: 10%–21% Departures: 24%–39% Total: 18%–29%

Table D1

Safety Zone Aircraft Accident Risk Characteristics

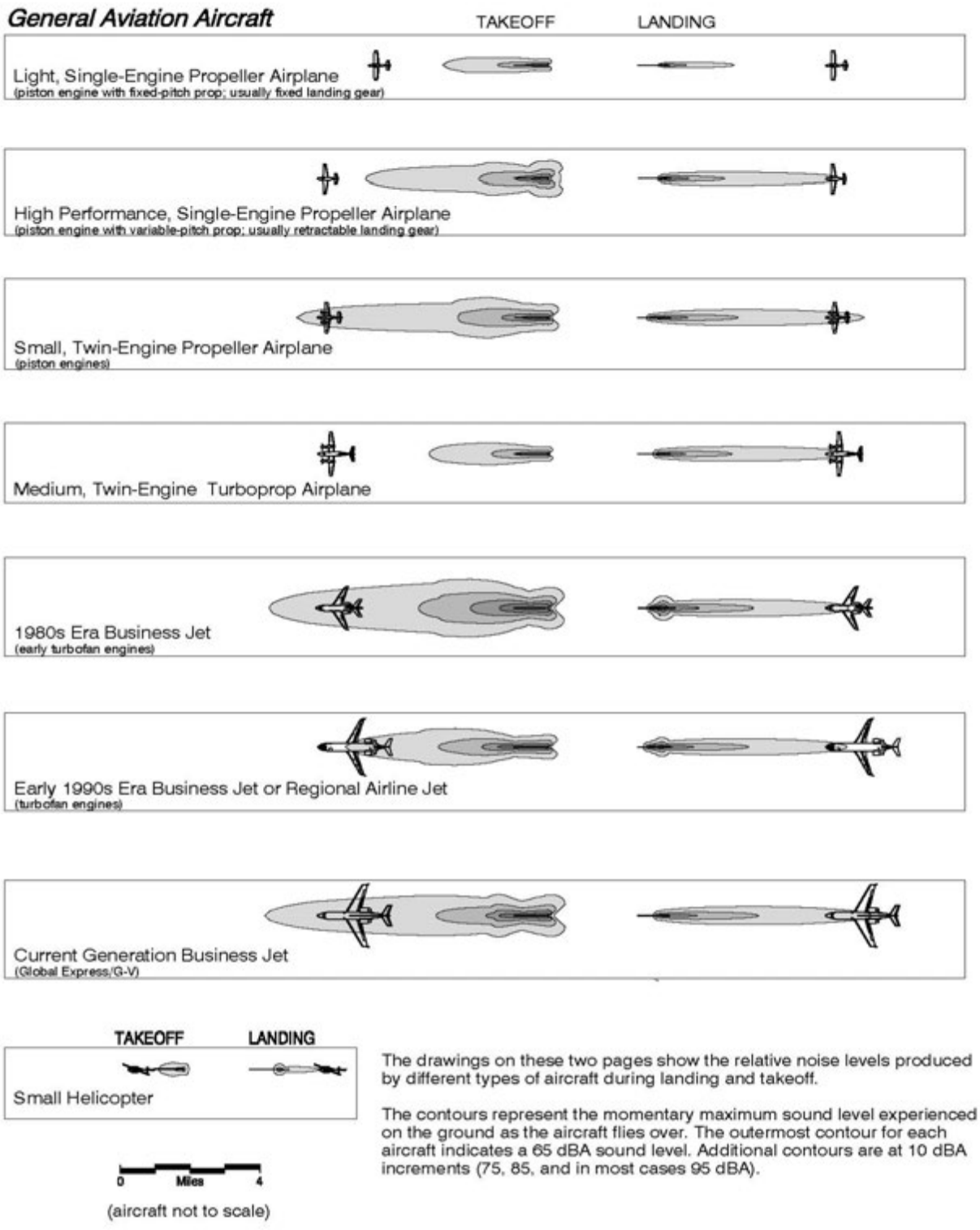

Figure D1

Noise Footprints of Selected Aircraft

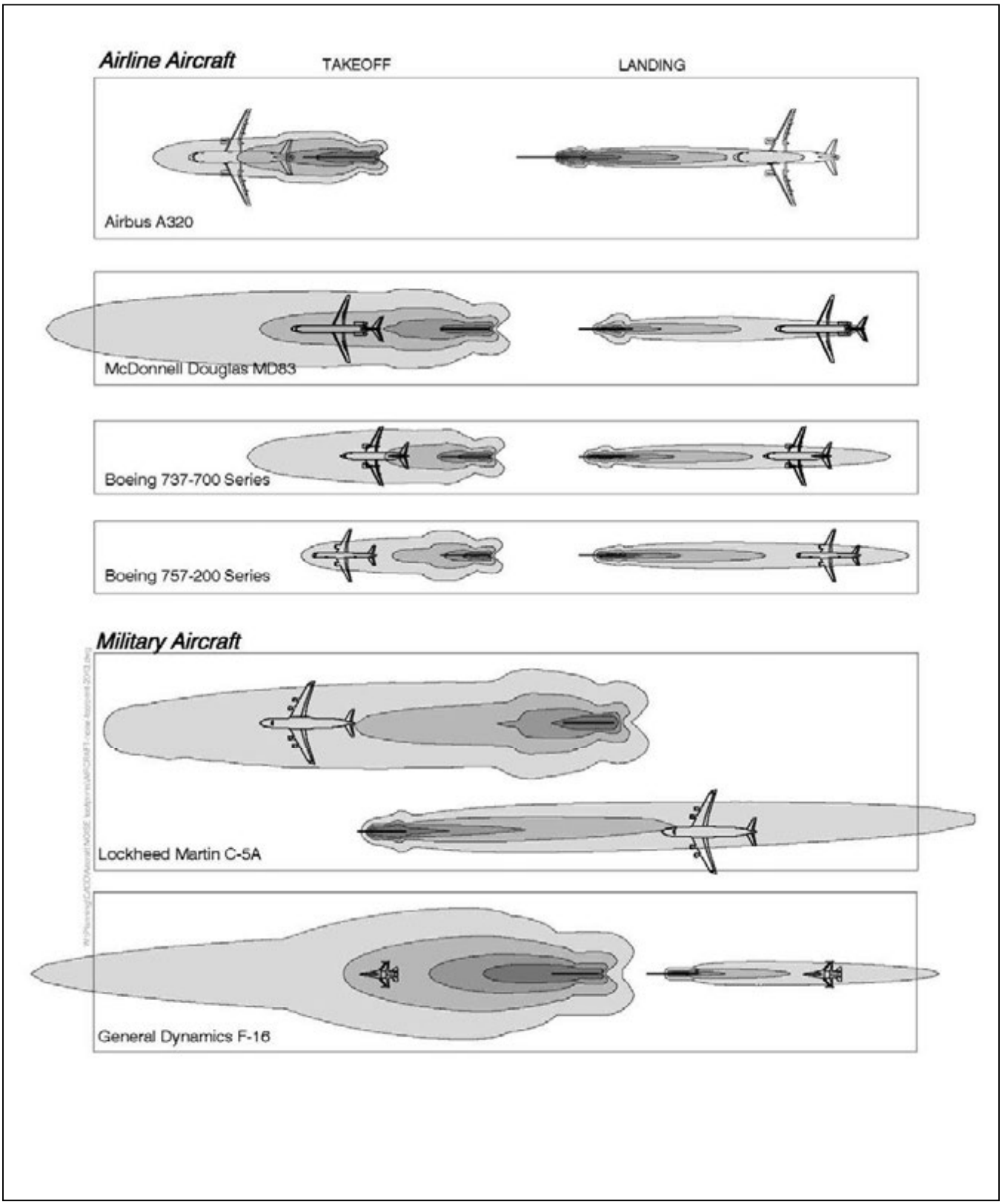

Figure D1, continued

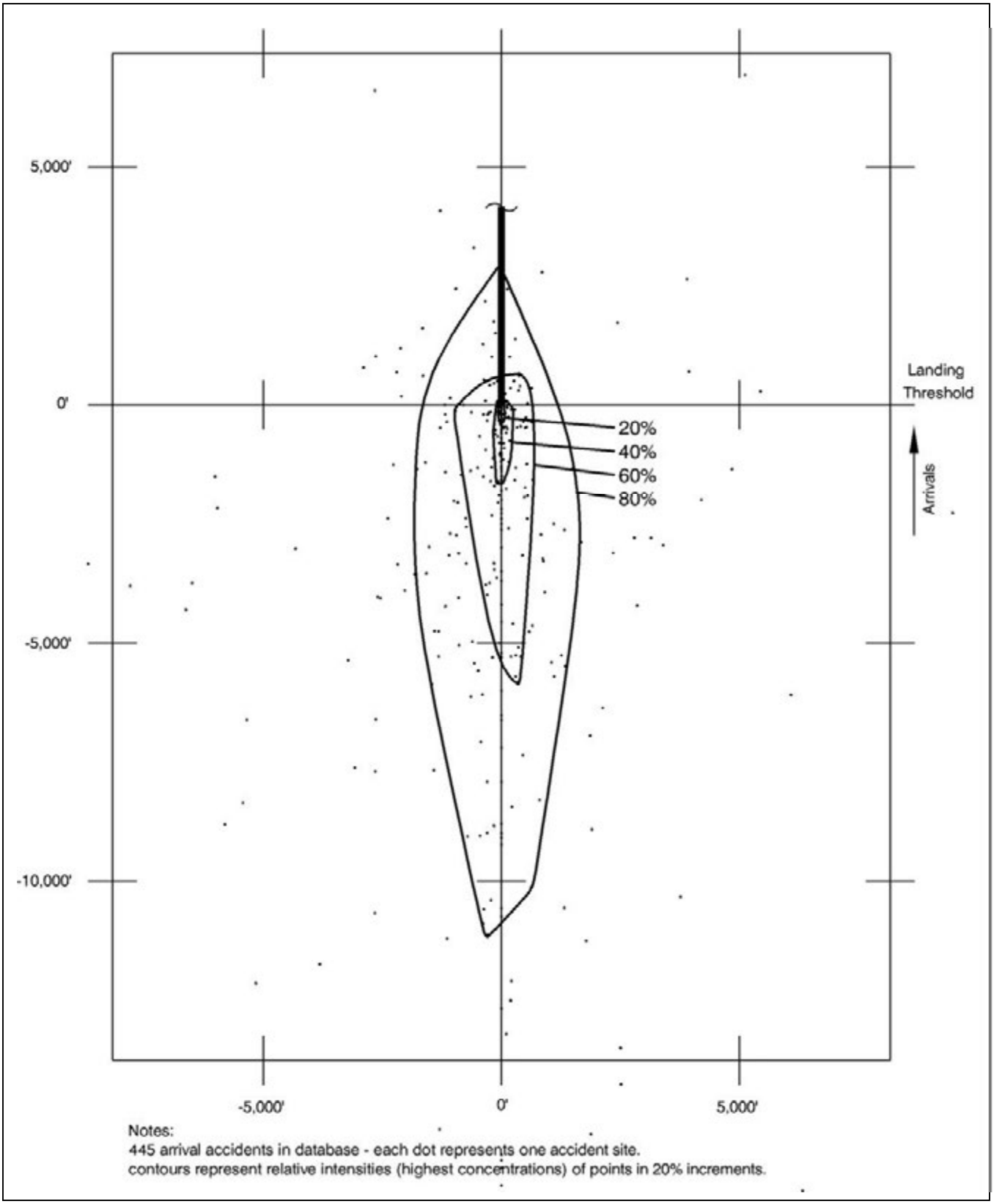

Figure D2

General Aviation Accident Distribution Contours

All Arrivals

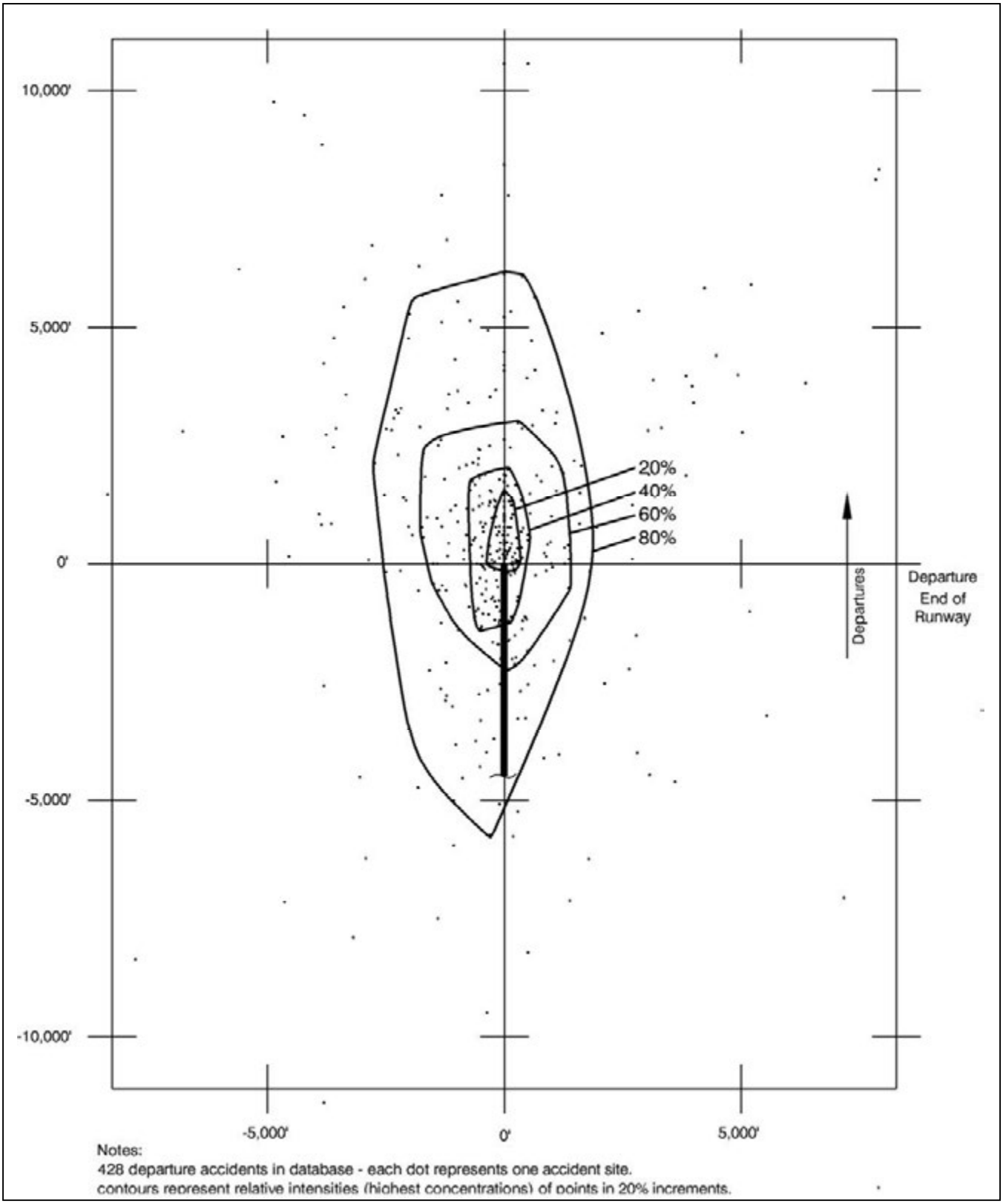

Figure D3

General Aviation Accident Distribution Contours

All Departures

APPENDIX E

Methods for Determining Concentrations of People

INTRODUCTION

The underlying safety compatibility criterion employed in this *Compatibility Plan* is "usage intensity"—the maximum number of people per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum intensity, it is considered incompatible and thus inconsistent with compatibility planning policies. The usage intensity concept is identified in the *California Airport Land Use Planning Handbook* as the measure best suited for assessment of land use safety compatibility with airports. The *Handbook* is published by the California Division of Aeronautics is required under state law to be used as a guide in preparation of airport land use compatibility plans.

It is recognized, though, that "people per acre" is not a common measure in other facets of land use planning. This *Compatibility Plan* therefore also utilizes the more common measure of floor area ratio (FAR) as a means of implementing the usage intensity criteria on the local level. This appendix both provides guidance on how the usage intensity determination can be made and defines the relationships between this measure, FAR, and other measures found in land use planning. For a discussion of the rationale for use of people per acre as a measure of risk exposure, see Appendix D.

COUNTING PEOPLE

The most difficult part about calculating a use's intensity is estimating the number of people expected to use a particular facility under normal circumstances. All people—not just employees, but also customers and visitors—who may be on the property at a single point in time, whether indoors or outside, must be counted. The only exceptions are for rare special events, such as an air show at an airport, for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

Ideally, the actual number of people for which the facility is designed would be known. For example, the number of seats in a proposed movie theater can be determined with high accuracy once the theater size is decided. Other buildings, though, may be built as a shell and the eventual number of occupants not known until a specific tenant is found. Furthermore, even then, the number of occupants can change in the future as tenants change. Even greater uncertainty is involved with relatively open uses not having fixed seating—retail stores or sports parks, for example.

Absent clearly measurable occupancy numbers, other sources must be relied upon to estimate the number of people in a proposed development.

Survey of Similar Uses

A survey of similar uses already in existence is one option. Gathering data in this manner can be time-consuming and costly, however. Also, unless the survey sample is sufficiently large and conducted at

various times, inconsistent numbers may result. Except for uncommon uses for which occupancy levels cannot be estimated through other means, surveys are most appropriate as supplemental information.

Maximum Occupancy

A second option for estimating the number of people who will be on a site is to rely upon data indicating the maximum occupancy of a building measured in terms of Occupancy Load Factor—the number of square feet per occupant. The number of people on the site, assuming limited outdoor or peripheral uses, can be calculated by dividing the total floor area of a proposed use by the Occupancy Load Factor. The challenge of this methodology lies in establishing realistic figures for square feet per occupant. The number varies greatly from one use to another and, for some uses, has changed over time as well.

A commonly used source of maximum occupancy data is the standards set in the California Building Code (CBC). The chart reproduced as Table E1 indicates the Occupancy Load Factors for various types of uses. The CBC, though, is intended primarily for purposes of structural design and fire safety and represents a legal maximum occupancy in most jurisdictions. A CBC-based methodology consequently results in occupancy numbers that are higher than normal maximum usage in most instances. The numbers also are based upon usable floor area and do not take into account corridors, stairs, building equipment rooms, and other functions that are part of a building's gross square footage. Surveys of actual Occupancy Load Factors conducted by various agencies have indicated that many retail and office uses are generally occupied at no more than 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the *Handbook* indicates that the number of people calculated for office and retail uses can usually be divided in half to reflect the actual occupancy levels before making the final people-per-acre determination. Even with this adjustment, the CBC-based methodology typically produces intensities at the high end of the likely range.

Another source of data on square footage per occupant comes from the facility management industry. The data is used to help businesses determine how much building space they need to build or lease and thus tends to be more generous than the CBC standards. The numbers vary not only by the type of facility, as with the CBC, but also by type of industry. The following are selected examples of square footage per *employee* gathered from a variety of sources.

- Call centers 150 – 175
- Typical offices 180 – 250
- Law, finance, real estate offices 300 – 325
- Research & development, light industry 300 – 500
- Health services 500

The numbers above do not take into account the customers who may also be present for certain uses. For retail business, dining establishments, theaters, and other uses where customers outnumber employees, either direct measures of occupancy—the number of seats, for example—or other methodologies must be used to estimate the potential number of people on the site.

Parking Space Requirements

For many jurisdictions and a wide variety of uses, the number of people present on a site can be calculated based upon the number of automobile parking spaces that are required. Certain limitations and assumptions must be considered when applying this methodology, however. An obvious limitation is that parking space requirements can be correlated with occupancy numbers only where nearly all users ar-

rive by private vehicle rather than by public transportation, walking, or other method. Secondly, the jurisdiction needs to have a well-defined parking ordinance that lists parking space requirements for a wide range of land uses. For most uses, these requirements are typically stated in terms of the number of parking spaces that must be provided per 1,000 square feet of gross building size or a similar ratio. Lastly, assumptions must be made with regard to the average number of people who will arrive in each car.

Both of the critical ratios associated with this methodology—parking spaces to building size and occupants to vehicles—vary from one jurisdiction to another even for the same types of uses. Research of local ordinances and other sources, though, indicates that the following ratios are typical.

- **Parking Space Ratios**—These examples of required parking space requirements are typical of those found in ordinances adopted by urban and suburban jurisdictions. The numbers are ratios of spaces required per 1,000 square feet of gross floor area. Gross floor area is normally measured to the outside surfaces of a building and includes all floor levels as well as stairways, elevators, storage, and mechanical rooms.
  - Small Restaurants 10.0
  - Medical Offices 4.0 – 5.7
  - Shopping Centers 4.0 – 5.0
  - Health Clubs 3.3 – 5.0
  - Business Professional Offices 3.3 – 4.0
  - Retail Stores 3.0 – 3.5
  - Research & Development 2.5 – 4.0
  - Manufacturing 2.0 – 2.5
  - Furniture, Building Supply Stores 0.7 – 1.0
- **Vehicle Occupancy**—Data indicating the average number of people occupying each vehicle parking at a particular business or other land use can be found in various transportation surveys. The numbers vary both from one community or region to another and over time, thus current local data is best if available. The following data represent typical vehicle occupancy for different trip purposes.
  - Work 1.05 – 1.2
  - Education 1.2 – 2.0
  - Medical 1.5 – 1.7
  - Shopping 1.5 – 1.8
  - Dining, Social, Recreational 1.7 – 2.3

USAGE INTENSITY RELATIONSHIP TO OTHER DEVELOPMENT MEASURES

Calculating Usage Intensities

Once the number of people expected in a particular development—both over the entire site and within individual buildings—has been estimated, the usage intensity can be calculated. The criteria in Chapter 3 of this *Compatibility Plan* are measured in terms of the average intensity over the entire project site.

The average intensity is calculated by dividing the total number of people on the site by the site size. A 10-acre site expected to be occupied by as many as 1,000 people at a time, thus would have an average intensity of 100 people per acre. The site size equals the total size of the parcel or parcels to be developed.

Having calculated the usage intensities of a proposed development, a comparison can be made with the criteria set forth in the *Compatibility Plan* to determine whether the proposal is consistent or inconsistent with the policies.

Comparison with Floor Area Ratio

As noted earlier, usage intensity or people per acre is not a common metric in land use planning. Floor area ratio or FAR—the gross square footage of the buildings on a site divided by the site size—is a more common measure in land use planning. Some counties and cities adopt explicit FAR limits in their zoning ordinance or other policies. Those that do not set FAR limits often have other requirements such as, a maximum number of floors a building can have, minimum setback distances from the property line, and minimum number of parking spaces. These requirements effectively limit the floor area ratio as well.

To facilitate local jurisdiction implementation, the Safety Compatibility Criteria table in Chapter 3 has been structured around FAR measures to determine usage intensity limits for many types of nonresidential land use development. To utilize FAR in this manner, a critical additional piece of information is necessary to overcome the major shortcoming of FAR as a safety compatibility measure. The problem with FAR is that it does not directly correlate with risks to people because different types of buildings with the same FAR can have vastly different numbers of people inside—a low-intensity warehouse versus a high-intensity restaurant, for example. For FAR to be applied as a factor in setting development limitations, assumptions must be made as to how much space each person (employees and others) in the building will occupy. The Safety Compatibility Criteria table therefore indicates the assumed Occupancy Load Factor for various land uses. Mathematically, the relationship between usage intensity and FAR is:

$$\text{FAR} = \frac{\text{(allowable usage intensity)} \times \text{(Occupancy Load Factor)}}{43{,}560}$$

where *usage intensity* is measured in terms of people per acre and *Occupancy Load Factor* as square feet per person.

Selection of the usage intensity, occupancy level, and FAR numbers that appear in the Safety Compatibility Criteria table was done in an iterative manner that considered each of the components both separately and together. Usage intensities were initially set with respect to guidelines provided in the *California Airport Land Use Planning Handbook* (see Appendix D of this *Compatibility Plan*). Occupancy levels were derived from the CBC, but were adjusted based upon additional research from both local and na-

tional sources in the manner discussed earlier in this appendix. The FAR limits were initially calculated from these other two numbers using the formula above.

Comparison with Parking Space Requirements

As discussed above, many jurisdictions have adopted parking space requirements that vary from one land use type to another. Factoring in an estimated vehicle occupancy rate for various land uses as described earlier, the Occupancy Load Factor can be calculated. For example, a typical parking space requirement for office uses is 4.0 spaces per 1,000 square feet or 1 space per 250 square feet. If each vehicle is assumed to be occupied by 1.1 persons, the equivalent Occupancy Load Factor would be 1 person per 227 square feet. This number falls squarely within the range noted above that was found through separate research of norms used by the facility management industry.

As an added note, the Occupancy Load Factor of 215 square feet per person indicated in the Safety Compatibility Criteria table for office uses is slightly more conservative than the above calculation produces. This means that, for a given usage intensity standard, the FAR limit in the table is slightly more restrictive than would result from a higher Occupancy Load Factor.

Function of Space	Floor area per occupant (sq. ft.)
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	15 net
Standing space	5 net
Unconcentrated (tables and chairs)	7 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient treatment areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Laboratory	
Educational	50 net
Laboratories, non-educational	100 net
Laboratory suite	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

Source: California Building Code (2007), Table 1004.1.1

Table E1

Occupant Load Factors

California Building Code

APPENDIX F

General Plan Consistency Checklist

This checklist is intended to assist local agencies with modifications necessary to make their local plans and other local policies consistent with the ALUCP. It is also designed to facilitate ALUC reviews of these local plans and policies. The list will need to be modified to reflect the policies of each individual ALUC and is not intended as a state requirement.

COMPATIBILITY CRITERIA

General Plan Document

The following items typically appear directly in a general plan document. Amendment of the general plan will be required if there are any conflicts with the ALUCP.

- **Land Use Map**—No direct conflicts should exist between proposed new land uses indicated on a general plan land use map and the ALUC land use compatibility criteria.
  - Residential densities (dwelling units per acre) should not exceed the set limits.
  - Proposed nonresidential development needs to be assessed with respect to applicable intensity limits (see below).
  - No new land uses of a type listed as specifically prohibited should be shown within affected areas.
- **Noise Element**—General plan noise elements typically include criteria indicating the maximum noise exposure for which residential development is normally acceptable. This limit must be made consistent with the equivalent ALUCP criteria. Note, however, that a general plan may establish a different limit with respect to aviation-related noise than for noise from other sources (this may be appropriate in that aviation-related noise is sometimes judged to be more objectionable than other types of equally loud noises).

Zoning or Other Policy Documents

The following items need to be reflected either in the general plan or in a separate policy document such as a combining zone ordinance. If a separate policy document is adopted, modification of the general plan to achieve consistency with the ALUCP may not be required. Modifications would normally be needed only to eliminate any conflicting language which may be present and to make reference to the separate policy document

- **Intensity Limitations on Nonresidential Uses**—ALUCPs may establish limits on the usage intensities of commercial, industrial, and other nonresidential land uses. This can be done by duplication of the performance-oriented criteria—specifically, the number of people per acre—indicated in the ALUCP. Alternatively, ALUCs may create a detailed list of land uses which are allowable and/or not allowable within each compatibility zone. For certain land uses, such a list may need to include limits on building sizes, floor area ratios, habitable floors, and/or other design parameters which are equivalent to the usage intensity criteria.
- **Identification of Prohibited Uses**—ALUCPs may prohibit schools, day care centers, assisted living centers, hospitals, and other uses within a majority of an airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations.
- **Open Land Requirements**—ALUCP requirements, if any, for assuring that a minimum amount of open land is preserved in the airport vicinity must be reflected in local policies. Normally, the locations which are intended to be maintained as open land would be identified on a map with the total acreage within each compatibility zone indicated. If some of the area included as open land is private property, then policies must be established which assure that the open land will continue to exist as the property develops. Policies specifying the required characteristics of eligible open land should also be established
- **Infill Development**—If an ALUCP contains infill policies and a jurisdiction wishes to take advantage of them, the lands that meet the qualifications must be shown on a map.

Zoning or Other Policy Documents, Continued

- **Height Limitations and Other Hazards to Flight**—To protect the airport airspace, limitations must be set on the height of structures and other objects near airports. These limitations are to be based upon FAR Part 77. Restrictions also must be established on other land use characteristics which can cause hazards to flight (specifically, visual or electronic interference with navigation and uses which attract birds). Note that many jurisdictions have already adopted an airport-related hazard and height limit zoning ordinance which, if up to date, will satisfy this consistency requirement.
- **Buyer Awareness Measures**—Besides disclosure rules already required by state law, as a condition for approval of development within certain compatibility zones, some ALUCPs require either dedication of an avigation easement to the airport proprietor or placement on deeds of a notice regarding airport impacts. If so, local agency policies must contain similar requirements.
- **Nonconforming Uses and Reconstruction**—Local agency policies regarding nonconforming uses and reconstruction must be equivalent to or more restrictive than those in the ALUCP, if any.

REVIEW PROCEDURES

In addition to incorporation of ALUC compatibility criteria, local agency implementing documents must specify the manner in which development proposals will be reviewed for consistency with the compatibility criteria.

- **Actions Always Required to be Submitted for ALUC Review**—PUC Section 21676 identifies the types of actions that must be submitted for airport land use commission review. Local policies should either list these actions or, at a minimum, note the local agency's intent to comply with the state statute.
- **Other Land Use Actions Potentially Subject to ALUC Review**—In addition to the above actions, ALUCPs may identify certain major land use actions for which referral to the ALUC is dependent upon agreement between the local agency and ALUC. If the local agency fully complies with all of the items in this general plan consistency check list or has taken the necessary steps to overrule the ALUC, then referral of the additional actions is voluntary. On the other hand, a local agency may elect not to incorporate all of the necessary compatibility criteria and review procedures into its own policies. In this case, referral of major land use actions to the ALUC is mandatory. Local policies should indicate the local agency's intentions in this regard..
- **Process for Compatibility Reviews by Local Jurisdictions**—If a local agency chooses to submit only the mandatory actions for ALUC review, then it must establish a policy indicating the procedures which will be used to assure that airport compatibility criteria are addressed during review of other projects. Possibilities include: a standard review procedure checklist which includes reference to compatibility criteria; use of a geographic information system to identify all parcels within the airport influence area; etc.
- **Variance Procedures**—Local procedures for granting of variances to the zoning ordinance must make certain that any such variances do not result in a conflict with the compatibility criteria. Any variance that involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the ALUCP must be referred to the ALUC for review.
- **Enforcement**—Policies must be established to assure compliance with compatibility criteria during the lifetime of the development. Enforcement procedures are especially necessary with regard to limitations on usage intensities and the heights of trees. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

Source: California Airport Land Use Planning Handbook (October 2011)

APPENDIX G

Sample Implementation Documents

The responsibility for implementation of the compatibility criteria set forth in the *Stanislaus County Airport Land Use Compatibility Plans* rests with the Stanislaus County Airport Land Use Commission (ALUC). As described in Appendix F, the modification of general plans and specific plans for consistency with applicable compatibility plans is the primary step in this process. However, not all of the measures necessary for achievement of airport land use compatibility are necessarily included in general plans and specific plans. Other types of documents also serve to implement compatibility plan policies. Samples of such implementation documents are included in this appendix.

Airport Combining Zone Ordinance

As noted in Chapter 1 of this document, one option that the affected local jurisdictions can utilize to implement airport land use compatibility criteria and associated policies is adoption of an airport combining zone ordinance. An airport combining zone ordinance is a way of collecting various airport-related development conditions into one local policy document. Adoption of a combining zone is not required, but is suggested as an option. Table G1 describes some of the potential components of an airport combining zone ordinance.

Buyer Awareness Measures

Buyer awareness is an umbrella category for several types of implementation documents all of which have the objective of ensuring that prospective buyers of airport area property, particularly residential property, are informed about the airport's impact on the property. The *Stanislaus County Airport Land Use Compatibility Plan* policies include each of these measures.

- **Avigation Easement**—Avigation easements transfer certain property rights from the owner of the underlying property to the owner of an airport or, in the case of military airports, to a local government agency on behalf of the federal government (the U.S. Department of Defense is not authorized to accept avigation easements). This *Compatibility Plan* requires avigation easement dedication as a condition for approval of development on property subject to high noise levels or a need to restrict heights of structures and trees to less than might ordinarily occur on the property. Specific easement dedication requirements are set forth in Chapter 2. Also, airports may require avigation easements in conjunction with programs for noise insulation of existing structures in the airport vicinity. A sample of a standard avigation easement is included in Table G2.
- **Recorded Overflight Notification**—An overflight notification informs property owners that the property is subject to aircraft overflight and generation of noise and other impacts. No restrictions on the heights of objects, requirements for marking or lighting of objects, or access to the property for these purposes are included. An overflight notification serves only as buyer acceptance of overflight conditions. Suggested wording of an overflight notification is included in Table G3. Unlike an avigation easement, overflight easement, or other type of easement, an overflight notification is not a conveyance of property rights. However, like an easement, an overflight notification is recorded on

the property deed and therefore remains in effect with sale of the property to subsequent owners. Overflight notifications are generally appropriate in areas outside the 60 dB CNEL noise contour, outside Safety Zones, and within areas where the height of structures and other objects would not pose a significant potential of being airspace obstruction hazards.

- **Airport Proximity Disclosure**—A less definitive, but more all-encompassing, form of buyer awareness measure is for the ALUC and local jurisdictions to establish a policy indicating that information about and airport's influence area should be disclosed to prospective buyers of all airport-vicinity properties prior to transfer of title. The advantage of this type of program is that it applies to previously existing land uses as well as to new development. The requirement for disclosure of information about the proximity of an airport has been present in state law for some time, but legislation adopted in 2002 and effective in January 2004 explicitly ties the requirement to the airport influence areas established by airport land use commissions (see Appendix B for excerpts from sections of the Business and Professions Code and Civil Code that define these requirements). With certain exceptions, these statutes require disclosure of a property's location within an airport influence area under any of the following three circumstances: (1) sale or lease of subdivided lands; (2) sale of common interest developments; and (3) sale of residential real property. In each case, the disclosure statement to be used is defined by state law as follows:

NOTICE OF AIRPORT IN VICINITY

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

An airport compatibility combining zoning ordinance might include some or all of the following components:

- **Airspace Protection**—A combining district can establish restrictions on the height of buildings, antennas, trees, and other objects as necessary to protect the airspace needed for operation of the airport. These restrictions should be based upon the current version of FAR Part 77, Objects Affecting Navigable Airspace, Subpart C. Additions or adjustment to take into account TERPS surfaces should be made as necessary. Provisions prohibiting smoke, glare, bird attractions, and other hazards to flight should also be included.

- **FAA Notification Requirements**—Combining districts also can be used to ensure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project which exceeds a specified set of height criteria submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration prior to commencement of construction. The height criteria associated with this notification requirement are lower than those spelled out in FAR Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety.

- **State Regulation of Obstructions**—State law prohibits anyone from constructing or altering a structure or permitting an object of natural growth to exceed the heights established by FAR Part 77, Subpart C, unless the FAA has determined the object would not or does not constitute a hazard to air navigation (PUC Section 21658 and 21659).

- **Designation of High Noise-Impact Areas**—California state statutes require that multi-family residential structures in high-noise exposure areas be constructed so as to limit the interior noise to a Community Noise Equivalent Level of no more than 45 dB. A combining district could be used to indicate the locations where special construction techniques may be necessary in order to ensure compliance with this requirement. The combining district also could extend this criterion to single-family dwellings.

- **Maximum Densities/Intensities**—Airport noise and safety compatibility criteria are frequently expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. While general plans typically use these measures of maximum density/intensity for land uses, zoning ordinances generally use minimum lot sizes and setbacks, along with building height restrictions. These standards often supplement, but do not translate directly into general plan density/intensity standards. Incorporation of airport area-related density/intensity standards measured in the same manner as a General Plan can either be directly included in a combining zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the method of calculating the intensity limitations needs to be defined. Alternatively, a matrix can be established indicating whether each specific type of land use is compatible with each compatibility zone. To be useful, the land use categories need to be more detailed than typically provided by general plan or zoning ordinance land use designations.

- **Open Areas for Emergency Landing of Aircraft**—In most circumstances in which an accident involving a small aircraft occurs near an airport, the aircraft is under control as it descends. When forced to make an off- airport emergency landing, pilots will usually attempt to do so in the most open area readily available. To enhance safety both for people on the ground and the occupants of aircraft, ALUCPs often contain criteria requiring a certain amount of open land near airports. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be included in a combining district so that they will be applied to development of large parcels. Adequate open areas can often be provided by clustering of development on adjacent land.

- **Areas of Special Compatibility Concern**—A significant drawback of standard general plan and zoning ordinance land use designations is that they can be changed. Uses that are currently compatible are not assured of staying that way in the future. Designation of areas of special compatibility concern would serve as a reminder that airport impacts should be carefully considered in any decision to change the existing land use designation. [A legal consideration that supports the value of this concept is that down-zoning of a property to a less intensive use is becoming more difficult. It is much better not to have inappropriately up-zoned the property in the first place.]

- **Real Estate Disclosure Policies**—The geographic extent and specific language of recommended real estate disclosure statements can be described in an airport combining zone ordinance (Business and Professions Code Section 11010(a) and (b)(13) and Civil Code, Sections 1102.6, 1103.4, and 1353.

Source: California Airport Land Use Planning Handbook (October 2011)

Table G1

Sample Airport Combining Zone Components

TYPICAL AVIGATION EASEMENT

[Airport Name]

This indenture made this _____ day of _____, 20__, between _____ hereinafter referred to as Grantor, and the County of Stanislaus, a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ on "Exhibit A" attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the [Airport Name and official runway end elevation of ___] feet Above Mean Sea Level (AMSL), as determined by the Airport Layout Plan, the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

(1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and

(2) The easement and right to cause or create, or permit or allow to be caused and created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and

(3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and

(4) The right to mark and light, or cause or require to be marked and lighted, as obstructions to air navigation, any and all buildings, structures or other improvements, and trees or other objects, which extend into or above the Airspace; and

(5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

Table G2

Typical Avigation Easement

For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the County of Stanislaus, for the direct benefit of the real property constituting the [Airport Name] hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow, in or upon the hereinabove described real property, nor will they permit or allow any building structure, improvement, tree, or other object to extend into or above the Airspace so as to constitute an obstruction to air navigation or to obstruct or interfere with the use of the easement and rights-of-way herein granted. If Grantor fails to comply with the foregoing obligations within ten (10) days after Grantee gives written notice of violation to Grantor by depositing said notice in the United States mail, Grantee may enter the above-described real property for the purposes described in subparagraphs (3) and/or (4), above, and charge Grantor for the cost thereof.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes [Airport Name], in the County of Stanislaus, State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the [Airport Name], or in otherwise flying through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors or assigns for monetary damages or other redress due to impacts, as described in paragraph (2) of the granted rights of easement, associated with aircraft operations in the air or on the ground at the airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantee, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said [Airport Name] is the dominant tenement.

DATED:

_____ _____

_____

STATE OF }

ss

COUNTY OF }

On _____, before me, the undersigned, a Notary Public in and for said County and State personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

_____

Notary Public

Source: Modified from California Airport Land Use Planning Handbook

Table G2, continued

RECORDED OVERFLIGHT NOTIFICATION

This *Overflight Notification* concerns the real property situated in the County of Stanislaus and *[insert if applicable]* the City of _____, State of California, described as _____[APN No.:_].

This *Overflight Notification* provides notification of the condition of the above described property in recognition of, and in compliance with, CALIFORNIA BUSINESS & PROFESSIONS CODE Section 11010 and CALIFORNIA CIVIL CODE Sections 1102.6, 1103.4 and 1353, effective January 1, 2004, and related state and local regulations and consistent with policies of the Airport Land Use Commission for Stanislaus County for overflight notification provided in the Stanislaus County Airport Land Use Compatibility Plan.

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

The Federal Aviation Administration (FAA) has regulatory authority over the operation of aircraft in flight and on the runway and taxiway surfaces at the _____ Airport. The FAA is, therefore, exclusively responsible for airspace and air traffic management, including ensuring the safe and efficient use of navigable airspace, developing air traffic rules, assigning the use of airspace and controlling air traffic. Please contact the FAA for more detailed information regarding overflight and airspace protection issues associated with the operation of military aircraft.

The airport operator, _____, maintains information regarding hours of operation and other relevant information regarding airport operations. Please contact your local airport operator for more detailed information regarding airport specific operational issues including hours of operation.

This *Overflight Notification* shall be duly recorded with the Stanislaus County Assessor's Office, shall run with the Property, and shall be binding upon all parties having or acquiring any right, title or interest in the Property.

Effective Date:_____, 20__

Table G3

Sample Recorded Overflight Notification

APPENDIX H

Glossary of Terms

Above Ground Level (AGL): An elevation datum given in feet above ground level.

Accident Potential Zones (APZs): A set of safety-related zones defined by AICUZ studies for areas beyond the ends of military airport runways. Typically, three types of zones are established: a clear zone closest to the runway end, then APZ I and APZ II. The potential for aircraft accidents and the corresponding need for land use restrictions is greatest with the clear zone and diminish with increased distance from the runway.

Air Carriers: The commercial system of air transportation, consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

Air Installation Compatible Use Zones (AICUZ): A land use compatible plan prepared by the U.S. Department of Defense for military airfields. AICUZ plans serve as recommendations to local governments bodies having jurisdiction over land uses surrounding these facilities.

Aircraft Accident: An occurrence incident to flight in which, as a result of the operation of an aircraft, a person (occupant or nonoccupant) receives fatal or serious injury or an aircraft receives substantial damage.

- Except as provided below, *substantial damage* means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component.
- Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage.

Aircraft Incident: A mishap associated with the operation of an aircraft in which neither fatal nor serious injuries nor substantial damage to the aircraft occurs.

Aircraft Mishap: The collective term for an aircraft accident or an incident.

Aircraft Operation: The airborne movement of aircraft at an airport or about an en route fix or at other point where counts can be made. There are two types of operations: local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

Airport: An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities if any. (FAR 1)

Airport Elevation: The highest point of an airport's useable runways, measured in feet above mean sea level. (AIM)

Airport Land Use Commission (ALUC): A commission authorized under the provisions of California Public Utilities Code, Section 21670 et seq. and established (in any county within which a public-use airport is located) for the purpose of promoting compatibility between airports and the land uses surrounding them.

Airport Layout Plan (ALP): A scale drawing of existing and proposed airport facilities, their location on an airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

Airport Master Plan (AMP): A long-range plan for development of an airport, including descriptions of the data and analyses on which the plan is based.

Airport Reference Code (ARC): A coding system used to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport. (Airport Design AC)

Airports, Classes of: For the purposes of issuing a Site Approval Permit, The California Department of Transportation, Division of Aeronautics classifies airports into the following categories: (CCR)

- *Agricultural Airport or Heliport:* An airport restricted to use only be agricultural aerial applicator aircraft (FAR Part 137 operators).

- *Emergency Medical Services (EMS) Landing Site:* A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near a medical facility and

  (1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in PUC Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters and

  (2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits, and

  (3) is not marked as a permitted heliport as described in Section 3554 of these regulations and

  (4) is used only for emergency medical purposes.

- *Heliport on Offshore Oil Platform:* A heliport located on a structure in the ocean, not connected to the shore by pier, bridge, wharf, dock or breakwater, used in the support of petroleum exploration or production.

- *Personal-Use Airport:* An airport limited to the non-commercial use of an individual owner or family and occasional invited guests.

- *Public-Use Airport:* An airport that is open for aircraft operations to the general public and is listed in the current edition of the *Airport/Facility Directory* that is published by the National Ocean Service of the U.S. Department of Commerce.

- *Seaplane Landing Site:* An area of water used, or intended for use, for landing and takeoff of seaplanes.

- *Special-Use Airport or Heliport:* An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations, and/or personal use.

- *Temporary Helicopter Landing Site:* A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and
  (1) is used or intended to be used for less than one year, except for recurrent annual events and
  (2) is not marked or lighted to be distinguishable as a heliport and
  (3) is not used exclusively for helicopter operations.

Ambient Noise Level: The level of noise that is all encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the receiver.

Approach Protection Easement: A form of easement that both conveys all of the rights of an avigation easement and sets specified limitations on the type of land uses allowed to be developed on the property.

Approach Speed: The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

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

Avigation Easement: A type of easement that typically conveys the following rights:

- A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with FAR Part 77 criteria).
- A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity.
- A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace.
- A right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.
- A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.

Based Aircraft: Aircraft stationed at an airport on a long-term basis.

California Environmental Quality Act (CEQA): Statutes adopted by the state legislature for the purpose of maintaining a quality environment for the people of the state now and in the future. The Act establishes a process for state and local agency review of projects, as defined in the implementing guidelines that may adversely affect the environment.

Ceiling: Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

Circling Approach/Circle-to-Land Maneuver: A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

Clear Zone: The military airport equivalent of runway protection zones at civilian airports.

Combining District: A zoning district that establishes development standards in areas of special concern over and above the standards applicable to basic underlying zoning districts.

Commercial Activities: Airport-related activities that may offer a facility, service or commodity for sale, hire or profit. Examples of commodities for sale are: food, lodging, entertainment, real estate, petroleum products, parts and equipment. Examples of services are: flight training, charter flights, maintenance, aircraft storage, and tiedown. (CCR)

Commercial Operator: A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

Community Noise Equivalent Level (CNEL): The noise metric adopted by the State of California for evaluating airport noise. It represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period. (State Airport Noise Standards)

Compatibility Plan: As used herein, a plan, usually adopted by an Airport Land Use Commission that sets forth policies for promoting compatibility between airports and the land uses that surround them. Often referred to as a *Comprehensive Land Use Plan (CLUP).*

Controlled Airspace: Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

Day-Night Average Sound Level (DNL): The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is L_{dn}.

Decibel (dB): A unit measuring the magnitude of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear. For environmental noise from aircraft and other transportation sources, an *A-weighted sound level* (abbreviated dBA) is normally used. The A-weighting scale adjusts the values of different sound frequencies to approximate the auditory sensitivity of the human ear.

Deed Notice: A formal statement added to the legal description of a deed to a property and on any subdivision map. As used in airport land use planning, a deed notice would state that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas.

Designated Body: A local government entity, such as a regional planning agency or a county planning commission, chosen by the county board of supervisors and the selection committee of city mayors to act in the capacity of an airport land use commission.

Displaced Threshold: A landing threshold that is located at a point on the runway other than the designated beginning of the runway (see *Threshold*). (AIM)

Dwelling Unit: Any building, structure or portion thereof which is occupied as, or designed or intended for occupancy as, a residence by one or more families, and any vacant land which is offered for sale or lease for the construction or location thereon of any such building, structure, or portion thereof. (HUD)

Easement: A less-than-fee-title transfer of real property rights from the property owner to the holder of the easement.

Equivalent Sound Level (L_{eq}): The level of constant sound that, in the given situation and time period, has the same average sound energy as does a time-varying sound.

Federal Aviation Regulations (FAR) Part 77*:* The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. FAR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace.

FAR Part 77 Surfaces: Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

Federal Aviation Administration (FAA): The U.S. government agency that is responsible for ensuring the safe and efficient use of the nation's airports and airspace.

Federal Aviation Regulations (FAR): Regulations formally issued by the FAA to regulate air commerce.

Findings: Legally relevant subconclusions that expose a government agency's mode of analysis of facts, regulations, and policies, and that bridge the analytical gap between raw data and ultimate decision.

Fixed Base Operator (FBO): A business that operates at an airport and provides aircraft services to the general public including, but not limited to, sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

General Aviation: That portion of civil aviation that encompasses all facets of aviation except air carriers. (FAA Stats)

Glide Slope: An electronic signal radiated by a component of an ILS to provide vertical guidance for aircraft during approach and landing.

Global Positioning System (GPS): A navigational system that utilizes a network of satellites to determine a positional fix almost anywhere on or above the earth. Developed and operated by the U.S. Department of Defense, GPS has been made available to the civilian sector for surface, marine, and aerial navigational use. For aviation purposes, the current form of GPS guidance provides en route aerial navigation and selected types of nonprecision instrument approaches. Eventual application of GPS as the principal system of navigational guidance throughout the world is anticipated.

Helipad: A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

Heliport: A facility used for operating, basing, housing, and maintaining helicopters. (HAI)

Infill: Development that takes place on vacant property largely surrounded by existing development, especially development that is similar in character.

Instrument Approach Procedure: A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority (refer to *Nonprecision Approach Procedure* and *Precision Approach Procedure*). (AIM)

Instrument Flight Rules (IFR): Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

Instrument Landing System (ILS): A precision instrument approach system that normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

Instrument Operation: An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

Instrument Runway: A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

Inverse Condemnation: An action brought by a property owner seeking just compensation for land taken for a public use against a government or private entity having the power of eminent domain. It is a remedy peculiar to the property owner and is exercisable by that party where it appears that the taker of the property does not intend to bring eminent domain proceedings.

Land Use Density: A measure of the concentration of land use development in an area. Mostly the term is used with respect to residential development and refers to the number of dwelling units per acre. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

Land Use Intensity: A measure of the concentration of nonresidential land use development in an area. For the purposes of airport land use planning, the term indicates the number of people per acre attracted by the land use. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

Large Airplane: An airplane of more than 12,500 pounds maximum certificated takeoff weight. (Airport Design AC)

Localizer (LOC): The component of an ILS that provides course guidance to the runway. (AIM)

Mean Sea Level (MSL): An elevation datum given in feet from mean sea level.

Minimum Descent Altitude (MDA): The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

Missed Approach: A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

National Transportation Safety Board (NTSB): The U.S. government agency responsible for investigating transportation accidents and incidents.

Navigational Aid (Navaid): Any visual or electronic device airborne or on the surface that provides point-to-point guidance information or position data to aircraft in flight. (AIM)

Noise Contours: Continuous lines of equal noise level usually drawn around a noise source, such as an airport or highway. The lines are generally drawn in 5-decibel increments so that they resemble elevation contours in topographic maps.

Noise Level Reduction (NLR): A measure used to describe the reduction in sound level from environmental noise sources occurring between the outside and the inside of a structure.

Nonconforming Use: An existing land use that does not conform to subsequently adopted or amended zoning or other land use development standards.

Nonprecision Approach Procedure: A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

Nonprecision Instrument Runway: A runway with an approved or planned straight-in instrument approach procedure that has no existing or planned precision instrument approach procedure. (Airport Design AC)

Obstruction: Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, the height of which exceed the standards established in Subpart C of Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*.

Overflight: Any distinctly visible and/or audible passage of an aircraft in flight, not necessarily directly overhead.

Overflight Easement: An easement that describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes, and emissions. An overflight easement is used primarily as a form of buyer notification.

Overflight Zone: The area(s) where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

Overlay Zone: See *Combining District*.

Planning Area Boundary: An area surrounding an airport designated by an ALUC for the purpose of airport land use compatibility planning conducted in accordance with provisions of the State Aeronautics Act.

Precision Approach Procedure: A standard instrument approach procedure where an electronic glide slope is provided. (FAR 1)

Precision Instrument Runway: A runway with an existing or planned precision instrument approach procedure. (Airport Design AC)

Referral Area: The area around an airport defined by the planning area boundary adopted by an airport land use commission within which certain land use proposals are to be referred to the commission for review.

Runway Protection Zone (RPZ): An area (formerly called a *clear zone*) off the end of a runway used to enhance the protection of people and property on the ground. (Airport Design AC)

Safety Zone: For the purpose of airport land use planning, an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

Secondary Dwelling Unit: An attached or a detached residential dwelling unit which provides complete independent living facilities for one or more persons. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the single-family dwelling is situated. (California Department of Housing and Community Development)

Single-Event Noise: As used in herein, the noise from an individual aircraft operation or overflight.

Single Event Noise Exposure Level (SENEL): A measure, in decibels, of the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of the event exceeds a threshold noise level and normalized to a reference duration of one second. SENEL is a noise metric established for use in California by the state Airport Noise Standards and is essentially identical to *Sound Exposure Level (SEL)*.

Site Approval Permit: A written approval issued by the California Department of Transportation authorizing construction of an airport in accordance with approved plans, specifications, and conditions. Both public-use and special-use airports require a site approval permit. (CCR)

Small Airplane: An airplane of 12,500 pounds or less maximum certificated takeoff weight. (Airport Design AC)

Sound Exposure Level (SEL): A time-integrated metric (i.e., continuously summed over a time period) that quantifies the total energy in the A-weighted sound level measured during a transient noise event. The time period for this measurement is generally taken to be that between the moments when the A-weighted sound level is 10 dB below the maximum.

Straight-In Instrument Approach: An instrument approach wherein a final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

Structure: Something that is constructed or erected.

Taking: Government appropriation of private land for which compensation must be paid as required by the Fifth Amendment of the U.S. Constitution. It is not essential that there be physical seizure or appropriation for a *taking* to occur, only that the government action directly interferes with or substantially disturbs the owner's right to use and enjoyment of the property.

Terminal Instrument Procedures (TERPS): Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

Threshold: The beginning of that portion of the runway usable for landing (also see *Displaced Threshold*). (AIM)

Touch-and-Go: An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway. (AIM)

Traffic Pattern: The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

Visual Approach: An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

Visual Flight Rules (VFR): Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum-generally, a 1,000-foot ceiling and 3-mile visibility.

Visual Runway: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan. (Airport Design AC)

Zoning: A police power measure, enacted primarily by units of local government, in which the community is divided into districts or zones within which permitted and special uses are established, as are regulations governing lot size, building bulk, placement, and other development standards. Requirements vary from district to district, but they must be uniform within districts. A zoning ordinance consists of two parts: the text and a map.

Glossary Sources

FAR 1: Federal Aviation Regulations Part 1, Definitions and Abbreviations

AIM: Aeronautical Information Manual

Airport Design AC: Federal Aviation Administration, *Airport Design* Advisory Circular 150/5300-13

CCR: California Code of Regulations, Title 21, Section 3525 et seq., *Division of Aeronautics*

FAA ATA: Federal Aviation Administration, *Air Traffic Activity*

FAA Stats: Federal Aviation Administration, *Statistical Handbook of Aviation*

HAI: Helicopter Association International

NTSB: National Transportation and Safety Board

Appendix C-1

Traffic Data Used in Emissions Modeling

2014 Combined											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	598	0.00%	598	0.00%	0	0.00%	0	0.00%	0	0.00%
10	7.51 - 12.50	3,694	0.00%	3,404	0.20%	38	0.00%	247	0.00%	6	0.00%
15	12.51 - 17.50	27,722	0.30%	22,929	1.00%	4	0.00%	4,789	0.20%	0	0.00%
20	17.51 - 22.50	23,707	0.20%	12,491	0.60%	4,597	0.10%	6,562	0.30%	57	0.00%
25	22.51 - 27.50	111,231	1.10%	70,404	3.10%	23,888	0.50%	16,794	0.80%	145	0.00%
30	27.51 - 32.50	624,147	6.00%	168,959	7.50%	246,276	4.70%	160,175	7.70%	48,736	6.10%
35	32.51 - 37.50	678,702	6.60%	190,376	8.40%	280,299	5.40%	158,067	7.60%	49,959	6.20%
40	37.51 - 42.50	2,427,357	23.40%	632,798	28.10%	1,057,085	20.30%	522,469	25.00%	215,005	26.70%
45	42.51 - 47.60	502,230	4.90%	158,593	7.00%	140,278	2.70%	181,541	8.70%	21,818	2.70%
50	47.61 - 52.50	1,300,102	12.60%	300,624	13.30%	691,821	13.30%	178,408	8.50%	129,249	16.00%
55	52.51 - 57.50	157,547	1.50%	72,508	3.20%	2,819	0.10%	81,675	3.90%	545	0.10%
60	57.51 - 62.50	690,205	6.70%	162,236	7.20%	323,621	6.20%	182,682	8.70%	21,666	2.70%
65	62.51 - 67.50	1,012,346	9.80%	134,289	6.00%	631,016	12.10%	169,820	8.10%	77,220	9.60%
70	67.51 - 72.50	2,795,386	27.00%	325,594	14.40%	1,800,168	34.60%	428,484	20.50%	241,140	29.90%
	Total	10,354,973	100.00%	2,255,803	100.00%	5,201,911	100.00%	2,091,713	100.00%	805,546	100.00%

SB375											
EMFAC	**VMT**	**Average Daily**		**AM Peak**		**Midday Peak**		**PM Peak**		**Off Peak**	
Speed Bin	**Speed Bins**			**7 am - 9 am**		**10 am - 4 pm**		**5 pm - 7 pm**		**(other)**	
Name	**Actual**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**
5	0.0 - 7.50	557	0.00%	557	0.00%	0	0.00%	0	0.00%	0	0.00%
10	7.51 - 12.50	1,873	0.00%	1,601	0.10%	34	0.00%	234	0.00%	5	0.00%
15	12.51 - 17.50	15,117	0.30%	12,227	1.00%	2	0.00%	2,888	0.20%	0	0.00%
20	17.51 - 22.50	18,839	0.30%	9,026	0.70%	3,601	0.10%	6,160	0.50%	51	0.00%
25	22.51 - 27.50	69,183	1.20%	35,618	2.90%	19,997	0.80%	13,434	1.10%	134	0.00%
30	27.51 - 32.50	488,519	8.80%	126,808	10.20%	202,898	7.70%	117,919	10.10%	40,894	8.00%
35	32.51 - 37.50	551,331	9.90%	149,653	12.00%	232,083	8.80%	127,639	10.90%	41,956	8.20%
40	37.51 - 42.50	1,819,301	32.70%	433,797	34.80%	830,645	31.50%	383,757	32.80%	171,103	33.30%
45	42.51 - 47.60	334,325	6.00%	103,653	8.30%	109,462	4.10%	102,876	8.80%	18,334	3.60%
50	47.61 - 52.50	798,734	14.30%	177,254	14.20%	417,128	15.80%	122,093	10.40%	82,259	16.00%
55	52.51 - 57.50	88,785	1.60%	43,252	3.50%	2,109	0.10%	43,028	3.70%	396	0.10%
60	57.51 - 62.50	338,510	6.10%	73,533	5.90%	143,284	5.40%	107,109	9.20%	14,584	2.80%
65	62.51 - 67.50	479,880	8.60%	46,341	3.70%	293,346	11.10%	90,480	7.70%	49,713	9.70%
70	67.51 - 72.50	565,118	10.10%	32,735	2.60%	386,326	14.60%	51,518	4.40%	94,540	18.40%
	Total	5,570,071	100.00%	1,246,053	100.00%	2,640,913	100.00%	1,169,136	100.00%	513,969	100.00%

2014 Incorporated											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	598	0.00%	598	0.00%	0	0.00%	0	0.00%	0	0.00%
10	7.51 - 12.50	3,311	0.00%	3,040	0.10%	25	0.00%	242	0.00%	4	0.00%
15	12.51 - 17.50	25,223	0.30%	20,885	1.00%	1	0.00%	4,338	0.20%	0	0.00%
20	17.51 - 22.50	22,415	0.20%	11,553	0.50%	4,417	0.10%	6,388	0.30%	57	0.00%
25	22.51 - 27.50	103,064	1.10%	63,817	3.00%	23,287	0.50%	15,815	0.80%	145	0.00%
30	27.51 - 32.50	595,525	6.10%	160,705	7.60%	237,348	4.80%	150,825	7.70%	46,647	6.30%
35	32.51 - 37.50	642,896	6.60%	180,421	8.60%	266,107	5.40%	149,479	7.60%	46,889	6.30%
40	37.51 - 42.50	2,198,351	22.60%	570,292	27.10%	967,921	19.60%	469,367	24.00%	190,772	25.80%
45	42.51 - 47.60	474,300	4.90%	150,978	7.20%	131,529	2.70%	171,481	8.80%	20,312	2.70%
50	47.61 - 52.50	1,204,510	12.40%	276,682	13.10%	648,140	13.10%	161,641	8.30%	118,046	16.00%
55	52.51 - 57.50	149,005	1.50%	68,656	3.30%	2,597	0.10%	77,260	3.90%	492	0.10%
60	57.51 - 62.50	646,948	6.60%	152,663	7.30%	300,040	6.10%	174,227	8.90%	20,018	2.70%
65	62.51 - 67.50	962,311	9.90%	127,250	6.00%	602,955	12.20%	160,709	8.20%	71,397	9.70%
70	67.51 - 72.50	2,713,535	27.90%	316,632	15.00%	1,755,598	35.50%	416,814	21.30%	224,491	30.40%
	Total	9,741,994	100.00%	2,104,173	100.00%	4,939,966	100.00%	1,958,586	100.00%	739,268	100.00%

SB375											
EMFAC	**VMT**	**Average Daily**		**AM Peak**		**Midday Peak**		**PM Peak**		**Off Peak**	
Speed Bin	**Speed Bins**			**7 am - 9 am**		**10 am - 4 pm**		**5 pm - 7 pm**		**(other)**	
Name	**Actual**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**
5	0.0 - 7.50	513	0.00%	513	0.10%	0	0.00%	0	0.00%	0	0.00%
10	7.51 - 12.50	1,524	0.00%	1,304	0.10%	12	0.00%	207	0.00%	2	0.00%
15	12.51 - 17.50	12,480	0.30%	10,159	1.00%	0	0.00%	2,321	0.30%	0	0.00%
20	17.51 - 22.50	14,972	0.30%	7,092	0.70%	2,729	0.10%	5,102	0.60%	48	0.00%
25	22.51 - 27.50	56,422	1.30%	29,868	3.10%	16,212	0.80%	10,217	1.10%	124	0.00%
30	27.51 - 32.50	407,233	9.50%	106,195	10.90%	167,891	8.30%	98,579	10.90%	34,567	8.50%
35	32.51 - 37.50	446,935	10.40%	122,814	12.60%	185,327	9.20%	104,030	11.50%	34,764	8.60%
40	37.51 - 42.50	1,282,624	29.90%	310,751	32.00%	576,288	28.60%	270,312	30.00%	125,273	30.90%
45	42.51 - 47.60	261,749	6.10%	83,021	8.50%	83,708	4.20%	80,833	9.00%	14,188	3.50%
50	47.61 - 52.50	595,585	13.90%	137,333	14.10%	306,720	15.20%	88,069	9.80%	63,462	15.60%
55	52.51 - 57.50	74,113	1.70%	36,537	3.80%	1,361	0.10%	35,932	4.00%	283	0.10%
60	57.51 - 62.50	278,902	6.50%	61,479	6.30%	115,556	5.70%	89,840	10.00%	12,027	3.00%
65	62.51 - 67.50	402,892	9.40%	38,763	4.00%	245,611	12.20%	76,500	8.50%	42,017	10.40%
70	67.51 - 72.50	459,458	10.70%	26,033	2.70%	314,224	15.60%	40,102	4.40%	79,099	19.50%
	Total	4,295,402	100.00%	971,862	100.00%	2,015,640	100.00%	902,045	100.00%	405,854	100.00%

2014 Unincorporated											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	119	0.00%	119	0.00%	0	0.00%	0	0.00%	0	0.00%
10	7.51 - 12.50	1,545	0.00%	1,439	0.10%	38	0.00%	62	0.00%	6	0.00%
15	12.51 - 17.50	9,685	0.20%	7,846	0.60%	4	0.00%	1,835	0.20%	0	0.00%
20	17.51 - 22.50	10,826	0.20%	5,656	0.50%	2,668	0.10%	2,494	0.20%	8	0.00%
25	22.51 - 27.50	42,914	0.70%	23,203	1.90%	11,161	0.30%	8,529	0.70%	21	0.00%
30	27.51 - 32.50	236,024	3.90%	60,989	5.00%	104,015	3.20%	56,748	4.80%	14,273	4.10%
35	32.51 - 37.50	273,255	4.50%	74,148	6.10%	123,021	3.70%	61,375	5.20%	14,711	4.20%
40	37.51 - 42.50	1,337,144	22.20%	338,542	28.00%	614,480	18.60%	283,900	24.00%	100,223	28.80%
45	42.51 - 47.60	245,433	4.10%	74,922	6.20%	64,731	2.00%	97,753	8.30%	8,028	2.30%
50	47.61 - 52.50	722,623	12.00%	143,486	11.90%	421,630	12.80%	98,157	8.30%	59,349	17.00%
55	52.51 - 57.50	68,909	1.10%	32,243	2.70%	1,748	0.10%	34,654	2.90%	264	0.10%
60	57.51 - 62.50	352,469	5.80%	83,326	6.90%	175,139	5.30%	86,407	7.30%	7,598	2.20%
65	62.51 - 67.50	551,357	9.10%	82,425	6.80%	361,345	11.00%	81,533	6.90%	26,055	7.50%
70	67.51 - 72.50	2,183,882	36.20%	280,573	23.20%	1,417,029	43.00%	368,467	31.20%	117,813	33.80%
	Total	6,036,185	100.00%	1,208,917	100.00%	3,297,007	100.00%	1,181,913	100.00%	348,349	100.00%

SB375											
EMFAC	**VMT**	**Average Daily**		**AM Peak**		**Midday Peak**		**PM Peak**		**Off Peak**	
Speed Bin	**Speed Bins**			**7 am - 9 am**		**10 am - 4 pm**		**5 pm - 7 pm**		**(other)**	
Name	**Actual**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**
5	0.0 - 7.50	44	0.00%	44	0.00%	0	0.00%	0	0.00%	0	0.00%
10	7.51 - 12.50	349	0.00%	297	0.10%	22	0.00%	27	0.00%	3	0.00%
15	12.51 - 17.50	2,637	0.20%	2,068	0.80%	2	0.00%	567	0.20%	0	0.00%
20	17.51 - 22.50	3,867	0.30%	1,934	0.70%	872	0.10%	1,058	0.40%	3	0.00%
25	22.51 - 27.50	12,762	1.00%	5,750	2.10%	3,785	0.60%	3,217	1.20%	9	0.00%
30	27.51 - 32.50	81,287	6.40%	20,613	7.50%	35,007	5.60%	19,340	7.20%	6,327	5.90%
35	32.51 - 37.50	104,396	8.20%	26,839	9.80%	46,756	7.50%	23,608	8.80%	7,193	6.70%
40	37.51 - 42.50	536,677	42.10%	123,046	44.90%	254,356	40.70%	113,446	42.50%	45,829	42.40%
45	42.51 - 47.60	72,576	5.70%	20,632	7.50%	25,755	4.10%	22,044	8.30%	4,146	3.80%
50	47.61 - 52.50	203,149	15.90%	39,920	14.60%	110,408	17.70%	34,023	12.70%	18,797	17.40%
55	52.51 - 57.50	14,672	1.20%	6,714	2.40%	748	0.10%	7,096	2.70%	114	0.10%
60	57.51 - 62.50	59,608	4.70%	12,054	4.40%	27,728	4.40%	17,270	6.50%	2,556	2.40%
65	62.51 - 67.50	76,988	6.00%	7,577	2.80%	47,734	7.60%	13,980	5.20%	7,696	7.10%
70	67.51 - 72.50	105,660	8.30%	6,702	2.40%	72,101	11.50%	11,416	4.30%	15,441	14.30%
	Total	1,274,670	100.00%	274,191	100.00%	625,274	100.00%	267,091	100.00%	108,115	100.00%

2035 Combined											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	106,092	0.70%	58,750	1.80%	0	0.00%	47,341	1.60%	0	0.00%
10	7.51 - 12.50	40,091	0.30%	31,798	1.00%	73	0.00%	8,211	0.30%	8	0.00%
15	12.51 - 17.50	26,844	0.20%	6,084	0.20%	2,231	0.00%	18,524	0.60%	5	0.00%
20	17.51 - 22.50	46,520	0.30%	24,410	0.80%	3,117	0.00%	18,932	0.60%	61	0.00%
25	22.51 - 27.50	151,311	1.00%	101,807	3.10%	18,766	0.30%	30,577	1.00%	161	0.00%
30	27.51 - 32.50	765,790	5.30%	234,919	7.20%	283,277	3.90%	192,909	6.50%	54,685	4.90%
35	32.51 - 37.50	1,075,722	7.40%	406,962	12.60%	360,469	5.00%	244,315	8.20%	63,977	5.70%
40	37.51 - 42.50	3,903,727	26.80%	950,849	29.30%	1,834,690	25.30%	775,862	26.20%	342,326	30.50%
45	42.51 - 47.60	787,934	5.40%	243,585	7.50%	284,017	3.90%	215,511	7.30%	44,822	4.00%
50	47.61 - 52.50	1,534,447	10.50%	228,105	7.00%	819,927	11.30%	290,532	9.80%	195,884	17.40%
55	52.51 - 57.50	320,197	2.20%	238,754	7.40%	3,779	0.10%	76,866	2.60%	798	0.10%
60	57.51 - 62.50	412,571	2.80%	212,162	6.50%	27,724	0.40%	172,685	5.80%	0	0.00%
65	62.51 - 67.50	1,605,878	11.00%	285,191	8.80%	832,870	11.50%	445,602	15.00%	42,215	3.80%
70	67.51 - 72.50	3,801,869	26.10%	218,438	6.70%	2,779,362	38.30%	426,464	14.40%	377,605	33.60%
	Total	14,578,994	100.00%	3,241,814	100.00%	7,250,303	100.00%	2,964,330	100.00%	1,122,547	100.00%
SB375											

EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	38,322	0.50%	20,532	1.20%	0	0.00%	17,790	1.10%	0	0.00%
10	7.51 - 12.50	17,707	0.20%	15,917	0.90%	67	0.00%	1,715	0.10%	8	0.00%
15	12.51 - 17.50	15,111	0.20%	4,269	0.20%	1,339	0.00%	9,500	0.60%	2	0.00%
20	17.51 - 22.50	29,322	0.40%	15,667	0.90%	2,116	0.10%	11,484	0.70%	55	0.00%
25	22.51 - 27.50	70,057	0.90%	44,153	2.50%	14,727	0.40%	11,029	0.70%	148	0.00%
30	27.51 - 32.50	587,459	7.50%	171,313	9.60%	229,824	6.20%	141,696	8.60%	44,626	6.20%
35	32.51 - 37.50	775,008	9.90%	247,982	14.00%	291,601	7.90%	182,630	11.10%	52,795	7.30%
40	37.51 - 42.50	2,740,210	35.00%	636,602	35.80%	1,296,163	35.20%	549,282	33.30%	258,163	35.80%
45	42.51 - 47.60	569,675	7.30%	144,248	8.10%	230,080	6.30%	157,500	9.50%	37,847	5.30%
50	47.61 - 52.50	951,643	12.20%	139,634	7.90%	526,185	14.30%	164,658	10.00%	121,166	16.80%
55	52.51 - 57.50	99,060	1.30%	53,675	3.00%	2,924	0.10%	41,868	2.50%	592	0.10%
60	57.51 - 62.50	109,751	1.40%	55,491	3.10%	10,911	0.30%	43,349	2.60%	0	0.00%
65	62.51 - 67.50	511,599	6.50%	124,577	7.00%	235,615	6.40%	126,353	7.70%	25,052	3.50%
70	67.51 - 72.50	1,310,514	16.70%	102,854	5.80%	836,606	22.70%	190,736	11.60%	180,319	25.00%
	Total	7,825,438	100.00%	1,776,914	100.00%	3,678,159	100.00%	1,649,591	100.00%	720,774	100.00%

2035 Incorporated											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	83,111	0.60%	46,655	1.60%	0	0.00%	36,457	1.40%	0	0.00%
10	7.51 - 12.50	33,908	0.30%	25,859	0.90%	48	0.00%	7,996	0.30%	5	0.00%
15	12.51 - 17.50	23,153	0.20%	5,215	0.20%	2,136	0.00%	15,801	0.60%	0	0.00%
20	17.51 - 22.50	39,563	0.30%	20,972	0.70%	2,368	0.00%	16,161	0.60%	61	0.00%
25	22.51 - 27.50	137,034	1.10%	90,836	3.20%	17,774	0.30%	28,265	1.10%	159	0.00%
30	27.51 - 32.50	700,130	5.40%	210,102	7.40%	265,443	4.00%	174,485	6.70%	50,100	5.30%
35	32.51 - 37.50	957,638	7.40%	358,127	12.60%	328,253	5.00%	215,004	8.30%	56,253	6.00%
40	37.51 - 42.50	3,240,811	25.00%	782,772	27.60%	1,558,517	23.70%	632,576	24.30%	266,947	28.20%
45	42.51 - 47.60	706,681	5.40%	222,793	7.90%	255,614	3.90%	188,612	7.20%	39,662	4.20%
50	47.61 - 52.50	1,335,311	10.30%	199,862	7.00%	717,677	10.90%	252,068	9.70%	165,704	17.50%
55	52.51 - 57.50	297,569	2.30%	226,060	8.00%	3,391	0.10%	67,426	2.60%	692	0.10%
60	57.51 - 62.50	381,046	2.90%	194,572	6.90%	22,678	0.30%	163,796	6.30%	0	0.00%
65	62.51 - 67.50	1,488,205	11.50%	260,197	9.20%	773,905	11.80%	417,053	16.00%	37,051	3.90%
70	67.51 - 72.50	3,543,275	27.30%	193,044	6.80%	2,633,541	40.00%	388,264	14.90%	328,426	34.80%
	Total	12,967,432	100.00%	2,837,066	100.00%	6,581,345	100.00%	2,603,963	100.00%	945,059	100.00%

SB375											
EMFAC	**VMT**	**Average Daily**		**AM Peak**		**Midday Peak**		**PM Peak**		**Off Peak**	
Speed Bin	**Speed Bins**			**7 am - 9 am**		**10 am - 4 pm**		**5 pm - 7 pm**		**(other)**	
Name	**Actual**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**
5	0.0 - 7.50	25,673	0.50%	13,867	1.20%	0	0.00%	11,806	1.10%	0	0.00%
10	7.51 - 12.50	12,246	0.20%	10,909	0.90%	22	0.00%	1,313	0.10%	2	0.00%
15	12.51 - 17.50	10,847	0.20%	2,839	0.20%	1,076	0.00%	6,932	0.60%	0	0.00%
20	17.51 - 22.50	19,278	0.40%	10,420	0.90%	1,397	0.10%	7,413	0.70%	49	0.00%
25	22.51 - 27.50	47,614	0.90%	29,115	2.50%	11,644	0.50%	6,725	0.60%	130	0.00%
30	27.51 - 32.50	433,817	8.40%	124,400	10.50%	172,739	7.10%	102,650	9.50%	34,028	7.00%
35	32.51 - 37.50	548,275	10.60%	173,272	14.70%	209,798	8.70%	126,528	11.70%	38,677	8.00%
40	37.51 - 42.50	1,585,110	30.70%	376,832	31.90%	742,488	30.70%	312,097	28.80%	153,693	31.80%
45	42.51 - 47.60	385,054	7.50%	102,247	8.60%	149,285	6.20%	107,716	10.00%	25,806	5.30%
50	47.61 - 52.50	596,938	11.60%	89,680	7.60%	327,528	13.50%	101,976	9.40%	77,754	16.10%
55	52.51 - 57.50	72,580	1.40%	38,354	3.20%	1,768	0.10%	32,069	3.00%	389	0.10%
60	57.51 - 62.50	79,201	1.50%	40,058	3.40%	7,416	0.30%	31,728	2.90%	0	0.00%
65	62.51 - 67.50	385,979	7.50%	94,428	8.00%	177,291	7.30%	94,018	8.70%	20,242	4.20%
70	67.51 - 72.50	962,589	18.60%	75,944	6.40%	614,827	25.40%	139,063	12.90%	132,755	27.50%
	Total	5,165,201	100.00%	1,182,365	100.00%	2,417,279	100.00%	1,082,033	100.00%	483,525	100.00%

2035 NP Combined											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	104,454	0.70%	59,093	1.90%	0	0.00%	45,361	1.60%	0	0.00%
10	7.51 - 12.50	40,931	0.30%	30,399	1.00%	73	0.00%	10,451	0.40%	8	0.00%
15	12.51 - 17.50	31,750	0.20%	9,853	0.30%	17	0.00%	21,877	0.80%	3	0.00%
20	17.51 - 22.50	41,335	0.30%	19,028	0.60%	6,863	0.10%	15,384	0.50%	60	0.00%
25	22.51 - 27.50	123,470	0.90%	89,930	2.90%	16,174	0.20%	17,209	0.60%	156	0.00%
30	27.51 - 32.50	810,149	5.70%	279,490	8.90%	278,341	3.90%	198,525	6.90%	53,792	4.90%
35	32.51 - 37.50	975,058	6.90%	327,023	10.40%	351,160	5.00%	233,795	8.10%	63,080	5.80%
40	37.51 - 42.50	3,680,797	25.90%	876,749	27.90%	1,726,087	24.40%	760,311	26.20%	317,650	29.10%
45	42.51 - 47.60	737,539	5.20%	262,783	8.40%	253,675	3.60%	177,102	6.10%	43,979	4.00%
50	47.61 - 52.50	1,576,783	11.10%	265,731	8.50%	819,944	11.60%	299,850	10.30%	191,258	17.50%
55	52.51 - 57.50	232,409	1.60%	137,766	4.40%	3,741	0.10%	90,108	3.10%	794	0.10%
60	57.51 - 62.50	421,508	3.00%	252,564	8.00%	0	0.00%	168,944	5.80%	0	0.00%
65	62.51 - 67.50	1,387,549	9.80%	309,878	9.90%	674,783	9.50%	359,881	12.40%	43,007	3.90%
70	67.51 - 72.50	4,045,096	28.50%	217,841	6.90%	2,949,977	41.70%	498,461	17.20%	378,817	34.70%
	Total	14,208,826	100.00%	3,138,129	100.00%	7,080,835	100.00%	2,897,259	100.00%	1,092,604	100.00%
SB375											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	

Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	36,861	0.50%	20,667	1.20%	0	0.00%	16,194	1.00%	0	0.00%
10	7.51 - 12.50	18,626	0.20%	15,298	0.90%	67	0.00%	3,253	0.20%	8	0.00%
15	12.51 - 17.50	16,543	0.20%	5,956	0.40%	8	0.00%	10,577	0.70%	1	0.00%
20	17.51 - 22.50	26,517	0.40%	12,074	0.70%	4,367	0.10%	10,022	0.60%	54	0.00%
25	22.51 - 27.50	55,568	0.70%	34,679	2.10%	12,890	0.40%	7,857	0.50%	142	0.00%
30	27.51 - 32.50	572,680	7.70%	169,471	10.10%	224,909	6.40%	134,658	8.50%	43,643	6.30%
35	32.51 - 37.50	725,821	9.70%	218,913	13.00%	283,209	8.00%	171,843	10.80%	51,855	7.50%
40	37.51 - 42.50	2,534,074	33.90%	579,179	34.50%	1,195,886	33.90%	522,811	33.00%	236,198	34.10%
45	42.51 - 47.60	524,435	7.00%	148,597	8.80%	202,234	5.70%	136,664	8.60%	36,940	5.30%
50	47.61 - 52.50	975,355	13.00%	161,270	9.60%	527,198	15.00%	170,512	10.80%	116,375	16.80%
55	52.51 - 57.50	85,243	1.10%	31,225	1.90%	2,879	0.10%	50,554	3.20%	585	0.10%
60	57.51 - 62.50	102,078	1.40%	60,841	3.60%	0	0.00%	41,237	2.60%	0	0.00%
65	62.51 - 67.50	497,790	6.70%	121,573	7.20%	236,908	6.70%	113,860	7.20%	25,448	3.70%
70	67.51 - 72.50	1,311,748	17.50%	100,885	6.00%	835,230	23.70%	194,819	12.30%	180,814	26.10%
	Total	7,483,339	100.00%	1,680,629	100.00%	3,525,785	100.00%	1,584,861	100.00%	692,063	100.00%

2035 NP Unincorporated											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	57,571	0.60%	33,291	1.70%	0	0.00%	24,280	1.30%	0	0.00%
10	7.51 - 12.50	21,677	0.20%	13,663	0.70%	73	0.00%	7,933	0.40%	8	0.00%
15	12.51 - 17.50	16,409	0.20%	5,646	0.30%	17	0.00%	10,744	0.60%	3	0.00%
20	17.51 - 22.50	23,445	0.20%	10,748	0.50%	3,580	0.10%	9,105	0.50%	12	0.00%
25	22.51 - 27.50	82,123	0.90%	61,596	3.10%	7,574	0.20%	12,919	0.70%	34	0.00%
30	27.51 - 32.50	424,171	4.50%	148,970	7.60%	145,931	2.90%	106,947	5.70%	22,323	3.80%
35	32.51 - 37.50	526,558	5.60%	180,263	9.20%	188,892	3.80%	130,399	6.90%	27,004	4.60%
40	37.51 - 42.50	2,465,603	26.20%	563,005	28.80%	1,208,602	24.20%	506,668	26.90%	187,329	32.00%
45	42.51 - 47.60	441,390	4.70%	163,587	8.40%	159,520	3.20%	95,371	5.10%	22,912	3.90%
50	47.61 - 52.50	1,052,859	11.20%	168,653	8.60%	561,146	11.20%	209,310	11.10%	113,751	19.40%
55	52.51 - 57.50	158,294	1.70%	111,470	5.70%	2,529	0.10%	43,848	2.30%	447	0.10%
60	57.51 - 62.50	332,143	3.50%	194,998	10.00%	0	0.00%	137,145	7.30%	0	0.00%
65	62.51 - 67.50	912,922	9.70%	190,258	9.70%	445,032	8.90%	261,722	13.90%	15,910	2.70%
70	67.51 - 72.50	2,911,706	30.90%	111,839	5.70%	2,279,609	45.60%	324,870	17.30%	195,388	33.40%
	Total	9,426,871	100.00%	1,957,986	100.00%	5,002,505	100.00%	1,881,260	100.00%	585,121	100.00%

SB375											
EMFAC	**VMT**	**Average Daily**		**AM Peak**		**Midday Peak**		**PM Peak**		**Off Peak**	
Speed Bin	**Speed Bins**			**7 am - 9 am**		**10 am - 4 pm**		**5 pm - 7 pm**		**(other)**	
Name	**Actual**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**
5	0.0 - 7.50	12,484	0.50%	6,865	1.30%	0	0.00%	5,619	1.10%	0	0.00%
10	7.51 - 12.50	5,333	0.20%	4,485	0.80%	45	0.00%	797	0.20%	5	0.00%
15	12.51 - 17.50	4,637	0.20%	1,883	0.30%	8	0.00%	2,744	0.50%	1	0.00%
20	17.51 - 22.50	8,287	0.30%	3,646	0.70%	1,171	0.10%	3,465	0.70%	6	0.00%
25	22.51 - 27.50	15,825	0.60%	10,551	1.90%	2,693	0.20%	2,563	0.50%	17	0.00%
30	27.51 - 32.50	142,637	5.80%	42,992	7.90%	55,793	4.70%	33,613	6.40%	10,240	4.70%
35	32.51 - 37.50	208,136	8.50%	63,213	11.70%	79,262	6.70%	51,862	9.90%	13,798	6.30%
40	37.51 - 42.50	1,018,441	41.40%	226,543	41.80%	489,644	41.60%	212,126	40.60%	90,127	41.20%
45	42.51 - 47.60	166,389	6.80%	45,116	8.30%	67,874	5.80%	41,678	8.00%	11,722	5.40%
50	47.61 - 52.50	355,814	14.50%	53,581	9.90%	196,764	16.70%	65,296	12.50%	40,173	18.40%
55	52.51 - 57.50	21,492	0.90%	8,662	1.60%	1,146	0.10%	11,482	2.20%	202	0.10%
60	57.51 - 62.50	27,528	1.10%	16,041	3.00%	0	0.00%	11,487	2.20%	0	0.00%
65	62.51 - 67.50	120,066	4.90%	30,908	5.70%	57,203	4.90%	26,990	5.20%	4,964	2.30%
70	67.51 - 72.50	352,026	14.30%	26,900	5.00%	224,206	19.10%	53,355	10.20%	47,564	21.70%
	Total	2,459,093	100.00%	541,385	100.00%	1,175,811	100.00%	523,079	100.00%	218,819	100.00%

2035 Unincorporated											
Conformity											
EMFAC	VMT	Average Daily		AM Peak		Midday Peak		PM Peak		Off Peak	
Speed Bin	Speed Bins			7 am - 9 am		10 am - 4 pm		5 pm - 7 pm		(other)	
Name	Actual	VMT	%	VMT	%	VMT	%	VMT	%	VMT	%
5	0.0 - 7.50	58,094	0.60%	32,923	1.60%	0	0.00%	25,171	1.30%	0	0.00%
10	7.51 - 12.50	22,098	0.20%	15,223	0.70%	73	0.00%	6,793	0.30%	8	0.00%
15	12.51 - 17.50	13,828	0.10%	3,832	0.20%	802	0.00%	9,189	0.50%	5	0.00%
20	17.51 - 22.50	27,829	0.30%	14,606	0.70%	1,879	0.00%	11,331	0.60%	13	0.00%
25	22.51 - 27.50	106,344	1.10%	71,686	3.50%	8,890	0.20%	25,731	1.30%	37	0.00%
30	27.51 - 32.50	398,071	4.10%	121,534	6.00%	147,880	2.90%	105,729	5.40%	22,928	3.70%
35	32.51 - 37.50	591,311	6.10%	233,662	11.50%	193,792	3.80%	136,311	7.00%	27,546	4.50%
40	37.51 - 42.50	2,669,176	27.40%	619,269	30.30%	1,303,772	25.40%	536,008	27.50%	210,128	34.20%
45	42.51 - 47.60	470,711	4.80%	148,686	7.30%	181,498	3.50%	117,079	6.00%	23,448	3.80%
50	47.61 - 52.50	1,030,813	10.60%	148,427	7.30%	561,171	10.90%	202,571	10.40%	118,644	19.30%
55	52.51 - 57.50	236,504	2.40%	196,034	9.60%	2,545	0.00%	37,476	1.90%	449	0.10%
60	57.51 - 62.50	317,043	3.30%	162,028	7.90%	16,066	0.30%	138,948	7.10%	0	0.00%
65	62.51 - 67.50	1,123,148	11.50%	160,525	7.90%	607,683	11.80%	339,339	17.40%	15,603	2.50%
70	67.51 - 72.50	2,668,180	27.40%	112,196	5.50%	2,103,227	41.00%	257,369	13.20%	195,388	31.80%
	Total	9,733,149	100.00%	2,040,631	100.00%	5,129,277	100.00%	1,949,045	100.00%	614,196	100.00%

SB375											
EMFAC	**VMT**	**Average Daily**		**AM Peak**		**Midday Peak**		**PM Peak**		**Off Peak**	
Speed Bin	**Speed Bins**			**7 am - 9 am**		**10 am - 4 pm**		**5 pm - 7 pm**		**(other)**	
Name	**Actual**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**	**VMT**	**%**
5	0.0 - 7.50	12,649	0.50%	6,665	1.10%	0	0.00%	5,984	1.10%	0	0.00%
10	7.51 - 12.50	5,461	0.20%	5,008	0.80%	45	0.00%	402	0.10%	5	0.00%
15	12.51 - 17.50	4,264	0.20%	1,430	0.20%	263	0.00%	2,568	0.50%	2	0.00%
20	17.51 - 22.50	10,044	0.40%	5,247	0.90%	719	0.10%	4,071	0.70%	6	0.00%
25	22.51 - 27.50	22,443	0.80%	15,038	2.50%	3,083	0.20%	4,304	0.80%	18	0.00%
30	27.51 - 32.50	153,643	5.80%	46,913	7.90%	57,086	4.50%	39,046	6.90%	10,598	4.50%
35	32.51 - 37.50	226,734	8.50%	74,710	12.60%	81,802	6.50%	56,103	9.90%	14,119	6.00%
40	37.51 - 42.50	1,155,101	43.40%	259,769	43.70%	553,675	43.90%	237,185	41.80%	104,471	44.00%
45	42.51 - 47.60	184,621	6.90%	42,001	7.10%	80,796	6.40%	49,784	8.80%	12,041	5.10%
50	47.61 - 52.50	354,705	13.30%	49,953	8.40%	198,657	15.80%	62,682	11.00%	43,412	18.30%
55	52.51 - 57.50	26,480	1.00%	15,321	2.60%	1,156	0.10%	9,799	1.70%	203	0.10%
60	57.51 - 62.50	30,550	1.10%	15,433	2.60%	3,495	0.30%	11,621	2.00%	0	0.00%
65	62.51 - 67.50	125,619	4.70%	30,150	5.10%	58,324	4.60%	32,336	5.70%	4,810	2.00%
70	67.51 - 72.50	347,925	13.10%	26,910	4.50%	221,778	17.60%	51,673	9.10%	47,564	20.00%
	Total	2,660,237	100.00%	594,549	100.00%	1,260,880	100.00%	567,558	100.00%	237,249	100.00%

Appendix C-2

2014 CT-EMFAC Emissions Factors

2014 CT-EMFAC Emission Factors

File Name: Stanislaus (SJV) - 2014 - Annual.EF
CT-EMFAC Version: 5.0.0.14319
Run Date: 3/4/2015 16:10
Area: Stanislaus (SJV)
Analysis Year: 2014
Season: Annual

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Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.062	0.492
Truck 2	0.076	0.959
Non-Truck	0.862	0.005

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Fleet Average Running Exhaust Emission Factors (grams/mile)

Speed	ROG	TOG	CO	NOx	CO2	CO2 (Pavley I + LCFS)	PM10	PM2.5
5 mph	0.624955	0.790911	4.944911	2.414911	1566.164	1447.561768	0.055231	0.050783
10 mph	0.409411	0.515625	4.088172	1.840159	1195.065	1106.753296	0.040013	0.036785
15 mph	0.258178	0.327012	3.375197	1.410216	931.2738	862.969788	0.02856	0.026253
20 mph	0.164797	0.210805	2.885434	1.131275	744.0417	689.295288	0.020155	0.018524
25 mph	0.13077	0.165857	2.532849	1.0462	630.5753	585.200073	0.017023	0.015645
30 mph	0.108205	0.136336	2.295828	0.979107	555.556	516.230591	0.014873	0.013668
35 mph	0.092903	0.116495	2.112206	0.931671	504.3513	469.087555	0.013535	0.012439
40 mph	0.083026	0.103779	1.978587	0.901413	471.9636	439.192291	0.012914	0.011868
45 mph	0.077677	0.096732	1.89058	0.886749	455.033	423.478271	0.012953	0.011904
50 mph	0.076302	0.094653	1.850034	0.889237	452.122	420.633301	0.01362	0.012517
55 mph	0.078805	0.097416	1.854834	0.914721	461.5937	429.188843	0.0149	0.013694
60 mph	0.085682	0.105732	1.93338	0.931504	488.157	453.235291	0.016822	0.015461
65 mph	0.098143	0.120718	2.095679	0.95845	530.4226	491.620972	0.019341	0.017775
70 mph	0.111537	0.136262	2.316613	0.967431	557.3755	515.990234	0.019487	0.017907
75 mph	0.111537	0.136262	2.316613	0.967431	557.3755	515.990234	0.019487	0.017907

==========

Fleet Average Idling Exhaust Emission Factors (grams/vehicle-idle-hour)

Pollutant Name	Emission Factor
ROG	2.151497
TOG	2.846551
CO	24.612967
NOx	8.658174
CO2	6973.584473
CO2 (Pavley I + LCFS)	6393.432129
PM10	0.117128
PM2.5	0.107607

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Fleet Average Running Loss Emission Factors (grams/mile)

Pollutant Name	Emission Factor
ROG	0.115174
TOG	0.115174

==========

Fleet Average Tire Wear and Brake Wear Factors (grams/mile)

Pollutant Name	Emission Factor
PM10	0.051843
PM2.5	0.020466

==========END==========

2035 CT-EMFAC Emission Factors

File Name: Stanislaus (SJV) - 2035 - Annual.EF
CT-EMFAC Version: 5.0.0.14319
Run Date: 3/4/2015 16:36
Area: Stanislaus (SJV)
Analysis Year: 2035
Season: Annual

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Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category
Truck 1	0.049	0.493
Truck 2	0.075	0.965
Non-Truck	0.876	0.005

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Fleet Average Running Exhaust Emission Factors (grams/mile)

Speed	ROG	TOG	CO	NOx	CO2	CO2 (Pavley I + LCFS)	PM10	PM2.5
5 mph	0.268028	0.347638	1.666446	0.607529	1551.554	1092.779785	0.018481	0.017095
10 mph	0.171136	0.221552	1.420114	0.479399	1186.316	841.698608	0.013468	0.012449
15 mph	0.102859	0.134763	1.199495	0.37881	923.8589	657.252991	0.010246	0.009465
20 mph	0.062147	0.083025	1.039297	0.304966	736.6284	523.650085	0.008114	0.007492
25 mph	0.051106	0.067056	0.939732	0.276829	623.8547	446.609497	0.006881	0.006351
30 mph	0.043689	0.056633	0.875139	0.253305	550.6682	396.148346	0.006179	0.0057
35 mph	0.038599	0.049524	0.815792	0.235751	499.4399	360.65564	0.005864	0.005408
40 mph	0.03537	0.045025	0.770382	0.223229	467.1648	338.048096	0.005856	0.005399
45 mph	0.033736	0.042657	0.736203	0.215527	449.8346	325.668884	0.006108	0.00563
50 mph	0.033667	0.042345	0.719453	0.212512	447.3826	323.442261	0.006597	0.006079
55 mph	0.03533	0.044216	0.720791	0.215189	459.0779	330.903046	0.007311	0.006737
60 mph	0.039144	0.048732	0.740633	0.218929	483.9676	347.106689	0.008265	0.007615
65 mph	0.04596	0.056885	0.797566	0.225351	526.6027	375.167786	0.00945	0.008706
70 mph	0.056207	0.06861	0.915389	0.227675	554.4557	393.186157	0.00959	0.008835
75 mph	0.056207	0.06861	0.915389	0.227675	554.4557	393.186157	0.00959	0.008835

==========

Fleet Average Idling Exhaust Emission Factors (grams/vehicle-idle-hour)

Pollutant Name	Emission Factor
ROG	0.995412
TOG	1.345745
CO	9.562176
NOx	3.715193
CO2	6939.976563
CO2 (Pavley I + LCFS)	4727.883301
PM10	0.075016
PM2.5	0.06948

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Fleet Average Running Loss Emission Factors (grams/mile)

Pollutant Name	Emission Factor
ROG	0.051675
TOG	0.051675

==========

Fleet Average Tire Wear and Brake Wear Factors (grams/mile)

Pollutant Name	Emission Factor
PM10	0.051488
PM2.5	0.020325

==========END==========

Appendix D

Stanislaus Countywide Regional Community Greenhouse Gas Inventory

STANISLAUS COUNTYWIDE REGIONAL COMMUNITY GREENHOUSE GAS INVENTORY

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July 2013

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ICF International. 2013. Stanislaus County Regional Community Greenhouse Gas Inventory. July (ICF 00203.10) San Francisco, CA. Prepared for Stanislaus County, Modesto, CA.

Stanislaus County

City of Modesto

City of Hughson

City of Ceres

City of Newman

City of Oakdale

City of Patterson

City of Riverbank

City of Turlock

City of Waterford

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Acronyms and Abbreviations

AB	Assembly Bill
AR4	IPCC Fourth Assessment Report
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
Cal/EPA	California Environmental Protection Agency
CAP	Climate Action Plan
CARB	California Air Resources Board
CCA	Community Choice Aggregation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
CH_4	methane
CO_2	carbon dioxide
CPUC	California Public Utilities Commission
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESPs	energy service providers
FED	Functional Equivalent Document
GHG	greenhouse gas
GWP	global warming potential
HCFCs	hydrochlorofluorocarbons
HFCs	hydrofluorocarbons
IOUs	investor-owned utilities
IPCC	Intergovernmental Panel on Climate Change
LAFCO	Local Agency Formation Commission
LCFS	Low Carbon Fuel Standard
LGOP	Local Government Operations Protocol
MCAP	municipal climate action plan
MID	Modesto Irrigation District
mph	miles per hour
MPOs	metropolitan planning organizations

MSR	Municipal Service Review
MT CO_2e	metric ton carbon dioxide equivalent
MW	megawatt
N_2O	nitrous oxide
NGOs	non-governmental organizations
NSPS	New Source Performance Standards
O_3	ozone
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
PUR	Pesticide Use Report
RPS	Renewable Portfolio Standard
RST	Regional Sustainability Toolbox
RTAC	Regional Targets Advisory Committee
RTPs	Regional Transportation Plans
SAR	Second Assessment Report
SB	Senate Bill
SCAG	Southern California Association of Governments
SCRSWPA	Stanislaus County Regional Solid Waste Planning Agency
SF_6	sulfur hexafluoride
SGC	State of California Strategic Growth Council
SJVAPCD	San Joaquin Valley Air Pollution Control District
SP	service population
TDM	Travel Demand Model
TID	Turlock Irrigation District
UNFCCC	United Nations Framework Convention on Climate Change
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
WARM	Waste Reduction Model
WMO	World Meteorological Organization
WWTPs	wastewater treatment plants

Study Purpose

The Stanislaus Regional GHG Inventory Project was completed as part of the *Stanislaus County Regional Sustainability Toolbox (RST)*, a group of initiatives funded through the State of California Strategic Growth Council (SGC). The proposal was submitted collaboratively by Stanislaus County (lead jurisdiction), and the Cities of Ceres, Hughson, Modesto, Newman, Oakdale, Patterson, Riverbank, Turlock and Waterford. The SGC grant contains the following requirements:

- **Consistency with State Planning Priorities**—the goal of the Stanislaus County RST is to provide a locally driven set of tools that are consistent with regional, state, and federal goals and standards. The Stanislaus County RST is intended to fit state, regional and federal sustainability goals, blueprint plans and GHG reduction thresholds into a locally relevant setting.
- **Reduction of Greenhouse Gases**—the intention of the RST is to identify locally specific, measurable actions that allows each jurisdiction to meet or preferably exceed Statewide greenhouse gas (GHG) reduction goals. As such, a central component of the RST is to establish a baseline GHG inventory for the entire county.
- **Collaboration**—the toolkit approach allows planning efforts to be both locally appropriate while also being regionally consistent. The RST is intended to be the implementation tool for several regional planning efforts including: StanCOG's Regional Transportation Plan, the Valley Blueprint, the Sustainable Communities Strategy, and the California Partnership for the San Joaquin Valley. The proposal includes collaboration with the Great Valley Center, California State University Stanislaus, Local Agency Formation Commission (LAFCO), ICLEI–Local Governments for Sustainability, Stanislaus County Health Services Agency and Stanislaus County Asthma Coalition.

This report provides the quantification (in terms of carbon dioxide equivalent [CO_2e]) of GHG community emissions for the county as a whole for the year 2005. Using the methodology for the regional inventory, separate GHG community inventories were prepared for each jurisdiction in the county and provided to the individual cities and the unincorporated county for their use.

This study is not a GHG reduction plan does it quantify GHG reductions. This study is a baseline GHG inventory only.

Regional Emissions by Sector

Total GHG emissions in 2005 from the Stanislaus County Region (combined emissions from the nine incorporated cities and the County), referred to in this report as "the region" were 6,042,232 metric tons of carbon dioxide equivalent (MT CO_2e). Additional emissions arise from stationary sources and landfill sites (658,692 MT CO_2e). Stationary source emissions, while quantified and disclosed, were not included in the regional total because they are regulated by state and federal mandates. Landfill emissions for 2005, while quantified and disclosed, were not included in the regional total in order to avoid double-counting of waste sector emissions for 2005 as emissions for this sector were

quantified based on 2005 waste generation instead. GHG emissions for the region are shown in table ES-1 and Figure ES-1. Table ES-1 and Figure ES-1 represent the region's baseline GHG inventory for the year 2005. The largest sources of GHG emissions in the region are Building Energy (Electricity plus Natural Gas), On-Road Transportation and Agriculture.

Table ES-1. 2005 GHG Emissions Inventory for the Stanislaus County Region (MT CO_2e)

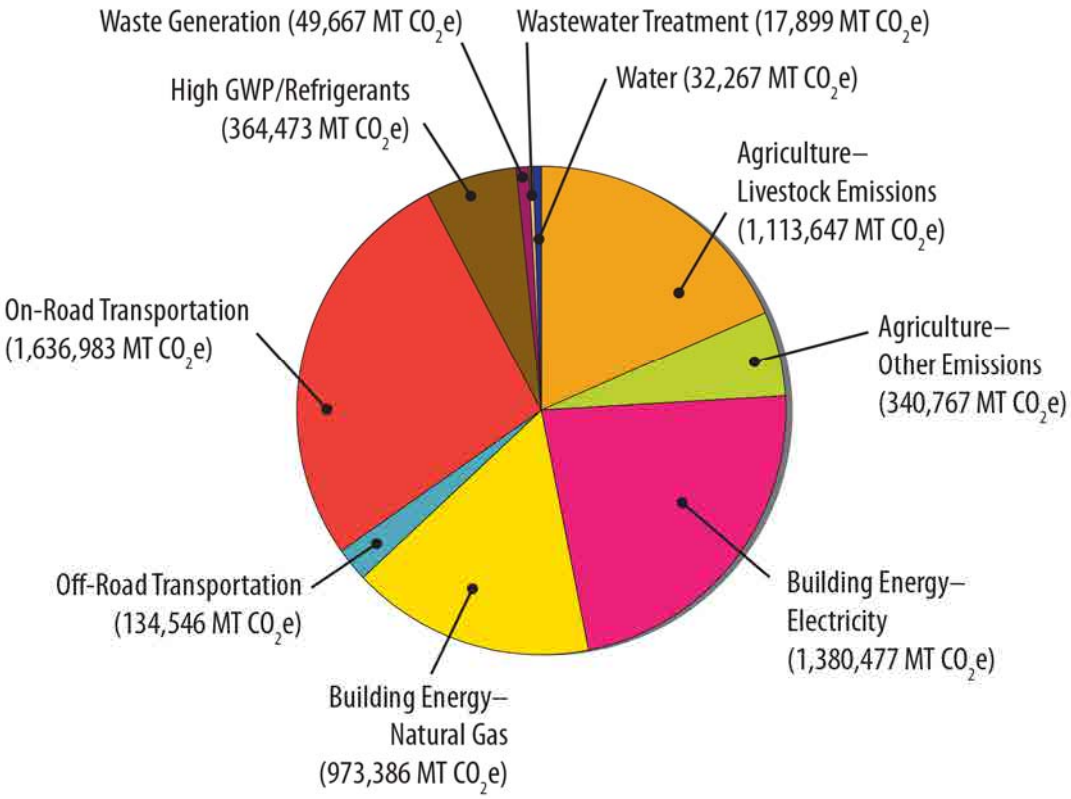
	Sector	Emissions	Percent
Direct[a]	Agriculture—Livestock Emissions	1,113,647	18%
	Agriculture—Other Emissions	340,767	6%
	Building Energy—Natural Gas	973,386	16%
	Off-Road Transportation	134,546	2%
	On-Road Transportation	1,636,983	27%
	High GWP/Refrigerants	364,473	6%
Indirect[b]	Building Energy—Electricity	1,380,477	23%
	Waste Generation	49,667	0.8%
	Wastewater Treatment	17,899	0.3%
	Water	32,267	0.5%
Total		6,044,113	100%
Excluded[c]	Stationary Sources	642,576	
	Waste Landfill	16,115	

a. Direct emissions are emissions that physically occur within the inventory boundary; see Chapter 1 for detail.

b. Indirect emissions are due to activity that occurs within the inventory boundary although the GHG emission may happen inside or outside the inventory boundary; see Chapter 1 for detail.

c. Stationary source emissions were excluded due to state and federal regulation of these sources. Landfill emissions were excluded to avoid double-counting with waste generation emissions.

Figure ES-1. 2005 GHG Emissions Inventory for the Stanislaus County Region (MT CO_2e)—Sector View



GHG emissions in the region are the result of daily activities of residents, employees, businesses, farms and industry in the region. A GHG inventory reflects the unique climate, character and economy of a particular region. Population, housing and employment for all participating jurisdictions in 2005 are shown in Table ES-2. The STANCOG Travel Demand Model (TDM) was used to estimate socioeconomic data because it represents a consistent source of data between all jurisdictions and resulted in estimates that are similar to socioeconomic data from other sources. There are differing socioeconomic data estimates from different sources, but the TDM results are close to these other estimates. The socioeconomic data in Table ES-2 represent the households, population, and jobs within each jurisdiction's geographical boundaries. Sphere of influence boundaries were not taken into consideration for the socioeconomic data estimates.

Table ES-2. Socioeconomic Data For All Participating Jurisdictions in 2005

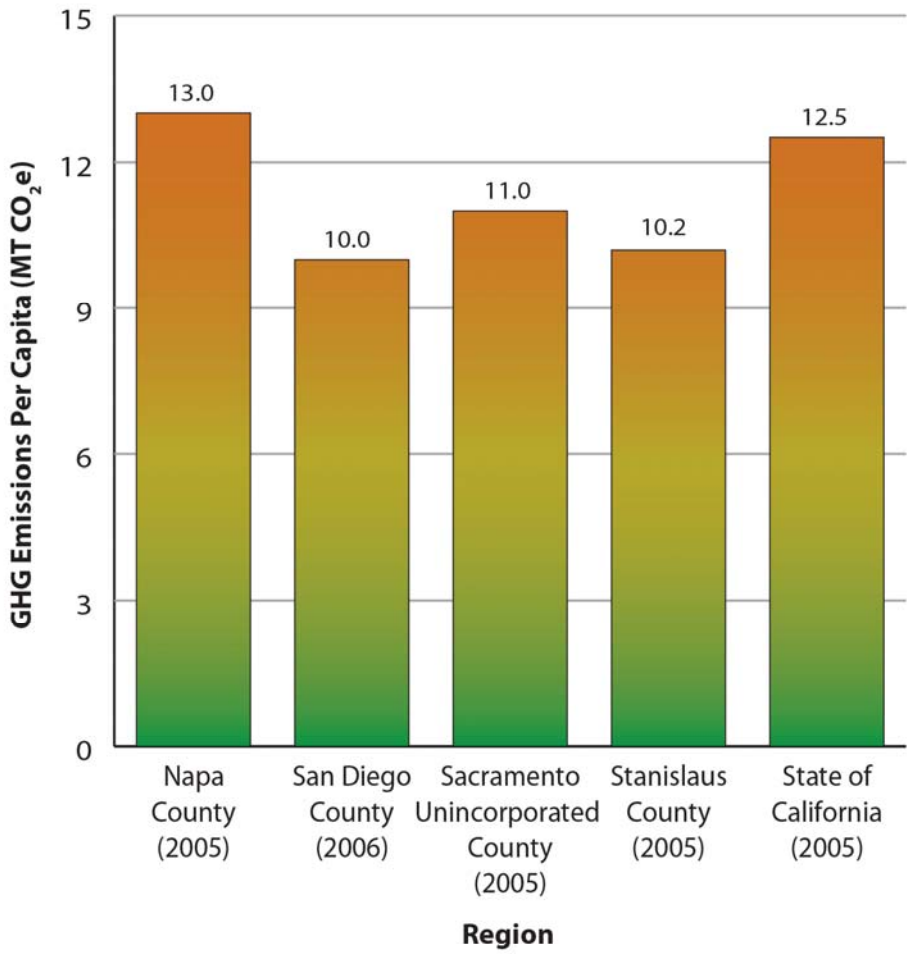
Jurisdiction	Households	Population	Employment
Ceres	12,639	40,722	8,402
Hughson	1,915	6,091	749
Modesto	73,489	206,962	78,310
Newman	3,091	10,083	1,056
Oakdale	7,496	20,299	6,005
Patterson	5,414	19,167	2,273
Riverbank	6,477	21,417	3,452
Turlock	23,074	67,510	23,738
Waterford	2,447	8,169	476
Unincorporated County	36,730	113,740	47,521
Total Stanislaus County	172,772	514,160	171,982

Source: StanCOG 2005 as reported by Fehr & Peers 2012

The jurisdictions in the region are connected economically, logistically and socially. Thus examining GHG emissions for the region as a whole, as this document does, is advantageous. For certain aspects of GHG reduction planning, individual jurisdictions might opt to pursue programs or policies unique to their community, but for others, several communities or all communities may opt to pursue programs and policies together.

Figure ES-2 shows per capita emissions for the Stanislaus region compared to the state average in 2005 and several other jurisdictions. In general, per capita emissions in the Stanislaus region were very similar to the rest of California in 2005. Emissions trends specific to each sector are discussed in Chapters 2.

Figure ES-2. Per Capita Emissions (Excluding Agriculture) Compared to Other Jurisdictions



Per capita emissions in the figure above were determined using the total of emissions from sectors that were common to all of the inventories listed and that used a similar methodology such that the per capita value is roughly an "apples to apples" comparison.

Emissions from agriculture, land use change, and other select sectors were excluded if they were not relevant to all jurisdictions (e.g. agriculture) or are not routinely included in local inventories (e.g. land use change).

In general, per capita emissions in Stanislaus County in 2005 were very similar to other parts of the state of California.

Chapter 1
Background

The Stanislaus County Regional Greenhouse Gas Inventory Project completed a baseline greenhouse gas (GHG) inventory for the entire county for the year 2005.[1] A GHG inventory is commonly completed by an entity seeking to better understand the sources, magnitude, and trends in GHG emissions. Common entities include nations, states, local governments, public organizations such as universities or a joint powers authority, or a private corporation or facility (e.g., a single oil refinery). A GHG inventory may serve the purposes of regulatory compliance, basic research, purchase or sale of GHG credits on the voluntary market, or as a baseline for measuring the achievements of voluntary or required sustainability practices.

Standard protocols exist for conducting GHG inventories at all scales. Rules and procedures for GHG inventories have been developed by a variety of government and non-government entities including the Intergovernmental Panel on Climate Change or IPCC (a part of the World Meteorological Organization or WMO), the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), the San Joaquin Valley Air Pollution Control District (SJVAPCD), the World Resources Institute, the California Climate Registry, ICLEI—Local Governments for Sustainability, the Association of Environmental Professionals and others.

Prior to 2006 when the state of California passed Assembly Bill (AB) 32, the majority of California cities and counties had not completed a GHG inventory. As such, GHG reduction planning at the local level is closely linked to state level GHG planning that has occurred since 2006. Further, many communities, including those in Stanislaus County, are completing a GHG inventory for the first time and familiarizing themselves with the process.

This section provides definitions of common terms used in the GHG inventory process, a brief history of GHG planning in California, a description of the co-benefits typically associated with GHG planning and an overview of Stanislaus County.

Greenhouse Gas Definitions

Greenhouse Gas—A GHG is any gas that absorbs infrared radiation in the atmosphere. GHGs include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrochlorofluorocarbons (HCFCs), ozone (O_3), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Of these, all but water vapor and O_3 are regulated under AB 32 and accounted for in the state's GHG inventory.

Community GHG Inventory—A community inventory includes GHG emissions associated with the activities of the community as a whole, including residents, businesses, and the municipal

[1] GHG community inventories for the individual jurisdictions in the County were also prepared as part of this project. The community inventories were provided separately to the jurisdictions for their use.

government operations.[2] For example, a community GHG inventory includes emissions due to energy used to power and heat homes and businesses; fuel used by vehicles that have either an origin or destination within the jurisdiction; waste that is generated by residents and businesses in the jurisdiction and sent to landfills; fuel use at large stationary sources such as factories or industrial facilities; livestock and fertilizer use; fuel use by off-road equipment; and others.

Municipal GHG Inventory—A municipal inventory includes GHG emissions associated with a City or County's services and municipal operations. For example, a municipal GHG Inventory includes emissions due to the following: energy used by City or County buildings such as the courthouse, city hall or the jail; fuel used by the City or County vehicle fleet; waste generated by the City and County employees; process emissions associated with treating wastewater if the City or County operates a plant; fugitive emissions of methane from landfills if the City or County operates a landfill; and fuel use by City and County employees commuting to and from work. The GHG emissions associated with a City or County's municipal operations are typically 1 to 5% of the community's emissions as a whole.

Unit of Measure—The unit of measure used throughout this GHG inventory is the metric ton of CO_2 equivalent, abbreviated as MT CO_2e. This is the international unit that combines the differing impacts of all greenhouse gases into a single unit, by multiplying each emitted gas by its global warming potential (GWP). GWP is the measure of how effective a greenhouse gas is at trapping heat in the earth's atmosphere. GWP compares the relative warming effect of the GHG in question to that of carbon dioxide.[3]

Boundary—A GHG inventory represents emissions due to activities associated with a certain boundary. This boundary can be organizational, operational or geographic. These boundaries determine which emissions are accounted for and reported by the entity.

Direct Emissions—Direct emissions include direct releases of GHGs that physically occur within the boundary and are related to fuel combustion, process emissions or fugitive emissions. For example, the combustion of fuel by vehicles driving within the boundary, the combustion of natural gas or other fuel by industries or facilities within the boundary or the release of methane from livestock physically located within a jurisdiction.[4]

Indirect Emissions— Indirect releases of GHGs. Indirect releases are GHG emissions that result from *activity* that occurs within the boundary but the physical release of the GHG emission occurs outside of the boundary. For example, residents and businesses within the county use electricity by turning on lights or other electronic equipment but the power plant where the electricity is generated, and where fuel is burned to generate the electricity, may be located far away from the county. Electricity use is considered an indirect emission.

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[2] Municipal government emissions are included in the regional community inventory when the emissions occur within the county boundary overall. Sometimes municipal government emissions do not occur within the community boundary.

[3] The GWP of CO_2 is, by definition, one (1). The GWP values used in this report are based on the IPCC Second Assessment Report (SAR) and United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines and are as follows: CO_2 = 1, Methane (CH_4) = 21, Nitrous Oxide (N_2O) = 310, Sulfur Hexaflouride (SF_6) = 23,600 (IPCC 1996; UNFCCC 2006). Although the IPCC Fourth Assessment Report (AR4) presents different GWP estimates, the current inventory standard relies on SAR GWPs to comply with reporting standards and consistency with regional and national inventories (Intergovernmental Panel on Climate Change 2007).

[4] Biogenic CO_2 emissions are excluded from the inventory as they do not result in net atmospheric increases in CO_2.

Excluded Emission—In this report, two sources were quantified but not included in the regional totals. Stationary source emissions were excluded due to state and federal regulation and control over these sources. Landfill emissions for 2005 due to historical waste generation were excluded because emissions associated with 2005 waste generation were considered for appropriate to include as a measure of 2005 activity.

Emissions Sector—An emissions sector is a category of GHG emissions reflecting the nature of the activity producing the GHG emissions, for example *building energy* or *on-road transportation*. GHG emissions sectors included in this inventory are: agriculture, building energy, off-road transportation, on-road transportation, high global warming potential gases (refrigerants), waste landfills, waste generation, wastewater treatment, water consumption and stationary sources.

Emission Factor—An emission factor is a unique value equating the amount of GHGs emitted per unit of a given activity, for example metric tons of CO_2 per gallon of gasoline burned.

Baseline Year—The baseline year for any entity is the first year for which emissions are inventoried and reported. For this inventory, the baseline year is 2005.

Climate Action Plan (CAP)/Greenhouse Gas Reduction Plan—"Climate Action Plan" is a term commonly used in California for a planning document designed to reduce an entity's GHG emissions over a period of time. Some communities use different terms such as a "Greenhouse Gas Reduction Plan." The specific components of a GHG reduction plan are not required by law or articulated in California GHG legislation. However, air districts and other agencies such as ICLEI have produced guidance for what should be included in a GHG reduction plan. In addition, CEQA guidelines adopted in 2010 describe elements required in GHG reduction plans if a jurisdiction intends to tier CEQA project compliance off a jurisdictional reduction plan. GHG reduction plans typically include: a baseline GHG inventory, a projection of GHG emissions to 2020 (or other future years), a GHG reduction target for 2020 (or other future years), GHG reduction strategies that together achieve the target, implementation actions, monitoring requirements, and adaptive steps to be taken to ensure the jurisdiction meets its identified target.

Greenhouse Gas Emissions and Planning in the United States and California

National and State Level Inventories

EPA completes a GHG inventory each year for the United States. GHG inventory data is available for every year beginning in 1990. The state of California also completes an annual GHG inventory and data is available beginning in 2000. The national and state of California GHG inventories for the year 2005 are shown below in Figure 1-1 and Table 1-1 in units of million MT CO2e. Please note that the California Energy Commission (CEC) and the EPA present inventory data slightly differently.

Figure 1-1. United States and California GHG Inventories in 2005

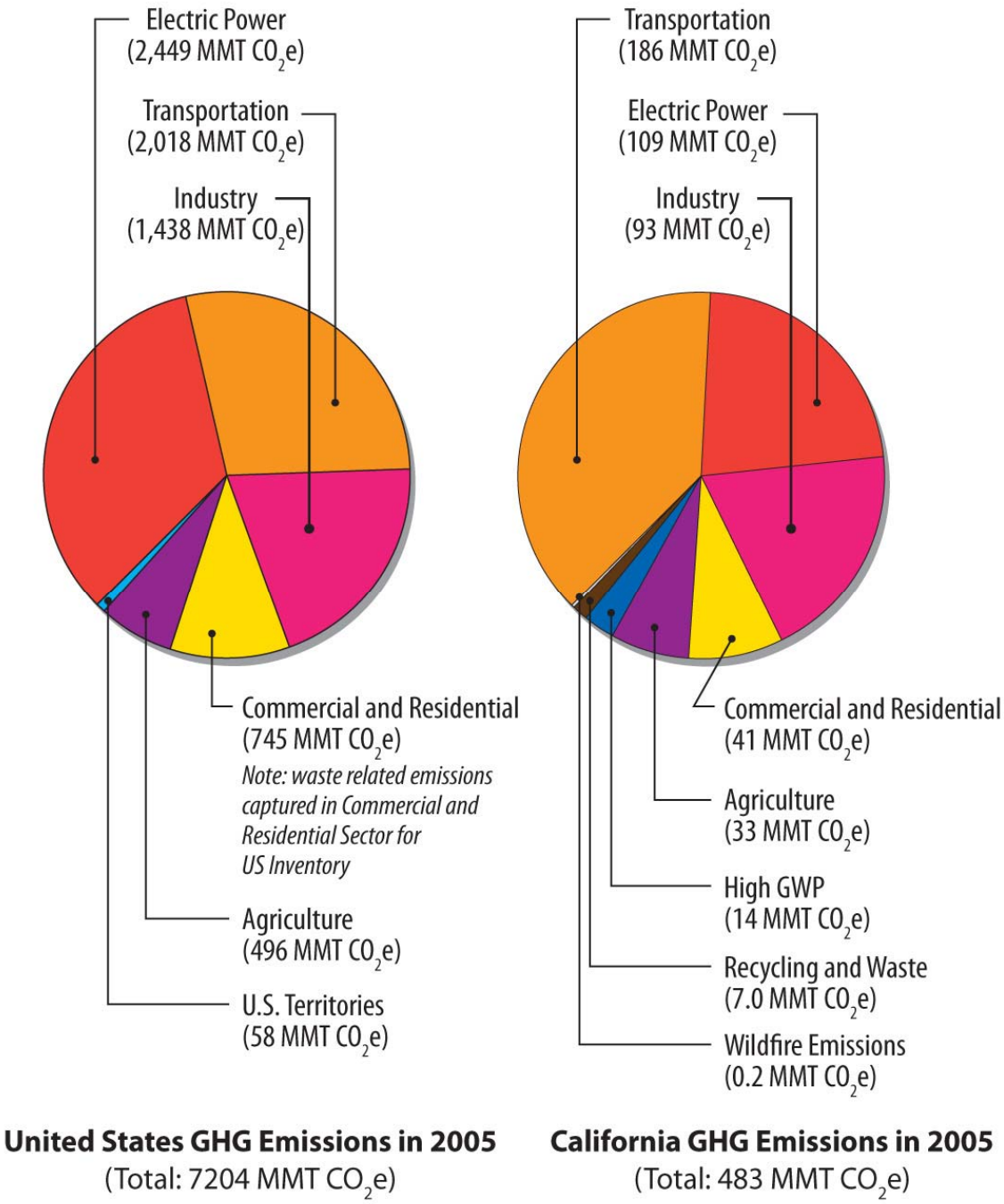


Table 1-1a. United States GHG Inventory in 2005

Sector	Million MT CO_2e	% of total national emissions
Transportation	2018	28
Electric Power	2449	34
Commercial and Residential[a]	745	10
Industrial	1438	20
Agriculture	496	7
U.S. Territories	58	1
Total	7204	100

Source: U.S. Environmental Protection Agency 2012

a. Includes emissions from landfills, wastewater treatment, on-site stationary combustion such as natural gas and high GWP substances

Table 1-1b. California GHG Inventory in 2005

Sector	Million MT CO_2e	% of total state emissions
Transportation	186	38
Electric Power	109	23
Commercial and Residential	41	9
Industrial	93	19
Recycling and Waste	7	1
High GWP	14	3
Agriculture	33	7
Wildfire Emissions	< 1	<1
Total	483	100

Source: California Air Resources Board 2011a

Fossil fuels are burned to create electricity which powers homes and commercial/industrial buildings, to create heat and to power our vehicles. In the United States, vehicle emissions represent approximately 28% of all emissions (U.S. Environmental Protection Agency 2010a). Vehicle emissions represented approximately 38% of all GHGs emitted by Californians in 2005. Energy used to power buildings is the other primary source of GHGs in the United States and California. Other sources of GHG emissions include agriculture, land clearing, the decomposition of waste in landfills, refrigerants, and certain industrial processes.

National and State Legislation

Although there is currently no federal overarching law specifically related to climate change or the regulation of GHGs, pursuant to authority under the Clean Air Act, the USEPA is taking a lead role in regulating certain specific emissions sources including stationary sources. Key legislative and regulatory actions are summarized in Table 1-2.

The State of California has adopted legislation, and regulatory agencies have enacted policies, addressing various aspects of climate change and GHG emissions mitigation. Much of this legislation and policy activity is not directed at local jurisdictions but rather establishes a broad framework for the state's long-term GHG mitigation and climate change adaptation program.

Summaries of key regulations and legislation at the federal and state levels that are relevant to the GHG planning in the Stanislaus region are provided in Table 1-2 below. Figure 1-2 displays a timeline of key state and federal regulatory activity.

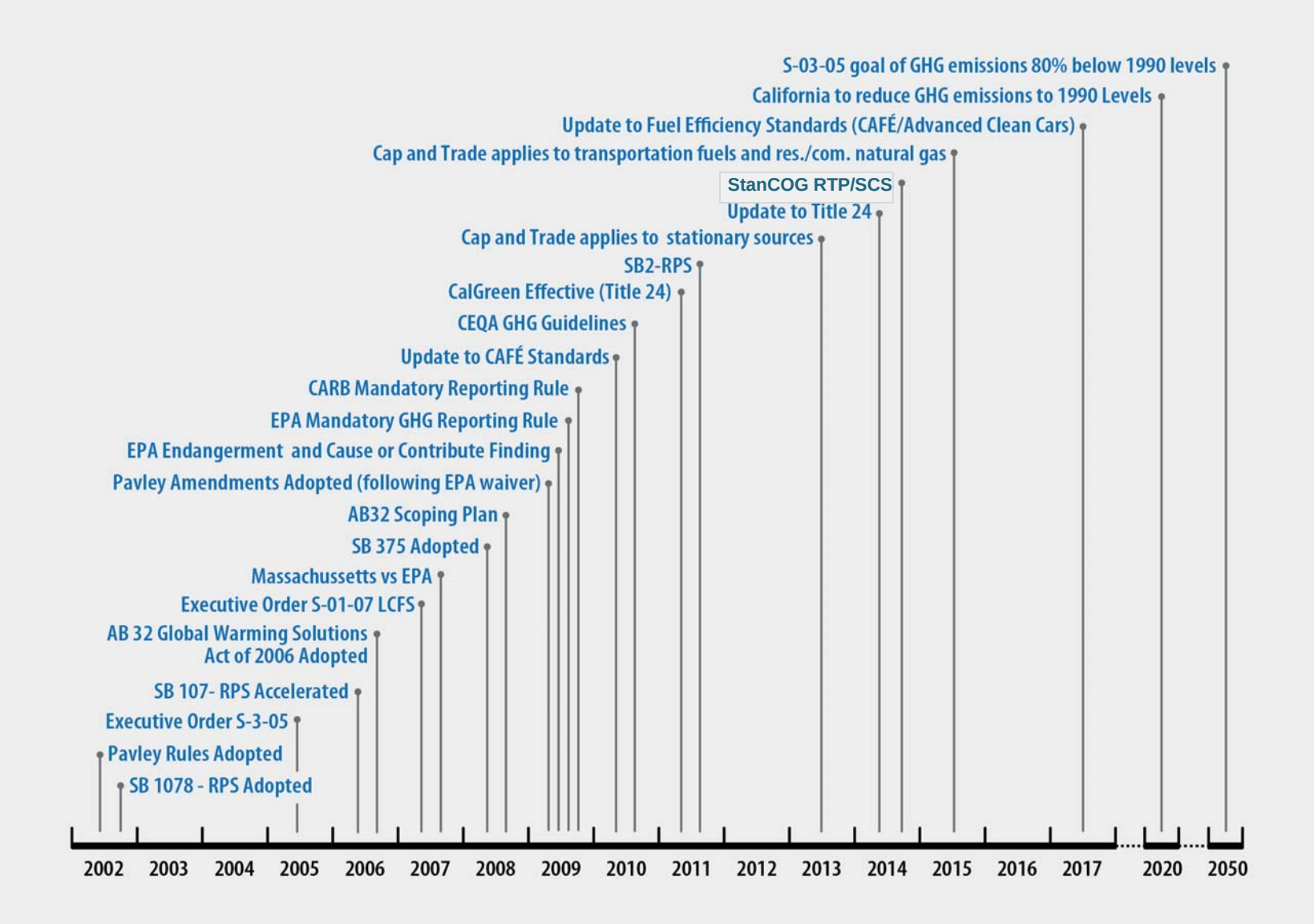
Table 1-2. Summary of Key Federal and State Legislation and Regulations

Federal	
Massachusetts et al. vs. U.S. Environmental Protection Agency (2007)	Twelve states and cities including California, in conjunction with several environmental organizations, sued to force EPA to regulate GHGs as a pollutant pursuant to the Clean Air Act (CAA) in Massachusetts et al. v. Environmental Protection Agency 549 US 497 (2007). The court ruled that the plaintiffs had standing to sue, GHGs fit within the CAA's definition of a pollutant, and the EPA's reasons for not regulating GHGs were insufficiently grounded in the CAA.
U.S. Environmental Protection Agency Endangerment Finding (2009)	In its "Endangerment Finding," the Administrator of the EPA found that GHGs, as described above, threaten the public health and welfare of current and future generations. The Administrator also found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. Although the Finding of Endangerment does not place requirements on industry, it is an important step in EPA's process to develop regulation. This measure is a prerequisite to finalizing EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration in 2009.
U.S. Environmental Protection Agency Cause or Contribute Finding (2010)	In its "Cause or Contribute Finding" the EPA Administrator found that the combined emissions of these well-mixed GHG from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.
U.S. Environmental Protection Agency Mandatory Reporting Rule for GHGs (2009)	Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 MT or more per year of GHGs are required to report annual emissions to the EPA. The first annual reports for the largest emitting facilities, covering calendar year 2010, were submitted to the EPA in 2011. The mandatory reporting rule does not limit GHG emissions but establishes a standard framework for emissions reporting and tracking of large emitters.
U.S. Environmental Protection Agency Settlement Agreements to Address GHG Emissions from Refineries and Electricity Generation (2010)	In 2010, the EPA entered into two settlement agreements to issue rules that will address GHG emissions from fossil fueled power plants and refineries. Regulations on both types of facilities will be coordinated with regulatory action on traditional types of pollutants and promulgated through the New Source Performance Standards (NSPS). The authority to issue regulations is under the Clean Air Act as confirmed by the U.S. Supreme Court ruling.
Update to Corporate Average Fuel Economy (CAFE) Standards (2009, 2012)	The Corporate Average Fuel Economy (CAFE) standards establish stricter fuel economy requirements and require automakers to cut GHG emissions in new vehicles by roughly 25% by 2016. New standards for model years 2017–2025 were issued in 2012 and will achieve a fleet average in 2025 of 54.5 miles per gallon.

State	
Executive Order S-03-05 (2005)	Executive Order (EO) S-03-05 established the following GHG emission reduction targets for California's state agencies. By 2010, reduce GHG emissions to 2000 levels. By 2020, reduce GHG emissions to 1990 levels. By 2050, reduce GHG emissions to 80% below 1990 levels. Executive orders are binding only on state agencies and not on local governments or private properties. Accordingly, EO S-03-05 will guide state agencies' efforts to control and regulate GHG emissions but will have no direct binding effect on local efforts. The Secretary of the California Environmental Protection Agency (Cal/EPA) is required to report to the Governor and state legislature biannually on the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing GHG emissions to meet the targets established in this executive order.
Assembly Bill 1493—Pavley Rules (2002, amendments 2009)/ Advanced Clean Cars (2012)	Known as "Pavley I," Assembly Bill (AB) 1493 standards were the nation's first GHG standards for automobiles. AB 1493 required the California Air Resources Board (CARB) to adopt vehicle standards that will lower GHG emissions from new light duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (Advanced Clean Cars) was adopted for vehicle model years 2017–2025. Together, the two standards are expected to increase average fuel economy to roughly 43 mpg by 2020 and reduce GHG emissions from the transportation sector in California by approximately 14%. The new federal CAFE standards, described above, are the analogous national policy.
Senate Bills 1078/107 and Senate Bill 1—Renewable Portfolio Standard (2002, 2006, 2011)	California's Renewable Portfolio Standard (RPS), obligates investor-owned utilities (IOUs), energy service providers (ESPs), and Community Choice Aggregations (CCAs) to procure 33% of retail sales from eligible renewable sources by 2020. The California Public Utilities Commission (CPUC) and CEC are jointly responsible for implementing the program.
Assembly Bill 32—California Global Warming Solutions Act (2006)	AB 32 codified the state's GHG emissions target by requiring that the state's global warming emissions be reduced to 1990 levels by 2020. Since being adopted, the CARB, CEC, CPUC, and Building Standards Commission have been developing regulations that will help meet the goals of AB 32 and EO S-03-05. The Scoping Plan for AB 32 identifies specific measures to reduce GHG emissions to 1990 levels by 2020, and requires CARB and other state agencies to develop and enforce regulations and other initiatives for reducing GHGs. Specifically, the Scoping Plan articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community consistent with those of the state (i.e., approximately 15% below current levels).
Executive Order S-01-07—Low Carbon Fuel Standard (2007)	EO S-01-07 essentially mandates: (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020, and (2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California.
Assembly Bill 939, title 27 (2009)—Landfill Methane Regulation	This regulation is a discrete early action GHG reduction measure, as described in the California Global Warming Solutions Act of 2006 (AB 32; Stats. 2006, chapter 488). It will reduce methane emissions from landfills primarily by requiring owners and operators of certain uncontrolled landfills to install gas collection and control systems, and by requiring existing and newly installed gas collection and control systems to operate optimally.

Senate Bill 375—Sustainable Communities Strategy (2008)	SB 375 provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires regional transportation plans, developed by metropolitan planning organizations (MPOs) to incorporate a "sustainable communities strategy" (SCS) in their Regional Transportation Plans (RTPs). The goal of the SCS is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. CARB set regional GHG reduction targets that will focus each SCS. The regional targets were released by CARB in September 2010. SB 375 also includes provisions for streamlined California Environmental Quality Act (CEQA) review for some infill projects such as transit-oriented development. StanCOG is preparing the SCS for Stanislaus County and is scheduled to complete and adopt the SCS in late 2013.
California Title 24 Energy Efficiency and Green Building (2008, 2011, 2014)	Title 24 provides voluntary and mandatory energy efficiency standards for new residential and non-residential buildings, as well as major modifications to existing buildings. The last update was adopted in 2013, which takes effect in 2014. The California Green Building Standards Code (included in Title 24) established requirements for planning and design for sustainable site development, water conservation, material conservation, and internal air contaminants.
CARB GHG Mandatory Reporting Rule Title 17 (2009)	CARB approved a rule requiring mandatory reporting of GHG emissions from certain sources, pursuant to AB 32. Facilities subject to the mandatory reporting rule must report their emissions from the calendar year 2009 and have those emissions verified by a third party in 2010. In general the rule applies to facilities emitting more than 25,000 MT CO_2e in any given calendar year or electricity generating facilities with a nameplate generating capacity greater than 1 megawatt (MW) and/or emitting more than 2,500 MT CO_2e per year. Additional requirements also apply to cement plants and entities that buy and sell electricity in the state.
California Cap and Trade Program (2011)	CARB adopted the California Cap and Trade program, formalizing a complex market system designed to help California reach the GHG emissions reductions targets set forth in AB 32. The regulation which went into effect on January 1, 2013 and was identified as a key strategy in the AB 32 Scoping Plan, sets a cap on the annual GHG emissions from the state's largest emitters, stationary sources such as oil refineries, power plants, fuel distribution centers, cement plants and other industrial processes. The regulation establishes a price signal which will drive long term investment in cleaner fuels and efficient energy use.
AB 341 Mandatory Commercial Recycling (2011)	This legislation requires commercial businesses and multi-family building owners to support the reuse, recycling, composting or other diversion of solid waste from disposal by either self-haul, subscription to a hauler, arrangement for pickup of recyclable materials or subscription to a recycling service. The law took effect in mid-2012.

Figure 1-2. GHG Related Legislation, Regulation, and Executive Orders



Local Level Planning

The AB 32 Scoping Plan lays out California's plan for achieving the GHG reductions required by AB 32. Specifically the Scoping Plan describes a list of measures that the state will undertake, and the expected GHG reductions associated with these measures before 2020. Because the state does not have jurisdictional control over some of the activities that produce GHG emissions in California, the AB 32 Scoping Plan articulates a unique role for local governments in achieving the state's GHG reduction goals. The AB 32 Scoping Plan recommends, but does not require, local governments to reduce GHG emissions from both their *municipal operations* and the *community at large* to a level that is 15% below current levels.

At the time of the Scoping Plan adoption in 2008, a 15% reduction from 2005–2008 levels was the state's burden of reduction to meet 1990 emissions levels. However, this calculation was based on an *estimate* only of the level of emissions during the period 2005 to 2008. Subsequent development of actual inventories for 2005 to 2008 indicates that a 10% to 11% reduction is needed by 2020 to meet 1990 emissions levels.

Many jurisdictions across California have completed a GHG Inventory, a GHG reduction plan, or both. These plans generally address two types of emissions.

- Community inventory and reduction plans address emissions that arise from the community at large (residents, businesses and their associated activities within the jurisdictional boundary).
- Municipal inventory and reduction plans address emissions that arise from the municipal operations only (County or City buildings, vehicle fleet, activities required to provide services to the jurisdiction).

Completing a GHG inventory is the first step towards either of these goals. In addition to this regional community inventory, the cities and unincorporated area of Stanislaus County previously completed municipal GHG inventories for the year 2005. As a separate part of the RST project, community inventories were developed for each jurisdiction for the year 2005 using the same methodology used for the regional inventory and provided to them for their use.

This report presents a community GHG inventory data for the region as a whole (sum of emissions from all incorporated cities and the unincorporated county) for the baseline year 2005.

Benefits of Greenhouse Gas Planning and Accurate Accounting

Local governments often pursue GHG planning for multiple reasons. A reduction in GHG emissions is often a co-benefit of other activities, primarily energy efficiency related activities or other environmental mitigation. With accurate accounting of GHG emissions in the jurisdiction, a community can "take credit" for the GHG benefits associated with a range of policies, programs and activities that the jurisdiction is pursuing anyway. This section describes co-benefits typically associated with GHG accounting and planning and vice versa.

Greenhouse Gas Reduction Benefits

The completion of a community and/or municipal GHG inventory and the subsequent step to identify policies and programs that will reduce GHG emissions over time can demonstrate that local

planning is promoting consistency with AB 32, (i.e., that a local government is doing its fair share to help meet the state goals overall).

Energy Use Benefits

In the state of California, GHG emissions associated with the energy used to power and heat our buildings represent approximately 23% of total GHG emissions in 2005. Building energy related emissions represent a similar percent of total emissions at the City or County level as well. For financial reasons, including the increased availability of utility incentives and retrofit grants, local governments, home-owners and businesses opt to conduct energy efficiency retrofits to existing construction. Building ordinances for newer construction ensure optimum energy savings for new occupants. These energy savings benefit the energy customer as well as the utility and also result in lower GHG emissions.

Financial Benefits

In addition to the financial benefits associated with energy efficient construction and retrofits, other financial savings are often associated with actions commonly pursued as part of a City or County's GHG planning. For example, when waste diversion programs decrease the amount of waste going to landfills, fewer landfill fees are paid. When comprehensive water conservation efforts are pursued, water bills are lower. During times of high fuel costs, alternative modes of transportation including bus, rail, bike, ride-share or employer sponsored shuttles can greatly reduce individual's fuel costs. In the agriculture and forestry sectors (and others) it is also possible to develop GHG offset projects by establishing specific management practices or installing specific equipment on the site. The offset project can then be sold on the voluntary market. Finally, through the efforts of gathering the data required to complete a GHG inventory and regularly update it, many communities identify ways to streamline data and reporting for other programs, increasing efficiency within city departments.

Additional Co-Benefits

Additional co-benefits of GHG planning and accounting are generally associated with improved air quality, increased sustainability of the water supply, increased aesthetics in communities and public health.

Tiering under CEQA

Amendments to the CEQA guidelines in March 2010 describe that CEQA project evaluation of GHG emissions can tier off a programmatic analysis of GHG emissions reductions provided that the GHG reduction plan includes the following (CEQA Guidelines Section 15183.5):

1. Quantify greenhouse gas emissions, both existing (a) and projected (b) over a specified time period, resulting from activities within a defined geographic area.
2. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable. This usually involves setting a GHG reduction target as part of the plan that is consistent with the state's goals. Participating jurisdictions in Stanislaus have not set GHG reduction targets as part of this effort.
3. Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.

4. Specify measures or a group of measures, including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
5. Monitor the plan's progress.
6. Adopt the GHG Reduction Strategy in a public process following environmental review.

The Amendments to the CEQA guidelines create a streamlined CEQA process for the analysis of greenhouse gas emissions at the project level. Individual projects could demonstrate consistency with an over-arching GHG reduction plan, where one exists, in lieu of a comprehensive project-level GHG analysis in order to reach a *less than significant* determination. This approach is also supported by the San Joaquin Air Pollution Control District.

This report quantifies *existing* greenhouse gas emissions only (baseline year 2005) within the county boundary. To prepare a qualified GHG reduction plan that could be used for CEQA tiering, Stanislaus jurisdictions would need to use the separately prepared individual jurisdictional community inventories and then complete steps 1b–6 above.

Overview of Stanislaus County

Stanislaus County is located in California's Central Valley and is bordered by San Joaquin County to the north, Merced County to the south, Santa Clara County to the west and Calaveras and Tuolumne Counties to the east. The San Joaquin River flows north through the center of the county and eastern areas of the county are known as the "gateway to Yosemite". Nine incorporated cities are present in Stanislaus County: Ceres, Hughson, Modesto, Newman, Oakdale, Patterson, Riverbank, Turlock and Waterford. The major industry in the unincorporated county is agriculture. Significant industries in Stanislaus cities include the following: food packaging and processing, agricultural support, wine production, agriculture, government offices and education, and tourism. According to the U.S census, the total population of Stanislaus County was 446,997 in 2000 and 514,453 in 2010. In 2005, the population of Stanislaus County was 514,160. Socioeconomic data (population, jobs and housing) for all jurisdictions in Stanislaus County for year 2005 are shown below in Table 1-3.

Table 1-3. Socioeconomic Data for All Participating Jurisdictions in 2005

Jurisdiction	Households	Population	Employment
Ceres	12,639	40,722	8,402
Hughson	1,915	6,091	749
Modesto	73,489	206,962	78,310
Newman	3,091	10,083	1,056
Oakdale	7,496	20,299	6,005
Patterson	5,414	19,167	2,273
Riverbank	6,477	21,417	3,452
Turlock	23,074	67,510	23,738
Waterford	2,447	8,169	476
Unincorporated County	36,730	113,740	47,521
Total Stanislaus County	172,772	514,160	171,982

Source: StanCOG 2005 as reported by Fehr & Peers 2012

Chapter 2
Sector Summaries

This section presents the 2005 Stanislaus Regional GHG emissions inventory. Results are presented by sector. The GHG emissions for the region as a whole (i.e., "regional inventory") for 2005 are presented in Table 2-1 and Figure 2-1. Per capita (Total emissions/population) and per service population (Total emissions/population plus jobs) emissions for the Stanislaus region were 11.8 MT CO2e/person and 8.8 MT CO2e/service population (SP), respectively. These values include Agriculture. The following sub-sections each describe a different sector of the inventory. The physical processes resulting in emissions will be described for each and a general overview of emissions in the sector will be provided. Complete discussion of the data acquisition, emissions calculations and methodologies, and data sources used can be found in Chapter 3.

Table 2-1. 2005 GHG Emissions Inventory for the Stanislaus County Region (MT CO_2e)

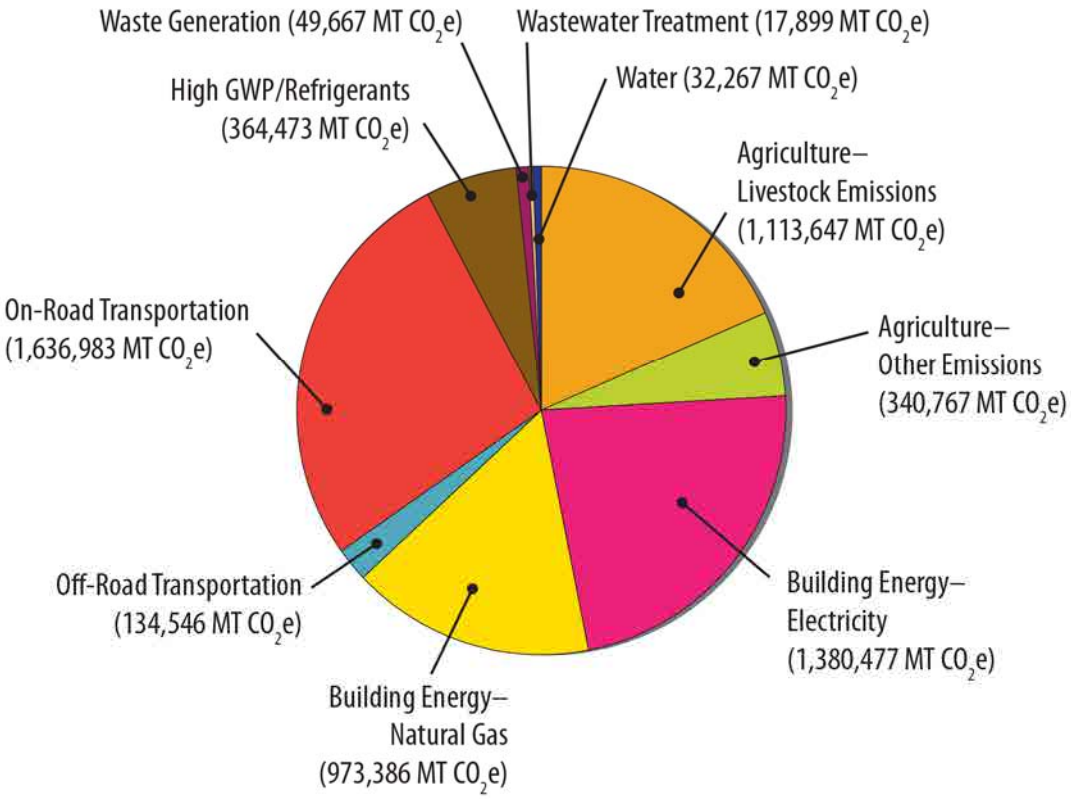
	Sector	Emissions	Percent
Direct[a]	Agriculture—Livestock Emissions	1,113,647	18%
	Agriculture—Other Emissions	340,767	6%
	Building Energy—Natural Gas	973,386	16%
	Off-Road Transportation	134,546	2%
	On-Road Transportation	1,636,983	27%
	High GWP/Refrigerants	364,473	6%
Indirect[b]	Building Energy—Electricity	1,380,477	23%
	Waste Generation	49,667	0.8%
	Wastewater Treatment	17,899	0.3%
	Water	32,267	0.5%
Total		6,044,113	100%
Excluded[c]	Stationary Sources	642,576	
	Waste Landfill	16,115	

a. Direct emissions are emissions that physically occur within the inventory boundary; see Chapter 1 for detail.

b. Indirect emissions are due to activity that occurs within the inventory boundary although the GHG emission may happen outside the inventory boundary; see Chapter 1 for detail.

c. Stationary source emissions were excluded due to state and federal regulation of these sources. Landfill emissions were excluded to avoid double-counting with waste generation emissions.

Figure 2-1. GHG Emissions Inventory for the Stanislaus County Region (MT CO_2e)



Total Emissions: 6,044,113 MT CO_2e

Note:
Emissions sectors not included in this chart:
Landfill Sites (16,115 MT CO_2e)
Stationary Sources (642,576 MT CO_2e)

Agriculture

Emissions in the agriculture sector are direct emissions resulting from the application of fertilizer to crops and the activity of livestock[5]. Emissions of N_2O can result from anthropogenic inputs of nitrogen into soil through fertilizers by way of a direct (directly from the soils to which the nitrogen is added and released) and indirect (following volatilization of ammonia and oxides of nitrogen from managed soils) pathway (Intergovernmental Panel on Climate Change 2006). Emissions of CH_4 and N_2O can also result from livestock production through enteric fermentation and manure management. Both direct and indirect emissions of N_2O are accounted for in this inventory.

[5] Livestock related GHG emissions result from enteric fermentation, by ruminants, and also from manure by all livestock types. The decomposition of manure in ponds, stockpiles or other manure storage and treatment systems results in the release of CH_4 and N_2O, depending on conditions.

Agriculture emissions account for approximately 24% of the region's total GHG emissions inventory in 2005. Comparatively, agricultural emissions in the state of California were approximately 7% of total emissions in 2005. Stanislaus County is a large agriculture producing region for the state and for the nation. As California agriculture is concentrated in certain areas of the state, agricultural related emissions will only be a significant fraction of total emissions in select communities, such as the unincorporated portions of Stanislaus County. Stanislaus County ranked 6th among 58 counties in California for total dollar value of agriculture products, ranked 4th among 58 counties for total value of livestock products and ranked 2nd among 58 counties for almond production (USDA Census of Agriculture 2007). In 2005, agriculture emissions in Stanislaus represent approximately 4.5% of agriculture related emissions statewide.

The four general sources of agricultural emissions accounted for in this inventory are: livestock enteric fermentation, livestock manure management, N_2O emissions from the application of fertilizer and pesticide, and the burning of fuel by agricultural vehicles and equipment. A complete description of methods and data used can be found in Chapter 3. Table 2-2 and Figure 2-2 present 2005 agriculture emissions by source. Figure 2-3 compares Stanislaus County's agricultural emissions to the state and national agricultural emissions, while Table 2-3 compares the county's agricultural emissions to other agricultural producing counties in California.

Table 2-2. GHG Emissions from Agriculture Sources in 2005 (MT CO_2e)

Agricultural Source	Total Sector Emissions	Percentage
Livestock Enteric Fermentation and Manure Management	1,113,647	76.6%
Fertilizer Application	169,120	11.6%
Pesticide Usage	2,090	0.1%
Agricultural Equipment	169,557	11.7%
Total Emissions	1,454,414	100.0%

Figure 2-2. GHG Emissions from Agriculture Sources in 2005 (MT CO_2e)

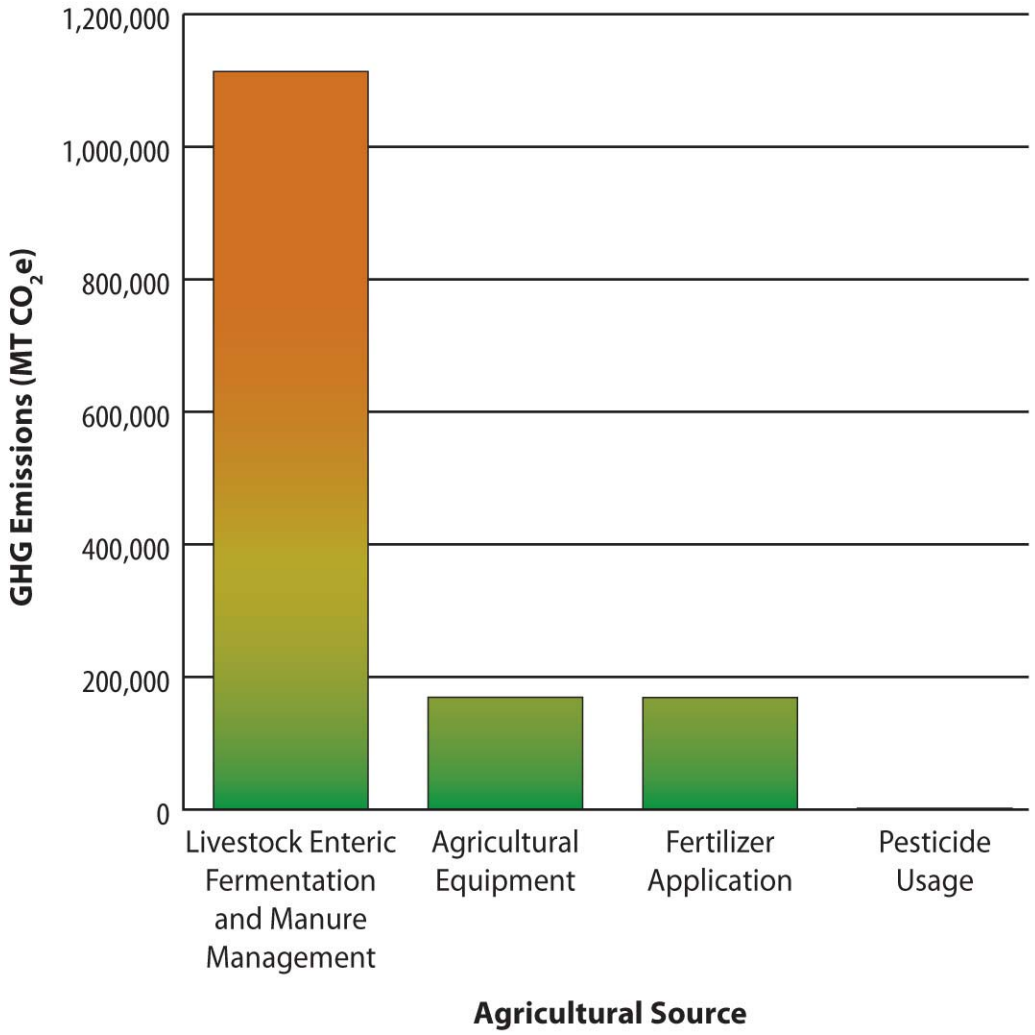
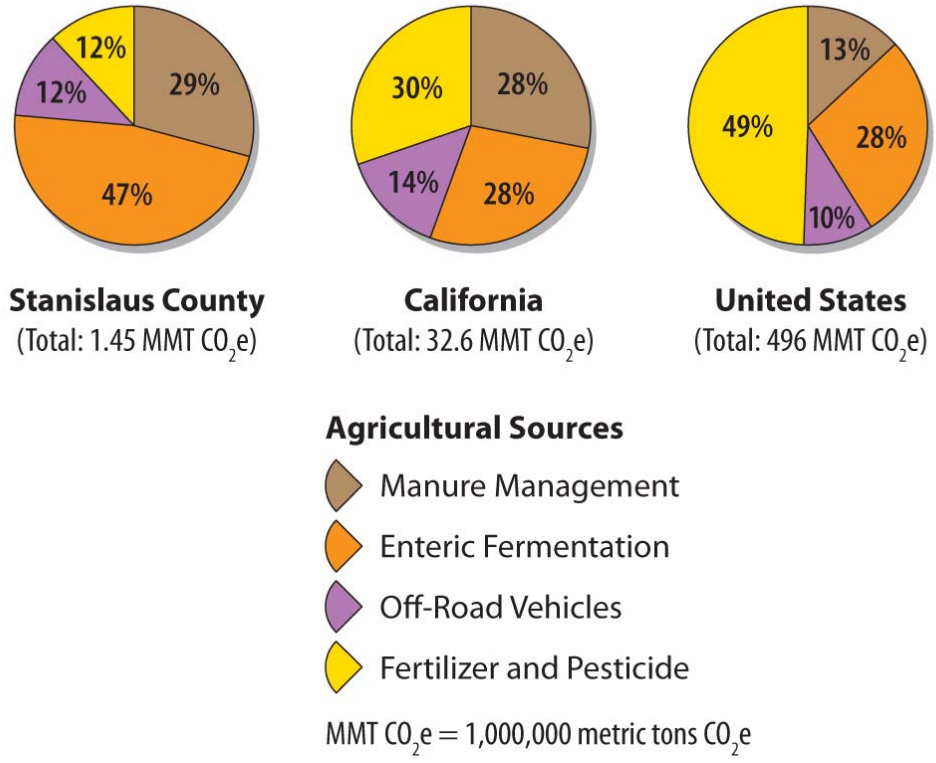


Figure 2-3. Comparison of Stanislaus GHG Emissions from Agriculture to National and State Level Agriculture Emissions



Note: U.S. and California inventories also include GHG emissions due to rice cultivation, agricultural burning, and forest fires, which are not captured in Stanislaus County's GHG inventory.

Table 2-3. Stanislaus Agriculture Emissions Compared to Other California Agriculture Producing Counties

County	Agriculture-Related Emissions (MT CO_2e)	Year	Sources Included in Emissions
Stanislaus County[a]	1,454,414	2005	All agriculture sources
San Joaquin County[b]	951,023	2007	All agriculture sources
Tulare County[c]	3,294,870	2007	Dairy/feedlots
Yolo County[d]	297,341	2008	All agriculture sources

Note:

a. This work
b. San Joaquin County 2011
c. Tulare County 2011
d. Yolo County 2010

Building Energy

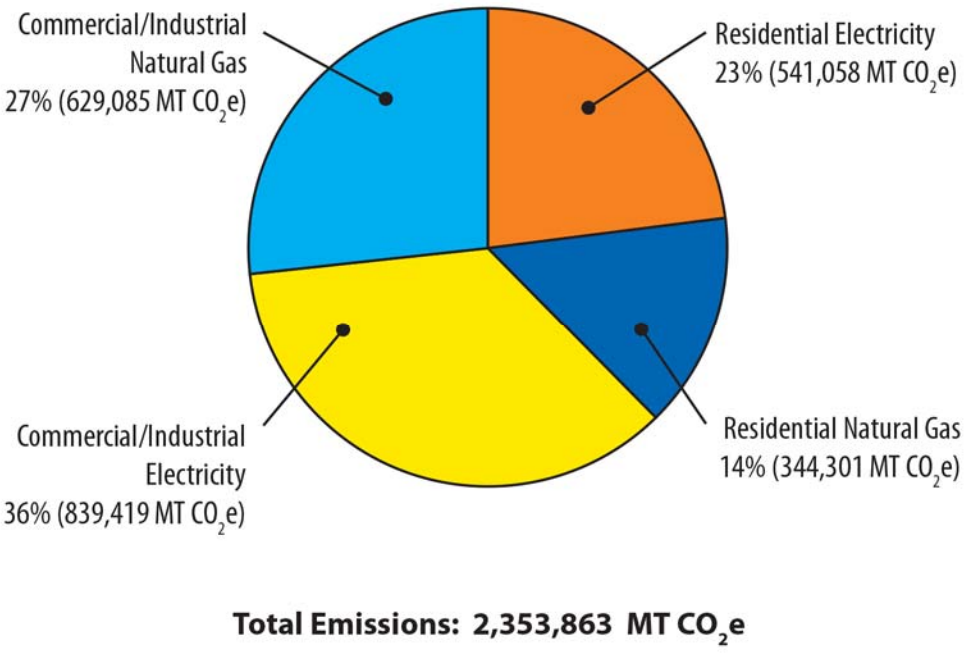
GHG emissions result from the use of electricity and natural gas by residential, commercial, and industrial buildings in the region. Emissions associated with building energy use accounted for 39% of the total regional emissions in 2005 (Table 2-1). Residents and business in the region receive electricity and natural gas from Pacific Gas and Electric (PG&E), Turlock Irrigation District (TID) and Modesto Irrigation District (MID). Electricity use in buildings results in indirect emissions from the power plants that produce electricity. These plants may be located either within or outside of the county and the combustion of the fuel to produce the electricity always occurs in a different location from the user. Electricity emissions are classified as indirect emissions. Natural gas consumption in buildings by furnaces and other appliances result in direct emissions where the natural gas is combusted; these are classified as direct emissions.

Table 2-4 presents the energy consumption (residential, commercial and industrial buildings) in 2005 for the region. The proportions of energy type and end users to the regional total of GHG emissions in this sector are shown in Figure 2-4. This data captures direct access customers in the PG&E service area. MID and TID confirmed the absence of direct access customers in their service areas. Building energy use emissions are generally a function of the number of residents and businesses, types and ages of buildings, predominant types of industry and the composition of the power supply.

Table 2-4. Building Energy Consumption—Residential and Commercial/Industrial Electricity and Natural Gas in 2005

	Residential Building Energy Use		Commercial/Industrial Building Energy Use	
	Electricity (kwh)	Natural Gas (therms)	Electricity (kwh)	Natural Gas (therms)
Regional Total	1,682,405,061	64,710,119	2,592,105,029	118,233,329

Figure 2-4. Proportion of Regional GHG Emissions in the Building Energy Sector Due to Electricity and Natural Gas Use by Various End Users (MT CO_2e)



Building energy related emissions within the region are the result of commercial/industrial electricity consumption (36%) followed by commercial/industrial natural gas consumption (27%), residential electricity (23%) and residential natural gas (15%).

Building energy related emissions in the state of California accounted for approximately 23% of total state GHG emissions in 2005, while building energy emissions were approximately 39% of total Stanislaus regional emissions in 2005 (California Air Resources Board 2011a). Building energy use is typically between 25–40% of a community's total GHG emissions depending on the other dominant sources of emissions in the community, the presence or absence of large commercial or industrial users, and the climate and age of the building stock (i.e., older homes in colder regions of the state require more heating).

On-Road Transportation

This sector includes GHG emissions that result from the burning of fuel by on-road vehicles traveling in the region. On-road vehicle emissions account for 27% of the region's total emissions in 2005 and approximately 38% of California's statewide emissions during the same year. These emissions are considered direct emissions.

The Stanislaus Council of Governments, or StanCOG, travel demand model was used to develop vehicle miles traveled (VMT) estimates for the region in 2005 (Fehr and Peers 2012). The model captures vehicle trips, including truck trips, by different travel purposes, including home-based work, shopping and recreational trips, and non-home based trips. The travel demand model area includes all of Stanislaus County. Adjacent counties (San Joaquin, Merced, Santa Clara, Calaveras,

Tuolumne, Mariposa, and Alameda) are represented by external gateways where major roadways provide access into the overall model area. These stations capture the traffic entering, exiting or passing through the model area on major county and state roadways (e.g., State Route 99, Interstate 5, and State Route 108).

Transportation modeling and the quantification of GHGs in this analysis are consistent with the methods being used for the development of StanCOG's Sustainable Communities Strategy.

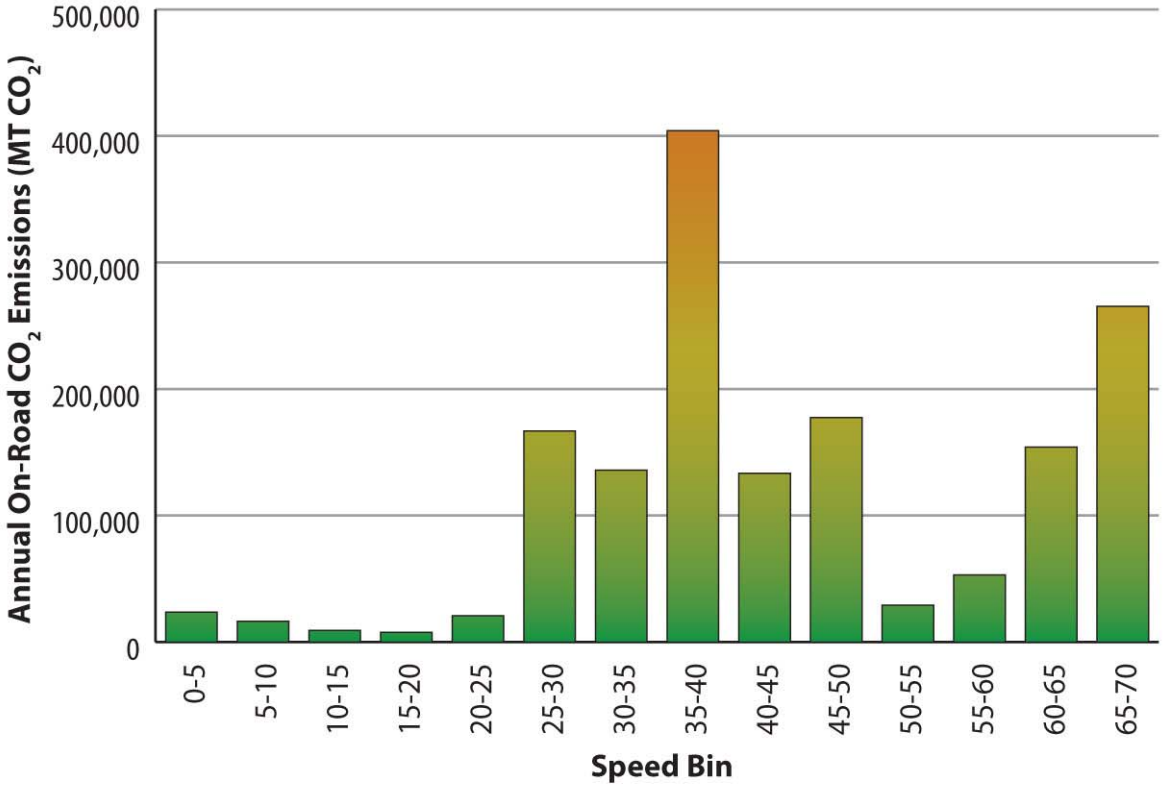
Table 2-5 and Figure 2-5 present regional VMT and associated GHG emissions in 2005 by vehicle speed bins. Because the fuel economy of vehicles depends on the speed, the fuel consumption and GHG emissions partially depend on the speed at which vehicles are generally traveling. In general, the majority of VMT in the region occur at speeds between 35 and 50 miles per hour (mph) with about 15% occurring above speeds of 60 mph (highway traffic).

Table 2-5. Regional VMT and GHG Emissions by Speed Bin

Speed Bin (MPH)	Annual VMT	Annual CO_2 Emissions (MT CO_2)
0-5	17,380,883	23,690
5-10	15,549,764	16,374
10-15	10,893,718	9,147
15-20	11,154,315	7,746
20-25	34,372,085	20,845
25-30	305,504,699	166,798
30-35	268,670,649	135,914
35-40	838,474,144	404,119
40-45	282,636,011	133,411
45-50	373,459,791	177,517
50-55	59,046,214	29,083
55-60	100,798,989	53,002
60-65	266,157,328	154,179
65-70	450,077,391	265,409
Total	3,034,175,981	1,597,233

Note: The emissions in this table are CO_2 emissions, not CO_2e emissions. CH_4 and N_2O emissions from on-road transportation were calculated using a different methodology.

Figure 2-5. Regional GHG Emissions by Speed Bin in 2005 (MT CO_2)



Note: The emissions in this table are CO_2 emissions, not CO_2e emissions. CH_4 and N_2O emissions from on-road transportation were calculated using a different methodology. Emissions of CO_2 typically account for 95-98% of CO_2e emissions in the On-Road Transportation sector.

Off-Road Transportation

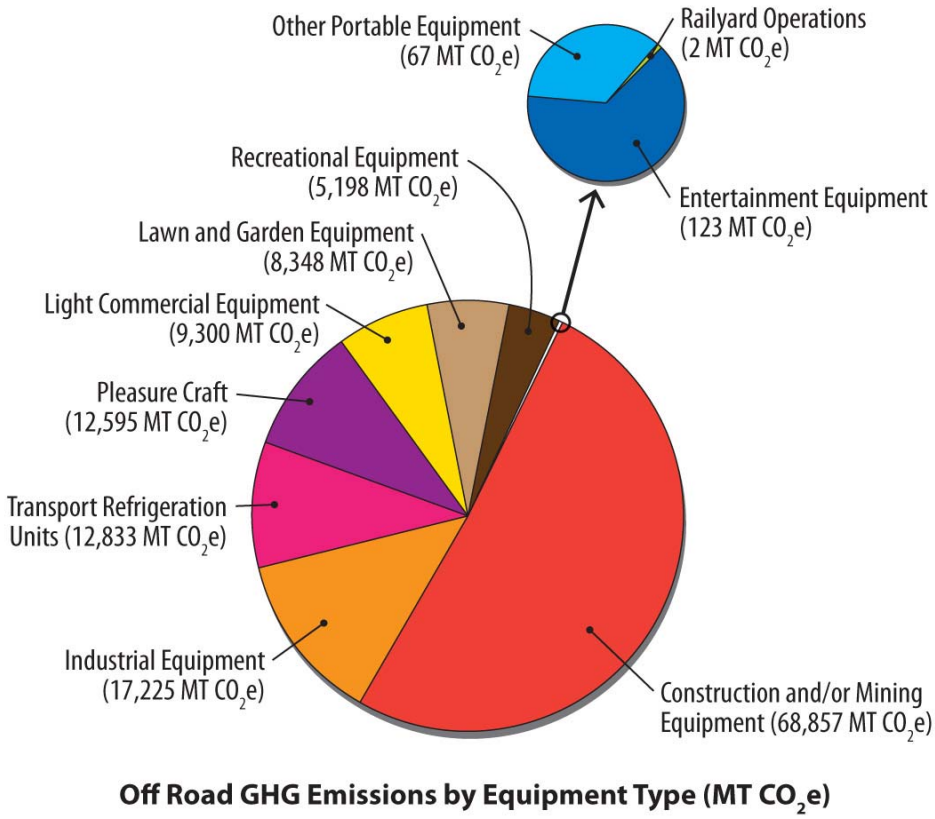
This sector captures fuel consumption by all types of off-road vehicles and equipment being used in the region, referred to in this document as "Off-Road Transportation". Off-road equipment includes recreational boats and vehicles, equipment for industry, construction, and lawn and garden maintenance (agricultural equipment was included in the agricultural sector). GHG emissions result from the combustion of diesel or gasoline to power these vehicles and equipment. These emissions were calculated at the county level using CARB's OFFROAD 2007 model. Off-road equipment emissions accounted for approximately 2% of the total regional emissions in 2005 (Table 2-1, Figure 2-1). These emissions are direct emissions resulting from equipment fuel combustion. Table 2-6 and Figure 2-6 present the regional GHG emissions due to off-road equipment in 2005 by equipment type. Construction and/or mining equipment account for 51% of the total regional emissions in this sector.

Table 2-6. Regional GHG Emissions Due to Off-Road Equipment in 2005 by Equipment Type

Equipment Type	Off-Road Emissions (MT CO_2e)
Construction and Mining Equipment	68,857
Entertainment Equipment	123
Industrial Equipment	17,225
Lawn and Garden Equipment	8,348
Light Commercial Equipment	9,300
Other Portable Equipment	67
Pleasure Craft	12,595
Rail yard Operations	2
Recreational Equipment	5,198
Transport Refrigeration Units	12,833
Total	134,546

Note: Emissions from off-road vehicles in the county were determined using CARB's OFFROAD 2007 model. The OFFROAD model provides the amount and type of fuel consumed at the county level for a wide variety of off-road vehicle and equipment categories, such as construction equipment, lawn and garden equipment, and industrial equipment.

Figure 2-6. GHG Emissions Due to Off-Road Equipment in 2005 from Various Off-Road Equipment Types



Stationary Sources

This source category accounts for GHG emissions from fuel combustion and fugitive (process) emissions at primarily industrial facilities located in the region. Emissions from these facilities, including GHG emissions, are regulated by SJVAPCD, CARB, and/or the USEPA and local jurisdictions usually defer to state and federal authority to regulate these sources. In addition, given the state and federal framework of regulation, local regulation of such sources could result in confusion and inconsistencies in the regulation of such large sources between jurisdictions, which is undesirable. Thus, while emissions were quantified from stationary industrial source they were excluded from GHG totals for the region. Were these sources to be included in the regional total, emissions from these sources would account for approximately 10% of total regional emissions in 2005 and are primarily associated with facilities that support the agriculture or food packaging industry.

GHG emissions from stationary sources result from onsite fuel use that is not provided by a central natural gas utility such as PG&E (natural gas use is accounted for in the building energy category (Chapter 1, *Background*). Combusted fuels accounted for in this sector include diesel, distillate oil, liquid petroleum gas, propane, natural gas (from non-utility sources), digester gas, gasoline, waste gas, waste oil, vapor recovery gas, landfill gas or any fuel combusted by a source required to obtain a permit from the SJVAPCD. A number of stationary sources in the region are also required to report GHG emissions to CARB under California's Mandatory Reporting Rule (MRR) for GHG emissions. Per SJVAQCD policy, fuel use data used to estimate GHG emissions in this report does not include facilities that have requested their fuel use be kept confidential. Fuel used by equipment not requiring a District permit, such as residential combustion equipment, portable equipment, mobile equipment, and permit exempt stationary combustion equipment, is also not included in the estimate of GHG emissions from stationary sources.

Several power generation facilities are located in the region. Emissions associated with these facilities are captured in the Building Energy sector where the end use activity occurs.

Waste

The regional GHG inventory includes GHG emissions due to two distinct waste sources. The first, *waste generation*, is forward looking, as it accounts for the GHG emissions that will occur in the future due to waste that is created during the inventory year (2005) and sent to a landfill during the inventory year (2005), but decomposes in the landfill over many future years (2005 and beyond). The activity of generating the waste occurs completely inside the jurisdiction boundary and during the inventory year (2005), but the GHG emissions may occur outside the boundary at a distant landfill. These emissions are classified as indirect emissions and included in the regional total.

The second waste source, *landfill sites*, is backward looking and accounts for the GHG emissions that occur at specific landfill sites located in the boundary and are the result of all the waste that has historically been deposited at that site and is currently decomposing in the landfill during the inventory year. The activity of generating the waste occurred in the past, and occurred in any of the jurisdictions that send waste to the specific landfill site. Site specific landfill emissions are only reported as an informational item in this document because if they were included in regional totals, there would be a double-counting of emissions from the waste sector due to combining of the backward-looking and forward-looking emissions that would distort the presentation of an annual

emissions estimate. It was decided to include the forward-looking emissions from waste generation as they are emissions associated with the inventory year activity and to disclose the backward-looking landfill emission as an informational item only because it is related to prior year waste generation before the inventory year. The discussion below relates only to the region's *waste generation* during 2005.

GHG emissions due to solid waste generated within the region in 2005 were 49,667 MT CO_2e and account for approximately 0.8% of total regional emissions. GHG emissions due to waste generated in the region are fugitive emissions of CH_4 that occur at the various receiving landfills, and are considered an indirect emission. The materials disposed of in the region are recycled, composted, placed in a landfill, or combusted for energy at the Covanta Facility on Fink Road. The emissions calculated here include those that result only from the decomposition of waste placed in a landfill. Energy that is produced by combusting waste at the Covanta facility is sold to PG&E. Associated GHG emissions are captured in the Building Energy sector and are lower (on a per kwh basis) than GHG emissions associated with the burning of fossil fuels to produce equivalent amounts of electricity. Tons of waste of each type generated in the region in 2005 are shown in Table 2-7. Regional GHG emissions that result from the landfilling of each type of waste are shown in Figure 2-7 (California Department of Resources Recycling and Recovery 2012a and 2012b)[6].

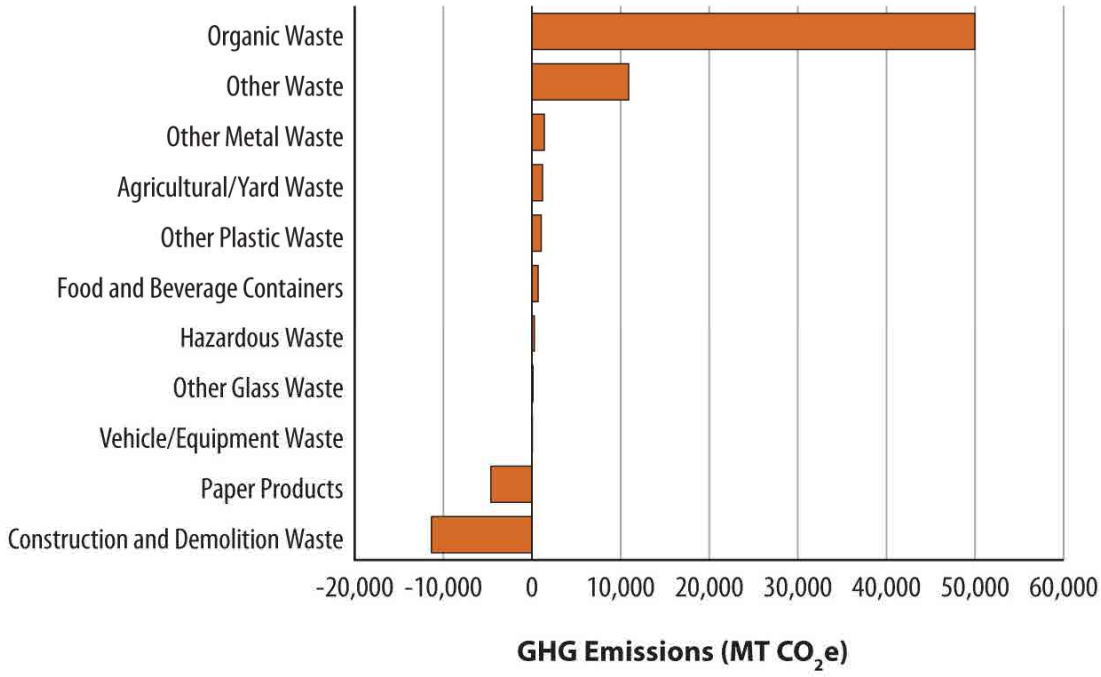
Table 2-7. Waste Generation by Waste Type (Tons)

Waste Type	Tonnage by Waste Type (Short Tons)
Agricultural/Yard Waste	85,201
Food and Beverage Containers	29,971
Other Waste	14,922
Construction and Demolition Waste	82,805
Other Plastic Waste	44,885
Other Glass Waste	4,810
Organic Waste	105,979
Hazardous Waste	374
Paper Products	177,784
Other Metal Waste	13,507
Vehicle/Equipment Waste	1,564
Total	561,801

Source: California Department of Resources Recycling and Recovery 2012a and 2012b

[6] All data related to waste generation in this document was obtained through CalRecycle which tracks waste data across the state. Individual local waste haulers may have more detailed and often more accurate data for waste generation amounts and profiles for a specific community. Data collection from all individual waste service providers was beyond the scope of this regional effort.

Figure 2-7. Regional GHG Emissions by Waste Type (MT CO_2e)



Waste generated in the region is either diverted (through recycling, composting, etc.) or transported to one of 16 different landfills located throughout the state (California Department of Resources Recycling and Recovery2012a). Much of the waste generated in the county is exported to landfills outside the county. According to CalRecycle, in 2005, the region exported 50%-75% of the waste generated to landfills outside of the county border, depending on the jurisdiction. As such, the majority of these emissions will not occur within the county, but the county is responsible for creating this waste during the inventory year.

In 2005, the percentage of waste diverted from landfills in the county was between 48%-61%, depending on the jurisdiction (California Department of Resources Recycling and Recovery 2012b). The state average in 2005 was 52%.

Water

The majority of water demand in Stanislaus County is met with supplies from local groundwater and surface water including the Tuolumne River. The Oak Flat Water District, servicing the West Side Area receives State Water Project deliveries. Table 2-8 and Figure 2-8 shows the total amount of water consumed in the region in 2005 by end user. Table 2-9 shows the various water sources for the region and the associated energy of each.

Table 2-8. Water Consumption by End User Sector in 2005 (Agriculture, Commercial/Industrial, Residential)

End Use	Water Consumption (Acre-feet/year)
Residential	142,258
Commercial/Industrial	206,073
Agricultural	1,284,759
Total	1,633,089
Source: Individual jurisdiction Urban Water Management Plans, Stanislaus Local Agency Formation Commission 2011, and United States Geological Survey 2009	

Figure 2-8. Water Consumption by End User Sector in 2005 (Agriculture, Commercial/Industrial, Residential)

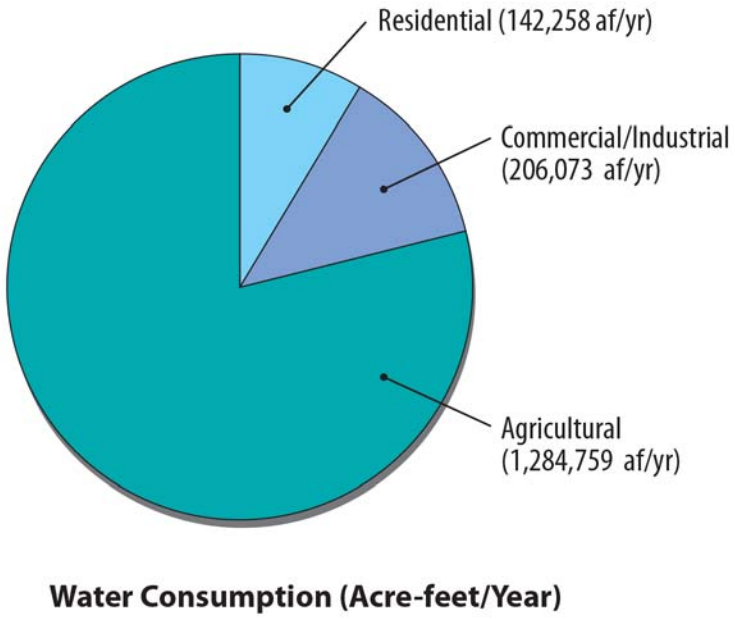


Table 2-9. Water Sources for the Region and Associated Energy Intensity (kwh/MG)

Water Source	Energy Intensity (kWh/Million Gallon)
Ground Water—San Joaquin River Basin	896
Surface Water—State Water Project to the San Joaquin Valley	1,510
Source: California Air Pollution Control Officers Association 2010	

GHG emissions associated with water consumption are due to electricity use for water supply and conveyance (i.e., energy used to bring water to the region from other areas or energy consumed to pump water locally), electricity use for water treatment, and water distribution (i.e., energy used to move water within the region from treatment facilities to end users). Energy associated with

pumping, treatment and local distribution are accounted for in the building energy sector. Only the GHG emissions related to conveying water to the county are reported in this section.

GHG emissions related to water consumption accounted for approximately 0.5% of the region's total emissions in 2005. The term "water consumption" as used in this section includes the following indirect emissions by activity: Emissions due to water consumed by residential, commercial/industrial, and agricultural end users in the region are included and were calculated based on information in Urban Water Management Plans (UWMP) in the county.

Wastewater

GHG emissions result from two activities associated with the treatment of commercial/industrial and domestic wastewater: 1) energy consumed to power the treatment facilities and 2) fugitive emissions of CH_4 and N_2O that occur during the chemical and biological degradation of the waste. Local governments often own and operate wastewater treatment plants (WWTPs) and thus the GHG emissions associated with a specific plant, regardless of the population it serves, are captured in a jurisdiction's municipal GHG inventory. Because some jurisdictions do not own and operate WWTPs and rely on a plant operated by a neighboring jurisdiction and because the activity of *generating* wastewater occurs within the physical boundary of the jurisdiction, these GHG emissions are also captured in the community inventory presented in this report

GHG emissions due to the treatment of wastewater generated by residents, businesses and facilities in the region account for approximately 0.3% of total regional GHG emissions in 2005 (Table 2-1 and Figure 2-1). The majority of the region's residents and businesses are served by 8 WWTPs located within the boundary of this inventory. GHG emissions that result from electricity and/or natural gas used to power the facilities are classified as indirect emissions and are included in the inventory in the building energy sector. Fugitive emissions of CH_4 and N_2O that result from the treatment and breakdown of waste in the facility are classified as direct emissions if occurring at a plant within the inventory boundary and indirect emissions if the receiving plant is located outside of the inventory boundary. GHG emissions associated with the treatment and breakdown of waste can vary by a large amount from plant to plant, depending on the technology in place at the plant and the presence or absence of anaerobic or facultative lagoons, and not necessarily on the amount of wastewater treated at the plant or the size of the population it serves. Thus, WWTPs that serve small rural communities may produce more emissions than large plants serving many times more people.

To estimate GHG emissions due to wastewater generated within the region, per capita GHG emissions factors were developed for each WWTP using information as reported in the jurisdictions' municipal GHG inventories. Plant specific factors were then applied to populations with an adjustment for commercial and industrial activity per the LGOP. Four of the eight WWTPs located in the region capture and flare the fugitive emissions (biogas) onsite; the other four facilities do not capture the biogas. Emissions from flared methane and methane used as fuel are not counted towards total emissions as they are considered to be equivalent to the gases produced from natural decomposition processes.[7]

[7] Modesto Municipal Inventory

Refrigerants/High GWP Gases

Refrigerants often contain greenhouse gases. Direct release of these compounds through leaks or during maintenance of the equipment that use these compounds is a direct GHG emission. Total emissions from refrigerants and other high GWP gases were 364,473 MT CO_2e and account for approximately 6% of total regional GHG emissions in 2005. Refrigerant emissions also account for approximately 3% of California's statewide GHG emissions (California Air Resources Board 2010b).

High-GWP gases are emitted from residential and commercial/industrial stationary refrigeration and air-conditioning equipment. High-GWP refrigerants include chlorofluorocarbons (CFCs), HCFCs, and HFCs. These gases are regulated under the Montreal Protocol and the Kyoto Protocol. Each of these refrigerants has a very high global warming potential, ranging between 500 and 10,000 times more potent than CO_2 (California Air Resources Board 2009a). Refrigerant uses are categorized by CARB accordingly:

- *Large commercial refrigeration* includes refrigerated equipment found in supermarkets, large grocery stores, and other retail food establishments.
- *Small commercial refrigeration* includes stand-alone display cases, small walk-in cold rooms, and other small refrigeration equipment used primarily in convenience stores, small grocery stores, pharmacies, and restaurants.
- *Large commercial AC* includes centrifugal chillers and packaged chillers used for comfort cooling in non-residential commercial buildings, while *small commercial AC* includes unitary AC systems used for commercial building comfort cooling.
- *Residential AC and refrigeration* include packaged AC units and refrigerator-freezers used in households (California Air Resources Board 2009a).

Refrigerant emissions for the region were calculated using statewide emissions published by CARB and scaled to the local level using household population and commercial/industrial natural gas consumption data.

Chapter 3
Methods

This section describes data sources and methods used to estimate GHG emissions from all sectors for the region.

Double counting of GHG emissions would result in emissions from a specific source being attributed to more than one sector, which would result in an overestimate of total GHG emissions. Careful attention was paid to the development of each sector's emissions estimates to ensure that double counting of emissions did not occur.

Agriculture

What the Sector Includes

This sector includes emissions from agricultural activities associated with the combustion of fossil fuels in agricultural equipment, fugitive emissions of methane and nitrous oxide from manure management, fugitive emissions of methane from enteric fermentation, fugitive emissions of nitrous oxide from fertilizer use, and pesticide related GHG emissions.

Methodology

Fuel Combustion Emissions from Agricultural Vehicles

Agricultural vehicles include tractors, pumps, small farm equipment, and other vehicles used for agricultural purposes. Emissions from agricultural vehicles were calculated using CARB's OFFROAD2007 model. The OFFROAD2007 model estimates emissions at the county level for multiple equipment and vehicle types.

Emissions from Manure Management, Enteric Fermentation, and Fertilizer Use

To estimate emissions in these agricultural sub-sectors, populations in various livestock categories and acres of agricultural land types within the region were obtained from the USDA Agriculture Census for 2005. This data includes the population of milk cows, beef cows, other cattle, hogs and pigs, poultry, sheep, lambs, and goats, as well as amounts and types of fertilizer application for each U.S. county for 2002 and 2007 (U.S. Department of Agriculture 2007). A linear extrapolation was used to estimate 2005 population data and fertilizer acreage. Manure management and enteric fermentation emissions were calculated using livestock population numbers and standard emissions factors used in the California state GHG inventory and developed by CARB (2010).

Emissions resulting from fertilizer use were calculated using the number of acres treated with fertilizers found in the USDA's Agriculture Census in conjunction with CARB equations and protocols for estimating direct and indirect N_2O emissions from fertilizer application (U.S. Department of Agriculture 2007; California Air Resources Board 2011a).

Pesticide related emissions were estimated using acres of each crop type and the corresponding pesticide carbon intensity factors, and pesticide application rates from the California Pesticide Use Report (PUR) dataset, collected and managed by the California Department of Pesticide Regulation (Pesticide Action Network 2010)[8].

Data Sources

U.S. Department of Agriculture (USDA). 2007. http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_2_County_Level/California/

California Air Resources Board. 2011a. California Greenhouse Gas Inventory Data 2000 to 2009 and Technical Support Document. http://www.arb.ca.gov/cc/inventory/data/data.htm

Pesticide Action Network. 2010. Available: http://www.pesticideinfo.org/DCo.jsp?cok=50

Building Energy

What the Sector Includes

Building energy emissions include both direct emissions from onsite natural gas consumption (heating and cooking) and indirect emissions from electricity consumption. This sector captures both residential and commercial/industrial buildings or facilities. Indirect emissions from electricity consumption occur as a result of combustion of fossil fuels at power plants, although the activity of using electricity occurs (e.g., lighting or air conditioning) within the inventory boundary.

Methodology

Electricity and natural gas usage data (aggregated by end user categories) was collected from the utilities serving the region. These utilities include: MID, PG&E, and TID. GHG emissions due to electricity use were calculated by applying utility and year-specific CO_2 emission factors (MT CO_2e/MWH) to the total electricity consumption. CO_2 electricity emission factors for MID and PG&E were taken from Public Utility Protocol Reports[9] (these utilities publicly report their emissions to the California Climate Action Registry), while the CO_2 electricity emission factor for TID was provided by TID. Weighted averages of the emission factors were calculated for cities that receive electricity from more than one utility. Electricity emission factors for CH_4 and N_2O were taken from on E-Grid (U.S. Environmental Protection Agency 2010b) values for California and are identical for all three utilities. TID and MID confirmed that no direct access customers are present within their service areas. Electricity consumption data as provided by PG&E accounts for direct access customers within their service area.

Natural gas is provided to the county by PG&E. Natural gas consumption by end user category for the whole region in 2005 was provided by PG&E. GHG emissions due to natural gas consumption were estimated by multiplying natural gas consumption (therms) by the natural gas emission

[8] Original source for all pesticide use data used by PAN is the California Pesticide Use Report (PUR) dataset, collected and managed by the California Department of Pesticide Regulation.

[9] California Climate Action Registry Public Reports: < http://www.climateregistry.org/>

factors for CO_2, CH_4, and N_2O from the Climate Registry General Reporting Protocol version 3.1 (California Climate Action Registry 2009).

Data Sources

- Electricity consumption for the region by end user category and 2005 carbon intensity of electricity (residential, commercial, industrial) for 2005—TID
- Electricity consumption for the region by end user category and 2005 carbon intensity of electricity (residential, commercial, industrial) for 2005—MID
- Electricity and natural gas consumption for the region by end user category and 2005 carbon intensity of electricity (residential, commercial, industrial) for 2005—PG&E
- CO_2, CH_4 and N_2O emission factors for natural gas combustion—California Climate Action Registry General Reporting Protocol v. 3.1

Landfill Sites

What the Sector Includes

This sector includes CH_4 emissions from solid waste that was *already in place* during the inventory year 2005 in landfill sites in the county. The waste that is in place in these landfills may have been generated by many jurisdictions over many years and the methane that is physically released in a given year is the combination of decomposing waste from many years in the past. Landfill emission were quantified for 2005 but were excluded from the regional GHG inventory because the emissions from waste generation were considered more appropriate to include in the regional total as they are tied to waste generating activity that occurred in 2005 versus the landfill emissions which are tied to prior year historical waste generation. Per the LGOP, landfill emissions, for landfills owned and operated by a jurisdiction, should be included in a municipal inventory as they are under the operational control of the jurisdiction. Emissions associated with the three landfills located in the unincorporated county area (Bonzi, Fink Road, and Geer Road) were not captured in the municipal inventories and are included here as an informational item only.

Methodology

Emissions resulting from the decomposition of waste in place at regional landfills were modeled using CARB's landfill emissions tool (California Air Resources Board 2011b). Staff reports from CEC and CARB were used to determine the year in which the landfills opened and the waste in place at interim years (California Energy Commission 2002; California Air Resources Board 2009b). Composting facilities in the county were not analyzed for GHG emissions because of the biogenic nature of compost pile emissions (U.S. Environmental Protection Agency 2010a). The landfill emissions tool requires an annual waste deposition as well as daily cover and climate conditions at the landfill to generate annual CO_2 and CH_4 emissions for each year that waste is present in the landfill. An assumed landfill gas capture rate of 75% was applied to CH_4 emissions from 2005 at each landfill. CO_2 emissions from landfills are considered biogenic and were not included in this analysis.

Data Sources

- CEC Staff Report 500-02-041V1. September 2002. Landfill Gas to Energy Potential in California.
- CARB. Stationary Source Division. May 2009. Initial Statement of Reasons for the Proposed Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills.
- CARB FOD Landfill Emissions Tool

Off-Road Transportation

What the Sector Includes

This sector includes emissions due to the burning of fuel by all types of off-road vehicles and equipment operating in the county including but not limited to residential (e.g., lawn and garden), commercial/industrial (e.g., transportation refrigeration units, construction), oil, gas and mining equipment, pleasure craft and recreational vehicles, and portable pumps and generators.

Methodology

Emissions from off-road vehicles in the county were estimated using CARB's OFFROAD 2007 model (California Air Resources Board 2007). The OFFROAD model provides the annual activity level (hours of operation per year or gallons of fuel consumed per year) and type of fuel consumed for a wide variety of off-road vehicle and equipment categories. Outputs are provided at the county level. The fuel consumed was summed for each equipment and vehicle category and multiplied by corresponding fuel emission factors from the California Climate Action Reserve (2009) General Reporting Protocol v 3.1. The CCAR emission factors relate the amount of CO_2, CH_4, and N_2O emitted per gallon of gasoline, diesel, or liquefied propane consumed.

Data Sources

- California Climate ActionRegistry General Reporting Protocol v 3.1. January 2009
- CARB's OFFROAD 2007 model
- Regional socioeconomic data (Table ES-2)

On-Road Transportation

What the Sector Includes

This sector includes emissions from on-road transportation in the region. Emissions from this sector are due to the combustion of fossil fuels (such as diesel and gasoline) used to power all on-road vehicles (e.g., light and medium duty autos, medium and heavy duty trucks, buses, and motorcycles).

Methodology

Traffic modeling was conducted for the region using the StanCOG Travel Demand Model for the year 2005. This same model, and all underlying assumptions and inputs, will also be used for all SB 375 Planning in the region. The StanCOG model runs were performed by traffic analysts at Fehr and Peers.

CO_2 emissions from on-road vehicles were estimated using VMT data as output by the StanCOG Travel Demand Model and emission factors (grams CO_2/mile) by speed bin from the CT-EMFAC model (California Department of Transportation 2007). The StanCOG travel demand model includes multiple vehicle trip types such as home-based work, shopping and recreational trips, and non-home based trips. For this analysis, VMT was estimated for the region using the accounting guidelines set forth by the SB 375 Regional Targets Advisory Committee. VMT for the county is defined as:

1. All County-County (CC-CC) trips: All trips that travel from one part of the County to another part of the county area.
2. One-half of County-External (CC-EC) trips: One-half of the trips with an origin in the county and a destination outside Stanislaus County.
3. One-half of External-County (EC-CC) trips: One-half of the trips with an origin outside Stanislaus County and a destination in the county.

CH_4 and N_2O emissions were calculated using the VMT data and emission factors (grams CH_4/mile or grams N_2O /mile) as provided by the EMFAC2011 model (California Air Resources Board 2011c). The EMFAC2011 model was also used to determine the vehicle category profile in Stanislaus County. The vehicle category distribution indicates the vehicle types in the county such as light duty autos, light duty trucks, heavy duty trucks and buses. The proportions of vehicle types were multiplied by total VMT and then by the corresponding vehicle type emission factor from the EPA to estimate CH_4 and N_2O emissions.

Data Sources

- StanCOG TDM outputs for the region
- *CT EMFAC model
- U.S. Environmental Protection Agency. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2005, EPA 430-R-07-002, Annex 3.2, (April 2007)

Refrigerants/ High GWP gases

What the Sector Includes

Refrigerant emissions are produced by air conditioning use and other refrigerant applications in commercial/industrial and residential buildings.

Methodology

ICF used a top down approach to estimate refrigerant emissions, using state-level data provided by CARB (California Energy Commission 2006). Residential refrigerant emissions were estimated by scaling state-level residential refrigerant emissions to the region based on the number of households.

Commercial/industrial refrigerant emissions were determined by scaling state level commercial refrigerant use to the region based on commercial natural gas consumption. The CEC has determined a correlation between the commercial natural gas use and commercial refrigerant emissions (California Energy Commission n.d.).

Data Sources

- California GHG Emission Inventory 2000–2009 (California Air Resources Board 2012)
- Natural gas consumption by end user category (residential, commercial, industrial) for 2005—PG&E
- Regional socioeconomic data (Table ES-2)

Stationary Sources

What the Sector Includes

This sector includes emissions from stationary combustion of fossil fuels (except natural gas, which is included in the building energy use sector), and industrial process emissions.

Methodology

Emissions resulting from the combustion of fuels at stationary sources were estimated using fuel consumption information for permitted sources provided by the SJVAPCD (Leland Villalvazo, SJVAPCD, pers. comm.). Data from the SJVAPCD included a list of fuel types and the amount consumed and captures those sources emitting greater than 25,000 MT CO2e per year and are required to report under California's Mandatory Reporting Rule. Fuel consumption quantities were multiplied by corresponding carbon intensity fuel emission factors from the Climate Registry to obtain GHG emissions.

Data Sources

- California Climate Action Registry General Reporting Protocol v 3.1 (January 2009)
- SJVAPCD, personal communication Leland Villalvazo

Waste Generation

What the Sector Includes

This sector includes methane emissions that will result from the decomposition of waste in landfills, from waste that was generated by in the region in 2005. These emissions are also known as the "future methane commitment" of the waste. CO_2 emissions due to waste generated in 2005 are not considered in this analysis because they are considered biogenic in origin.

Methodology

Emissions from waste generation were calculated using publicly available data from CalRecycle and emission factors based on EPA's Waste Reduction Model (WARM). ICF altered emission factors from WARM to discount emissions from waste collection vehicles, and recycling related emissions, as these are life cycles and should not be included in a community GHG inventory. Waste in the region is collected by the City of Modesto and SCRSWPA who is responsible for waste collection in the cities and unincorporated areas in Stanislaus County except Modesto.

A 1999 Stanislaus County waste profile from CalRecycle was used to estimate the total tons of each type of waste generated in the region in 2005 (California Department of Resources Recycling and Recovery 2012a and 2012b). Total waste tonnage in 2009 was obtained for Modesto and SCRSWPA, also from CalRecycle. For each material type such as used oil, paint, or lumber, the modified EPA WARM emission factor that relating CO_2e emissions per ton of waste were applied. The amount of each material type was multiplied by the material's corresponding emission factors to find emissions by material type, and the emissions from all material types were summed to estimate total emissions.

Data Sources

- California Department of Resources Recycling and Recovery (CalRecycle)
- U.S. EPA's Waste Reduction Model (WARM).

Wastewater Treatment

What the sector includes

These emissions are associated with the treatment of industrial, residential, and commercial wastewater produced by each participating jurisdiction. These emissions result from fugitive emissions of CH_4 and N_2O that occur during the chemical and biological breakdown of wastewater at the WWTP.

Methodology

Fugitive and process emissions that result from the treatment of wastewater were estimated using each of the County's jurisdiction's municipal GHG inventories. The municipal inventories were prepared prior to this analysis and quantify the GHG emissions resulting from municipal operations,

including direct and indirect emissions from individual wastewater treatment plants. For this analysis, ICF used the following data from the municipal inventories: WWTP service population and process emissions (direct emissions). In addition, ICF made several adjustments to parameters in the municipal inventories including the following changes: emissions resulting from electricity consumption at the WWTPs were omitted to avoid overlap with the building energy sector, methane emissions at aerobic plants were omitted using LGOP guidance, N_2O process emissions were added where necessary, and service populations were changed using an adjustment factor (from LGOP) to include previously unaccounted for industrial wastewater.

Per capita values for wastewater emissions were developed using the ICF-adjusted municipal inventory wastewater emissions and the WTTP service populations. To determine wastewater treatment plant related emissions, the per capita values were applied to the population that resides within the county boundary only.

Emission from septic systems were estimated and added to WWTP emissions. The amount of people using septic systems was estimated using information in communities' General Plans. A per capita septic system emission factor from the Local Governments Operations Protocol was used to determine CH_4 and N_2O emissions resulting from septic system use (Local Governments Operations Protocol 2010).

Data Sources

- Municipal GHG Inventories—all jurisdictions (available upon request from the individual cities in Stanislaus County)
- CARB. May 2010. LGOP for the quantification and reporting of greenhouse gas emissions inventories. V 1.1.

Water

What the sector includes

Emissions from water consumption were estimated based on the energy associated with the distribution of water to jurisdictions in the region.

Methodology

Emissions from the conveyance of water (i.e., the transport of water supplies from outside the inventory boundary to within the boundary) were calculated using information about total water consumption and water sources from each of the County jurisdiction's UWMPs. GHG emissions associated with the energy required to treat and locally distribute water that is supplied from other areas are captured in the building energy sector. The UWMPs for some jurisdictions were unavailable, and, in these cases, water consumption data was taken from Municipal Service Reviews (MSR) conducted by the LAFCO (Stanislaus Local Agency Formation Commission 2011). Water consumption data for the unincorporated county was estimated using 2005 data from the United States Geological Survey (USGS) (2009).

In some instances, water consumption was not available for the baseline inventory year (2005). In these cases, water consumption was scaled from an alternative year to the baseline year using population. This method assumes that water consumption changes proportionally with population. In other cases, water consumption by end use (residential, commercial, etc.) was not available. It was assumed that jurisdictions where consumption by end use was unavailable have average proportions of end use consumption as cities with similar population sizes. Alternately, end use consumption was determined using the proportions of commercial/industrial and residential acres for jurisdictions with available acreage data.

Water consumption data from the sources of water in the county, groundwater, surface water, and recycled water, were taken from the UWMPs, MSRs, and USGS. The electricity required to convey water from each source was estimated using electricity intensity factors from CAPCOA (CAPCOA 2010). Electricity consumption required for water conveyance to each jurisdiction was multiplied by carbon intensity factors from the associated utilities to arrive at GHG emissions resulting from water conveyance.

Data Sources

- CAPCOA 2010
- Municipal Service Reviews from the LAFCO
- UWMPs from the jurisdictions that have a publicly available UWMP
- USGS Water Study

Chapter 4
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Personal Communications

Villalvazo, Leland. Supervising Air Quality Specialist. San Joaquin Valley Air Pollution Control District. February 2012—email with Lindsey McAlpine of ICF International regarding amount of fuel burnt at permitted stationary sources in each jurisdiction.