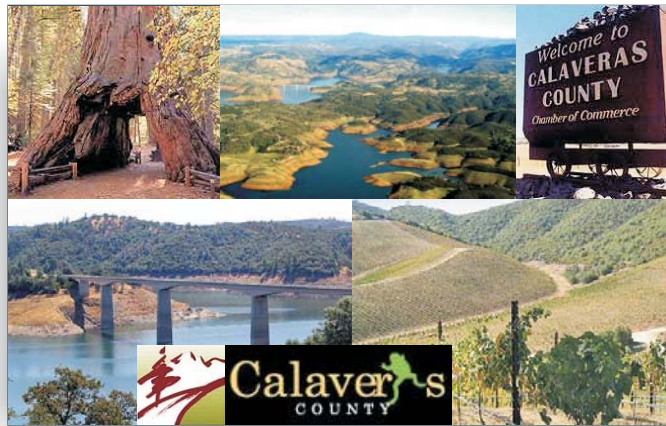


CALAVERAS COUNTY 2007 REGIONAL TRANSPORTATION PLAN

Public Draft



Prepared for the

Calaveras Council of Governments

Prepared by

LSC Transportation Consultants, Inc.



June 19, 2007

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2007
REGIONAL TRANSPORTATION PLAN**

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Prepared for the

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Executive Summary

The Calaveras County 2007 Regional Transportation Plan (RTP) provides a coordinated, 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people in the region. Transportation facilities addressed in the plan include roadways, bridges, airports, bicycle/pedestrian paths as well as transportation demand management strategies. As the Regional Transportation Planning Agency (RTPA), the Calaveras County Council of Governments (CCOG) is required by California law to adopt and submit an approved RTP to the California Transportation Commission (CTC) every four years. The California Department of Transportation (Caltrans) assists with plan preparation and reviews draft documents for compliance and consistency.

This working document was developed with extensive stakeholder input through a specific process. The agency announced its intent to develop an RTP and solicited input from all stakeholders. After data were gathered and organized, the CCOG prepared a draft plan, including all required elements, and then solicited comments from stakeholders. To comply with the California Environmental Quality Act, relevant documentation was prepared and distributed with the Draft RTP.

PUBLIC INVOLVEMENT AND CONSULTATION PROCESS

During development of this RTP, CCOG solicited input from a variety of public and private agencies and organizations including state and federal agencies, adjacent county RTPAs, Tribal Governments with sacred lands in Calaveras County and truck traffic generators. A public meeting will be held to collect comments from the public on the Draft RTP and the accompanying Negative Declaration. All tribal governments, adjacent county RTPAs and local natural resource agencies will be notified of the meeting. Ensuring that the RTP is consistent with local general plans, community plans, circulation studies, bikeway plans, and air quality documents is also an important part of the RTP process.

EXISTING CONDITIONS

Calaveras County's total 2005 countywide population is estimated to be 44,796 persons, an increase of 10.5 percent over the 2000 population of 40,544 persons. Adjacent counties are also experiencing significant population growth, which is important when considering transportation needs resulting from inter-county commute patterns. Tourism travel plays an important role in the region's transportation system especially with respect to traffic congestion and narrow roadways. Although unemployment in Calaveras County is slightly below the statewide average, an estimated 19.4 percent of the county population is living below poverty.

The roadway system in Calaveras County totals approximately 1,051 centerline miles. In addition to private roadways, the public roadway system consists of 149 miles in the state highway system, 689 miles in the county roadway system, 29 miles in the City roadway system, 125 miles owned and operated by federal agencies such as the U.S. Forest Service and the Army Corps of Engineers, another 60 miles operated by the State Park service, and 29 miles of City roads. Five roadway segments in Calaveras County are county-designated Scenic Highways and the stretch of SR 4 from Arnold to Alpine County is a National Scenic Byway.

According to Caltrans data, the highest annual average daily traffic volumes in the county occur on SR 49 in Angels Camp at Murphys Grade Road (17,000 ADT). Other relatively high AADT volumes were observed on SR 49 in Angels Camp near the South Junction of SR 4 (15,900 ADT), in San Andreas at Main Street (13,000 ADT), near Mountain Ranch Road (12,200 ADT), and on SR 4 near White Pines Road (12,100 ADT). The Calaveras Transportation Demand Model, developed by Fehr & Peers Transportation Consultants, provides average daily traffic volumes in 2002 for a summer weekday along a majority of the minor arterial, major collectors, minor collectors and minor streets in the County. According to the model, high volume County roadways include O'Byrnes Ferry Road (4,200 ADT) located south of Copperopolis, Murphys Grade Road (3,600 ADT) near Murphys, Parrotts Ferry Road (2,400 ADT) southwest of Angels Camp, and Mountain Ranch Road (2,200 ADT) near San Andreas. Goods movement is an important part of the regional transportation system. Trucks represent a significant proportion of traffic on SR 49 in Angels Camp (9.0 percent). The Level of Service (LOS) standard for intersections and roadways in the county is LOS "C." The SR 4 South and SR 49 (southern intersection) exceeds this threshold for existing conditions.

In addition to roadway and bridge networks, other important elements of the regional transportation system include the Maury Rasmussen Airport, Calaveras Transit, bicycle and pedestrian facilities, and transportation demand management strategies.

AIR QUALITY

Air quality should be considered in a review of the regional transportation system. In recent years, Calaveras County has exceeded the 8-hour federal ozone standard. Federal clean air laws require areas with unhealthy levels of ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and inhalable particulate matter to develop plans, known as State Implementation Plans (SIPs), describing how they will attain national ambient air quality standards (NAAQS). SIPs are not single documents, rather they are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations and federal controls. Calaveras County is part of a collaborative effort between the California Air Resources Board and local air pollution districts to develop a SIP for adoption by June 15, 2007.

POLICY ELEMENT

The RTP identifies local and regional transportation issues along with a potential solution by the following transportation facilities: roadway system, goods movement, transit, aviation, non-motorized facilities, and air quality. Some of the major issues include:

- California's past transportation funding crisis.
- Deferred maintenance on local and county roadways due to difficulty in obtaining state or federal funds for local road rehabilitation.
- Congestion in local communities due to on-street parking and numerous private driveway intersections.
- Limited emergency access roads in wildfire threatened areas, particularly in Copperopolis and Arnold.

- Difficulty providing high quality transit service in a cost-effective manner with the wide dispersion of the county population. Lack of financial support for interregional service from other counties.
- Much of the land surrounding the airport is privately owned or too steep for airport development. There is a need to protect land currently owned by the airport for future airport improvement projects.
- Lack of a consistent network of bike paths and pedestrian facilities which link communities or visitor attractions. A more fluid connection of bike paths and pedestrian facilities with limited vehicle conflict is needed to encourage the use of alternative transportation modes.
- In 2006, Calaveras County was in non-attainment for the federal hourly and 8-hour ozone standard.
- Global climate change.

The Policy Element of the RTP sets forth 17 goals that cover all types of transportation facilities as well as overall transportation-related regional goals. Objectives, policies and performance measures are associated with each goal.

ACTION ELEMENT

The Action Element establishes data forecasts and assumptions regarding future conditions pertaining to population, housing, employment, land use, and traffic:

- The population of Calaveras County will increase at approximately 2.5 percent per year. Adjacent county populations will continue to grow at a rate generally consistent with the State Department of Finance estimates.
- Dwelling units are expected to increase to 39,198 by 2025. The developed areas of the County will continue to experience increased growth in housing stock consistent with *Calaveras County Land Use Memorandum* projections.
- There will continue to be a strong commuting pattern of Calaveras County residents working in neighboring counties in the Central Valley.
- Project construction costs are anticipated to increase by 3.2 percent per year, based upon the average annual change in the Engineering News Record Construction Cost Index from December 1996 to December 2006.
- Recreation-oriented travel and second home growth will continue to affect state highways and major county roads.
- Local road maintenance will continue to be a major issue, unless new local funding sources are secured.
- Average daily traffic generation (as measured by number of trip-ends) will increase by 7.4 million from 2002 to 2025. Standard roadway and intersection level of service will be exceeded on most key state highway segments and at least nine major intersections in the County.

Three broad alternatives or “approaches” to prioritizing regional transportation improvement projects are discussed in the RTP. A balanced alternative which would seek to achieve a balance between maintenance of existing programs and expanding capacity where warranted is viewed as the logical choice for Calaveras County. Not only does this “balanced” approach allow CCOG to pursue STIP funding for new roadway projects or large capital improvements as well as pursue funding for road maintenance projects, it directs decision-makers to consider alternative transportation investments such as non-motorized, transit facilities, and transportation demand management strategies.

A series of tables list proposed transportation improvement projects throughout the region over the next 20 years. Projects are categorized by transportation element, priority levels and estimated implementation period (short term or long term). The RTP also contains a list of financially-unconstrained projects in addition to financially-constrained projects. A financially-unconstrained project is a regionally desired un-funded project or “wish list” project that would be implemented if unanticipated funding sources were to become available.

FINANCIAL ELEMENT

The following federal, state, and local funding sources and programs are available to fund transportation improvements in the Calaveras County region:

Federal Sources

- Regional Surface Transportation Program
- Transportation Enhancement Activities
- Highway Bridge Replacement and Rehabilitation
- Hazard Elimination Safety Program
- Federal Lands Highway Program
- Section 130/Highway Safety Improvement Program
- Emergency Relief Program
- FTA Section 5310 Capital for Elderly and Disabled Transportation
- FTA Section 5311 Public Transportation for Rural Areas
- FTA Section 5316 Jobs Access Reverse Commute
- FTA Section 5317 New Freedom Program
- Congestion Mitigation and Air Quality Program
- Federal Airport Improvement Program

State Sources

- State Transportation Improvement Program
- Traffic Congestion Relief Program
- State Hwy Operations and Protection Program
- Minor Programs
- California Aid to Airports Program
- Environment Enhancement and Mitigation
- Safe Routes to School (SRTS)
- Bicycle Transportation Account
- Pedestrian Safety Program
- Transportation Development Act Funds
- Proposition 1B

Local Sources

- Highway Users Taxes
- Motor Vehicle In-Lieu Fees
- State Gas Sales Tax (AB2928/ Prop 42)
- Road Impact Mitigation Fee Program
- Copperopolis Benefit Basin Program
- Valley Springs Benefit Basin Program

Over the 20-year plan period, the total projected expenditures of all proposed financially-constrained projects (not including proposed bicycle projects) in this RTP are \$653 million. Estimated costs to meet major regional transportation needs exceed projected funding available by \$132 million.

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Chapter 1

Introduction

As the Regional Transportation Planning Agency (RTPA) for the region, the Calaveras Council of Governments (CCOG) is required by California law to adopt and submit an approved Regional Transportation Plan (RTP) to the California Transportation Commission (CTC) every five years. The California Department of Transportation (Caltrans) assists with plan preparation and reviews draft RTP documents for compliance and consistency with RTP guidelines.

The Calaveras County 2007 RTP provides a coordinated 20-year vision of policies and regionally significant transportation improvement needed to efficiently move goods and people in the Calaveras County region. The purpose of the RTP is to provide a vision of transportation services and facilities, supported by appropriate goals, for 10 and 20 year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the regional transportation system.

This RTP will be developed in a series of four different documents: *Technical Memorandum One*, *Technical Memorandum Two*, *Public Draft RTP*, and *Final RTP*. *Technical Memorandum One* identified the plan development process and described the regional characteristics and existing transportation network. *Technical Memorandum Number Two* presented an analysis of policy and planning issues, goals, objectives and performance measures for the RTP, as well as potential plan elements. The *Draft RTP* is a compilation of Technical Memorandum Numbers One and Two and will be circulated for public review and comment. Any necessary revisions to this document will be reflected in the *Final RTP*. The *Final RTP* document will provide the region with a coordinated transportation system and will be a guideline for decision-makers over the RTP plan period.

All appendices in the Calaveras County 2007 Regional Transportation Plan are incorporated herein by reference. Acronyms and terms used in this RTP are listed and defined in Appendix A.

PLAN DEVELOPMENT REQUIREMENTS AND PROCESSES

Federal Planning Requirements

Although new SAFETEA-LU guidelines specifically concerning the development of RTPs for RTPAs have not yet been adopted, an attempt was made to incorporate new SAFETEA-LU provisions in to this 2007 Calaveras County RTP.

State Planning Requirements

The State of California has developed a series of planning requirements that affect the development of this RTP, as described below:

- ▶ The Transportation Development Act of 1971 (SB 325) resulted in the formation of the Calaveras County Local Transportation Commission (LTC) to administer and allocate funds provided by the Act. The Calaveras Council of Governments, which replaced the LTC in 1998 under a Joint Powers Agreement between Calaveras County and the City of Angels, now has this responsibility.

- ▶ Assembly Bill 69, enacted in 1972, created Caltrans and established requirements for preparation and administration of State and Regional Transportation Plans. Under this law, each RTPA is required to prepare and adopt an RTP with coordinated and balanced transportation systems, consistent with regional needs and goals.
- ▶ Assembly Bill 402, enacted in 1977, revised the guidelines for RTP development and required the Plan be updated in 1978 and biennially thereafter. It continued to be the RTPA's responsibility.
- ▶ The Transportation Funding Act of 1998 (SB 45) enacted reforms affecting many areas of planning, funding and development. This sweeping legislation overhauled the State Transportation Improvement Program (STIP), providing a greater level of regional choice, with 75 percent of the program's funds to be divided by formula among the regions. For each two-year cycle, the RTPA selects projects to be funded from its STIP share and adopts the projects as the Regional Transportation Improvement Program (RTIP). Every RTIP adopted by a local agency must be consistent with its RTP. SB 45 modified the biennial RTP development cycle for rural RTPAs like the CCOG to every four years. With new SAFETEA-LU provisions, it will be necessary for rural regions adopt and submit an RTP once every five years.

California Government Code 14522 requires that the California Transportation Commission develop RTP Guidelines to facilitate the preparation, consistency and utilization of RTPs throughout the State. The purpose of the *December 1999 RTP Guidelines* is to:

- ▶ *Promote an integrated, Statewide, multimodal, regional transportation planning process*
- ▶ *Set forth a uniform transportation planning framework throughout California*
- ▶ *Promote a transportation planning process that facilitates decision-making*
- ▶ *Promote a continuous, comprehensive, and cooperative transportation planning process that facilitates the rapid and efficient development and implementation of projects while maintaining California's commitment to public health and environmental quality*
- ▶ *Promote a planning process that considers the views of all stakeholders in the decision-making process.*

A *Supplement to the 1999 Regional Transportation Plan Guidelines* was prepared based on the *2003 RTP Evaluation Report* prepared by Caltrans for the CTC. The Supplement does not replace the 1999 Guidelines, but rather provides clarification of items not addressed in the 2001/2002 RTP process as specified in the 1999 Guidelines. Specifically, the 2003 Report indicated that, "Not one RTP from the last cycle addressed every item identified in the RTP checklist." As such, the Supplement provides a revised *Regional Transportation Plan Checklist* that has been completed and submitted to Caltrans.

RTP Process

The CCOG is responsible for the preparation of Calaveras County's RTP, and must ensure that all of the requirements of the RTP process are met. The CCOG prepares a draft document that

includes all of the required elements, and solicits public comment from a wide variety of groups, including the general public, Technical Advisory Committee, and Caltrans. The comments solicited are responded to and/or included in the final document, as appropriate. Appropriate environmental documentation (in conformance with the California Environmental Quality Act) is also prepared and distributed to the groups noted above. The CCOG then adopts the final RTP and environmental documentation in accordance with state and federal requirements.

Participation Process

Government Participation

The planning of the County transportation system is accomplished through the coordination of various governmental agencies, advisory committees and public input:

- ▶ The **Calaveras Council of Governments (CCOG)**, serving as the Regional Transportation Planning Agency since 1998, consists of seven Council Members, and is supported by a technical staff.
- ▶ The **Technical Advisory Committee (TAC)** consists of nine members including representatives from the following agencies: City of Angels (3), Calaveras County (3), Calaveras Council of Governments (2), and Caltrans District 10 (1).
- ▶ The **Social Service Transportation Advisory Council (SSTAC)**, formed to meet the requirements of PUC Section 99238, consists of appointed agencies and citizens representing a wide range of transit dependent groups. The SSTAC represents primarily potential transit passengers including the elderly, people with disabilities, and others with limited mobility. The Council conducts periodic meetings, including the annual transit needs assessment.
- ▶ The **RTP Study Steering Committee** consists of County Supervisors, County staff, City staff, CCOG staff and Caltrans District 10 representatives.
- ▶ **California Department of Transportation (Caltrans)** is responsible for the design, construction, maintenance and operation of the State Highway System, and that portion of the Interstate Highway System within California. Enacted in 1972, Assembly Bill 69 established the basic framework for Caltrans. Headquartered in Sacramento, Caltrans has twelve district offices throughout the State. Calaveras County is located in Caltrans District 10, with offices in Stockton. Various District 10 staff members serve as liaisons to the CCOG, depending upon the activity or project.

Public Entity Participation

The CCOG plans for the regional transportation system in consultation and coordination with regional stakeholders. During the development of this RTP, among others, the entities listed below were contacted for information and solicited for input.

- Adjacent County Regional Transportation Planning Agencies
- State and Federal Agencies
- Tribal Governments
- Central Mountain Air Management District
- State and Local Resource Agencies

All entities were invited to review and comment on the draft RTP. Additionally public notices will be posted in the local newspaper and CCOG's website. For a comprehensive listing of entities and persons contacted, see Appendix B. In compliance with the 1999 Guidelines, and the Supplement to the 1999 Guidelines, the following provides details of correspondence to specific agencies. Correspondence and public notices associated with this RTP are provided in Appendix C.

Tribal Governments

In an effort to include in the RTP process those Tribal Governments that have sacred lands within Calaveras County, the Native American Heritage Commission (NAHC) was contacted to obtain the "SB 18 Consultation List." The NAHC provided a copy of the list, which included the California Valley Miwok Tribe and Lone Band Miwok Indians. These Tribal Governments as well as the Sheep Ranch Rancheria were contacted via mail (priority mail, delivery confirmation requested) with a notification letter that defined the RTP, requested their input in the RTP process, and requested they make contact for a one-on-one meeting. Additionally, the Tribal Governments were provided with public notices for all public meetings. To date, none of the Tribal Governments have responded.

Adjacent County Regional Transportation Planning Agencies

Correspondence was sent to each of the Regional Transportation Planning Agencies (RTPAs) in the five counties adjacent to Calaveras County. This correspondence notified the RTPAs of the Calaveras County RTP preparation and requested written responses to a series of seven questions. The following summarizes each RTPA's response. Copies of each response can be found in Appendix C:

- ▶ **Alpine County Department of Public Works** mentioned that growth in Calaveras County impacts SR 4, the only access from Calaveras County to Alpine County. Staff believe that travel to their County has been increased as a result of this growth. In an effort to better manage traffic impacts between the two counties, Alpine County entered into a Tri-County State Transportation Improvement Program (STIP) partnership with Calaveras and Amador Counties. A description of this partnership and projects undertaken are included in the Progress Report section of Chapter 2 of this document. Alpine County believes that this is an important process and intends to continue cooperation with the other counties in order to complete Tri-County projects. In addition to existing Tri-County projects, staff indicated that improvements are needed on SR 4 from Blue Lake Springs Road to east of the Big Trees State Park entrance. The only Alpine County plans that might effect transportation in Calaveras County are the Bear Valley Master Plan and the Forest Service plan for the Bear Valley Ski Area. Alpine County's primary concern is commercial strips such as shopping centers that are being constructed directly on SR 4. The new intersections created by these developments eliminate existing passing opportunities along that stretch of highway. The County noted that building a new passing lane is an expensive endeavor. Alpine County's traffic model is currently being updated.
- ▶ The **Amador County Transportation Commission (ACTC)** identified that significant travel occurs on SR 49 between the two counties. Road improvements are necessary from Jackson to the Calaveras County line but are un-fundable at this time. The ACTC expressed concern that the relatively low cost of housing and relatively higher quality of life in both Amador and Calaveras County will eventually transform the two counties into bedroom

communities to the Central Valley. As a result, both counties could lose job and sales tax revenues important for economic growth. ACTC believes that mobility for Amador County residents can be increased by improving inter-County transit services. Amador County is one of the entities participating in the Tri-County State Transportation Improvement Program (STIP) partnership along with Calaveras County and Alpine County. Amador County's traffic model was updated in 2005.

- ▶ State Route 4, 12, and 26 are links between San Joaquin County and Calaveras County. The **San Joaquin Council of Governments (SJCOG)** noted that many Calaveras County residents commute to jobs in the Central Valley and the East Bay, thereby causing congested roadways. This problem is expected to increase as job and population growth continue to occur. As the existing roadways and facilities were not designed to carry large amounts of traffic, roadway improvements will be required to keep up with this growth. SJCOG encouraged collaborative planning between Caltrans and the local jurisdictions in order to uphold the mobility and safety goals of the region. SJCOG also expressed their willingness to work jointly with Calaveras County on transportation matters. Additionally, staff mentioned that adding more inter-County transit stops within San Joaquin County would increase the mobility of residents. Currently, there are no SJCOG projects that would impact existing travel corridors from San Joaquin County to Calaveras County. SJCOG indicated that their traffic model was updated for the 2004 RTP.
- ▶ **Stanislaus Council of Governments (StanCOG)** identified that transportation conditions in Calaveras County impact both recreational users and daily commuters in Stanislaus County. At present, StanCOG believes that conditions are adequate. As housing prices continue to rise in Stanislaus County, StanCOG sees a younger generation moving to Calaveras County in search of more affordable homes. This could have an impact on air quality in Calaveras County. By accurately reflecting future traffic conditions between the two counties, mobility for residents of both counties could be increased. Transportation projects that Calaveras County should be aware of are the SR 120 Oakdale Bypass and the SR 108 Realignment. At this time, StanCOG does not see that there are any transportation related projects that could be jointly pursued by both counties, although future traffic projections could alter that line of thinking. StanCOG updated their traffic model in 2004 and mentioned that they would be happy to share land use and traffic projections with Calaveras County.
- ▶ SR 49 is the primary access roadway between Tuolumne County and Calaveras County. The **Tuolumne County Transportation Council (TCTC)** staff sees the growth in new homes in Calaveras County affecting Tuolumne County roadways as the new residents of Calaveras County will be forced to drive to Tuolumne County to shop. Tuolumne County Public Works currently has no short-term transportation related projects planned that would affect Calaveras County, but feels that the effects of home construction in their neighboring County could reduce Level of Service (LOS) on roadways in Tuolumne County to LOS F. Staff suggested coordinating traffic models between the two counties, identify traffic impacts, and develop mutually agreeable solutions. More recent discussions with Tuolumne County Staff have indicated that this process has begun. Tuolumne County stated that there is a need to develop a list of transportation-related improvement projects that could be jointly pursued by both counties. Their traffic model was updated in 2005.

Looking into the future, Tuolumne County has two long-term priority or "wish list" transportation projects of regional nature. The first is the proposed extension of State Route 59 from Snelling in Merced County to SR 108 in Tuolumne County. Currently County Route

J-59/La Grange Road serves as the connecting roadway. Tuolumne County received a \$2 million Federal earmark for study and improvements on J-59 in the 2005 Federal transportation bill. If the state highway status was continued from SR 108 to SR 4, along what is now O'Byrnes Ferry Road, Calaveras County could be benefited by increased traffic circulation between the two counties as well as within Calaveras County around the growing community of Copperopolis.

The second project, which is more of a "wish list" project, includes a proposed SR 49 bypass of the City of Sonora from the intersection of SR 49 and Rawhide Road to SR 108. This state highway project could improve traffic flow between Angels Camp and SR 108.

Truck Traffic Generators

A dozen or so businesses that generate truck traffic on roadways within Calaveras County were contacted seeking opinions on issues relating to the Calaveras County regional transportation system. Effort was made to contact businesses which represent the variety of industries existing in Calaveras County such as solid waste, logging, grapes, and quarry materials. Each business was contacted via telephone, and four companies participated in the telephone interview process. The two remaining businesses requested the questions be faxed to them. The businesses that participated are located in Arnold, Mountain Ranch, Murphys, and Angels Camp.

Summarizing the responses of the six responding firms, the general opinion is that the Calaveras County regional transportation system is good but could use some improvements. Depending on the season and year, the combined businesses generate anywhere from 30 to 100 truck loads per day, and use both state highways (in particular SR 4) and County maintained roads. Three of the businesses expect trucking activity to increase somewhere between 15 and 100 percent over the next five years, while the other three do not anticipate any growth. The major deficiencies of the regional transportation system are narrow, winding roads, limited shoulders, bridges with weight limits, and basic maintenance issues such as pot holes, paving, and striping. These issues result in increased wear and tear on company vehicles, lengthened driving times and created unsafe driving conditions – particularly when trucks and recreational vehicles use roadways simultaneously.

Possible solutions to these issues include: widened roads, additional turnouts and roadway shoulders, elimination of blind curves, increased road maintenance, and rehabilitated or rebuilt bridges. Specific segments mentioned include Sheep Ranch Road (Avery), Mountain Ranch Road, Pool Station Road, and SR 4 between Copperopolis and Angels Camp. One business noted that the closure of certain roadway segments on SR 49 to larger trucks, Surface Transportation Assistance Act (STAA) trucks, makes goods movement more difficult between Modesto and the Angels Camp/Murphys area. Additionally, some respondents voiced that the County should reassess the general plan and place more importance on the effect of new growth and development on the regional transportation system.

The Solid Waste Division of the Calaveras County Department of Public Works generates a substantial amount of truck and vehicle traffic. The department operates one landfill on Milton Road in Rock Creek and six transfer stations dispersed throughout the County where residents who do not use curbside collection services may dispose of their garbage and recycling. These transfer stations are located on Milton Road, O'Byrnes Ferry Road, Paloma Road, Red Hill Road, Segale Road, Blizzard Mine Road, and SR 49. According to department records, over

5,000 vehicle trips were made in 2006 throughout the County by solid waste commercial haulers (garbage trucks) and approximately 66,000 trips were made by self-haulers (private individuals). This represents a 12.8 percent increase over 2004 data. Staff estimate that solid waste is growing faster than population. At a minimum the Rock Creek facility and the level of trucking generated from solid waste will match the growth in population. In the future it is likely that yard waste, wood waste, and recycling will be contracted to other sites. Deficient roadways with respect to the transport of solid waste are Milton Road (primarily the Stanislaus County portion) where potholes exist and O'Byrnes Ferry Road which could be benefited by additional turning lanes.

The Solid Waste Division of the Calaveras County Department of Public Works generates a substantial amount of truck and vehicle traffic. The department operates one landfill, Rock Creek Solid Waste Facility on Hunt Road in Milton Rock Creek and six transfer stations dispersed throughout the County where residents and business who do not use curbside collection or pickup services may dispose of their garbage and recycling. These transfer stations are located on O'Byrnes Ferry Road, Paloma Road, Red Hill Road, Segale Road, Blizzard Mine Road and SR 49. According to department records, over 5,000 vehicle trips were made in 2006 throughout the County by solid waste commercial haulers (garbage trucks) and approximately 66,000 trips were made by self-haulers (private individuals and businesses). This represents a 12.8 percent increase over 2004 data. For over a decade, solid waste has grown faster than population, but to level off in 2005. County staff estimate the Rock Creek facility and the level of trucking generated from solid waste will match the growth in population. In addition to the traffic using County solid waste facilities, recyclables flow to a variety of private companies, which is not accounted for in the traffic counts provided. Deficient roadways with respect to the transport of solid waste are Milton Road (the Stanislaus County portion) where potholes exist and O'Byrnes Ferry Road which could be benefited by a turning lane.

Citizen Participation

Every person in Calaveras County is affected by the regional transportation system and, as such, is an important component of the transportation planning process. In recognition of the importance of public participation, a public involvement program, is required for each RTP. The CCOG makes a concerted effort to solicit public input in many aspects of transportation planning within the region. The following are several examples of on-going efforts in the Calaveras County region:

- ▶ Citizens are encouraged to attend and speak at CCOG meetings on any matter included for discussion at that meeting, or any other matter of public interest.
- ▶ The public is notified and encouraged to participate in the Unmet Transit Needs process and hearings are held by the CCOG.
- ▶ All studies conducted by the CCOG are either adopted or accepted following an advertised public review period and a public hearing. This process will be undertaken by the CCOG in conjunction with this RTP update.

Table 1 lists specific participation opportunities provided as part of the development of this RTP. This list will be updated throughout the study process.

TABLE 1: Participation Process During RTP Development

Participant	Activity	Date
Study Steering Committee Meeting	Project Kickoff Meeting	4/20/2005
Native American Heritage Commission	Sent Notification Letter Requesting Tribal Contact List	5/3/2005
Adjacent RTPAs	Sent Notification Letters Requesting Input	5/10/2005
California Valley Miwok Tribe; Ione Band of Miwok Indians; Sheep Ranch Rancheria	Sent Notification Letters Requesting Input and Meeting	5/18/2005
Truck Traffic Generators	Contacted Via Phone and Fax Requesting Input	Week of 5/16/2005
Adjacent RTPAs	Followed-Up Re Input Request	Week of 5/23/2005
Truck Traffic Generators	Followed-Up Re Input Request	Week of 5/23/2005
Adjacent RTPAs	Followed-Up Re Input Request	Week of 6/6/2005 and 6/27/2005
Truck Traffic Generators	Followed-Up Re Input Request	Week of 6/6/2005 and 6/27/2005
Study Steering Committee	Review of Technical Memorandum One	8/12/2005
Study Steering Committee	Present Technical Memorandum One	8/19/2005
Staff Level Meeting	Discuss Technical Memorandum Two	2/15/2007
California Valley Miwok Tribe; Ione Band of Miwok Indians; Sheep Ranch Rancheria	Sent Copy of Public Notice Re Public Meeting and World Wide Web Link to Public Draft Document	Week of 6/25/2007
Natural Resource Agencies	Sent Copy of Public Notice Re Public Meeting and World Wide Web Link to Public Draft Document	Week of 6/25/2007
CCOG/Public Meeting	Present Public Draft and Negative Declaration	7/18/2007

Transportation Programming Process

Regional Transportation Plans are long-range planning documents, which guide the organized development of all modes of transportation within the area. Federal and state requirements prescribe that, for approval, RTPs must include the following three elements:

- ▶ The **Policy Element** describes the transportation issues in the region, identifies and quantifies regional needs expressed within both a short and long-range framework, and maintains internal consistency with the financial element fund estimates.
- ▶ The **Action Element** identifies plans to address the needs and issues for each transportation mode, in accordance with the goals, objectives, and policies set forth in the

policy element. It is within the action element that projects and programs are prioritized consistent with the identified needs and policies.

- ▶ The **Financial Element** identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments described in the action element. The intent is to define realistic financing constraints and opportunities. Required Documentation

Environmental Documentation

The RTP is a programmatic document containing general policies, guidelines, and lists of proposed projects and programs. For many projects in the RTP, specific design details are not yet completed. Each transportation project will undergo an impact assessment on an individual basis before funds are allocated. However, the California Environmental Quality Act (CEQA) requires consideration of the type and extent of environmental impact that may result from implementation of the overall RTP. CEQA defines *significant effects* as “a substantial, or potentially substantial, adverse change in the environment.” Under CEQA guidelines, public agencies are responsible to minimize or avoid or mitigate environmental damage, where feasible. Agencies must balance a variety of objectives, including social, economic and environmental concerns, to comply with CEQA obligations.

For the *Calaveras County 2001 Regional Transportation Plan* (adopted October, 2001), a negative declaration was adopted, based on findings of no significant effect on the environment. The Calaveras County Council of Governments has preliminarily determined that the Calaveras County 2007 RTP will not have significant effects on the environment, and therefore, expects to adopt a negative declaration, based on the Environmental Initial Study which found no significant effect on the environment.

Air Quality

All RTPAs in non-attainment areas must coordinate their RTP development with the California Air Resources Board to insure conformity with the State Implementation Plan (SIP). According to the 2006 National Air Quality Area Designations and the proposed 2006 State Area Designations, Calaveras County was in non-attainment of the federal 8-hour ozone standard and in non-attainment of the state ozone standards. These standards are discussed further in Chapter 2. The Northern California 8-Hour Ozone SIP Working Group, which includes the California Air Resources Board (CARB) and Northern California local air pollution districts of non-attainment regions, is in the process of establishing a 2007 Ozone SIP. The Calaveras County Air Pollution Control District is integral to this process. After completion of the SIP, this RTP will be updated as necessary to reflect conformity with the air quality document.

Global climate change or “global warming” is a major environmental issue which needs to be acknowledged in planning and environmental documents. Climate change is caused by the release of greenhouse gases (GHG’s) such as carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride into the atmosphere which trap heat and increase temperatures near the earth’s surface. Forecasted, long-term consequences of climate change range from a rise in the sea-level to a significant loss of the Sierra snow pack.

As a direct result of Assembly Bill (AB) 32, CARB has been charged with developing rules and regulations that will reduce GHG emissions in the State of California to 1990 levels by 2020. Once GHG standards have been established, CCOG will work with the necessary state agencies to accomplish GHG reductions in the region.

Coordination with Other Plans and Studies

The RTP Guidelines, prepared by Caltrans, recommend that the circulation/transportation elements of the general/community plans within a region are consistent with the RTP for the region. The general/community plans of the region include the following.

- *Arnold Community Plan*, December 1998
- *Avery-Hathaway Pines Community Plan*, March 1998
- *Calaveras County General Plan*, December 1996
- *City of Angels General Plan*, July 1995
- *Copperopolis Community Plan Working Draft*, May 2005
- *Ebbetts Pass Highway Special Plan*, June 1988
- *Mokelumne Hill Community Plan*, June 1988
- *Murphys and Douglas Flat Community Plan*, June 1988
- *San Andreas Community Plan*, June 1988
- *Valley Springs Community Area General Plan*, 1974 to 1994

The RTPs should also be consistent with regional transportation plans in adjacent regions, including Alpine, Amador, San Joaquin, Stanislaus and Tuolumne Counties. Other important documents the RTP considered include the following:

- *Administrative Draft Environmental Impact Report for the Oak Canyon Ranch Specific Plan*, Pacific Municipal Consultants, February 2002
- *Angels Camp Bypass Final Project Report*, Caltrans Metric, July 2002
- *Calaveras County Bikeway Plan Supplement*, Calaveras County Council of Governments, 2005
- *Calaveras County Bikeway Plan Update*, Fehr & Peers, March 1998
- *Calaveras County Draft Bicycle Master Plan*, Calaveras Council of Governments, April 2007
- *Calaveras County Draft Pedestrian Master Plan*, Calaveras Council of Governments, April 2007
- *Calaveras County Travel Demand Forecasting Model Document Report*, Fehr & Peers, August 2003
- *Calaveras Countywide Traffic Circulation Study Working Paper 2*, LSC Transportation Consultants, Inc., February 2007
- *Copper Mill ADEIR*, Calaveras County, May 2005
- *Copperopolis Benefit Basin Traffic Analysis*, LSC Transportation Consultants, Inc., September 2006
- *Corridor Management Plan – Ebbetts Pass National Scenic Byway*, Calaveras Council of Governments, August 2004
- *Final Project Report on Route 49, Construct 49 Bypass from Junction Route 104 (Ridge Road) to 0.3 Kilometers (0.2 miles) South of Rancheria Creek Bridge in Amador County*, Robert Effinger, March 2002
- *Murphys Circulation, Pedestrian, Bicycling, and Parking Study*, LSC Transportation Consultants, Inc., February 2002
- *Project Study Report on Route 4 in Calaveras County from East of Copperopolis to West of Altaville (Angels Camp)*, Robert Effinger, June 2001

- *Road Impact Mitigation Fee Nexus Study*, Economic and Planning Systems, Inc., April 2004
- *State Route 4 Angels Camp By Pass Project Traffic Study*, Caltrans District 10, October 1999
- *SR 4 Pool Station Intersection Major Safety Project – PSR*, Alex Menor, November 1996
- *SR 88 Cooks and Hams Passing Lanes – Environmental Re-evaluation of Findings of No Significant Impact*, Lance Brangham, November 2003
- *State Route 12 Valley Springs Connector Project Study Report*, Caltrans Metric, March 2003
- *Traffic Impact Analysis for Calaveras Oaks*, kdAnderson, August 2004
- *Tuscany Hills Draft Environmental Impact Report*, Pacific Municipal Consultants, June 2004
- *Vista Del Lago Traffic Study*, Dowling Associates, September 2004

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REGIONAL CHARACTERISTICS

Calaveras County is located in the north-central portion of California and is bounded by Amador County to the north, Alpine County to the east, Tuolumne County to the south, and Stanislaus and San Joaquin Counties to the west (see Figure 1). Calaveras County is located within the foothills of the Sierra Nevada range approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The County encompasses approximately 1,100 square miles in area. The topography of the County varies greatly as the land elevation is near sea level in the west and reaches 8,000 feet in the east. The County Seat is located in San Andreas, while the only incorporated city in the County is the City of Angels, also known as Angels Camp. Other communities in the County include the following:

- | | |
|------------------|------------------|
| - Arnold | - Murphys |
| - Avery | - Tamarack |
| - Copperopolis | - Vallecito |
| - Dorrington | - Valley Springs |
| - Mokelumne Hill | - West Point |

Land Use

Calaveras County encompasses approximately 1,100 square miles of land (or roughly 664,650 acres of land) as identified in Table 2. According to the U.S. Census, the number of housing units in Calaveras County in 2000 totaled 22,946, which included 19,398 single-family dwelling units, 1,312 multi-family dwelling units, 2,055 mobile homes, and 181 boats, RVs and vans (2000 U.S. Census data). Based on permit information from the Calaveras County Building Department, there were 2,736 building permits issued for new housing units (including manufactured homes) between 2001 and 2004, increasing the number of housing units to 25,682 (or roughly 3 percent per year).

Particularly important development projects with respect to this RTP include the following:

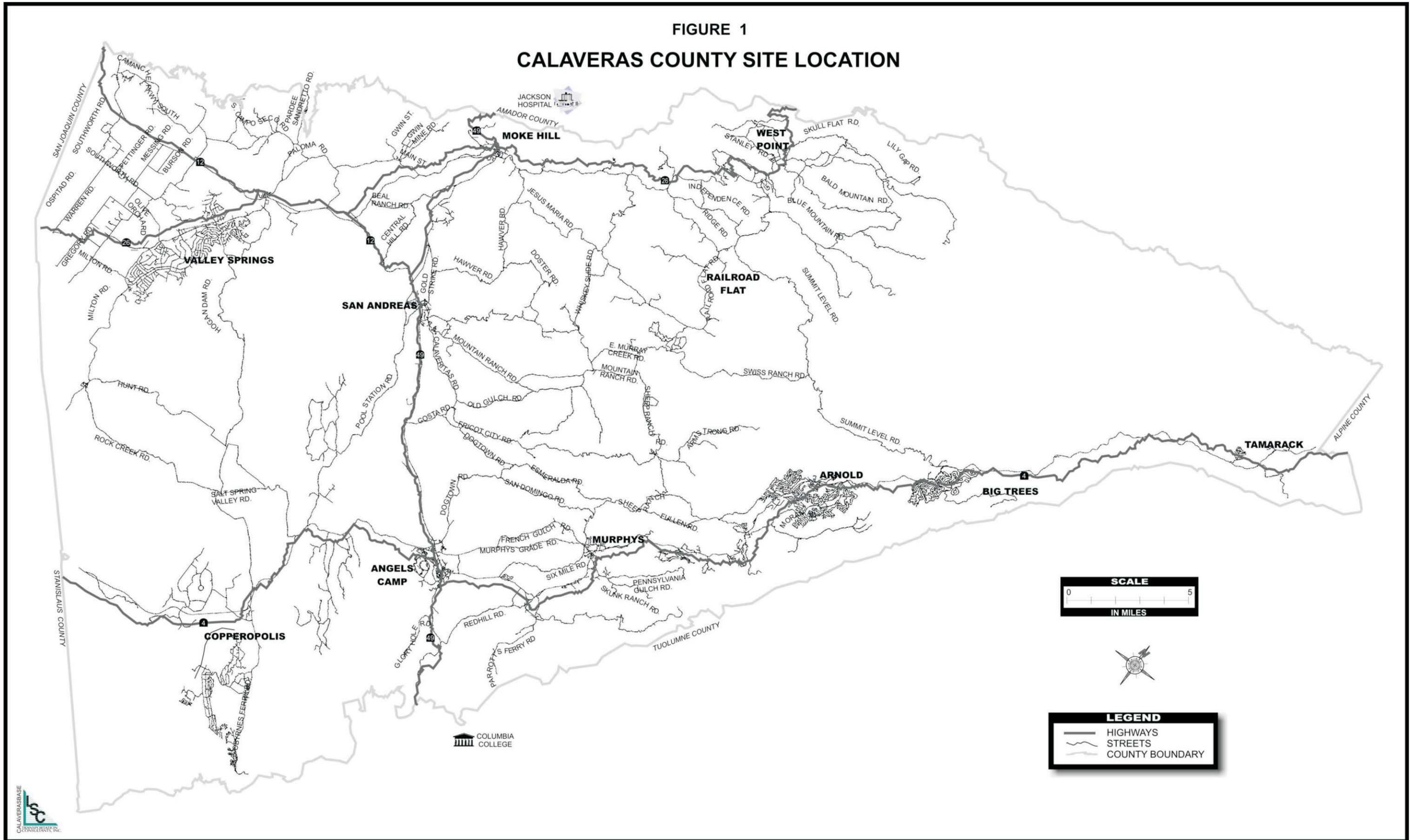
Hogan Lake Estates North, Hogan Oaks I and Hogan Oaks II – These proposed developments would be located just south of Valley Springs and include a total of 211 single-family dwelling units. It is estimated that a total of 2,019 daily trips would be generated by these three developments, with potential future traffic impacts on roadways including SR 26, Vista del Lago Drive, Hogan Dam Road, and at key intersections (*Vista Del Lago Traffic Study*, Dowling Associates, Inc., September 2004).

Ponte Ranch – This 455-acre multi-use project in the Valley Springs region is still in the design phase and has not been approved. High, medium and low density residential units, including multi-family residential, commercial properties and a hotel/conference center site are proposed. The site may also include a fire station, a school and a pedestrian and bicycle trail system. The project will be accessed from a new roadway, Spring Valley Parkway, which will connect Hogan Dam Road with Lime Creek Road near the intersection of South Petersburg Road.

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FIGURE 1

CALAVERAS COUNTY SITE LOCATION



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TABLE 2: Calaveras County General Plan Land Use

Land Use Type	Acres	% of Subtotal	% of Total Acreage
Natural Resource Land			
Wildlife, Botanical	72,540	20.1%	10.9%
Timber, Dam Area, MRA-2A	143,630	39.7%	21.6%
Agricultural Preserve, MRA-2B	122,450	33.9%	18.4%
Other	23,110	6.4%	3.5%
<i>Subtotal</i>	361,730	100.0%	54.4%
Community Development Land			
Future Single Family	184,120	63.3%	27.7%
Community Centers	3,600	1.2%	0.5%
Residential Centers	31,140	10.7%	4.7%
Industrial			
Existing Zoning	8,200	2.8%	1.2%
Prime Industrial	9,480	3.3%	1.4%
Adopted Community Plans	28,340	9.7%	4.3%
Adopted Special Plans	25,000	8.6%	3.8%
Adopted Specific Plans	1,090	0.4%	0.2%
<i>Subtotal</i>	290,970	100.0%	43.8%
City of Angels and its Sphere	11,950	100.0%	1.8%
Total	664,650	--	100.0%
Source: 1996 Calaveras County General Plan Land Use Element.			

Calaveras Oaks – This project proposes developing a 28-acre business park to the north of the County Government Center in San Andreas. Additionally, the 28-acre property adjacent to the business park could be developed into 28 single-family dwelling units. Potential future traffic generated by the proposed project could impact Mountain Ranch Road, Pope Street and Government Center Road. Estimated project trip generation totals 4,209 trips for the business park and 210 trips for the potential residential development (*Traffic Impact Analysis for Calaveras Oaks*, kdAnderson Transportation Engineers, August 2004).

Oak Canyon Ranch Specific Plan – This 3,251 acre proposed project, to be located west of Copperopolis, consists of 2,275 single-family dwelling units, 1,570 acres of recreation and open space, and a mixed-use village consisting of residential, commercial, office and resort land uses. Roadways potentially impacted by this development include SR 4, Little John Road, Copper Cove Drive, O'Byrnes Ferry Road and Reed's Turnpike. At buildout (2023), the individual land uses proposed for the Oak Canyon Ranch development are expected to generate a total of 41,520 daily trips (*Final Supplement Environmental Impact Report for Oak Canyon Ranch Specific Plan*, Pacific Municipal Consultants, October 2003).

Tuscany Hills – The Tuscany Hills project proposes to encompass 1,113 acres along the north shore of Lake Tulloch, near the communities of Copperopolis and Copper Cove. This project development would include 335 single-family dwelling units, open and recreational space, an 18-hole private golf course, marina and lakefront recreational uses. An estimated 2,747 daily trips would be generated by this project at buildout (2023). Traffic impacts may be present on SR 4, Little John Road, Copper Cove Drive, and O’Byrnes Ferry Road (*Tuscany Hills Revised Draft Environmental Impact Report*, Parsons Corporation, April 2006).

Copper Mill – The project proposes two scenarios: “Maximum Commercial” and “Maximum Residential.” The commercial scenario proposes 193,477 square feet of commercial uses and 39 residential units on 27.4 acres, while the residential scenario proposes 61,654 square feet of commercial uses and 69 residential units. An estimated 7,974 daily trips would be generated by the commercial scenario and 3,375 daily trips would be generated by the residential scenario at buildout. The project is located at an existing “T” intersection of Little John Road, Reed’s Turnpike, and the extension of Little John Road accessing State Route 4. O’Byrnes Ferry Road and Copper Cove Drive may also be affected by the project (*Copper Mills Draft Environmental Impact Report*, September, 2005).

Mariposa Lakes in San Joaquin County – Applications have been submitted for a 3,800 acre development project southeast of Stockton. Specifically the site is located, south of SR 4 and east of SR 99, and about 25 miles from the Calaveras County line. The Mariposa Lakes Project proposal includes over 1,000 acres of residentially-zoned land, which will accommodate approximately 5,600 housing units (about 4,700 single-family homes and 900 multi-family units), about 100 acres of land zoned for retail commercial uses, over 750 acres of industrially-zoned land, and additional acreage for schools, open space/parks, lakes, roadways, sites for public facilities and other miscellaneous uses. Some planners estimate that the site may be home to some 25,000 people. This development will have an impact on Calaveras County’s transportation system as the new residents of Mariposa Lakes will travel to Calaveras County to recreate or visit the County’s tourist attractions (Tourism Travel Patterns are discussed below).

Bear Valley Expansion in Alpine County

The EIR process has been started for a proposed ski area residential project in Bear Valley, just east of Calaveras County in Alpine County along SR 4. This project would eliminate the existing 53-room lodge and associated retail/restaurant space, and construct 491 multifamily residential units, 50 employee dormitory rooms and associated retail/restaurant/club uses served by a new lift to Bear Valley Ski Area. As virtually all access to Bear Valley is through Calaveras County, this project would increase traffic levels in Calaveras County, particularly along SR 4 east of SR 49, and particularly on Friday evenings (eastbound) and Sunday evenings (westbound).

These proposed developments as well as other future projects will increase travel demand on the roadway system within the County increasing the need for roadway maintenance and rehabilitation. The guiding principle in preparing this RTP update and the previous RTP update is to provide a better balance between transportation system planning for all modes and land use. This approach will result in lower cost for improvements, increased operational efficiency of the existing transportation system and a reduction in greenhouse gas emissions. Future land uses and the resulting increases in transportation demands are discussed in Chapter 4.

Population

Calaveras County's total 2005 countywide population is estimated to be 44,796, an increase of 10.5 percent over the 2000 population of 40,544, as shown in Table 3. During this same period, the population of Angels Camp grew by 17.7 percent, while the unincorporated portions of the County's population increased by 9.9 percent. Over the past ten years, the County's population has increased by 18 percent or nearly 2 percent per year.

	Total Population			Total Change 1995-2000		Total Change 2000-2005		Total Change
	1995	2000	2005	#	%	#	%	1995-2005
City of Angels	2,820	3,004	3,537	184	6.5%	533	17.7%	25.4%
Unincorporated Area	35,150	37,540	41,259	2,390	6.8%	3,719	9.9%	17.4%
<i>Total Countywide</i>	<i>37,970</i>	<i>40,544</i>	<i>44,796</i>	<i>2,574</i>	<i>6.8%</i>	<i>4,252</i>	<i>10.5%</i>	<i>18.0%</i>

Source: California Department of Finance, Demographic Research Unit; U.S. Census Bureau, Census 2000.

Table 4 reflects population growth between 2000 and 2005 in adjacent counties. As shown, the population of San Joaquin County (which also has the greatest population) increased 15.9 percent (or 3 percent annually) over the five-year period, followed by a 12.9 percent increase (or 2.4 percent per year) in Stanislaus County. The populations for the remainder of the adjacent counties increased by less than 2 percent per year over the five-year period.

	Total Population		Total Change
	2000	2005	
Alpine	1,208	1,262	4.5%
Amador	35,100	37,574	7.0%
San Joaquin	563,598	653,333	15.9%
Stanislaus	446,997	504,482	12.9%
Tuolumne	54,501	58,504	7.3%
<i>Total Adjacent Counties</i>	<i>1,101,404</i>	<i>1,255,155</i>	<i>14.0%</i>

Source: California Department of Finance, Demographic Research Unit; U.S. Census Bureau, Census 2000.

Commute Patterns

The 2000 U.S. Census Bureau provides Journey-to-Work data, which reports the number of persons commuting on a county-by-county basis. As shown in Table 5, of the employed

residents of Calaveras County, 58.8 percent both live and work locally. An estimated 15.4 percent of County residents or 2,435 residents work in San Joaquin County. This commute pattern puts a strain on the roadway capacity of state highways 12 and 26. The RTP addresses this problem in Chapter 4 of the document. Of all persons employed in Calaveras County, 86 percent also live in Calaveras County. Of those persons commuting to Calaveras County for work, 5.5 percent reside in Tuolumne County, followed by 3 percent from Amador County.

TABLE 5: Calaveras County Inter-County Commute Pattern Data

County of Employment for Calaveras County Residents	# Persons	% of Total
Alameda	316	2.0%
Alpine	172	1.1%
Amador	1,211	7.6%
Calaveras	9,331	58.8%
Contra Costa	187	1.2%
Sacramento	353	2.2%
San Joaquin	2,435	15.4%
San Mateo	109	0.7%
Santa Clara	351	2.2%
Stanislaus	305	1.9%
Tuolumne	679	4.3%
Other (Within California)	330	2.1%
Other (Outside of State)	84	0.5%
<i>Total Number of Persons</i>	<i>15,863</i>	<i>100.0%</i>
County of Residence for Calaveras County Workers	# Persons	% of Total
Alpine	2	0.0%
Amador	331	3.0%
Calaveras	9,331	86.0%
San Joaquin	160	1.5%
Stanislaus	108	1.0%
Tuolumne	599	5.5%
Other (Within California)	292	2.7%
Other (Outside of State)	30	0.3%
<i>Total Number of Persons</i>	<i>10,853</i>	<i>100.0%</i>

Source: U.S. Census Bureau, Census 2000, Journey-To-Work Data.

Tourism Travel Patterns

Calaveras County attracts many tourists throughout the year for a number of recreational activities, such as golfing, boating, hiking, camping and snowshoeing. In addition, tourists may travel to Calaveras County to visit the many wineries and caverns. The County hosts a multitude of special events such as the Frog Jump Jubilee, Grape Stomp, and music festivals.

On top of a significant number of visitor vehicle-trips, tourists are often unfamiliar with the narrow and winding roads and highways required to access Calaveras County attractions. Unfamiliar motorists and large recreational vehicles slow down the general traffic flow. These factors make tourist travel an important issue to consider in the evaluation of the regional transportation system.

Identifying where the greatest amount of tourist traffic occurs is relevant. The majority of wineries are located in the Murphys area. In addition to private vehicle traffic, tour buses from Modesto, Sacramento, Concord, and Stockton frequent the vineyards. Much like the truck traffic generators, safe tour bus travel can be negatively affected by narrow roadways or poor pavement conditions in the regional transportation system. Other attractions include Calaveras Big Trees State Park located on SR 4 east of Arnold, Moaning Cavern on Parrots Ferry Road, California Cavern at Cave City-State Historic Landmark off of Mountain Ranch Road, and Calaveras County Fairgrounds on SR 49 in Angels Camp. Although technically not in geographic Calaveras County, most tourists access Bear Valley Ski Resort in Alpine County by traversing Calaveras County on SR 4. Several reservoirs located in the western portion of the County offer summer boating opportunities. New Melones Reservoir which stretches into Tuolumne County near SR 49 is the largest and attracts nearly 800,000 visitors each year. New Hogan Reservoir is also fairly large and is located near the growing community of Valley Springs.

Most Calaveras County tourist attractions are concentrated along SR 49 and SR 4. Although no official tallies have been taken, it is agreed among businesses and the tourist bureau that the majority of tourists originate from the Bay Area (South Bay and East Bay in particular), Modesto and Sacramento, with the Los Angeles Basin becoming a growing market. Conversations with one tourist business indicated that internet driving direction sites direct Bay Area tourists to use SR 4 to access Calaveras County even though SR 12 is a better and faster roadway. Tourists from Modesto access the County via SR 108 to SR 49.

Peak tourist time periods vary for each attraction. Weekends are peak days for all attractions. Peak months for wineries are May through December and peak months for the caverns and reservoirs are typically during the summer.

Another measure of the level of tourism in Calaveras County is the seasonal use of homes. The U.S. 2000 Census tracks the number of vacant homes that are seasonally occupied. On a Countywide level, the 2000 Census indicated there were 22,946 housing units within the County in 2000. Of these, 6,477 housing units (28 percent) were estimated to be occupied seasonally. As demonstrated in Figure 2, results by block group in Calaveras County show that the eastern portion of the County along SR 4 near Bear Valley Ski Resort contains the largest concentration of seasonal second homes (80 to 100 percent seasonal homes). The communities of Arnold and Dorrington contain block groups with 60 to 80 percent seasonal homes, and the community of Copperopolis between SR 4 and the Tuolumne County line contain block groups with 20 to 40 percent seasonal homes.

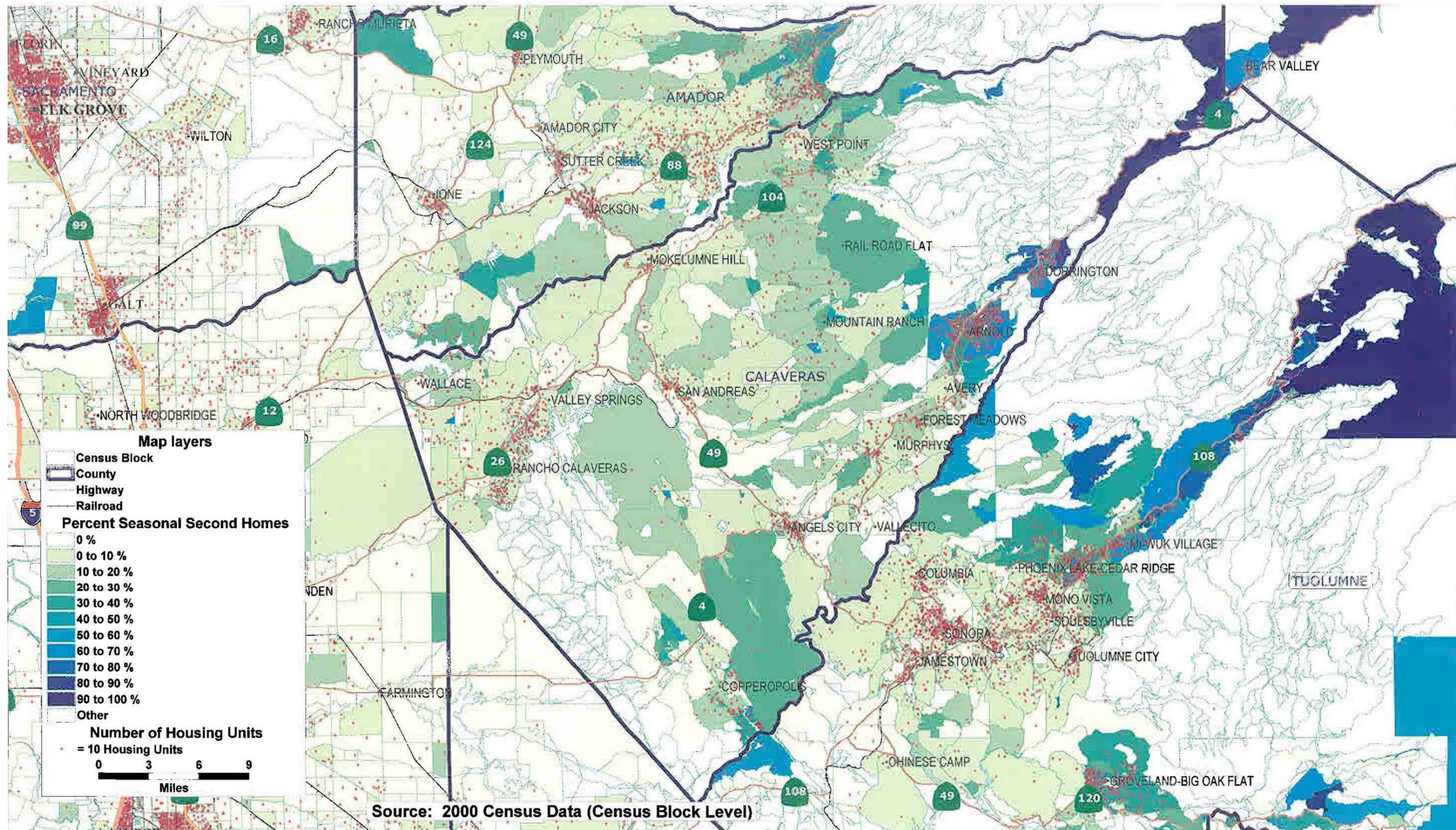
Overall, tourist travel seems to have the greatest effect on SR 4. The problem can be magnified by natural occurrences such as heavy snow or mud slides. It is worthwhile for CCOG to consider transportation improvement projects that relieve congestion in recreational areas or provide for more safe travel along heavily traveled visitor routes.

Economic Base and Employment

Historically, the local economy was based on mining, agriculture, and forestry. More recently, there has been an increase in new community developments to support the increase in population, while tourism (such as vineyards, local art galleries and gold rush museums) is an essential aspect of the County's economy. In 2005, the largest employment industries in the County were private service producing industries (52.8 percent). This includes the "retail trade" and "leisure and hospitality" sectors. The next largest employment industry is government

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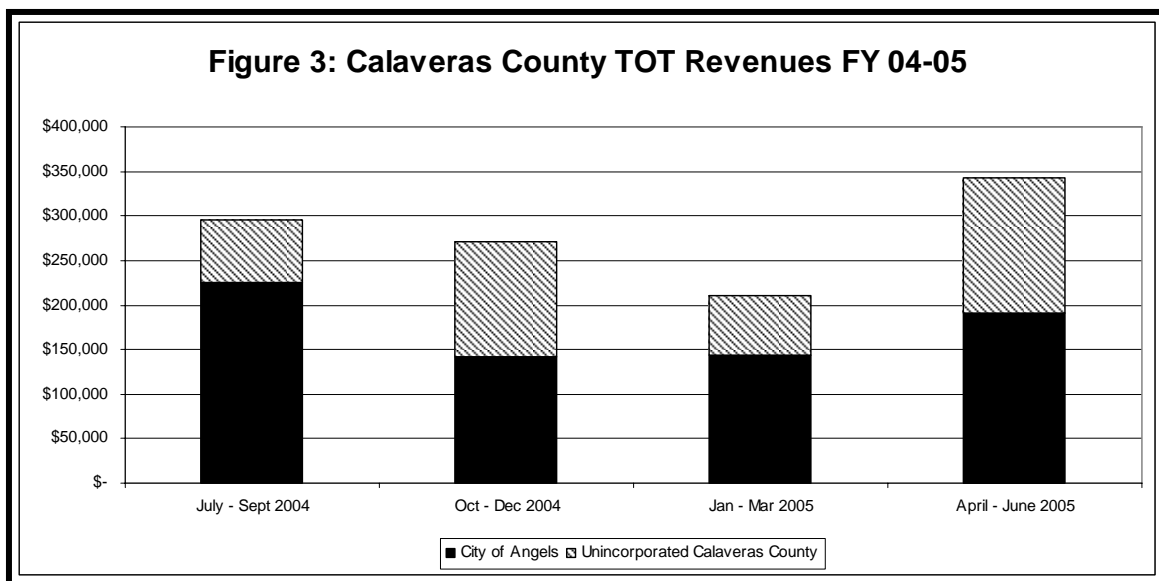
Figure 2: Percent Seasonal Homes in Calaveras County and Surrounding Areas



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(27.36 percent) followed closely by goods producing industries (19.2 percent) such as “natural resource production, mining and construction.” In 2006, 20,040 Calaveras County residents were employed. With a total Countywide labor force of 21,110, there is an average unemployment rate of 5.1 percent, which is slightly lower than the Statewide average of 5.3 percent (California Employment Development Department, 2007).

Figure 3 demonstrates that tourism contributes to the regional economy. Combined Transient Occupancy Tax (TOT) revenues between unincorporated Calaveras County and the City of Angels totaled over \$1.1 million in Fiscal Year 2004-2005. April to June is the peak tourist season for the County as a whole, and July through September is the peak tourist season for the City of Angels. Providing a transportation system that accommodates tourism is important to the economic vitality of the region.



Income

Trends in personal income reflect the growing importance of retirees to the overall economy, as inferred from related income sources such as investments and transfer payments (retirement income). The Bureau of Economic Analysis reports proportions by income source for Calaveras County residents, as shown in Table 6.

Per capita personal income grew from \$17,898 in 1993 to \$25,395 in 2003, a 3.6 percent annual increase over the ten-year period. During this same period, the average annual growth rate for the state was 4 percent, and for the nation was 4.0 percent (Bureau of Economic Analysis).

According to 2000 U.S. Census data, the County’s median household income is estimated at \$41,022, compared to California’s at \$47,493. An estimated 19.4 percent of the population of Calaveras County is living below poverty, which is 5.2 percent higher than the State’s poverty rate of 14.2 percent. As low income individuals represent a significant proportion of public transit passengers, this data reflects Calaveras County’s need to allocate resources to public transit and other transportation improvement projects which could increase mobility for residents without a personal vehicle.

TABLE 6: Trends in Total Personal Income for Calaveras County Residents

Type	1993	2003	Annual % Change	Total Change	% of Total Personal Income In 2003
Net Earnings	\$359,018	\$647,790	6.1%	80.4%	57.0%
Dividends, Interest and Rent	\$148,272	\$246,515	5.2%	66.3%	21.7%
Transfer Payments	\$136,024	\$241,526	5.9%	77.6%	21.3%
<i>Total Personal Income</i>	<i>\$643,314</i>	<i>\$1,135,831</i>	<i>5.8%</i>	<i>76.6%</i>	<i>100.0%</i>

Source: Bureau of Economic Analysis.

TRANSPORTATION SYSTEM DESCRIPTION

The roadway system in Calaveras County totals approximately 1,051 centerline miles. In addition to private roadways, the public roadway system consists of 149 miles in the state highway system, 689 miles in the County roadway system, 29 miles in the City roadway system, 125 miles owned and operated by federal agencies such as the U.S. Forest Service and the Army Corps of Engineers, another 60 miles operated by the state park service, and 29 miles of city roads.

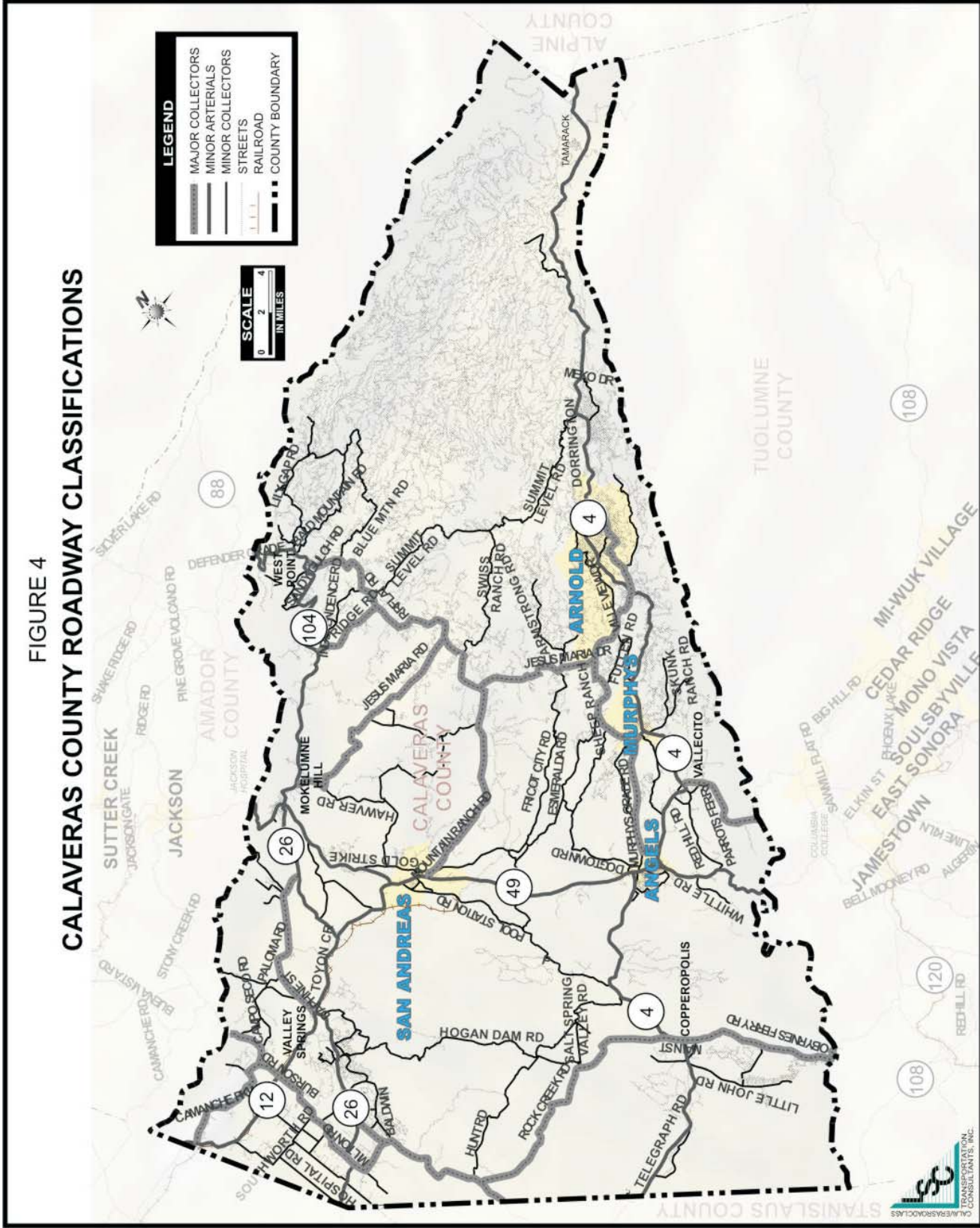
One notable characteristic of Calaveras County's roadway system is the minimal number of traffic signals; there are only five in the entire County. Traffic control is generally provided by stop signs on the side-street approaches.

Road Classification

The majority of the existing streets and highways within Calaveras County are two-lane roadways of varying width (depending on functional classification and usage). Figure 4 depicts Calaveras County's main roadway system, along with their functional classification. A complete list of roadways in Calaveras County and their functional classification is found in Appendix D. The following summaries provide the definition of major roadway functional classifications.

- ▶ **Minor Arterial** – Minor arterials are roadways that are expected to provide relatively high speeds with minimum interference to the through traffic flow or a low proportion of access points. Within Calaveras County, all state routes are classified as minor arterials. These routes include SR 4, 12, 26, and 49.
- ▶ **Major Collectors** – Major collectors provide service to larger towns not directly served by the arterial system and essentially move traffic from one community to the next by providing connections to/from smaller communities to the minor arterials. Examples of major collectors are Murphys Grade Road, Parrotts Ferry Road, and O'Byrnes Ferry Road.
- ▶ **Minor Collectors** – Minor collectors move traffic from traffic generators such as residential areas or commercial centers, to major collectors or minor arterials. Minor collectors are generally located within residential areas, where they connect a number of local roads to a major collector. Minor collector roadways include Pettinger Road, French Gulch Road, and Hogan Dam Road.

FIGURE 4
CALAVERAS COUNTY ROADWAY CLASSIFICATIONS



- ▶ Local Roads – Local roads typically serve low-volume traffic generators located directly on the road.
- ▶ Legacy Streets – The historic streetscape of the City of Angels is irregular and differs widely from street to street. In general, streets are narrow; there are few sidewalks, gutters or curbs. The term “Legacy Streets” is used to designate those streets which are historical in nature and can not be significantly modified without destroying their historical character. On such designated streets there are specific design and usage guidelines governing the right-of-way, traffic flow, and parking.

Major Roadway Network

Calaveras County is served by state highways 4, 12, 26, and 49. The following describes each highway in more detail.

State Route 4

State Route 4 is a two-lane highway that runs southwest to northeast through the County, entering Calaveras County near Copperopolis, and exiting near Tamarack on the way to Alpine County. The highway links the communities of Copperopolis, Angels Camp, Murphys, and Arnold, and provides access to the Calaveras Big Trees State Park. The western portions of the highway are affected by commuter and recreational traffic. The central and eastern segments of SR 4 are used by recreational or truck traffic. As recommended in the Route Concept Report, passing lanes and left-turn lanes could improve performance on these segments of the highway.

State Route 12

State Route 12 travels through the western portion of the County and serves as a connector to San Joaquin County and other highways within Calaveras County, such as SR 12 and 49. The route passes through the community of Valley Springs. There are no designated bike lanes on SR 12, but there are potential Park-and-Ride lot locations planned in Valley Springs.

State Route 26

State Route 26 traverses the northwest corner of Calaveras County by entering near the community of Rancho Calaveras and exiting at West Point. The route is functionally classified as a minor arterial and provides access to New Hogan Reservoir. The communities of Valley Springs, Rancho Calaveras, La Contenta, Mokelumne Hill and West Point are served by this route.

State Route 49

State Route 49 runs north to south through Calaveras County. The highway links communities in the Sierra foothills known as the “Mother Lode” in California’s Gold Country. SR 49 acts as “Main Street” for the City of Angels and San Andreas, and also serves the community of Mokelumne Hill. Both commuters and tourists use the highway as it connects Calaveras County with Tuolumne County and the City of Sonora to the south and Amador County and the City of Jackson to the north.

The four state highways in Calaveras County serve as the backbone of its transportation network. For many communities (Altaville, Angels Camp, Avery, Arnold, Wallace, Burson, Valley

Springs, Glencoe, West Point and San Andreas) it serves as the “Main Street.” As Caltrans is responsible for long-range planning on state highways, coordination efforts with the state agency are required to plan transportation improvement projects that result in an appropriate use of resources that will benefit both the state and local entities. In addition, state highway improvements should be coordinated with local land use/community plans.

Scenic Roadways

Calaveras County's natural beauty is often cited as making the County a desirable place to live. This view is expressed by residents of the County, recreational travelers visiting the County, and small businesses seeking to relocate to the County. It is therefore important that the County develop in a manner which preserves and protects these characteristics. A significant percentage of residents and non-residents alike experience some, if not most, of their scenic viewing from roads and highways.

As shown in Figure 5, and identified in the Scenic Highways section of the County's 1996 General Plan, the following roadway segments have been identified as scenic highways:

State Designated Scenic Highways – Along SR 4 from Arnold in Calaveras County to Highway 89 in Alpine County (Markleeville), also known as Ebbetts Pass Highway.

County Designated Scenic Highways – The following roadway segments are County designated scenic highways: SR 4 between the Stanislaus County line and Angels Camp; SR 4 between Angels Camp and Murphys and SR 49 within the County.

Additionally, Highway 49 from the Tuolumne County line to the Amador County line, and SR 4 between Angels Camp and Arnold are eligible for the State Scenic Highways designation.

National Scenic Byways

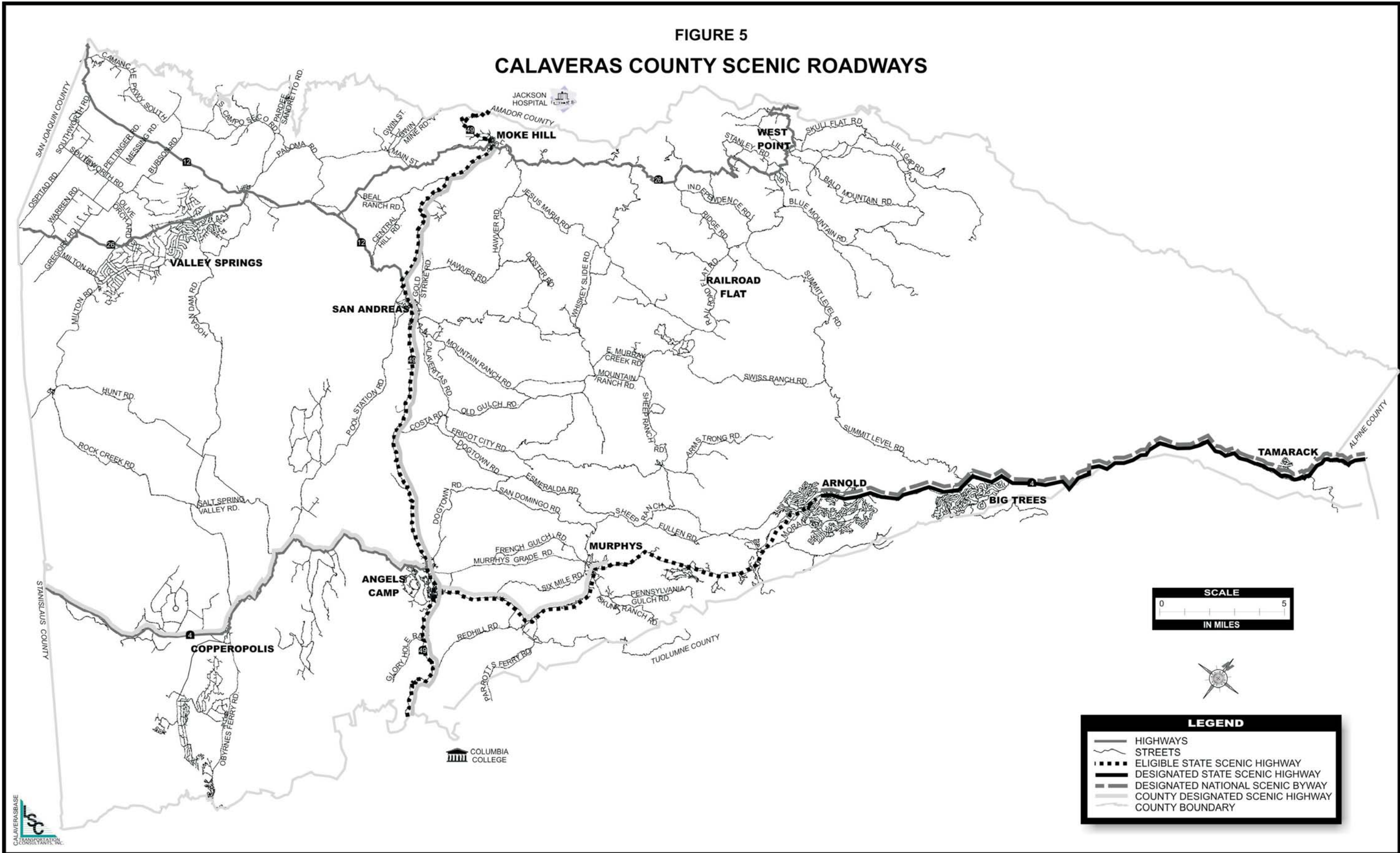
In 1990, the Forest Service adopted a National Scenic Byway system to showcase outstanding National Forest scenery, provide interpretation of National Forest management, meet growing demand for recreational driving opportunities, increase use of National Forests by non-traditional users (urban minorities, disadvantaged and elderly citizens), and enhance rural economic development. In the fall of 2005, the Ebbetts Pass State Scenic Highway received National Scenic Byway status. This 58-mile section of SR 4 stretches between Arnold in Calaveras County and Markleeville in Alpine County. Traveling through Stanislaus and Toiyabe National Forests, the route passes high mountain meadows, glacial lakes, and mountain streams as well as landmarks such as the Pacific Crest Summit, Hermit Valley and Ebbetts Pass. CCOG believes that the new designation will bring increased marketing exposure, access to grants related to improving the traveler's experience on the road and a focused collaborative approach to preserving and improving the assets of the corridor.

As a prerequisite for National Scenic Byway designation, CCOG produced a Corridor Management Plan (CMP) for the Ebbetts Pass National Scenic Byway. The CMP provides a vision for maintaining and enhancing the Scenic Byway and prescribes management strategies such as: development of interpretive features for visitors, protection of the highways intrinsic qualities and continued public, land management agencies, highway agencies and community participation. The CMP identified nine goals for the Ebbetts Pass National Scenic Byway.

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FIGURE 5

CALAVERAS COUNTY SCENIC ROADWAYS



LEGEND

- HIGHWAYS
- - - STREETS
- · · · · ELIGIBLE STATE SCENIC HIGHWAY
- DESIGNATED STATE SCENIC HIGHWAY
- - - - - DESIGNATED NATIONAL SCENIC BYWAY
- COUNTY DESIGNATED SCENIC HIGHWAY
- COUNTY BOUNDARY

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- ▶ To protect and enhance the intrinsic qualities of the corridor for the enjoyment of present and future generations.
- ▶ To provide interpretive and educational opportunities related to the scenic, natural, recreational, cultural, historical, and archaeological features so visitors may develop an appreciation for the unique qualities of the highway corridor.
- ▶ To promote tourism along the highway consistent with community goals and resource development needs.
- ▶ To develop partnerships to broaden the base of support for the highway.
- ▶ To design, build, and maintain interpretive sites to enhance the knowledge, appreciation, and enjoyment of the highway among visitors and residents of all abilities.
- ▶ To design, build, and maintain parking, sanitation and other support facilities to be accessible to people of all abilities, and to protect the resources of the corridor.
- ▶ To develop an integrated highway signage program that incorporates the National Scenic Byway logo and marketing icons, and is consistent with State and local signing policies.
- ▶ To design and implement a “living guidebook” website to assist travelers before they tour the area.

Federal Aid Secondary Roads

The Federal-Aid Highway Act of 1944 designated 64,000 kilometers as "National System of Interstate Highways" and established a federal-aid secondary system of principal secondary and feeder roads. As Federal Aid Secondary Roads (FAS) the following Calaveras County roadways were constructed with federal funds.

O'Byrnes Ferry Road – Runs north to south through the growing Copperopolis area connecting SR 4 to SR 108 in Tuolumne County. This road will be affected by several proposed development projects in Copperopolis.

Milton Road – Located in the western portion of the County, Milton Road runs north to south providing a connection between SR 26 near Valley Ranchos and SR 4 in San Joaquin County. With development in Valley Springs and greater job opportunities in San Joaquin County, Milton Road is a regionally significant roadway where increased usage is possible.

Parrotts Ferry Road – This road connects the communities along SR 4 to Tuolumne County. The road also runs from north to south and provides the most direct access to the city of Sonora from the community of Murphys and the most direct access to Columbia College from Calaveras County.

Rail Road Flat Road – This road runs from SR 26 just south of West Point to the intersection of Mountain Ranch Road and Sheep Ranch Road. The road provides an important connection to the state highway system for remote central county communities.

Local Roads of Regional Significance

The Calaveras County Department of Public Works developed a list of improvement projects for “local roads of regional significance.” Projects on the list were required to satisfy at least one of three major regional transportation planning criteria. The criteria required each local roadway to offer transportation routes that connect major communities in the County; provide parallel capacity for major transportation routes; or serve as emergency relief in case of accidents, landslides, fires or other catastrophic reductions in capacity to major transportation routes. The local roads of regional significance category includes: Avery Sheep Ranch Road, Burson Road, Jenny Lind Road, Moran Road, Mountain Ranch Road, Murphys Grade Road, Paloma Road, Pool Station Road, Ridge Road, Roller Bypass Road and Sheep Ranch Road. FAS roads are also local roads of regional significance. The Road Impact Mitigation (RIM) Fee project list (Table 22) lists local roads of regional significance improvement projects.

Existing Traffic Volumes

Annual Average Daily Traffic (AADT) volume is defined as the total two-way traffic volume on a roadway over the year divided by 365 days. The Caltrans traffic count year is from October 1 through September 30. Traffic counting is generally performed by Caltrans using electronic counting instruments, moved to various locations throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to reflect an estimate of annual average daily traffic by compensating for seasonal fluctuation, weekly variation and other variables that may be present. The recordation of AADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

The highest AADT volume in Calaveras County in 2005 (the latest year for which data is currently available) was observed on SR 49 in Angels Camp at Murphys Grade Road (17,000), as shown Table 7. Other relatively high AADT volumes were observed on SR 49 in Angels Camp near the South Junction of SR 4 (15,900), in San Andreas at Main Street (13,000), near Mountain Ranch Road (12,200), and on SR 4 near White Pines Road (12,100). In summary, Table 7 indicates that the greatest traffic volumes occur in the communities of Angels Camp, San Andreas, and Arnold.

Table 7 also presents historic AADT data for the state routes in the County from 2002 to 2005. Rather large proportionate increases in AADT were recorded in the Valley Springs region along SR 12 at the west junction with Lime Creek Road (11.6 percent annual increase) and on SR 26 near Gregory-Milton Road (10.7 percent annual increase). Decreases in traffic volumes were found in only two locations in the County and were along SR 4 at the Calaveras – Alpine County line and on SR 26 at Winton Road.

The Calaveras County Transportation Demand Model, developed by Fehr and Peers Transportation Consultants, provides average daily traffic volumes in 2002 for a summer weekday along a majority of the minor arterial, major collectors, minor collectors and local roads in the County as shown in Figure 6. As the figure indicates, the highest traffic occurs on the state highways, particularly in San Andreas and Angels Camp. Other high volume roadways include O’Byrnes Ferry Road (4,200 ADT) located south of Copperopolis, Murphys Grade Road (3,600 ADT) near Murphys, Parrotts Ferry Road (2,400 ADT) southwest of Angels Camp and Mountain Ranch Road (2,200 ADT) near San Andreas.

TABLE 7: Calaveras County State Highway Daily Traffic Volumes 2002-2005

Location	Annual Average Daily Traffic Volumes				Change in Traffic Volumes						Average Annual % Change 2002-05
					2002-03		2003-04		2004-05		
	2002	2003	2004	2005	#	%	#	%	#	%	
State Route 4											
Stanislaus-Calaveras County Line	5,000	5,000	5,200	5,400	0	0.0%	200	4.0%	200	3.8%	1.9%
O Byrnes Ferry Road, West	5,000	5,000	5,100	5,200	0	0.0%	100	2.0%	100	2.0%	1.0%
Angels Camp, East Jct. Rte. 49, East	6,700	6,700	6,800	6,900	0	0.0%	100	1.5%	100	1.5%	0.7%
Rolleri Bypass Road	6,400	6,400	6,500	6,600	0	0.0%	100	1.6%	100	1.5%	0.8%
Vallecito, East	8,300	8,300	8,400	8,600	0	0.0%	100	1.2%	200	2.4%	0.9%
Big Trees/Tombell Roads, East	9,700	9,700	9,800	10,000	0	0.0%	100	1.0%	200	2.0%	0.8%
Avery, Moran Road West Junction, West	10,600	10,600	10,800	11,000	0	0.0%	200	1.9%	200	1.9%	0.9%
White Pines Road, West	11,700	11,700	11,900	12,100	0	0.0%	200	1.7%	200	1.7%	0.8%
Moran Road East Junction, West	7,300	7,300	7,400	7,500	0	0.0%	100	1.4%	100	1.4%	0.7%
Dorrington, West	4,000	4,000	3,900	4,000	0	0.0%	-100	-2.5%	100	2.6%	0.0%
Meko Drive, East	1,750	1,750	1,700	1,750	0	0.0%	-50	-2.9%	50	2.9%	0.0%
Big Meadows, West	1,550	1,550	1,500	1,550	0	0.0%	-50	-3.2%	50	3.3%	0.0%
Calaveras-Alpine County Line	1,250	1,250	1,200	1,100	0	0.0%	-50	-4.0%	-100	-8.3%	-3.1%
State Route 12											
San Joaquin-Calaveras County Line	7,300	7,300	7,400	7,500	0	0.0%	100	1.4%	100	1.4%	0.7%
Burson, Burson Road, East	8,500	8,500	8,900	9,000	0	0.0%	400	4.7%	100	1.1%	1.4%
Valley Springs, Pine Street, East	8,700	8,700	9,000	9,100	0	0.0%	300	3.4%	100	1.1%	1.1%
Jct. Rte. 26 South, West	8,700	8,700	9,000	9,100	0	0.0%	300	3.4%	100	1.1%	1.1%
West Junction Lime Creek Road, East	5,600	5,600	5,700	8,700	0	0.0%	100	1.8%	3,000	52.6%	11.6%
Toyon, Jct. Rte. 26 North, West	6,000	6,000	6,100	9,000	0	0.0%	100	1.7%	2,900	47.5%	10.7%
San Andreas, Jct. Rte. 49	6,600	6,600	6,800	9,400	0	0.0%	200	3.0%	2,600	38.2%	9.2%
State Route 26											
San Joaquin-Calaveras County Line, East	3,800	3,800	3,800	4,900	0	0.0%	0	0.0%	1,100	28.9%	6.6%
Gregory-Milton Road, West	3,200	3,200	3,200	4,800	0	0.0%	0	0.0%	1,600	50.0%	10.7%
Jenny Lind Road, West	3,550	3,550	3,550	4,000	0	0.0%	0	0.0%	450	12.7%	3.0%
Silver Rapids Road, East	6,800	6,800	6,800	7,000	0	0.0%	0	0.0%	200	2.9%	0.7%
La Contenta Country Club Entrance, West	9,400	9,400	9,400	10,000	0	0.0%	0	0.0%	600	6.4%	1.6%
Hogan Dam Road, East	9,400	9,400	9,400	9,500	0	0.0%	0	0.0%	100	1.1%	0.3%
Valley Springs, West Jct. Rte. 12	9,900	9,900	9,900	10,100	0	0.0%	0	0.0%	200	2.0%	0.5%
Toyon, East Jct. Rte. 12	1,300	1,300	1,300	1,350	0	0.0%	0	0.0%	50	3.8%	0.9%
Mokelumne Hill, Jct. Rte. 49, West	2,100	2,100	2,100	2,150	0	0.0%	0	0.0%	50	2.4%	0.6%
Ridge Road, East	1,250	1,250	1,250	1,500	0	0.0%	0	0.0%	250	20.0%	4.7%
Railroad Flat Road, East	1,900	1,900	1,900	1,900	0	0.0%	0	0.0%	0	0.0%	0.0%
Winton Road, West	2,400	2,400	2,400	2,200	0	0.0%	0	0.0%	-200	-8.3%	-2.2%
Main Street, East	2,200	2,200	2,200	2,200	0	0.0%	0	0.0%	0	0.0%	0.0%
Calaveras-Amador County Line	2,300	2,300	2,300	2,300	0	0.0%	0	0.0%	0	0.0%	0.0%
State Route 49											
Tuolumne-Calaveras County Line	5,500	5,800	5,900	6,000	300	5.5%	100	1.7%	100	1.7%	2.2%
Angels Camp, South Jct. Rte. 4, North	12,900	15,500	15,600	15,900	2,600	20.2%	100	0.6%	300	1.9%	5.4%
Angels Camp, Murphys Grade Road, South	13,000	16,500	16,700	17,000	3,500	26.9%	200	1.2%	300	1.8%	6.9%
Angels Camp, North Jct. Rte. 4, South	11,300	11,800	11,900	12,100	500	4.4%	100	0.8%	200	1.7%	1.7%
Fricot Road, North	6,700	6,900	7,000	7,100	200	3.0%	100	1.4%	100	1.4%	1.5%
San Andreas, Mountain Ranch Road, North	11,600	11,900	12,000	12,200	300	2.6%	100	0.8%	200	1.7%	1.3%
San Andreas, Main Street, South	12,200	12,600	12,700	13,000	400	3.3%	100	0.8%	300	2.4%	1.6%
Jct. Rte. 12 West, South	10,500	10,700	10,900	11,100	200	1.9%	200	1.9%	200	1.8%	1.4%
Gold Strike Road, North	5,100	5,200	5,300	5,400	100	2.0%	100	1.9%	100	1.9%	1.4%
Mokelumne Hill, Jct. Rte. 26, North	5,400	5,500	5,600	5,700	100	1.9%	100	1.8%	100	1.8%	1.4%
Calaveras-Amador County Line, South	5,000	5,000	5,100	5,200	0	0.0%	100	2.0%	100	2.0%	1.0%

Source: 200-2005 Traffic Volumes on California State Highways, Caltrans, 2007.

State Highway Truck Networks

In 1982, the federal government passed the Surface Transportation Assistance Act (STAA). This Act required states to allow larger trucks on the "National Network," which is comprised of the Interstate system plus the non-Interstate Federal-aid Primary System. The four major truck size categories are:

- STAA Truck with Single Trailer – 48 feet max or 53 feet max with kingpin-to-rear-axle (KPRI) of 40 feet max.
- STAA Truck with Double Trailer – 28 feet 6 inch max for semi-trailer and trailer.

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- California Legal Truck with Singer Trailer – KPRA = 40 feet max (if 2 axles in rear); KPRA = 38 feet max (if 1 axle in rear); combination length = 65 feet max.
- California Legal Truck with Double Trailer – 28 feet 6 inch max for semi-trailer and trailer with combination length of 75 feet max or; either trailer or semi-trailer = 28 feet 6 inch max and the other trailer has no limit with combination length of 65 feet max.

All state highways are assigned route classifications which designate the permissible truck size for the route. In Calaveras County, STAA network routes include:

- SR 4 from the Stanislaus County line to Rock Creek Road at O'Byrnes Ferry Road near Copperopolis
- SR 4 from the SR 49 northern intersection to the Alpine County line
- SR 49 from San Andreas to the SR 4 southern intersection
- SR 12 from the San Joaquin County line to SR 49

California Legal Network routes include:

- SR 49 from the Amador County line to San Andreas
- SR 26 from SR 12 to SR 49

Certain California Legal routes can not safely accommodate trucks with KPRA of 38 feet, due to limiting geometrics such as sharp turns and highway width. In these cases the route is posted with an advisory sign stating the advised maximum KPRA length. The driver is legally responsible for unsafe off-tracking, such as crossing the centerline or driving on shoulders, curbs and sidewalks. There are four California Legal Advisory Network route segments in Calaveras County:

- SR 4 at Rock Creek Road at O'Byrnes Ferry Road near Copperopolis to SR 49
- SR 49 from SR 4 southern intersection to Tuolumne County line
- SR 26 from San Joaquin County line to SR 12
- SR 26 from San Andreas to Amador County line

STAA routes traversing Calaveras County are disjointed. An STAA size truck is unable to travel from Stockton to Angels Camp on SR 4. Although the new SR 4 Bypass will meet STAA requirements, the entire length of SR 4 in Calaveras County will not be on the STAA network.

Goods Movement

A combination of state highways and County roads serve as the primary network for goods movement in Calaveras County. Adequate maintenance and efficient operation of this roadway network is critical to the continued economic vitality of the County. As reflected in the interviews with truck traffic generators, goods movement is generally perceived as good, but some see new developments negatively impacting the regional transportation system. Potential conflicts between truck traffic and recreational vehicle traffic on the County's narrow two-lane highways is seen as an issue. Some roads are simply too narrow to accommodate both goods movement and recreational traffic safely. Due to permitting constraints, larger trucks typically must take a less direct route to delivery locations, thereby decreasing the efficiency. Additionally, a lack of shoulders and passing opportunities on the highway system is a safety concern in Calaveras County. All these factors can negatively impact goods movement through the County.

Table 8 presents data regarding truck activity on the state highways in Calaveras County from 2001 to 2005. The highest volume in 2005 was observed on SR 49 in Angels Camp at the south junction with SR 4 (1,431). Other locations with high truck traffic volumes include SR 49 at the junction with SR 12 (677), SR 12 in San Andreas at the junction of SR 49 (630) and on SR 49 at Mountain Ranch Road (610).

TABLE 8: Truck Traffic on Calaveras County State Highways

Location	Average Annual Daily Truck Traffic ⁽¹⁾					Change in Truck Traffic		Annual % Change 2001-05	Total Annual Avg. Daily Traffic Volumes 2005	Percent Trucks 2005
	2001	2002	2003	2004	2005	#	%			
SR 4 @										
Stanislaus/Calaveras County Line	209	225	225	233	242	33	15.8%	3.0%	5,400	4.5%
Angels Camp, Jct. Rte. 49, West	154	184	184	188	192	38	24.7%	4.5%	4,800	4.0%
Angels Camp, Jct. Rte. 49, East	224	268	268	272	276	52	23.2%	4.3%	6,900	4.0%
Vallecito, West	364	436	436	442	449	85	23.4%	4.3%	6,900	6.5%
Vallecito, East	455	547	547	554	567	112	24.6%	4.5%	8,600	6.6%
Big Trees/Tombell Roads, East	405	485	485	455	500	95	23.5%	4.3%	10,000	5.0%
Big Trees/Tombell Roads, West	375	450	450	490	465	90	24.0%	4.4%	9,300	5.0%
Moran Road East Junction, West	228	292	292	296	300	72	31.6%	5.6%	7,500	4.0%
Big Trees State Park, East	200	260	260	273	280	80	40.0%	7.0%	4,000	7.0%
Big Trees State Park, West	210	266	266	253	260	50	23.8%	4.4%	3,700	7.0%
Meko Drive, West	140	140	140	136	140	0	0.0%	0.0%	1,650	8.5%
Calaveras/Alpine County Line	25	25	25	24	22	-3	-12.0%	-2.5%	1,100	2.0%
SR 12 @										
Valley Springs, Jct. Rte. 26 South, West	517	549	549	568	574	57	11.0%	2.1%	9,100	6.3%
Valley Springs, Jct. Rte. 26 South, East	397	421	421	427	439	42	10.6%	2.0%	7,200	6.1%
Toyon, Jct. Rte. 26 North, West	342	360	360	366	540	198	57.9%	9.6%	9,000	6.0%
San Andreas, Jct. Rte. 49, West	415	442	442	456	630	215	51.8%	8.7%	9,400	6.7%
SR 26 @										
Jenny Lind Road, West	241	241	241	241	272	31	12.9%	2.4%	4,000	6.8%
Jenny Lind Road, East	274	274	274	274	290	16	5.8%	1.1%	4,600	6.3%
La Contenta Country Club Entrance, West	475	475	475	475	450	-25	-5.3%	-1.1%	10,000	4.5%
La Contenta Country Club Entrance, East	423	423	423	423	486	63	14.9%	2.8%	9,000	5.4%
Valley Springs, Jct. Rte. 12, West	426	426	426	426	434	8	1.9%	0.4%	10,100	4.3%
Valley Springs, Jct. Rte. 12, East	65	65	65	65	68	3	4.6%	0.9%	1,350	5.0%
Mokelumne Hill, Jct. Rte. 49, East	62	62	62	62	64	2	3.2%	0.6%	1,400	4.6%
Mokelumne Hill, Jct. Rte. 49, West	60	93	93	93	95	35	58.3%	9.6%	2,150	4.4%
Ridge Road, East	64	64	64	64	77	13	20.3%	3.8%	1,250	6.2%
Ridge Road, West	74	74	74	74	77	3	4.1%	0.8%	1,500	5.1%
Glenco, Associated Office Road, West	73	73	73	73	83	10	13.7%	2.6%	920	9.0%
Glenco, Associated Office Road, East	47	47	47	47	48	1	2.1%	0.4%	1,600	3.0%
Winton Road, West	99	101	101	101	92	-7	-7.1%	-1.5%	2,200	4.2%
Winton Road, East	89	84	84	84	80	-9	-10.1%	-2.1%	2,100	3.8%
SR 49 @										
Tuolumne/Calaveras County Line, East	220	220	232	236	240	20	9.1%	1.8%	6,000	4.0%
Angels Camp, South Jct. Rte. 4, West	637	637	672	679	693	56	8.8%	1.7%	9,900	7.0%
Angels Camp, South Jct. Rte. 4, East	1161	1161	1395	1404	1431	270	23.3%	4.3%	15,900	9.0%
North Jct. Rte. 4, East	356	356	519	524	532	176	49.4%	8.4%	12,100	4.4%
North Jct. Rte. 4, West	497	497	372	376	384	-113	-22.7%	-5.0%	9,600	4.0%
Mountain Ranch Road, West	375	375	385	600	400	25	6.7%	1.3%	8,000	5.0%
Mountain Ranch Road, East	580	580	595	390	610	30	5.2%	1.0%	12,200	5.0%
Jct. Rte. 12 West, West	641	641	653	665	677	36	5.6%	1.1%	11,100	6.1%
Jct. Rte. 12 West, East	299	299	306	313	320	21	7.0%	1.4%	4,700	6.8%
Mokelumne Hill, Jct. Rte. 26, West	302	302	309	316	324	22	7.3%	1.4%	4,500	7.2%
Mokelumne Hill, Jct. Rte. 26, East	367	367	374	381	388	21	5.7%	1.1%	5,700	6.8%

Note 1: Truck traffic includes all vehicles in the two-axle class (including 1-1/2 ton trucks with dual rear tire and excludes pickups and vans with only four tires) and above.
Source: 2001-2003 Annual Average Daily Truck Traffic on the California State Highway System, Caltrans, 2005.

In 2005, the proportion of all traffic consisting of trucks was highest on SR 49 in Angels Camp at the junction with SR 4 (9.0 percent), followed by SR 4 at Meko Drive (8.5 percent). In terms of truck traffic on County maintained roadways, 450 one-time permits were issued by the County in 2004 and 77 companies/agencies applied for annual permits in 2004. County staff noted that not all the companies who applied for annual truck permits may have made actual trips in Calaveras County.

Overall, state highway truck traffic increased between 2001 and 2005 on most segments of the state highway system, with the greatest increase seen on SR 26 in Mokelumne Hill at the junction with SR 49 (a 58.3 percent increase). The greatest decrease was on SR 49 at the north junction of SR 4 with a 22.7 percent decrease in daily truck traffic over the five-year period.

Existing Traffic Conditions

Level of Service

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations from A to F, with Level of Service A representing the best operating conditions, and Level of Service F the worst.

In general, the various levels of service are defined as follows for uninterrupted flow facilities:

- ▶ **Level of Service A** represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.
- ▶ **Level of Service B** is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.
- ▶ **Level of Service C** is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.
- ▶ **Level of Service D** represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
- ▶ **Level of Service E** represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.
- ▶ **Level of Service F** is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse

the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, and then be required to stop in a cyclic fashion. Level of Service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes the queue to form, and Level of Service F is an appropriate designation for such points.

The *Calaveras County General Plan Circulation Element* contains the following policy and implementation measures:

“Policy III-7C: Ensure monies are collected to upgrade County roads to the standards of their respective functional service classifications.

“Implementation Measure III-7C-1: Require developers seeking discretionary approval of a project or construction of new multifamily residential, commercial, or industrial development on parcels served by regional County roads at level of service A, B, or C to contribute as needed to the road improvement mitigation fund for both the road region and the road serving the subject property.

“Implementation Measure III-7C-2: When a project is proposed to be located in a road region which includes County roads at level of service D, E or F on which traffic generated by the project will logically travel, allow the developer the following road improvement options:

- Defer project consideration until the County road is upgraded to level of service A, B, or C.*
- Construct at developer expense all onsite and offsite improvements necessary to upgrade all County roads impacted by the project to service level A, B, or C.*
- Form an improvement district with other property owners in the area to share the cost of upgrading impacted County roads to service level A, B, or C.*

“Implementation Measure III-7C-3: If a developer funds the cost of upgrading a County road to service level A, B or C, permit execution of an agreement to reimburse the developer for expenses beyond the required proportional share or improvements; reimbursement may come from fees collected from future developers or future building permits issued in the road region.”

Caltrans policy states that the concept level of service on interregional routes in rural areas is LOS C. With the exception of SR 26, all state highways in Calaveras County are considered interregional routes.

Roadway LOS

LOS for rural highways is largely determined by roadway geometry factors, such as grades, vertical and horizontal curves, and the presence of passing opportunities. In mountainous topography and particularly through canyons, roadway LOS can be relatively low, even absent substantial traffic volumes. Roadway LOS can also be impacted in developed areas by pedestrian, bicycle and parking activity.

The following are Caltrans' estimates of LOS on primary roadway segments during peak traffic conditions.

State Route 4 (State Route 4 Transportation Concept Report, Caltrans, 2002)

- between Stanislaus County Line and O'Byrnes Ferry Road – LOS B
- between O'Byrnes Ferry Road and Rock Creek Road – LOS B
- between Rock Creek Road and West City of Angels Limit – LOS B
- between City of Angels Limit and East City of Angels Limit – LOS C
- between East City of Angels Limit and West Moran Road – LOS D
- between West Moran Road and East Moran Road – LOS E
- between East Moran Road and Dorrington – LOS D
- between Dorrington and Big Meadows – LOS D
- between Big Meadows and Alpine County Line – LOS D

State Route 12

The Transportation Concept Report is currently being updated. The final version is not yet available; however, the Valley Springs Bypass PSR provides existing LOS for roadway segments in Valley Springs.

- West of SR 12/26 intersection – LOS C
- East of SR 12/26 intersection (combined SR 12-26 segment) – LOS C

State Route 49

The Transportation Concept Report is currently being updated. The final version is not yet available.

State Route 26 (State Route 26 Transportation Concept Report, Caltrans, 2003)

- between San Joaquin County and Silver Rapids Road - LOS C
- between Silver Rapids Road and East Junction with SR 12 – LOS D
- between West Junction with SR 12 and Ridge Road – LOS B
- between Ridge Road and West Point – LOS B
- between West Point and Amador County – LOS A

Existing conditions (2002) roadway LOS on key regional corridors was estimated using PM peak hour volumes from the Calaveras Travel Demand Model and Florida DOT's HIGHPLAN software. Based on the conclusion that the *Highway Capacity Manual* (HCM) rural roadway methodology is not appropriate for more developed rural areas, the Florida DOT recently developed the LOSPLAN software. HIGHPLAN, a module of the LOSPLAN software, uses the HCM 2000 analysis technique and new capacity values but is based on the premise that the most relevant service measure for motorists on two-lane highways in developed areas is to maintain a "reasonable" speed, instead of the HCM 2000's primary service measure of "percent time spent following" (the percent of a driver's trip spent following another car). Drivers in developed areas primarily base their LOS on how close they are going relative to their free flow speeds and not so much based on the ability to set their own travel speed or to pass. In other words, as it is not the typical driver's expectation to be able to make a passing maneuver while driving through rural areas, it is not appropriate to consider LOS based upon the ability to pass. The HIGHPLAN methodology was determined to be appropriate by Caltrans, Calaveras County and CCOG for the RTP.

Table 9 presents the results. As shown in Table 9, LOS C is exceeded in the PM peak hour in the peak direction on the following roadway segments:

- SR 49 between SR 12 in San Andreas and Mountain Ranch Road
- SR 49 between Fourth Crossing Road and Brunner Hill Road at the north end of Angels Camp
- Mountain Ranch Road

Intersection LOS

The Calaveras Council of Governments contracted with All Traffic Data located in Roseville, California in the summer of 2005 to conduct AM and PM peak-hour turning-movement counts at several intersections in Calaveras County. Signalized and two-way stop-controlled intersection LOS was evaluated for the study intersections using Synchro software (Version 6, Trafficware 2004) based on the 2000 *Highway Capacity Manual* (HCM) methodologies. As HCM is unable to analyze atypical intersections, the approaches to the SR 4 (NB)/ Blagen and SR 4 (SB)/ Dunbar intersection were combined into a "T" intersection configuration. Detailed LOS calculations are provided in Appendix E. As shown in Table 10, LOS thresholds are currently at acceptable levels at all study intersections except for SR 4 South and SR 49 (Southern Intersection) during the PM peak hour on a summer weekday. Note that at unsignalized intersections, the worst approach LOS is reported, while the total intersection LOS is reported for signalized intersections.

Another key intersection in Calaveras County is the 4-way stop in the community of Valley Springs at SR 12 and SR 26. This intersection was analyzed in the Valley Springs Bypass Project Study Report (PSR). According to the report, the intersection includes non-standard truck turning radius at the southeast, northeast and northwest corners and tight intersection geometry. Additionally several commercial properties exist in the vicinity, increasing traffic congestion. Currently the intersection operates at LOS F and up to a five-minute delay is possible. Poor LOS is expected to continue due to both population growth and increased recreational traffic in the area. The proposed Valley Springs Bypass project and SR 12/26 intersection improvements (discussed in Chapter 4) are intended to reduce congestion and delay at the SR12/26 intersection at Valley Springs.

Vehicle-Miles of Travel

The amount of vehicle-miles traveled on State highways in Calaveras County changed significantly between 1999 and 2004. In 2004 (the last year for which data is currently available) an estimated 281.3 million miles were traveled along state highways in Calaveras County. This is an increase of 16.2 percent over 1999 (242 million miles), or an increase of 3 percent per year. Using the Calaveras County Transportation Demand model, daily vehicle miles of travel for the average summer weekday were estimated for the County as a whole. In 2002 conditions, approximately 1.03 million daily vehicle miles were traveled on both state highways and County roadways. Under future conditions (2025) approximately 2.76 million daily vehicle miles will be traveled countywide. This represents a 166.9 percent total increase or 4.4 percent increase per year.

The number of reported traffic accidents on roadways in Calaveras County totaled 440 accidents in 2002. Of these accidents, there were a total of 295 injuries and two fatalities (Caltrans District 10, 2002).

TABLE 9: Calaveras County 2002 PM Peak Hour Roadway Capacity Analysis

Roadway Segment	Classification	LOS C Capacity (vph in peak direction)	2002 Traffic Volume (vph in peak direction)	LOS	LOS C Capacity Exceeded?
SR 49 between Amador County Line and SR 12 (San Andreas)	Minor Arterial	320	268	C	NO
SR 49 between SR 12 (San Andreas) and Mountain Ranch Rd	Minor Arterial	460	489	D	YES
SR 49 between Mountain Ranch Rd and Fourth Crossing Rd	Minor Arterial	590	398	C	NO
SR 49 between Fourth Crossing Rd and Brunner Hill Rd (N. end of Angels Camp)	Minor Arterial	470	396	C	NO
SR 49 between Brunner Hill Rd and SR 4 Jct. South (Angels Camp Downtown)	Minor Arterial	420	567	D	YES
SR 49 from SR 4 Jct. South (Angels Camp) to Tuolumne County Border	Minor Arterial	510	368	C	NO
SR 4 from Stanislaus County line to O'Byrnes Ferry Rd (Copperopolis)	Minor Arterial	470	121	B	NO
SR 4 between O'Byrnes Ferry Rd (Copperopolis) and SR 49	Minor Arterial	440	228	B	NO
SR 4 between Angels Camp and Allen St (just west of Murphys)	Minor Arterial	420	366	C	NO
SR 4 between Allen St and Broadview Ln (Murphys Downtown)	Minor Arterial	830	545	C	NO
SR 4 between Broadview Ln (Murphys) and Valley View Dr (Arnold)	Minor Arterial	550	514	C	NO
SR 4 between Valley View Dr and Henry Rd (Arnold Downtown)	Minor Arterial	520	228	C	NO
SR 4 between Henry Rd (Arnold) and Alpine Co. line	Minor Arterial	490	162	B	NO
SR 12 between San Joaquin County line and Valley Springs	Minor Arterial	420	341	C	NO
SR 12 between Valley Springs and SR 26 East Jct.	Minor Arterial	580	381	C	NO
SR 26 between San Joaquin County line and Olive Orchard Rd	Minor Arterial	420	275	C	NO
SR 26 between Olive Orchard Rd and Lime Creek Rd (Valley Springs)	Minor Arterial	830	458	C	NO
SR 26 between SR 12 Jct East of Valley Springs and Mokelumne Hill	Minor Arterial	330	94	B	NO
SR 26 between Mokelumne Hill and West Point	Minor Arterial	250	150	C	NO
Murphys Grade Rd between Angels Camp and Murphys	Major Collector	260	246	C	NO
Mountain Ranch Rd between SR 49 and Sheep Ranch Rd	Through Road	230	246	D	YES
O'Byrnes Ferry Rd between SR 4 and Tuolumne County line	Major Collector	440	193	B	NO

Note: Roadway capacities based upon Florida DOT's HIGHPLAN Software.
Source: Calaveras County Transportation Demand Model, 2002

TABLE 10: Calaveras County 2005 Summer Weekday Intersection LOS

Intx #	Intersection		AM Peak-Hour LOS ¹	PM Peak-Hour LOS ¹
	North/South	East/West		
1	SR 26	Railroad Flat Road	A	A
2	SR 26	Ridge Road	A	A
3 ⁽²⁾	SR 4 (NB)/ Blagen & Dunbar	SR 4 (SB)	B	C
4	SR 4	Main Street (Murphys)	C	C
5	SR 4	Parrotts Ferry Road	B	B
9	SR 49	SR 26	B	C
11	Pettinger Road	SR 12	B	B
12	SR 49	Gold Strike Road	A	B
13	SR 49	Pool Station Road	C	C
14	SR 49	Mountain Ranch Road	C	C
17	SR 4	SR 49 (Northern Intersection)	B	B
18	Murphys Grade Road / Demarest Street	SR 4	B	B
19	SR 4 South	SR 49 (Southern Intersection)	C	F
20	SR 4	Bret Harte Drive	B	C
21	SR 4	Avery Sheep Ranch Road	B	B

Note 1: Worst Approach LOS is reported for unsignalized intersections, while total intersection LOS is reported for signalized intersections.

Note 2: HCM is not able to analyze atypical intersections; therefore Blagen and Dunbar approaches were combined into a "T" intersection configuration.

Source: LSC Transportation Consultants, Inc.

Registered Vehicles

In 2003, there were 64,502 fee-paid vehicles registered in Calaveras County. Between 2000 and 2003, the population increased 7.4 percent (2,991 people), while the number of automobiles and trucks registered increased by 12.0 percent (6,902 vehicles) during this same period. In 2003, there were 64,502 registered vehicles and 43,535 residents of the County reflecting a ratio of 1.5 vehicles per resident (Department of Motor Vehicles, Department of Finance, Caltrans).

Bridges

Calaveras County roadways include a total of 99 bridges (Caltrans District 10, 2005). As presented in Table 11, of the 72 bridges under the jurisdiction of the County, 14 are structurally deficient (SD) while 11 are functionally obsolete (FO). "Structural deficiencies" indicates that a bridge has a loading limit and a permit is required prior to crossing with loads exceeding the limit, while "functionally obsolete" refers to bridges with access limits such as the presence of only one travel lane, the lack of proper bridge rails, or lack of appropriate clearances.

The Calaveras County state highway bridge inventory, presented in Table 12, provides an inventory of all the state bridges located in Calaveras County. Of the 27 bridges located along State highways in the County, 6 have a structurally deficient rating of 4 or lower in the "deck" category, while 9 state bridges have a functionally obsolete rating of 4 or lower in the same category. Bridges are rated from 0 to 9, with 9 being the best rating.

TABLE 11: Log of Bridges on County Roadways

Bridge Number	District	Bridge Name	Facility Carried	Bypass Length	Lanes ONUN	AADT	Appr Width	Str Type	Road Width	Year Built	SD/ FO	Length	Suff Rating
30C0004	10	Rock Creek	Rock Creek Rd	40	0200	100	4.6	201	8.5	1990		31	99.8
30C0005	10	Rock Creek Overflow	Rock Creek Rd	26	0200	27	4.6	201	5.8	1936		10	76.4
30C0013	10	Cosgrove Creek	Hogan Dam Rd	13	0200	500	5.5	201	5.7	1941	FO	11	71.3
30C0016	10	Mokelumne River	Middle Bar Rd	24	0200	30	3.7	310	6.1	1912	SD	63	35.9
30C0017	10	North Fork Calaveras River	Jesus Maria Rd	35	0200	300	4.9	205	8.5	1989		28	99.5
30C0018	10	Youngs Creek	Lime Creek Rd	3	0200	100	5.8	104	6.5	1915	SD	18	66.9
30C0019	10	Youngs Creek	Lime Creek Rd	3	0200	100	5.8	204	6.4	1917		14	79.0
30C0020	10	Cosgrove Creek	Hogan Dam Rd	13	0200	1000	6.1	319	6.4	1962	FO	14	71.9
30C0021	10	Coyote Creek	Douglas Flat	199	0100	50	3.0	302	3.6	1935	SD	13	22.0
30C0022	10	Murray Creek	Gold Strike Rd	8	0200	200	6.1	302	8.2	1949		16	95.9
30C0023	10	North Fork Calaveras River	Gold Strike Rd	8	0200	200	7.3	201	8.5	1951		47	96.9
30C0024	10	Calaveritas Creek	Calaveritas Rd	5	0100	100	4.9	310	5.5	1928	SD	31	38.9
30C0026	10	San Andreas Creek	Main St	1	0200	400	6.1	111	6.8	1914		9	67.6
30C0027	10	Middle Fork Mokelumne River	Schadd Rd	199	0200	100	6.7	504	8.5	1968		16	91.1
30C0028	10	Black Creek	O'Byrnes Ferry Rd	80	0200	5000	8.5	204	8.5	1972		38	96.5
30C0030	10	Indian Creek	Sheep Ranch Rd	42	0200	200	4.9	101	8.5	1989		9	99.6
30C0033	10	San Andreas Creek	California St	1	0200	200	5.8	119	6.4	1953		11	83.0
30C0034	10	Angels Creek	Utica Powerhouse Rd	3	0200	50	3.7	101	5.5	1920		10	64.5
30C0035	10	Calaveritas Creek	Poole Station Rd	42	0200	900	9.8	106	9.8	2001		23	98.2
30C0036	10	Angels Creek	Main St	3	0200	800	9.1	111	9.1	1909		9	60.0
30C0037	10	S Fork Mokelumne River	Railroad Flat Rd	23	0200	700	9.2	101	9.2	2001		41	97.2
30C0038	10	San Domingo Creek	Sheep Ranch Rd	35	0200	200	4.9	101	8.6	1980		12	99.7
30C0039	10	San Antonio Creek	Sheep Ranch Rd	84	0200	300	7.3	302	7.2	1930		13	58.2
30C0040	10	O'neil Creek	Sheep Ranch Rd	84	0200	300	7.6	302	7.7	1930	SD	13	38.0
30C0041	10	Mckinney Creek	Sheep Ranch Rd	84	0200	300	8.5	119	8.4	1967		6	92.9
30C0042	10	Huntington Creek	Milton Rd	89	0200	1000	9.8	119	9.8	1967		8	94.3
30C0043	10	S Gulch Creek	Milton Rd	89	0200	1000	7.7	119	9.8	1967		10	94.3
30C0044	10	Esperanza Creek	Railroad Flat Rd	42	0200	300	5.8	302	5.9	1940	FO	14	49.7
30C0045	10	Bear Creek	Poole Station Rd	45	0200	126	8.8	104	8.5	1979		15	99.7
30C0046	10	Jesus Maria Creek	Railroad Flat Rd	29	0200	300	8.5	119	8.5	1978		17	96.6
30C0047	10	Haupt Creek	Double Springs Rd	2	0200	50	6.1	204	6.4	1917		14	64.0
30C0048	10	French Gulch	Dogtown Rd	23	0100	100	5.5	302	5.1	1940	SD	8	43.8
30C0049	10	San Domingo Creek	Dogtown Rd	23	0100	100	4.3	302	4.9	1940	SD	13	38.6
30C0050	10	Indian Creek	Dogtown Rd	24	0100	100	4.9	201	5.2	1930	FO	9	69.1
30C0051	10	Indian Creek	Dogtown Rd	24	0100	100	4.9	201	5.1	1930	FO	9	67.8
30C0052	10	San Antonio Creek	Dogtown Rd	24	0200	100	7.0	105	7.0	2001		35	98.9
30C0053	10	Willow Creek	Calaveritas Rd	19	0200	100	6.1	104	7.6	1925		9	97.9
30C0054	10	San Domingo Creek	Pool Station Rd	40	0200	250	5.8	204	5.8	1940	FO	36	37.9
30C0055	10	San Antonio Creek	Pool Station Rd	40	0200	250	5.5	104	5.8	1940	FO	23	47.4
30C0056	10	Bear Creek	Hogan Dam Rd	199	0200	50	5.2	302	6.7	1960		8	79.5
30C0057	10	Slate Creek	Hogan Dam Rd	199	0200	50	4.9	302	6.7	1959		10	81.0
30C0058	10	Calaveras River	Hogan Dam Rd	199	0200	150	5.5	302	6.7	1960		38	57.5
30C0060	10	Bear Creek	Burson Rd	11	0200	300	6.1	101	8.5	1986	SD	8	95.8
30C0061	10	Jesus Maria Creek	Swiss Ranch Rd	16	0100	39	3.7	201	4.7	1952		8	68.9
30C0062	10	Jesus Maria Creek	Whiskey Slide Rd	24	0100	50	3.0	302	4.2	1936	SD	12	37.8
30C0063	10	San Domingo Creek	San Domingo Rd	14	0100	50	2.7	302	4.7	1935	SD	7	30.8
30C0064	10	Angels Creek	Algiers St	2	0100	100	4.9	302	4.7	1940		9	76.0
30C0065	10	Angels Creek	Roller Bypass Rd	24	0100	100	5.5	302	4.2	1932		10	70.0
30C0066	10	Warren Creek	Warren Rd	10	0200	75	5.2	101	6.1	1937		9	79.0
30C0067	10	Warren Creek	Warren Rd	10	0200	100	5.5	101	6.2	1937	SD	10	62.5
30C0068	10	Indian Creek	Warren Rd	10	0200	75	5.5	101	6.7	1936		14	65.5
30C0069	10	Calaveras River	Milton Rd	55	0200	177	8.5	205	8.5	1979		54	99.5
30C0070	10	Coyote Creek	Parrotts Ferry Rd	5	0200	1387	9.4	201	9.8	1981	SD	34	95.7
30C0071	10	Kathy Creek	Silver Rapids Rd	13	0200	1000	7.3	119	10.0	1975		12	91.1
30C0072	10	Warren Creek	Evergreen Rd	3	0200	100	4.6	101	5.5	1938		13	73.0
30C0073	10	Mokelumne River	Camanche Parkway	64	0200	634	8.5	502	7.9	1964		122	89.3
30C0074	10	Angels Creek	Kurt Drive	199	0200	100	9.8	101	9.8	1983		7	91.1
30C0075	10	Branch Of Coyote Creek	Main Street	2	0200	300	6.1	104	9.8	1915		7	97.0
30C0076	10	Black Creek	Copper Cove Drive	199	0200	500	7.9	119	7.9	1965		12	81.5
30C0079	10	Bear Creek	Pettinger Rd	6	0200	200	5.8	201	6.1	1937		9	59.4
30C0080	10	Cosgrove Creek	Vista Del Lago Dr	2	0200	1000	6.7	201	9.7	1968	SD	21	91.9
30C0082	10	Angels Creek	Booster Way	2	0200	100	4.6	201	7.3	1990		19	97.0
30C0083	10	Licking Fk Mokelumne River	Railroad Flat Rd	24	0200	700	9.8	201	9.8	1993		18	97.2
30C0084	10	Forest Creek	Schadd Rd	0	0100	25	5.5	302	3.4	1993	SD	14	21.0
30F0001	10	San Antonio Creek	Ponderosa Way	13	0100	50	3.7	302	3.3	1940	FO	25	66.7
30F0002	10	North Fork Calaveras River	Ponderosa Way	21	0100	100	5.2	310	3.7	1935		52	47.7
30F0003	10	Mokelumne River	Ponderosa Way	43	0000	100	3.0	310	3.7	1934	FO	70	45.7
30F0004	10	Calaveritas Creek	Ponderosa Way	23	0100	100	3.7	302	5.1	1949	FO	12	52.8
30P0001	10	N Fk Stanislaus River		199	0200		7.0	302	8.5	1959		74	92.0
32C0007	10	Stanislaus River	O'Byrnes Ferry Rd	66	0200	2343	7.0	205	6.1	1957	FO	176	68.1

TABLE 12: Log of Bridges on State Highways in Calaveras County

Postmile	Bridge No.	Structure Name or Route Information	Structure Type		Bridge Length	Width	Num Spans	Sidewalk Width		Year Built	Year Wid/Ext
			Main	Appr				Lt	Rt		
10-CAL-004											
R004.85	30 0046	McCarty Creek	119		8.2	0.0	3			1972	
R005.89	30 0034	Little Johns Creek	205		62.5	12.8	3			1972	
_016.15	30 0036	W Branch Cherokee Creek	302		6.7	6.8	1			1930	1941
_017.66	30 0047	Waterman Creek	119		12.8	10.4	4			1941	1973
R019.08	30 0050	Cherokee Creek	319		6.4	0.0	2			1989	
_021.41	30 0008	Angels Creek	104		14.0	11.3	1	1.7	0.4	1946	1960
_024.03	30 0009	Six Mile Creek	201		23.8	10.6	3	0.4	0.4	1961	
10-CAL-012											
_010.32	30 0002	Cosgrove Creek	201		28.3	9.8	4			1956	
_012.15	30 0005	Lime Creek	119		9.4	15.2	3			1939	
_013.93	30 0006	Haupt Creek	505		32.0	16.7	1			1993	
_017.25	30 0007	North Fork Calaveras River	204		91.7	9.9	6	0.7	0.7	1938	
10-CAL-026											
_000.82	30 0023	Indian Creek	201		25.2	13.1	3			1998	
_002.46	30 0024	Indian Creek	201		17.9	16.7	2			1998	
_004.31	30 0025	Indian Creek	119		11.0	0.0	2			1990	
_029.33	30 0048	West Point Sidehill Viaduct	201		83.8	3.4	11			1984	
_030.00	30 0022	South Fork Mokelumne River	104		36.6	8.1	3	0.4	0.4	1936	
R033.65	30 0052	Middle Fork Mokelumne River	505		44.2	13.3	1			1997	
_038.31	30 0049	North Fork Mokelumne River	104	201	62.2	7.9	8	0.3	0.3	1930	1948
10-CAL-049											
_006.51	30 0020	Six Mile Creek	101		10.1	9.1	1	0.3	0.3	1940	
_007.16	30 0019	Angels Creek	111		15.2	9.8	1			1909	
_009.01	30 0042	Cherokee Creek	119		7.0	14.8	2			1941	1986
_012.51	30 0018	San Domingo Creek	302		46.3	8.4	5	0.4	0.4	1934	
_014.09	30 0017	San Antonio Creek	302		46.3	8.4	5	0.4	0.4	1934	
_016.41	30 0016	Calaveritas Creek	104		73.8	8.3	7			1930	
_016.46	30 0039	Calaveras Cement Co Oc	104		12.2	5.6	1	0.4	0.4	1935	
R020.69	30 0030	Murray Creek	204		33.2	10.6	3	0.1	0.1	1963	
R021.49	30 0031	North Fork Calaveras River	204		58.2	10.6	3	0.1	0.1	1963	

Source: California Department of Transportation, Division of Structure Maintenance and Investigations, May 2005.

Security/Emergency Preparedness

As underscored by the Hurricane Katrina disaster, it is important for local and regional agencies to proactively establish emergency preparedness guidelines and procedures. As Calaveras County is located in the foothills of the Sierra Nevada, the most likely natural disaster scenarios are forest fire, earthquakes and landslides. Emergency preparedness involves many elements including planning appropriate responses to possible emergencies, communication between fire protection and city and county government staff and training/ education. Identifying evacuation routes and methods is pertinent to the scope of the RTP.

- ▶ Four state highways traverse Calaveras County and act as the primary evacuation route for many Calaveras County communities, such as Altaville, Angels Camp, Avery, Arnold, Wallace, Burson, Valley Springs, Glencoe, West Point, San Andreas, Murphys, Dorrington, and Mokelumne Hill. With the seasonal closure of SR 4 east of the Alpine County line (and limited capacity even when this roadway is open), evacuation routes should follow SR 4, SR 12 and SR 26 west towards San Joaquin and Stanislaus County, south on SR 49 towards Tuolumne County or north on SR 49 and SR 26 to Amador County. One state highway RTP project that will improve circulation on an important emergency evacuation route is the SR 4 Wagon Trail project. This project will provide a faster and safer alignment for a five mile portion of Highway 4 between Copperopolis and Angels Camp, which is a primary east-west link to the Central Valley. The Valley Springs Bypass will also increase evacuation capacity along the SR 12 and SR 26 corridors to the Central Valley.

- ▶ Although state highways connect the larger communities in the county, many Calaveras County residents live in very rural areas not directly accessed by state highways and would depend upon local roadways as evacuation routes. Additionally, in the event a portion of a state highway is blocked due to a disaster, certain local roadways could provide an alternate evacuation route. The Calaveras County Department of Public Works developed a list of local roads of regional significance, as discussed above in this chapter. One of the criteria for a local road of regional significance is that the route serves as emergency relief in case accidents, landslides, fires, or other catastrophic reductions in capacity to major transportation routes. The following local roads of regional significance are potential evacuation routes. These roadways are also associated with transportation improvement projects in Table 22 of the Action Element (Chapter 4):

- | | |
|--------------------------|----------------------|
| - Avery Sheep Ranch Road | - Paloma Road |
| - Jenny Lind Road | - Pool Station Road |
| - Milton Road | - Railroad Flat Road |
| - Moran Road | - Ridge Road |
| - Mountain Ranch Road | - Sheep Ranch Road |

Murphys Grade Road is considered of regional significance on par with state highways and is designated a regional county road. This roadway provides an alternate evacuation route to SR 4 for Murphys residents. O'Byrnes Ferry Road provides an alternate evacuation route for Copperopolis residents and Parrotts Ferry Road provides an alternate evacuation route for Vallecito residents.

- ▶ Should a local road be blocked by a natural disaster, an alternate emergency access route would be required for evacuation. The Calaveras County Code stipulates maximum lengths of dead-end roads depending on the size of parcels served by the road along with road standards. As part of the Calaveras County Circulation Study Working Paper 2 (LSC Transportation Consultants, Inc. 2006), a GIS-based analysis was performed to identify dead-end roads which exceed the maximum length. Results showed that Poker Flat Road near Copperopolis and Pine Drive and Menominee Court near Arnold exceed County dead-end standards and are located in a high fire threat area.
- ▶ In the event of a natural disaster Calaveras Transit's fleet of nine vehicles would be available to transport evacuees. The transit fleet is stationed in San Andreas, and all vehicles are wheelchair accessible.

EXISTING TRANSIT SERVICES

Calaveras Transit

The Calaveras County Department of Public Works oversees the operation of Calaveras Transit. Calaveras Transit operates five Deviated Fixed Routes from 6:00 AM to 10:00 PM, Monday through Friday. No service is offered on the weekend. The following communities are served on the Deviated Fixed Routes:

- | | | |
|---------------|------------------|------------------|
| - Angels Camp | - Lodi | - San Andreas |
| - Arnold | - Mokelumne Hill | - Valley Springs |
| - Avery | - Mountain Ranch | - Wallace |
| - Glencoe | - Murphys | - West Point |
| - Jackson | - Railroad Flat | |

Inter-County connections are possible in San Joaquin County (Lodi), Tuolumne County (Columbia College), and Amador County (Jackson). A recent addition to the list of inter-county destinations is the ski bus route between San Andreas and Bear Valley. One round-trip is made on weekends during the ski season.

The current fare for a one-way passenger-trip on the Deviated Fixed Routes is \$1.00 for general public and \$0.75 for students, elderly, and disabled persons. The cost for a ride to Lodi is \$2.00 per one-way trip, with a discounted fare of \$1.50 and a round-trip on the ski bus costs \$10. A one-way trip on the Dial-A-Ride service is \$1.50. During Fiscal Year 2005-06, Calaveras Transit provided 57,554 one-way passenger trips on the Deviated Fixed Routes and regional services.

TRANSPORTATION DEMAND MANAGEMENT

Park-and-Ride Facilities

Currently, Calaveras County has one 40 space Park-and-Ride facility located at the Black Bart Play house in Murphys near SR 4. There are no bike lockers at the facility. The 2004 Caltrans Park-and-Ride Plan, considers a new facility on SR 49 near SR 26 in Mokelumne Hill to be a good location for future study. However Calaveras County would need to acquire the funds necessary to build the lot or the project could be incorporated in to a future highway project. Once established, Caltrans would be able to provide maintenance, signage, and liability insurance.

Foothill Commuter Services

Foothill Commuter Services is a rideshare database that serves Amador, Calaveras, and Tuolumne Counties. The Foothill Rideshare website went live in September of 2006 and is growing its database of registered users. Commuters searching for a carpool partner can submit his/her information to the database and receive a free match list of other commuters with similar travel patterns. Foothill Commuter Services uses the same database as the San Joaquin Council of Governments "Commute Connection" program, thereby expanding resources available to Foothill commuters. The site also provides information on vanpools, links to public transit and an internet forum for connecting with individuals making a "one-time trip." Funding for the program comes from a FTA 5313 grant, Valley CAN "Clean Air Now", the Amador County Transportation Commission (ACTC), Tuolumne County Transportation Council (TCTC) and the CCOG.

EXISTING NON-MOTORIZED FACILITIES

Non-motorized facilities include locally or regionally significant bike lanes/trails, sidewalks, hiking trails, equestrian trails, and other related improvements. Non-motorized facilities are important for local use, as well as for tourists, and recreational purposes.

Bicycle Facilities

Currently, a Class I bike path exists on Blagen Road between the entrance to the post office parking lot and Henry Street transitioning into a Class III facility totaling +/- 4,370 feet. Another Class I facility exists on Mountain Ranch Road between Michael Road and Garibaldi Street, +/- 3,020 feet and another short stretch exists along Gold Strike Road from the high school to Court Street. The City of Angels also recently completed a Class II bikeway on Stanislaus Avenue

between SR 49 and San Joaquin Avenue as part of the Safe Routes to School Program. Class III routes are located in Valley Springs along Hogan Dam Road and Vista Del Lago Road, in San Andreas on a portion of Gold Strike Road, along Winton Road/Highway 26 from Skull Flat Road to SR 26, along Bald Mountain Road between SR 26 and Jurs Road and along Main Street from SR 26 to Smith Lane. In total only 4.1 miles of Class I, II or III bikeways exist in Calaveras County. Limited shoulders and bike routes on Calaveras County roadways make travel by bike difficult and less attractive. Calaveras COG is in the process of updating the Calaveras County Bicycle and Pedestrian Master Plan which includes an extensive list of bicycle facility projects.

Pedestrian Facilities

Only limited sidewalks and other pedestrian facilities exist throughout the County. Most communities within geographic Calaveras County have some sidewalks or pedestrian crossings, but there is a lack of connectivity between these facilities, thereby making it difficult to safely complete a trip on foot in the Calaveras County regional transportation system safely. Where crosswalks are unavailable, pedestrians are forced to cross wide, high volume roadways which often have limited sight distance. This is particularly challenging for the elderly and disabled population.

Mokelumne Coast to Crest Trail

The Mokelumne Coast to Crest Trail is a proposed multi-use trail across central California that will extend from the Pacific Coast to the crest of the Sierra Nevada along the Mokelumne River. To date, 87 miles have been completed on the Mokelumne Coast to Crest Trail (MCCT) thanks to many volunteers and public and private agencies. When completed, the multi-use trail will span 300 miles between the highest point at 8,730 feet and the lowest at sea level, connecting seven regional parks. The trail will traverse eight counties and will serve as a backbone trail linking local trails from the San Francisco Bay to the High Sierra. The exact routing of the trail through Calaveras County has not yet been determined. The Mokelumne Coast to Crest Trail is included on the California State Trails Plan and was designated in 2000 as a National Community Millennium Trail under the National Millennium Trails Initiative. Where topography allows, some portions of the trail are handicap accessible.

EXISTING AIRPORT FACILITIES

Maury Rasmussen Field, the County's only public airport, is located on Carol Kennedy Drive, four miles southeast of San Andreas off SR 49. The Airport is classified as a General Aviation airport. A Basic Utility Stage II runway exists, consisting of a 3,600 foot by 60 foot physical asphalt surface, with a full-length taxiway east of the runway. The facility has 64 tie-downs, 8 large hangers, 28 "T" hangers and seven Port-a-Ports. Seventy-one aircraft are based at the field and there are approximately 30,000 annual flight operations. Two helipads are located at the airport, with the facility able to accommodate single- and twin-engine aircraft, as well as small business jets. In addition to the public airfield, there are a number of individually owned and operated airstrips in the County.

The Maury Rasmussen Field Airport provides significant contributions to the County's economy by attracting tourists, businesses, seasonal residents, and commuters who live in Calaveras County and work elsewhere. Therefore, maintaining and improving the airport facility is important for the safety, security, and personal well-being of residents and visitors of the

County, and for the economic vitality of the region. The County's airport also plays an important role in the event of an emergency, such as forest fire, flood or medical rescue. The closest international airport is located in Sacramento, roughly 70 miles away.

RAIL

The only branch of railroad line in Calaveras County extends from Lodi to the Calaveras Cement Plant (closed since 1984) near San Andreas. The Union Pacific Railroad Authority abandoned this line in 1999 due to lack of activity and later sold the right-of-way. Therefore, it is reasonable to assume that rail service will not operate through the County in the near future.

AIR QUALITY

Air quality is a function of both local climate and local sources of air pollution. It is affected by the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants to the environment. Several important factors determine local air quality, with the most critical being the quantity, type, and location of pollution sources. Climatic conditions, such as wind speed and direction, temperature gradients, inversions and precipitation interact with the physical features of the landscape to determine the movement and dispersion of air pollutants.

Air quality is a significant consideration in planning for and evaluating the transportation system. Both state and federal law contain significant regulations concerning the impact of transportation projects on air quality. Under state law, local and regional air pollution control districts have the primary responsibility for controlling air pollutant emissions from all sources other than vehicular sources. Control of vehicular air pollution is the responsibility of the California Air Resources Board (CARB). The CARB divides the state into air basins and adopts standards of quality for each air basin. Calaveras County is part of the Mountain Counties Air Basin, with air quality managed by Calaveras County Air Pollution Control District (CCAPCD).

The CCAPCD has a monitoring station located in Calaveras County on Gold Strike Road in San Andreas. Pollutants monitored at this site are Carbon Monoxide, Ozone, PM_{2.5} and PM₁₀, and are described below.

Ozone (O₃): Ozone is one of a group of complex oxidants found in ambient air. Ozone is not directly produced by combustion, but rather is a secondary pollutant that results from high hydrocarbon levels. Automobile emissions represent the principal, although an indirect source of this pollutant. Ozone is not emitted directly into the air. It is produced by a complex series of photochemical (sunlight requiring) reactions involving hydrocarbons and oxides of nitrogen. To control ozone pollution, it is necessary to control emissions of these other pollutants. Ozone is the primary constituent of what is commonly referred to as smog.

In July 1997, the Environmental Protection Agency (EPA) promulgated a new eight-hour average ozone standard. The new ozone standard is based on research that shows significant adverse health effects from chronic exposure to relatively low-levels of ozone. The new standard is a rolling eight-hour average. Any eight-hour average value greater than 0.08 ppm will be considered to exceed the National Ambient Air Quality Standards (NAAQS).

Carbon Monoxide (CO): Carbon Monoxide (CO) is a tasteless, odorless, and colorless gas, which is slightly lighter than air. It affects humans by replacing oxygen in the bloodstream,

thereby reducing the availability of oxygen to the body. The principal source of carbon monoxide is motor vehicle emissions. Peak carbon monoxide concentrations occur when there is a strong nocturnal temperature inversion accompanied by heavy traffic congestion, especially with slow travel speeds. Combustion heaters also contribute to CO levels.

Particulate Matter 10 (PM₁₀): Airborne Particulate Matter is caused by a combination of sources including fugitive dust, combustion from automobiles and heating, road salt, conifers, and others. Constituents that comprise suspended particulates include organic, sulfate, and nitrate aerosols which are formed in the air from emitted hydrocarbons, chloride, sulfur oxides, and oxides of nitrogen. Particulates reduce visibility and pose a health hazard by causing respiratory and related problems.

Particulate Matter 2.5 (PM_{2.5}): In July 1997, the United State Environmental Protection Agency (EPA) promulgated a new particulate matter standard that addressed particles smaller than 2.5 microns, or PM_{2.5}. The PM_{2.5} standard is 15 micrograms per cubic meter based on an annual average, and 65 micrograms per cubic meter based on a 24-hour average. The PM_{2.5} standard complements the existing Federal and State standards of PM₁₀. Sources of PM_{2.5} emissions, or fine particles, originate from fuel combustion from a variety of sources, such as motor vehicles, power generating stations, other industrial facilities, and residential fireplaces and wood-burning stoves. Fine particles also form from the interaction of chemicals, such as sulfur dioxide, nitrogen oxides, and volatile organic compounds with other compounds in the air.

In general, Calaveras County has good air quality. However, in 2005 and 2006 Calaveras County exceeded the state hourly ozone standard (0.09 ppm or 180 µg/m³). The state hourly ozone standard was exceeded 9 days in 2004 and 13 days in 2006. Calaveras County is also in non-attainment (in San Andreas) for the new federal 8-hour ozone standard of (0.08ppm or 157µg/m³) and the state standard of (0.07ppm or 137µg/m³). Specifically, in 2006 Calaveras County exceeded the federal eight-hour ozone standard 14 days in 2006, with the highest measurement at 0.106 ppm. As Calaveras County is downwind of the more heavily populated Central Valley, not all pollutants measured in Calaveras County originated from within the County.

Federal clean air laws require areas with unhealthy levels of ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and inhalable particulate matter to develop plans, known as State Implementation Plans (SIPs), describing how they will attain national ambient air quality standards (NAAQS). SIPs are not single documents, rather they are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations and federal controls. Calaveras County is part of a collaborative effort between the California Air Resources Board and local air pollution districts to develop a SIP for adoption by June 15, 2007.

As stated in Chapter 1, once GHG emissions standards are developed by CARB, the Calaveras County region will work with necessary state agencies to meet the new emissions standards.

PROGRESS REPORT

Tri-County Regional Transportation Improvement Program (RTIP)

In 1996, Amador and Calaveras Counties entered into a Memorandum of Understanding (MOU). Under this agreement the two counties agreed to pool State Transportation

Improvement Program (STIP) funds in order to gain State support and funding for the SR 49 Amador Bypass (Amador County) and the SR 4 Angels Camp Bypass (Calaveras County) projects. Alpine County joined the partnership in 1998 and the MOU was expanded to include SR 4 Arnold Passing Lane and SR 88 Cooks and Hams Stations Passing Lanes projects. These projects are commonly referred to as “Tri-County MOU I” projects. In the 1998 STIP, the State provided \$3.15 million in Interregional Improvement Program funds (IIP) for the Angels Camp Bypass project. By 2002, all four projects obtained environmental clearance and were completely funded. Unfortunately, due to the state budget crisis, many STIP projects that were “programmed” in 2002 were not “allocated” funds at that time. It was not until 2004 that money started flowing towards two of the MOU I projects. Meanwhile the funding delay and right of way acquisition problems caused overall project costs to rise. For this reason the Tri-Counties borrowed against future STIP to help pay for the SR 4 Arnold Passing Lane, SR 88 Cooks and Hams Passing Lanes, and the SR 49 Amador Bypass projects.

As discussed in the *Statewide Issue* section of Chapter 3, the state funding situation has recently improved and the Tri-Counties were awarded \$4.4 million from the Corridor Mobility Improvement Account (CMIA Prop 1B) funds to partially cover the \$12.8 million construction cost increases of the Angels Camp Bypass. Caltrans has also agreed to allocate \$4.3 million in IIP augmentation funds to the Angels Camp Bypass project. Additionally the 2006 STIP augmentation (also funded through Prop 1B) provided the Tri-Counties with enough money to pay back previously borrowed STIP funds, pay for relinquishment costs for the Amador Bypass and construction cost increases of the Angels Camp Bypass. At present, only the Angels Camp Bypass remains on the MOU I project list. This project is now fully funded and construction should begin in 2007. The 2008 STIP cycle will begin with a zero balance and any STIP funds received will be available for new highway or local road projects as determined by the RTPAs.

It is unclear at this time whether or not the Tri-Counties will continue to jointly purse STIP funds for future transportation improvement projects. Two projects (SR 4 Wagon Trail and SR 88 Pine Grove Corridor) have been identified as possible “MOU II” projects. Project approval and environmental documentation phases (PA&ED) are included in the 2006 Tri-County RTIP and have been funded in the 2006 STIP.

Completed Projects

Over the past six years there have been several improvement projects completed on roads, bridges, and other areas. As shown in Table 13, projects completed by the County during this time period totaled over 4 million dollars in construction costs. Table 14 reflects projects completed in Calaveras County on state highways. As shown, over 48 million was spent, with funding programmed through the State Highway Operations and Protection Program (SHOPP) and the State Transportation Improvement Program (STIP). Construction of the Arnold Passing Lane at Cottage Springs, eastbound (uphill) on SR 4 east of the community of Arnold was completed in October of 2004. The project resulted in a three-lane highway with two lanes eastbound and one lane west bound. The SR 88 Cooks and Hams Stations passing lanes were completed in December of 2006. Another significant Tri-County STIP project which was recently completed is the Amador Bypass on SR 49. This new roadway segment which bypasses Amador City, improving overall flow along SR 49, was completed in February and opened for travel in March 2007. Although the roadway is operational, there still remains 1 million in funding required to pay for relinquishment cost increases to bring the roadway to a state of good repair before the segment of SR 49 is turned over to the County.

TABLE 13: Completed Improvement Projects in Calaveras County, Fiscal Years 2000/01 Through 2006/2007

Road and Location	Project Description	Primary Funding Source	Total Cost (x 1000)	Completion Date
Calaveras County				
Pool Station Road - San Antonio Creek	Bridge Replacement over San Antonio Creek (Bridge #30-C-55)	HBRR	\$ 863	10/1/2005
Pool Station Road - Domingo Creek	Bridge Replacement over Domingo Creek (Bridge #30-C-54)	HBRR	\$ 863	9/30/2005
Pool Station Road - Calaveritas Creek	Bridge Replacement over Calaveritas Creek (Bridge #30-C-35)	HBRR	\$ 870	10/1/2003
Little John Road	Intersection of Little John Road to State Highway 4/ Reeds Turnpike	CFD#2/Copperopolis Benefit Basin	\$ 86	11/1/2002
Little John Road	Extension of Little John Road to State Highway 4/ Reeds Turnpike	Developer Funded	N/A	N/A
Bus Procurement (2)	Procurement of 2 new buses for Calaveras Transit	TDA 5311(f) Grant	\$ 177	4/1/2005
City of Angels				
City of Angels - Citywide	Street Rehabilitation	Local	\$ 667	2004
City of Angels - Citywide	Street Rehabilitation	Local	\$ 305	2005
Stanislaus Avenue	Bicycle Lane	TE/BTA	\$ 172	2005
Total Cost of Completed Projects			\$ 4,003	

Source: Calaveras County Department of Public Works, City of Angels

TABLE 14: Completed State Highway Improvement Projects in Calaveras County, Fiscal Years 2000/2001 through 2006/2007

Route	Post Mile	Location	Project Description	Year Completed	Program	Prog Code	Programmed Capital Construction Costs (\$ x1000)
SR 4	53.8/54.9	Arnold Passing Lane at Cottage Springs	Road Construction	Nov-04	STIP- MOU I	N/A	\$ 3,384
SR 26	7.2/8.3	Near Valley Springs at Silver Rapids Road	Realign Existing Curve	2005	SHOPP	201.01	\$ 3,400
SR 88	N/A	Cooks/Hams Passing Lane (Alpine County)	Road Reconstruction	2006	STIP	N/A	\$ 7,286
SR 49	N/A	Amador Bypass (Amador County)	Road Construction	2007	STIP	N/A	\$ 33,974
Total Cost of Completed Projects							\$ 48,044

Source: Caltrans 2002 SHOPP, 2006 RTIP, 2004 SHOPP, CCOG.

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This chapter describes the transportation issues in the Calaveras County region, and provides goals, objectives, performance measures and policies to assist in addressing these issues.

GLOBAL ISSUE

As the world's 12th largest source of carbon dioxide, the State of California recognizes the need to establish climate change standards. Assembly Bill 32: Global Warming Solutions Act, adopted in 2006, requires the California Air Resources Board (CARB) to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to statewide levels in 1990 by 2020. The reduction in GHG emissions will be accomplished through an enforceable statewide cap that will be phased in starting in 2012. Additionally the Governor enacted Executive Order S-01-07 on January 18, 2007 which mandates that following: 1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and 2) that a Low Carbon Fuel Standard ("LCFS") for transportation fuels be established for California.

In California, transportation accounts for 41.2 percent of climate change emissions (Caltrans Climate Action Program, 2006). Therefore the impact of RTP projects will have on GHG emissions is a relevant issue. Carbon dioxide reduction strategies have been addressed in the Climate Action Program at Caltrans (December 2006). Transportation strategies include: reduce, manage and eliminate superfluous, non-essential trips which are seen as the primary cause of congestion GHGs and air pollution through smart land use, Intelligent Transportation Systems (ITS), demand management, value pricing, and market based manipulation strategies. It is important that Calaveras County transportation and land use decision makers pursue transportation projects that adhere to this strategy in order to meet emission reductions. Examples of projects already included in the RTP are improvement projects which reduce traffic congestion, encourage bikeway and pedestrian projects, transit projects and Foothill Rideshare activities. Other types of projects which could be implemented in the future and which will positively contribute to GHG emissions reductions are regional "blueprint" planning and education and awareness of best practices funded through transportation planning grants.

Calaveras County currently is in non-attainment for eight-hour ozone as a result of our location eastward of several large urban centers whose pollution and particulate matter we receive as a latent by-product of their larger populations, increased automobile and industrial activity and agricultural practices. Although we recognize that the pollutants are not being generated locally it behooves us to be prudent and conservative as we look into the Counties future to determine how we can eliminate potential issues prior to their development as actual problems that need to be solved. Growth in California has been consistent and somewhat predictable as populations have expanded further and further from major employment hubs of the state. Growth is reaching the Sierra foothills (i.e. Calaveras County) and our future is now dealing with the issues and impacts of an economy that is weaning itself off its dependence on a finite supply of fossil fuels.

STATEWIDE ISSUE

The key transportation problem facing Calaveras County and the State of California is **funding**. In the past, California's transportation revenue stream was stable and funded almost exclusively from user fees (gasoline excise tax and weight fees) protected by the California Constitution. Today, the program is dependent primarily on motor fuel sales tax, which is not protected under the state Constitution. Since 2001, roughly \$7.5 billion dollars in (gas) tax revenue proceeds have been diverted from the transportation program to close the General Fund deficit.

The Traffic Congestion Relief Act of 2000 (AB 2928) was to provide \$6.8 billion dollars derived from the State's sales tax on gasoline to fund transportation over a six-year period. Since the Act's inception, funds have been borrowed back for the General Fund, and subsequent sales tax transfers have been postponed or suspended. In 2002, the electorate (with a 69 percent affirmative vote) passed Proposition 42, which is a legislative constitutional amendment that permanently dedicated the revenues (an estimated \$1.1 billion annually) from sales tax on gasoline to transportation infrastructure needs. However, the protections of Proposition 42 were quickly set aside the first year (FY 2003-04) they came into effect, and these revenues remained in the General Fund. The passage of AB 687 (tribal casino bonds to repay loans) in 2004 dedicated \$1.5 billion in FY 2004-05 to the repayment of transportation program loans to the General Fund. Essentially, AB 687 was a replacement to the suspended Proposition 42 transfer. However, due to a lawsuit filed in September 2004, no funds were allocated as the bonds could not be sold. With the passing of the California State budget in July of 2005, Proposition 42 was finally funded. A total of \$1.3 billion was directed from sales tax on gasoline to transportation projects. Additionally, Proposition 1A was passed in the November 7, 2006 election. This legislation solidifies the stipulations of Proposition 42 by prohibiting the State sales tax on motor vehicle fuels from being used for any purpose other than transportation improvements, authorizes loans of these funds only in the case of severe State fiscal hardship, requires loans of revenues from States sales tax on motor vehicle fuels to be fully repaid within the three years, and restricts loans to no more than twice in any 10-year period.

Prop 1B

Another positive change in the transportation funding situation is Proposition 1B. The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006, authorized nearly \$20 billion in general obligation bond proceeds to be available for the following programs:

- ▶ Corridor Mobility Improvement Account (CMIA) - A total of \$4.5 billion is to be allocated to this program. The funds in the CMIA are to be available to the California Transportation Commission (CTC), for allocation for performance improvements on the state highway system or major access routes to the state highway system. The CMIA presents a unique opportunity for the state's transportation community to provide demonstrable congestion relief, enhanced mobility, improved safety, and stronger connectivity to benefit traveling Californians. CCOG has received \$4.4 million in CMIA funds to help pay for cost increases of the Angels Camp Bypass.
- ▶ SR 99 Corridor – A total of \$1 billion will be made available to Caltrans for safety, operational enhancements, rehabilitation, or capacity improvements along approximately 400 miles of the SR 99 corridor.

- ▶ STIP Augmentation - \$2 billion will be allocated to the STIP program to augment funds otherwise available for the STIP from other sources. The STIP consists of two broad programs: the Regional Improvement Program (RIP), consisting of 75 percent of STIP funding and the Interregional Improvement Program (IIP) comprising the remaining 25 percent of STIP funding. The interregional share is nominated by Caltrans for projects that improve transportation between regions. Funding constraints in the 2006 STIP cycle prevented or delayed the funding of many important transportation improvement projects. The primary intent of STIP augmentation is to advance programming of funds for STIP projects that can be delivered prior to the adoption of the 2008 STIP. The Tri-Counties will receive \$9.5 million from STIP augmentation (RIP shares) and \$4.3 million of STIP augmentation (IIP shares). As stated in the *Progress Report*, these funds will be directed towards the Angels Camp Bypass cost increases and the payback of borrowed STIP funds.
- ▶ Department Intercity Rail Improvements - \$400 million for intercity rail projects.
- ▶ Trade Corridors Improvement Fund (TCIF) - \$2 billion will be available for improvements along trade corridors of national significance.
- ▶ Port Air Quality - \$1 billion will be available to CARB for emission reductions from activities related to the movement of freight along trade corridors.
- ▶ State-Local Partnership Program Account – Over the period of five years, the California Transportation Commission (CTC) will use \$1 billion in funds to match dollar-for-dollar local funds for eligible projects.
- ▶ Local Bridge Seismic Retrofit – This program will provide the 11.5 percent match for federal Highway Bridge Replacement and Repair funds available for seismic retrofit of 479 local bridges.
- ▶ Highway-Railroad Crossing Safety Account - \$250 million will be available for completion of high-priority grade separation and railroad crossings safety improvements.
- ▶ State Highway Operations and Protection Program (SHOPP) – An additional \$500 million will be available for SHOPP projects.
- ▶ Traffic Light Synchronization - \$250 million will be used by Caltrans to fund traffic light synchronization or other technology-based solutions.
- ▶ Port, Harbor and Ferry Terminal Security - \$100 million will be allocated by the Office of Emergency Services to award grants for port, harbor and ferry terminal security improvements.
- ▶ School Bus Retrofit - \$200 million will be available for school bus retrofit and replacement.
- ▶ Transit - \$3.6 billion will be allocated to transit projects.
- ▶ Transit System Safety, Security and Disaster Response Account - \$1 billion will be allocated for capital projects that provide increased protection against a security and safety threat and to develop a disaster response transportation system.

- ▶ Local Streets and Roads - \$2 billion will be allocated by the State Controller for local streets and roads projects. The formula distribution of funds is based on the number of vehicles registered in the county relative to all counties in the State (75 percent of funds) and the number of county maintained road miles relative to all county maintained road miles in the State (25 percent of funds). Timing and exact amounts of these allocations are being debated by the California legislature. It is possible (based on register vehicles and maintained miles in the County) that Calaveras County will receive \$1.3 million in Fiscal Year 2007-2008 with additional allocations of \$500,000 over the following five years. The City of Angels Camp will also receive at least \$400,000 over the course of the distribution period. It is likely that some of these funds will be directed towards improving the “existing deficiencies” component of County traffic impact mitigation fee programs.

As a whole, Proposition 1B provides a significant amount of funding to important transportation and goods movement projects throughout the State. When Calaveras County is viewed individually, the region has been allocated less than 1 percent of total Proposition 1B funds. Although Proposition 1B will have a positive impact on Calaveras County by allowing for the construction of the long awaited Angels Camp Bypass and local road maintenance, Proposition 1B is not a recurring revenue source that can be relied on annually.

Local Issues:

In recent years, Calaveras County has been challenged by the ongoing State financial crisis. A backlog of local roadway rehabilitation and reconstruction continues to be a problem on all local roads of regional significance in Calaveras County. While according to STIP guidelines local road rehabilitation projects are eligible for STIP funds, STIP revenues have not been available for local roadway rehabilitation projects in Calaveras County for several years because of Tri-County MOU had a higher priority. Maintenance projects on local roads are not STIP eligible. Therefore, the County relies on state highway user’s tax and motor fuel sales tax for routine maintenance. Deferred maintenance, coupled with delayed rehabilitation and reconstruction projects, will lead to even greater rehabilitation costs when STIP or other rehabilitation funds arrive.

An under-funded revenue stream of transportation dollars makes it impossible for Calaveras County local jurisdictions to adequately plan and deliver local projects. This instability is further complicated with “timely use of funds” provisions for STIP funds, which require that project delivery deadlines be met. Additionally, rising construction costs (a result of increased worldwide demand for steel, oil, concrete and other raw materials used for construction) exacerbate funding problems. The Angels Camp Bypass project, discussed in Chapter 4, is a good example of how a delay in STIP funding increased overall construction costs for a state highway STIP project.

LOCAL AND REGIONAL ISSUES

In addition to the lack of local road maintenance and rehabilitation funding, there are two particularly important local and regional issues facing Calaveras County: existing traffic and road conditions within geographic Calaveras County and the impacts of future development. The projects identified in this document (Chapter 4) are intended to address these problems.

Existing Traffic Issues

Traffic conditions (i.e. Level of Service) in Calaveras County are currently reaching or exceeding adopted standards during peak travel periods. Specifically, level of service (LOS) standards are exceeded at the southern SR 4/SR 49 intersection. In addition the following roadway segments are identified by the *Calaveras County Transportation Demand Model* to operate at LOS D or worse in 2002, thereby exceeding the Calaveras County LOS threshold:

- SR 49 between SR 12 (San Andreas) and Mountain Ranch Rd– LOS D
- SR 49 between Brunner Hill Rd and SR 4 Junction South (Angels Camp) – LOS D
- Mountain Ranch Road between SR 49 and Sheep Ranch Road – LOS D

Traffic congestion is exacerbated by a very limited number of local streets that provide alternate routes to the highways, which concentrates trips in the area on State highways. In large part, the regional roadway system has not been expanded in decades, though traffic demands have increased greatly. In particular, existing traffic capacity deficiencies are found at Angel Camp and Valley Springs. These capacity deficiencies have the effect of increasing delay which in turn may have a negative impact on air quality.

Road Deficiencies

In addition to capacity deficiencies, the regional roadway network also is impacted by safety deficiencies. There is a lack of passing opportunities and adequate shoulders on many of the region's roadways. Combined usage of the narrow roadways by recreational vehicles, tour buses, and truck traffic for goods movement, can create unsafe driving conditions.

Impacts of Future Development

Increases in population and economic development will also impact the transportation infrastructure in the future. According to California Department of Finance, population growth in Calaveras County is currently on the order of 2 percent per year. Between 2005 and 2025, the total countywide population is forecast to increase by 44.5 percent. This can be expected to generate a corresponding increase in traffic congestion and transit needs. In addition, growth in adjacent counties may very well impact the County's local transportation system in the future. As an attractive and nearby recreational area, Calaveras County will be affected by the neighboring population growth. Specifically, the population of Stanislaus County is forecast to increase by 38.6 percent over the next 20 years, and the population of San Joaquin County will increase by 69.8 percent. This "attractiveness" can be further extended to counties and cities in and around the Bay Area. This then translates into a truly regional issue that requires regional cooperation for resolution. Said another way, this issue is not solely the responsibility of Calaveras to solve.

In order to mitigate the impacts of new developments on roadways, the County developed the following fee programs which are applied to new residential developments that will increase vehicle trips on State and County facilities: Road Impact Mitigation Fee (RIM), Valley Springs Benefit Basin, Copperopolis Benefit Basin, Brett Hart Benefit Basin, Warren Road Benefit Basin and Mangilli Road Benefit Basin. Even with these funds, additional funding would still need to be secured to complete necessary roadway improvements. As mentioned in Chapter 1 of *Technical Memorandum Number One*, new development in Calaveras County is also a concern for the truck traffic generators as well as adjacent RTPA's.

Additional Transportation Issues

Table 15 presents a snapshot of important regional and local transportation issues in Calaveras County by transportation facility/element along with a potential solution. In addition to reduced funding, substandard LOS on highways, and rapid development; other issues in the region include:

- ▶ Deferred maintenance on local and County roadways due to difficulty in obtaining State or Federal funds for local road rehabilitation.
- ▶ Congestion in local communities due to on-street parking and numerous private driveway encroachments.
- ▶ Limited emergency (or secondary) access roads in wildfire threatened areas, particularly in Copperopolis, Arnold and SR 26 corridor.
- ▶ Difficulty meeting the mandatory farebox recovery ratios for Calaveras Transit with the wide dispersion of the County population. Lack of financial support for interregional service from other counties.
- ▶ Much of the land surrounding the airport is privately owned or too steep for airport development. There is a need to protect land currently owned by the airport for future airport improvement projects.
- ▶ Lack of a consistent non-motorized network of bike paths and pedestrian facilities which could link communities to employment, shopping, social services or visitor attractions. A more fluid connection of bike paths and pedestrian facilities with limited vehicle conflict is needed to encourage the use of alternative transportation modes.
- ▶ In 2006, Calaveras County was in non-attainment for the federal eight-hour ozone standard.

GOALS, OBJECTIVES, PERFORMANCE MEASURES AND POLICIES

An important element of the regional transportation planning process is the development of valid and appropriate goals, objectives, performance measures, and policies. The RTP guidelines define goals, objectives, performance measures, and policies as follows:

- ▶ A **goal** is general in nature and characterized by a sense of timelessness. It is something desirable to work toward, the end result which effort is directed.
- ▶ An **objective** is a measurable point to be attained. They are capable of being quantified and realistically attained considering probable funding and political constraints. Objectives represent levels of achievement in movement toward a goal.
- ▶ A **policy** is a direction statement that guides decisions with specific actions.
- ▶ The scale by which the attainment of an objective is measured is defined as a **performance measure**. Performance measurement involves examining the performance of the existing system, as well as forecasting the performance of the future (planned) system. By examining the performance of the existing system over time, Calaveras County can monitor

Table 15: Calaveras County Regional and Local Transportation Issues

Transportation Facility /Element	Issue	Potential Solution
Roadway System		
State Highways	General issue of increasing traffic congestion and decreasing LOS on most state highways (in particular on SR 4) due to increased traffic volumes and lack of passing opportunities.	Construction of priority RTP projects. (Table 21)
Countywide	Lack of passing opportunities on state highways and inadequate right-of-way to meet minimum safety improvement criteria for projects.	Provide additional passing lanes where feasible and identify, map, and secure funding for dedication of future arterial, collector, and local rights -of-way to improve safety and circulation. (Table 21)
Countywide	Congestion resulting from land-use decisions.	Consider the "big picture" when evaluating traffic impacts of proposed developments. Continue to mitigate impacts through RIM fee and Benefit Basin programs. (Table 22, 25)
Countywide	Inequity in the distribution of state highway funds to rural counties based on population rather than number of roadway miles to maintain and improve. Large volumes of non-resident recreational traffic exacerbate the problem.	Continue work with the Rural Counties Task Force, CTC and Caltrans to create a more equitable distribution of funds. Seek other funding sources.
City of Angels	Unacceptable level of service (LOS F) at SR 4 and SR49 southern intersection during the PM peak hour.	Construction of the SR 4/Angels Camp Bypass.
Copperopolis	Congestion on O'Byrnes Ferry Road and other collectors due to projected growth through 2025.	Continue Benefit Basin Program to mitigate traffic impacts. (Table 25) Replace the O'Byrnes Ferry Bridge (Table 15)
Ebbetts Pass Area	Congestion due to number of driveways (typically second homes) along SR 4.	Upgrade the highway in accordance with goals in the Ebbetts Pass National Scenic Byway Plan. Follow land use development guidelines in the Ebbetts Pass Highway Special Plan and Arnold Community Plan.
Arnold	Congestion on SR 4 that serves as "Main Street" to downtown.	Implementation of Arnold Community Plan (December 1998) that provides for a shift in planned development away from SR 4, limit on driveways along SR 4, and extension of several local streets.
Murphys	Congestion in downtown due to on-street parking.	Implementation of recommendations in Murphys Circulation, Pedestrian, Bicycling, and Parking Study, 2002
Mokelumne Hill	Congestion due to on-street parking.	Follow guidelines of Mokelumne Hill Community Plan (June 1988) that requires new developments to provide adequate off-street parking facilities.
San Andreas	Congestion and traffic circulation along SR 49.	Implementation of San Andreas Community Plan (June 1988) that identifies improvements to the existing collector road system and priority location for new transportation facilities.
County Roads of Regional Significance	Deferred maintenance.	Investigate new sources of maintenance funding such as a local sales tax or street assessment.
Local Roads	Deferred maintenance and difficulty obtaining state or federal funding for local road rehabilitation. RIM fee and Benefit Basin mitigation programs only address future roadway needs, not existing needs.	Direct new Prop 1B funds toward existing deficiencies component of traffic impact fee programs for the County and local road maintenance for the City. Secure new local sources of maintenance funding such as sales tax initiatives.
Local Roads	Lack of sufficient emergency access roads throughout the County.	Implement emergency access requirements recommended in the updated Calaveras County Circulation Study.
Goods Movement		
Countywide	Lack of shoulders, passing lanes and deferred maintenance on state highways and county roads cause longer truck travel times and unsafe driving conditions.	Implementation of STIP and SHOPP projects. Pursue Highway Safety Improvement Program (HSIP) funds for state or local roadways with accident history.
Transit		
Calaveras Transit - Local Service	Use limited funding to improve transit frequency and quality of service while continuing to serve transit dependent riders in outlying areas.	Meet "unmet" needs as funding allows.
Calaveras Transit - Interregional Service	Costs for providing interregional transit service are not shared with adjacent counties.	Work with adjacent county RTPA's to implement cost-sharing arrangements for interregional transit services which benefit residents of both counties.
Aviation		
Maury Rasmussen Field	Protect land around airport for future airport projects and maintain existing airport facilities in safe operating condition.	Work with neighboring land owners to acquire additional property for hangar expansion; Implement capital improvement projects when funding is available.
Non-Motorized Facilities		
Bikepaths/ bikeways	Lack of a consistent network of bikepaths in Calaveras County communities.	Implement recommendations from the updated Calaveras County Bicycle Master Plan. Consider minimizing conflicts between bicyclists and vehicles and incorporating Bicycle Master Plan projects when new transportation projects are implemented.
Pedestrian Facilities	Lack of a consistent network of sidewalks and crosswalks throughout the County.	Implement sidewalks and crosswalks recommended in the Calaveras County Pedestrian Master Plan. Consider minimizing conflicts between pedestrians and vehicles and incorporating Pedestrian Master Plan projects when new transportation projects are implemented.
Air Quality		
Environmental Impacts	In 2004, Calaveras County was in non-attainment for the state hourly ozone standard and federal 8 hour ozone standard.	Adopt and follow the strategies listed the 2007 Ozone State Implementation Plan (SIP) for Northern California.

Source: Calaveras County

trends and identify regional transportation needs that may be considered when updating the RTP. The purpose of performance measurements is to clarify the link between transportation decisions and eventual outcomes, thereby improving the discussion of planning options and communication with the general public. In addition, they can assist in determining which improvements provide the best means for maximizing the system's performance within the given budget and other constraints.

RTP program-level performance measures listed in Table 16 at the end of this chapter are consistent with the ten System Performance Measures defined in the *Final Draft California Transportation Plan 2025* (CTC, May 2004), as identified below:

- Mobility/Accessibility
- System Preservation
- Mobility/Accessibility
- Reliability
- Economic Well-Being
- Cost Effectiveness
- Environmental Quality
- Equity
- Customer Satisfaction
- Sustainability

This RTP sets forth policies that provide the framework to guide decision-makers so that short-range actions and decisions are made toward implementation of the long range plan. Some policies are specific by their very nature, while others provide guidance that is more general. CCOG established policies in this RTP that support implementation of its goals and objectives. These policies support each transportation mode to ensure the effectiveness of a comprehensive regional transportation system.

The goals, objectives and policies provided below are consistent with the policy direction of the current Calaveras County General Plan Circulation Element, the Calaveras Council of Governments, and the City of Angels relative to the regional transportation system. After the update of the current Calaveras County General Plan, the RTP may be updated to reflect any significant revisions to land uses which then result in changes to the traffic model outputs. Table 16 (found at the end of this section) identifies the RTP program-level performance measures associated with each objective.

Regional Goals

Goal 1: Provide a high degree of mobility for people and goods in Calaveras County.

Objective 1 A: Increase accessibility to all modes of the transportation system.

Policy 1.1: Require connectivity between pedestrian, bicycle, transit, and road facilities.

Policy 1.2: Adopt land use designs that reduce the need to access the personal vehicle through provision of mixed uses, recreation outlets, transit facilities and multi-use paths as part of the community layout.

Policy 1.3: Require land use patterns that provide for infill, are transit oriented and utilize "smart growth" principles.

Objective 1 B: Provide adequate maintenance funding for all facets of the transportation system.

Policy 1.4: Place a high priority on acquiring funds for transit and non-motorized facility projects as well as acquiring funds for roadway and bridge maintenance projects.

Objective 1 C: Integrate land use decisions with the existing and future capacities of the transportation system.

Policy 1.5: Consider the existing and planned future capacity of the surrounding roadway system when evaluating major land use decisions, and make transportation capacity decisions consistent with demand for facilities associated with planned land use levels.

Objective 1 D: Maintain acceptable levels of service on all County roads and state highways.

Policy 1.6: Local jurisdictions should establish traffic study requirements for new development projects such as those stated in the *Proposed Calaveras Countywide Traffic Circulation Study*.

Policy 1.7: Continue to operate Benefit Basin and Road Impact Mitigation Fee programs that will support rehabilitation and reconstruction of existing and future roads.

Objective 1 E: Reduce the demand for travel by single-occupant vehicles through transportation demand management techniques.

Policy 1.8: Increase the mode share for public transit through operational improvements and increased bicycle, pedestrian, and park-and-ride facilities.

Policy 1.9: Continue to support a formal rideshare program and commuter database within the County.

Policy 1.10: Promote public awareness of Calaveras Transit and rideshare programs among residents and visitors through media and promotional events.

Objective 1F: Provide for truck travel on County facilities that can safely accommodate heavier vehicles.

Policy 1.11: Keep the trucking industry informed about truck impacts to County facilities and lessen the impact wherever possible.

Policy 1.12: Install passing lanes, turnouts, shoulders, designate routes and other low-cost improvements to minimize adverse traffic impacts from truck traffic and to improve goods movement.

Policy 1.13: Implement transportation projects which increase safety for trucks.

Goal 2: Promote equity for all system users.

Objective 2 A: Use cost-effectiveness measures such as construction cost per new trip served to prioritize transportation projects.

Policy 2.1: Transportation decisions will focus on equitable access of the region's residents to the transportation system.

Policy 2.2: Public participation efforts will be implemented to include interested residents and other stakeholders in the decision-making process for transportation projects.

Goal 3: Enhance sensitivity to the environment in all transportation decisions.

Objective 3 A: Promote transportation policies and projects that support a sustainable environment.

Policy 3.1: Coordinate with federal and state agencies and local air management districts on matters related to the air quality conformity process specified in the Federal Clean Air Act for transportation projects.

Objective 3 B: Promote and design transportation projects that will reduce greenhouse gas emissions and thereby positively contribute to meeting statewide global warming emissions targets set in Global Warming Solutions Act of 2006 (AB 32).

Policy 3.2: Give priority to ITS, non-motorized, demand management projects or other transportation improvement projects which will consolidate vehicle trips and reduce congestion in Calaveras County.

Policy 3.3: Adopt land use-transportation guidelines that encourage walking, biking, transit, carpooling and alternative modes of transportation outside of the personal automobile. Coordinate with County and City stakeholders to develop an integrated land use-transportation approach to future growth in the region and its affect on climate change.

Policy 3.4: Seek Transportation Planning Grant funding to implement and plan projects which provide awareness of and compliance with climate change guidelines and support development and implementation of best practices in community and regional planning.

Goal 4: Support the Economic Vitality of the Region.

Objective 4 A: Maintain and promote the desirability of the region by directing appropriate investment to the transportation infrastructure.

Policy 4.1: Plan transportation improvements in and around business districts and tourist attractions that will enhance traffic circulation and the character of the community.

Policy 4.2: Encourage responsible companies that provide "living wages" to locate in and employ Calaveras County residents.

State Highways

Goal 5: Coordinate with Caltrans to identify and construct state highway improvements that are needed to keep pace with increasing development and that provide for public safety.

Objective 5 A: Secure funding to reduce traffic congestion and improve safety on state highways.

Policy 5.1: CCOG will work with the County, Caltrans, and the City of Angels to identify funding to implement highway improvements necessary to prevent capacity deficiencies and to provide adequate levels of service on state highways in Calaveras County.

Policy 5.2: The CCOG will coordinate with Caltrans to fund safety projects that address the challenges described in the California Strategic Highway Safety Plan.

Goal 6: Enhance opportunities for safe pedestrian travel on and across State highways.

Objective 6 A: Reduce pedestrian/vehicle fatality accidents by 25 percent from Year 2000 levels in accordance with the California Strategic Highway Safety Plan.

Policy 6.1: Local jurisdictions shall work with Caltrans to provide pedestrian facilities and crosswalks along state highways as needed to improve safety and provide connectivity between commercial areas, residential areas, recreational areas, schools and the transit system.

Local Roadway System

Goal 7: Maintain a local road system to serve the public's needs for mobility and access.

Objective 7 A: Accept new roads into the locally maintained road system only when they meet the criteria established by the County or City.

Policy 7.1: Access to new development and to newly-created parcels shall meet County standards under any applicable Community Plan, Specific Plan, Special Plan, or Mixed Use/Master Project area, and the applicable jurisdictional road ordinances.

Policy 7.2: Require emergency access roads for new developments based on the relative fire danger of the area as stated in *the Proposed Calaveras Countywide Traffic Circulation Study*.

Policy 7.3: All roads to be accepted into either the County or City maintained mileage shall have provisions for ongoing maintenance other than relying solely on the road funds of the respective jurisdiction.

Policy 7.4: All new roads that are not accepted in to the County or City maintained mileage system shall be required to implement a program for maintenance of their roadways in perpetuity. This maintenance program shall include ongoing funding, schedule of maintenance activities and entity responsible for the program.

Road Maintenance

Goal 8: Maintain local roads in a safe condition.

Objective 8 A: Program projects which will reduce the “backlog” of deferred maintenance.

Policy 8.1: CCOG shall assist the County and the City of Angels in identifying maintenance funding such as sales tax initiatives or street assessments.

Public Transit

Goal 9: Develop and maintain affordable and effective public and private transportation for County residents, especially disabled residents and others with specialized transportation needs.

Objective 9 A: Monitor monthly management reports and performance measures for Calaveras Transit and adjust service and schedules accordingly.

Policy 9.1: Meet any unmet transit needs that are reasonable to meet according to the criteria established by CCOG.

Policy 9.2: Reach the mandatory ten percent farebox recovery ratio for rural public transportation.

Objective 9 B: Facilitate the use of public transit for residents and commuters in outlying areas by promoting Park and Ride lots and/or bike rack/locker facilities near transit stops.

Policy 9.3: Work to develop new sources of public transit funding such as cost sharing arrangements with other jurisdictions served by Calaveras Transit.

Policy 9.4: Fund the Calaveras Transit Bus Shelter Improvement Program

Aviation

Goal 10: Enhance, maintain, and improve the Calaveras County Airport.

Objective 10 A: Implement land use, zoning and development policies of the Airport Special Plan.

Policy 10.1: Prevent new land uses and zoning surrounding the County Airport from creating future land use conflicts.

Policy 10.2: Encourage policies that preserve land currently owned by the airport for airport uses.

Goods Movement

Goal 11: Accommodate the continued and expanded use of trucking for the transport of suitable products and materials.

Objective 11 A: Promote the efficient utilization of truck transport through transportation and land use decisions.

Policy 11.2: Require commercial developments to provide adequate ingress and egress, turning radius, stacking and off-loading areas for truck traffic.

Non-Motorized Travel

Goal 12: Provide a comprehensive system of facilities and amenities to provide safe travel for bicycles and pedestrians on existing and proposed roads.

Objective 12 A: Implement projects in the Calaveras County Bicycle Master Plan and the Calaveras County Pedestrian Master Plan as funding allows.

Policy 12.1: Design and fund improvements of transportation facilities with primary consideration to providing for the safety of school children and local residents on existing and proposed facilities.

Policy 12.2: Design and fund a comprehensive network of Class I, II, and III bicycle and pedestrian facilities that will encourage walking and bicycling for both residents and visitors.

Policy 12.3: Require all new roads constructed as a part of a land division to include pedestrian and bicycle improvements.

Policy 12.4: Provide for maintenance of existing and new bicycle and pedestrian facilities.

Objective 12 B: Increase bicycle trips to work, school and recreational facilities to reduce vehicle congestion and improve air quality.

Policy 12.5: Provide connections to the bicycle network from all existing and future transit facilities, transfer stations and terminals in Calaveras County.

Policy 12.6: Provide bicycle support facilities such as bicycle racks, personal lockers and showers and appropriate locations such as park and ride facilities, employment centers, schools, commercial centers, government services and visitor points of interest.

Management of the Transportation System

Goal 13: Minimize traffic congestion by increasing the efficiency of the existing transportation system through Transportation System Management (TSM) techniques.

Objective 13 A: Work with Caltrans and County staff to periodically review traffic operations along state highways and major County roads.

Policy 13.1: Promote signal timing, access management, transit priority treatments, accident scene management measures and Intelligent Transportation Systems (ITS) improvement projects to help increase traffic flow.

Policy 13.2: Promote off-street parking management strategies in the community commercial centers to help decrease congestion while aiding the local economy.

Program-Level Performance Measures

Program-level performance measures reflect the goals and objectives adopted in the RTP. These performance measures are used to evaluate and select plan alternatives. Consistent with the RTP Guidelines, Caltrans identified four broad goals for performance measurement:

- To understand the role the transportation system plays in society.
- To focus on outcomes at the system level rather than projects and process.
- To build transportation system partner relationships with clearly defined roles, adequate communication channels, and accountability at all levels.
- To better illuminate and integrate transportation system impacts of non-transportation decisions.

The program-level performances selected for Calaveras County are presented in Table 16 and linked to each RTP objective.

Table 16: Linkage of Performance Measures to Objectives

Objective	RTP Performance Measure	Source
1 A: Increase accessibility to all modes of the transportation system.	Minimum Acceptable LOS on average daily basis, higher ridership on Calaveras Transit, implement non-motorized transportation facilities.	Caltrans and County traffic volumes, Calaveras Transit ridership data, CCOG
1 B: Provide adequate maintenance funding for all facets of the transportation system.	Number of maintenance projects completed on state highways, local and county roads, and non-motorized facilities.	Regional Transportation Plan, Regional Transportation Improvement Plan, Calaveras County DPW, CCOG
1 C: Integrate land use decisions with the existing and future capacities of the transportation system.	Existing or forecast LOS along roadway corridors. Provide acceptable LOS in peak month by 2020.	Caltrans and County traffic volumes
1 D: Maintain acceptable levels of service on all County roads and State highways	Minimum roadway and intersection LOS	Caltrans and County traffic volumes, Calaveras County, City of Angels.
1 E: Reduce the demand for travel by single-occupant vehicles through transportation demand management techniques.	Number of Foothill Rideshare registered users.	Foothill Rideshare
1 F: Provide for truck travel on County facilities that can safely accommodate heavier vehicles.	Number of passing lanes, turnouts, and shoulders on state highways and County roads.	Caltrans, Calaveras County DPW, California Highway Patrol.
2 A: Use cost-effectiveness measures to prioritize transportation projects.	Construction cost per new trip served.	Traffic counts, traffic forecasts, cost estimates provided by Caltrans and/or the County.
3 A: Promote transportation policies and projects that support a sustainable environment.	Avoid or minimize significant impacts.	Environmental thresholds or significance criteria adopted in the General Plan and/or independently for application in CEQA documents.
3 B: Promote and design transportation projects that will reduce greenhouse gas emissions and thereby positively contribute to meeting statewide global warming emissions targets set in the Global Warming Solutions Act of 2006.	State GHG standards.	CARB
4 A: Maintain and promote the desirability of the region by directing appropriate investment in the transportation infrastructure.	Minimum acceptable LOS on average daily basis, increased TOT and sales tax revenues.	Caltrans and County traffic volumes, Calaveras County, City of Angels.
5 A: Secure funding to reduce traffic congestion and improve safety on state highways.	Number of maintenance projects completed on state highways. Number of accidents on state highways per 1,000,000 vehicle miles of travel.	Caltrans, Calaveras County DPW, California Highway Patrol.
6 A: Reduce pedestrian/vehicle fatality accidents by 25 percent from Year 2000 levels in accordance with the California Strategic Highway Safety Plan.	Number of pedestrian/vehicle fatalities in 2000 compared to 2010.	Caltrans, Calaveras County DPW, California Highway Patrol.
7 A: Accept new roads into the locally maintained road system only when they meet the criteria established by the County or City.	Consistent application of road standards designated in the Calaveras County Road Ordinance.	Calaveras County Road Ordinance.
8 A: Program projects which reduce the "backlog" of deferred maintenance.	Number of maintenance projects completed and which improved LOS on local roadways by 2025.	Caltrans and County traffic volumes. Calaveras County DPW.
9 A: Monitor monthly management reports and performance measures for Calaveras Transit and adjust service and schedules accordingly.	Increase in ridership over a five year period. On-board passenger surveys.	Monthly/quarterly transit operations reports.
9 B: Facilitate the use of public transit for residents and commuters in outlying areas by promoting Park and Ride lots and/or bike rack/locker facilities near transit stops.	Increased boarding and alighting activity at transit stops in outlying areas. On-board passenger surveys.	Monthly/quarterly transit operations reports.
10 A: Implement land use, zoning and development policies of the Airport Special Plan.	No new incompatible developments in the Airport Special Plan area.	Airport Special Plan.
11 A: Promote the efficient utilization of truck transport through transportation and land use decisions.	Number of new commercial developments with truck circulation requirements.	CCOG
12 A: Implement the priority projects in the updated Calaveras County Bicycle Master Plan and Calaveras County Pedestrian Master Plan as funding allows.	Number of bikeway projects constructed.	Calaveras County DPW, CCOG
12 B: Increase bicycle trips to work, school and recreational facilities to reduce vehicle congestion and improve air quality.	Employee and school surveys. GHG emissions.	CCOG
13 A: Work with Caltrans and County staff to periodically review traffic operations along state highways and major county roads.	Improved LOS on state highways and major roads, and major intersections.	Caltrans, Calaveras County DPW, Regional Transportation Plan.

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This chapter addresses the needs and issues for each transportation mode, in accordance with the goals, objectives, and policies set forth in the Policy Element. It is within the Action Element that projects and programs are prioritized as either short term (2005-2015), or long-term (2016-2025) improvements, consistent with the identified needs and policies. These plans are also based upon the forecasts for future conditions and travel needs.

DATA FORECASTS

The RTP Action Element is based upon the forecasts regarding future conditions pertaining to population, housing, employment, income, land use, and traffic forecasts, as discussed in the following sections. Data was obtained from state agency sources and the *Calaveras County Land Use Assumptions Memorandum* (PMC, September 8, 2006). The Calaveras County Transportation Demand Model (Fehr & Peers) was used to estimate future traffic conditions. Although the *Calaveras County Land Use Assumptions Memorandum* is the foundation for the Calaveras County Transportation Demand Model and should be used for Calaveras County forecasts where possible, data collected by the State of California is broader and allows for comparisons with other counties or at the state level. For this reason, both sources are presented in this RTP.

Population

According to the California Department of Finance, the population of Calaveras County is expected to increase at a rate of 1.9 percent per year (or 4,513 residents) between 2005 and 2010, as shown in Table 17. The population forecasts of the surrounding counties are expected to increase by 2.3 percent during this same time period, with San Joaquin County having the largest annual percentage growth in population (2.7 percent), over the 20-year RTP plan period, Calaveras County's population is projected to increase by 20,048 residents from 2005 to 2025. During this same timeframe, forecasts for the surrounding counties also indicate an increase in population. As shown in the table, San Joaquin County's population is projected to increase by over 456,000 residents and Stanislaus County's population is projected to increase by over 194,000 residents. As Calaveras County offers many recreational opportunities, it can be expected that traffic volumes on Calaveras County roadways will increase along with the population in the neighboring Central Valley counties as well as increases of its own population.

The *Calaveras County Land Use Assumptions Memorandum* projects that the population of Calaveras County will reach 80,051 persons by 2025. This figure represents average annual population growth of 2.52 percent for the County, a larger growth rate assumption than the California Department of Finance's 20 year annual population growth rate of 1.9 percent.

Housing

Housing element projections developed by Pacific Municipal Corporation (PMC) for Calaveras County (*Calaveras County Land Use Assumptions Memorandum*, September 2006) also show large growth in housing. PMC estimates that 12,972 residential building permits will be issued in Calaveras County between 2006 and 2025, resulting in a total of 39,198 residential units in 2025 or a 49.5 percent increase.

TABLE 17 : County Population Forecasts

County	Forecast Population			Annual Percent Change		Total Change 2005-25	
	2005	2010	2025	2005-10	2010-25	#	%
<i>Calaveras</i>	45,086	49,599	65,134	1.9%	1.8%	20,048	44.5%
Alpine	1,262	1,377	1,427	1.8%	0.2%	165	13.1%
Amador	37,574	39,287	43,331	0.9%	0.7%	5,757	15.3%
San Joaquin	653,333	747,149	1,109,610	2.7%	2.7%	456,277	69.8%
Stanislaus	504,482	559,051	699,220	2.1%	1.5%	194,738	38.6%
Tuolumne	58,504	59,883	67,009	0.5%	0.8%	8,505	14.5%
<i>Total Adjacent Counties</i>	1,255,155	1,406,747	1,920,596	2.3%	2.1%	665,441	53.0%

Source: California Department of Finance, Demographic Research Unit.

Employment and Economy

The California Employment Development Department (EDD) projects employment by industry over a seven-year period. Total non-farm employment in Calaveras County is estimated to increase by 2.2 percent annually, from 8,610 employed persons in 2001 to 10,050 employed persons by 2008. The EDD also projects that regional employment in other industries will increase at these varying rates: service producing employment is forecast to increase by 2.1 percent and government employment by 2.2 percent annually. The *Calaveras County Land Use Assumptions Memorandum* provides an estimate of 14,839 jobs in Calaveras County by 2025.

U.S. Census “Journey to Work” data referenced in Chapter 2 demonstrated that roughly 15 percent of Calaveras County employed residents commute to San Joaquin County. This commute pattern is not expected to change, as both counties continue to grow.

Income

Caltrans Division of Transportation Planning provides county-level economic forecasts. The 2005 and 2010 per capita incomes are forecast to be \$24,160 and \$25,198 respectively. Total personal income is forecast to be \$556.3 million in 2005, rising to \$713.5 million in 2010.

Land Use

As discussed in the Policy Element (Chapter 3), the impact of proposed land uses is an important regional transportation issue in Calaveras County. Six proposed developments were identified in Chapter 2 as having particularly substantial potential impact. If approved, these developments would be located in Copperopolis, Valley Springs and San Andreas. Land uses proposed for these projects range from 335 single-family dwelling units to 2,275 single-family dwelling units and from an 18 hole golf course to 193,477 square feet of commercial uses. Construction of these projects is expected to be complete within the 20 year RTP planning period.

In addition to projects already in the “pipeline,” there are 11,083 vacant parcels in Calaveras County. According to the *Calaveras County Land Use Assumptions Memorandum*, a total of 39,198 residential units are forecast in Calaveras County by 2025. This estimate was derived by projecting the number of building permits issued between 2006 and 2025. The communities of

Valley Springs, Copperopolis, Arnold, and Murphys are forecast to have the highest numbers of residential units.

Future Traffic Conditions

The following section details future (2025) traffic conditions in Calaveras County as estimated by the Calaveras County Transportation Demand Model developed by Fehr & Peers Associates. The Calaveras County Transportation Demand Model is a very useful means of evaluating future traffic conditions. A transportation network model is a computerized representation of the transportation system. A model is useful for comparing the impacts of various growth assumptions and for evaluating alternative transportation improvement programs. Computerized transportation models are also the best means by which to evaluate the interchange of traffic between various land uses, and to consider the effects of traffic congestion on travel times and driver route choice. This model represents the average summer weekday, as traffic volumes are highest during the summer in Calaveras County.

2025 Traffic Volumes

Average daily 2025 traffic volumes per the Calaveras County Transportation Demand Model on major roadways are shown in Figure 7. The highest volumes are forecast to occur on SR 12 just east of the San Joaquin County line (21,500 daily trips), on SR 49 near the Amador County line (17,700 daily trips), on SR 49 north of Angels Camp (17,600 daily trips) and on SR 4 east of Murphys (17,500 daily trips). Other large traffic volumes will occur on SR 49 in San Andreas (16,500 daily trips), on SR 49 south of Angels Camp (16,200 daily trips) and SR 26 just before the San Joaquin County border (16,000 daily trips).

To put traffic growth in Calaveras County into perspective, Table 18 presents 2002 and 2025 average summer weekday traffic volumes on specific roadway segments outside community centers on both State highways and County roadways. As the table indicates, of the roadway segments selected, the greatest growth is forecast to occur on SR 12 at the western County border (14,962 daily trips) followed by SR 26 at the western County border (11,227 daily trips). If State highways are not included in the rankings, Murphys Grade Road is expected to see the largest volume increase between 2005 and 2025 (8,058 daily trips) followed by Burson Road in Valley Springs (7,401 daily trips).

2025 Roadway Level of Service

Table 19 compares 2025 PM peak hour traffic volumes in the peak direction on key roadway segments in the County to the LOS "C" capacity thresholds calculated with HIGHPLAN software. It should be noted that the SR 4 Angels Camp Bypass is included in the model and thus reflected in this analysis. In 2025, capacity is exceeded on all roadway segments evaluated, except for the corridor on SR 49 between Mountain Ranch Road and Fourth Crossing Road.

2025 Intersection Level of Service

Although this traffic analysis primarily relied on the travel demand model for traffic forecasts, adjustments to the model-generated traffic volumes were made for the Intersection Level of Service analysis. Specifically, 2025 intersection volumes were estimated by adding the growth in traffic generated by the model to actual 2005 intersection counts conducted by All Traffic

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Table 18: 2002 and 2025 Average Summer Weekday Traffic Volumes on Calaveras County Roadways

Roadway	Section/Cross Streets	2002 ADT	2025 ADT	Change in Volume	Percent Increase	Rank: Largest Volume Increase	Rank: Largest Volume Increase not Including State Highways
SR 49 South of San Andreas	Between Mountain Ranch Rd and Fricot Rd	7,405	12,500	5,095	69%	13	—
SR 49 North of City of Angels	Between Fourth Crossing Rd and Dogtown Rd	8,167	14,647	6,480	79%	10	—
SR 4 East of Murphys	Between Mt. Davis Rd and Sheep Ranch Rd	8,157	17,738	9,581	117%	3	—
SR 4 East of Arnold	Between Moran Rd and Summit Level Rd	2,073	7,778	5,705	275%	12	—
SR 12 West of Valley Springs	SR 12 between Pettinger and SR 26/Paloma	6,372	13,611	7,239	114%	7	—
SR 12 at Western County Border	Near Camanche Parkway	6,521	21,483	14,962	229%	1	—
SR 26 West of Valley Springs	Between Hogan Dam Rd and Silver Rapids Rd	8,291	17,418	9,127	110%	4	—
SR 26 at Western County Border	Near Shelton Rd	4,680	15,907	11,227	240%	2	—
Mountain Ranch Road	Between Calaveritas Rd and Michel Rd	1,513	2,442	929	61%	18	10
Murphys Grade Road	Between SR 4 Bypass and French Gulch Rd	2,715	10,773	8,058	297%	5	1
Pool Station Road	Between SR 4 and Demarest Mine Rd	887	5,103	4,216	475%	14	6
O'Byrnes Ferry Road	Between Copper Cove Dr and County Boundary	3,642	10,416	6,774	186%	9	4
Sheep Ranch Road	Between Railroad Flat and Avery Sheep Ranch Rd	813	1,600	787	97%	19	11
Railroad Flat Road	Between Mountain Ranch Rd and Jesus Maria Rd	1,093	2,369	1,276	117%	16	8
Avery Sheep Ranch Road	Between Sheep Ranch Rd and SR 4	305	485	180	59%	22	14
Moran Road	From West of Arnold on SR 4 to East of Arnold on SR 4	690	1,690	1,000	145%	17	9
Ridge Road	From SR 26 to Railroad Flat Rd	450	693	243	54%	21	13
Jenny Lind Road	Between Milton Rd and SR 26	1,634	3,780	2,146	131%	15	7
Burson Road	Between SR 26 and SR 12	1,877	9,278	7,401	394%	6	2
Pettinger Road	Between Southworth Rd and SR 12	1,848	7,636	5,788	313%	11	5
Evergreen Road	Between Warren Rd and Southworth Rd	271	591	320	118%	20	12
Olive Orchard Road	Between SR 26 and Burson Rd	1,628	8,489	6,861	421%	8	3

Source: Calaveras County 2002 Travel Demand Forecasting Model

Table 19: Calaveras County 2025 Roadway Capacity Analysis

Roadway Segment	LOS C Capacity (vph in peak direction)	2025 Traffic Volume (vph in peak direction)	LOS	LOS C Capacity Exceeded?
SR 49 between Amador County Line and SR 12 (San Andreas)	320	869	E	YES
SR 49 between SR 12 (San Andreas) and Mountain Ranch Rd	460	662	E	YES
SR 49 between Mountain Ranch Rd and Fourth Crossing Rd	590	501	C	NO
SR 49 between Fourth Crossing Rd and Brunner Hill Rd (N. end of Angels Camp)	470	677	D	YES
SR 49 between Brunner Hill Rd and SR 4 Jct. South (Angels Camp Downtown)	420	755	E	YES
SR 49 from SR 4 Jct. South (Angels Camp) to Tuolumne County Border	510	729	D	YES
SR 4 from Stanislaus County line to O'Byrnes Ferry Rd (Copperopolis)	470	763	D	YES
SR 4 between O'Byrnes Ferry Rd (Copperopolis) and SR 49	440	866	E	YES
SR 4 between Angels Camp and Allen St (just west of Murphys)	420	702	E	YES
SR 4 between Allen St and Broadview Ln (Murphys Downtown)	830	1,060	D	YES
SR 4 between Broadview Ln (Murphys) and Valley View Dr (Arnold)	550	1,029	E	YES
SR 4 between Valley View Dr and Henry Rd (Arnold Downtown)	520	551	D	YES
SR 4 between Henry Rd (Arnold) and Alpine Co. line	490	505	D	YES
SR 12 between San Joaquin County line and Valley Springs	420	1,080	E	YES
SR 12 between Valley Springs and SR 26 East Jct.	580	711	D	YES
SR 26 between San Joaquin County line and Olive Orchard Rd	420	637	D	YES
SR 26 between Olive Orchard Rd and Lime Creek Rd (Valley Springs)	830	913	D	YES
SR 26 between SR 12 Jct East of Valley Springs and Mokelumne Hill	330	348	D	YES
SR 26 between Mokelumne Hill and West Point	250	391	D	YES
Murphys Grade Rd between Angels Camp and Murphys	260	609	E	YES
Mountain Ranch Rd between SR 49 and Sheep Ranch Rd	230	246	D	YES
O'Byrnes Ferry Rd between SR 4 and Tuolumne County line	440	490	D	YES

Note: Roadway capacities based upon Florida DOT's HIGHPLAN Software.
 Source: Calaveras County Transportation Demand Model, 2002

Data. As the base case traffic model represents 2002 conditions, in order to estimate 2005 to 2025 growth, the growth between 2002 to 2025 was multiplied by the ratio of 20 years to 23 years. Table 20 displays the results, which indicate that the following intersections are forecast to operate below LOS "C" by 2025 on a summer weekday:

- SR 4/Main Street in Murphys
- SR 49/SR 26
- Pettinger Road/SR 12
- SR 49/Pool Station Road
- SR 49/Mountain Ranch Road
- Little John Road/SR 4
- SR 4 South/SR 49 (southern intersection)
- SR 4/Bret Harte Drive
- SR 4/Avery Sheep Ranch Road

Table 20 also presents potential mitigation measures which will improve LOS during the peak hour. Appendix E presents the traffic volumes used to develop LOS for both existing and future conditions. Additionally, the SR 12/26 intersection currently operates at LOS F. Barring improvements, poor LOS is expected to continue into the future due to both population growth and increased recreational traffic in the area. The SR 12/26 signalization project and the Valley Springs Bypass projects are intended to alleviate congestion at this intersection. On a more positive note, the SR 4 and SR 49 northern intersection is forecast to operate at LOS "B", once the Angels Camp Bypass is in place.

Summary

This future traffic conditions analysis shows that the large majority of state highway segments in Calaveras County will operate below the County LOS threshold of "C" by 2025. In particular, travel between the Valley Springs region and San Joaquin County will increase dramatically over the next 20 years, largely reflecting the flow of commuters between the two counties. Tourism and recreation vehicle travel will also increase traffic volumes throughout the region, prompting the need for passing lanes and wider shoulders. Traffic is anticipated to increase significantly on SR 4 east of Murphys due in part to the large number of second homes in Arnold and surrounding mountainous regions of the County. The Calaveras County Travel Demand Model projects that the greatest travel demand on the County roadway system in both 2002 and 2025 is generated by development in the Copperopolis region. Potential mitigation to correct these traffic issues are discussed in the *Calaveras County Circulation Study* and the Copperopolis and Valley Springs Benefit Basin Reports. Proposed transportation projects resulting from these studies are included in this Draft RTP.

One good method of keeping future roadway LOS at acceptable levels is prevention. Traffic volumes in the Calaveras Travel Demand Model are based on the development of approved future projects as well as the buildout of vacant or partially developed residential and non-residential parcels. If smart growth principles such as transit oriented development and mixed use projects are applied to development of the vacant parcels, future traffic volumes could be less than the model estimates.

Parallel Capacity

As evidenced above, population growth in Calaveras County and the resulting increase in through volumes is forecast to cause LOS on many roadway segments to fall below the existing

Table 20: Calaveras County 2025 Summer Weekday Intersection LOS

Traffic Control	Intersection		Unmitigated ⁽¹⁾		2025 Potential Peak Hour Mitigation	Mitigated ⁽³⁾	
	North/South	East/West	AM Peak-Hour LOS ²	PM Peak-Hour LOS ²		AM Peak-Hour LOS ²	PM Peak-Hour LOS ²
Stop Controlled	SR 26	Railroad Flat Road	A	B		A	B
Stop Controlled	SR 26	Ridge Road	B	B		B	B
Stop Controlled	SR 4 (NB)/Blagen & Dunbar	SR 4 (SB)	C	C	Realignment using Henry St. needed for safety considerations	C	C
Stop Controlled	SR 4	Main Street(Murphys)	D	D	Add median or TWLTL for a two stage left turn	C	C
Stop Controlled	SR 4	Parrotts Ferry Road	B	C		B	C
Stop Controlled	SR 49	SR 26	F	F	Signalize + WBL turn lane and NBR turn lane	B	B
Stop Controlled	Pettinger Road	SR 12	F	F	TWLTL with 1 veh storage + EBR turn lane. (May meet signal warrants)	C	D
Stop Controlled	SR 49	Gold Strike Road	C	C		C	C
Stop Controlled	SR 49	Pool Station Road	F	F	Signalize + SBR turn lane	B	B
Stop Controlled	SR 49	Mountain Ranch Road	E	F	Signalize (keep existing geometry)	B	B
Stop Controlled	Little John Road	SR 4	F	F			
Signal	SR 4	SR 49 (Northern Intersection)	B	B		B	B
Signal	Murphys Grade Road/Demarest Street	SR 4	B	C		B	C
Stop Controlled	SR 4 South	SR 49 (Southern Intersection)	F	F	Change to 4 way stop, add NBR and SBL turn lanes	C	E
Stop Controlled	SR 4	Bret Harte Drive	D	F	Add median or TWLTL for a two stage left turn	C	C
Stop Controlled	SR 4	Avery Sheep Ranch Road	D	F	Add median or TWLTL for a two stage left turn	C	C

Note 1: LOS with existing lane geometry and traffic control.

Note 2: Worst Approach LOS is reported for unsignalized intersections, while total intersection LOS is reported for signalized intersections.

Note 3: HCM is not able to analyze atypical intersections; therefore Blagen and Dunbar approaches were combined into a "T" intersection configuration.

LOS C standard. In particular, a review of Table 19 indicates a total of 21 key roadway segments (19 on the state highway system) that will operate at LOS D or worse in 2025. While a preliminary review of this table indicates that some roadway segment deficiencies in the undeveloped portions of the County can be addressed through curve corrections or provision of passing lanes or climbing lanes, other segments located in developed areas would require either widening or provision of parallel roadways. Like the issues faced in many other rural areas with significant growth, Calaveras County is faced with finding an appropriate means to address this issue. Short of land use changes, one option is to provide parallel roadway capacity.

Parallel capacity is the idea of developing a roadway network that tends to distribute traffic activity rather than concentrate it, through the provision of new roadways. This tends to preserve the rural or small-town character of an area. Beyond the costs involved, the difficulty is in securing an alignment that meets transportation needs (i.e., provides new travel paths that serve local travel patterns) while resulting in acceptable impacts on adjacent property owners and the environment.

Where a feasible parallel alignment exists and where a lower LOS is not acceptable, the provision of parallel roadway capacity is a strategy that can attain Calaveras County's desire to maintain a rural/small-town character. The feasibility of this strategy, however, depends greatly on the specific travel patterns and geography of a local area, and must be evaluated on a case-by-case basis.

ASSUMPTIONS

The RTP Guidelines state that each RTP should establish assumptions to be used in the development of projections and determination of needs. These assumptions form the basis upon which goals, policies, and objectives are based. This section summarizes assumptions for the 2007 Calaveras County RTP.

- ▶ The population of Calaveras County will increase at approximately 2.5 percent per year. Adjacent County populations will continue to grow at a rate generally consistent with the State Department of Finance estimates.
- ▶ Dwelling units are expected to increase to 39,198 by 2025.
- ▶ There will continue to be a strong commuting pattern of Calaveras County residents working in neighboring counties in the Central Valley.
- ▶ The developed areas of the County will continue to experience increased growth in housing stock consistent with *Calaveras County Land Use Memorandum* projections.
- ▶ The automobile will continue to be the primary mode of travel by residents of Calaveras County.
- ▶ Fuel prices will remain above \$3.00 per gallon and may affect people's summer travel patterns. Vacationers may chose destinations closer to home.

- ▶ Project construction costs are anticipated to increase by 3.2 percent per year, based upon the average annual change in the Engineering News Record Construction Cost Index from December 1996 to December 2006.
- ▶ Recreation-oriented travel and second home growth will continue to affect state highways and major County roads.
- ▶ Local road maintenance will continue to be a major issue, unless new local funding sources are secured.
- ▶ Average daily traffic generation (as measured by the number of trip-ends) will increase by 7.4 million from 2002 to 2025.

ALTERNATIVES/STRATEGIES

An important step in the development of future plans as well as a requirement of the RTP guidelines is the evaluation of general alternative strategies. Based on data analysis, key issues, and assumptions addressed in this document, three general regional transportation alternatives are considered in this section. This RTP update does not discuss specific transportation alternatives, but rather provides different approaches to prioritizing regional transportation improvement projects.

Maintenance Emphasis Alternative

This alternative focuses on funding and maintaining existing transportation programs. New roadways would not be considered under this alternative. As the Tri-County RTIP between Calaveras, Amador, and Alpine County includes new road construction projects (such as the SR 4 Angels Camp Bypass high priority project for which STIP funding has already been secured), this alternative would not be consistent with the RTIP or the goals and objectives of this RTP. Additionally, as Calaveras County's population and housing units are forecast to increase significantly over the planning period, implementing maintenance only projects would result in unacceptable traffic conditions.

Capital Improvement Emphasis

This alternative would seek to maximize funding allocated to new roadways. As discussed above, short-term RTIP priorities include large capital improvement projects such as bypass construction. However, road rehabilitation and maintenance is considered a regional issue and this fact is emphasized in the RTP goals and objectives. Therefore, focusing solely on new roadway or large capital projects ignores an important regional transportation need.

Balanced Focus

The final approach to prioritizing regional transportation improvement projects is a "balanced alternative." This alternative would seek to achieve a balance between maintenance of existing programs and expanding capacity where warranted. As this alternative directs decision-makers to provide solutions to both existing road maintenance issues as well as decreasing LOS on County roadways and state highways, a balanced alternative is the logical choice in Calaveras County. This alternative would allow CCOG to pursue STIP funding for new roadway or large

capital improvement projects, as well as pursue federal and state funding for much needed road maintenance projects. With a “balanced” focus, transportation projects that do not neatly fit into the two categories of capital or maintenance will also receive proper attention. Transportation projects such as roadway upgrades to minimum standards or intersection improvements that focus on safety or LOS improvements are equally important to an effective regional transportation system.

A “balanced” transportation system can also include the provision of non-motorized and transit facilities as well as transportation demand management techniques. These alternative forms of transportation reduce vehicle miles traveled on County highways and roadways and help to achieve other important goals. Implementing alternative transportation projects as funding becomes available could reduce the need for maintenance and new roadway construction. Data presented in the existing conditions section show the need for investment in alternative transportation projects. Roughly one in five Calaveras County residents live below the poverty level. These residents are not likely to have a private vehicle available and therefore rely on friends or public transit to fulfill their mobility needs. Census data revealed that over 15 percent of Calaveras County workers (2,400 persons) commute to San Joaquin County for work. As development continues in Calaveras County, the number of vehicles traveling between western Calaveras County and San Joaquin County will increase. Transportation demand management strategies such as Foothill Rideshare should be supported so as to reduce traffic congestion along SR 12.

Another Calaveras County issue that should be reviewed when considering a balanced approach to transportation is reducing the region’s dependence on the state’s infrastructure for intra-county trips. As state highways tend to be more well-maintained than County roadways, motorist traveling between Calaveras County communities often chose the state highway route over the more direct County road route. The goal would not be to divert traffic from State highways but to prioritize county roadway projects that would reduce “out-of-direction” travel. Upgrading county roads so as to provide a more direct connection between certain communities could reduce overall vehicle miles of travel (VMT) and thereby reduce vehicle emissions.

TRANSPORTATION SYSTEM IMPROVEMENTS

The following tables and text lists transportation improvement projects designed to alleviate existing transportation problems and accommodate future travel demand in accordance with area needs and policies. Projects are categorized by transportation element and priority levels. Short-term projects are expected to be implemented between Fiscal Year 2006 and Fiscal Year 2015. Short-term indicates programmed projects as well as projects with cost estimates available where funding has been identified but not secured. Long-term projects are not expected to be completed until the second half of the 20-year planning period (2016–2026). These long-term projects are in preliminary planning phases, and funding has been identified but not secured. The *2003 RTP Evaluation* Report requires a list of financially unconstrained projects in addition to financially constrained projects. A financially unconstrained project is a regionally desired un-funded project or “wish list” project that would be implemented if unanticipated funding sources were to become available.

Determining exact construction costs of transportation projects is difficult, especially for long-term projects. In recent years the price of raw materials used for transportation projects has risen resulting in actual costs much greater than those estimated in the planning phases of the project. In an effort to produce a realistic view of Calaveras County’s transportation needs, costs

estimates in the ensuing tables are presented in two ways: “2006 dollars” and “adjusted for inflation.” The Engineering News Record Construction Cost Index for San Francisco from December 1996 to December 2006 was reviewed to determine an average annual rate of inflation (3.2 percent) for construction costs. The majority of the projects in the following transportation improvement tables do not have construction years specified. Therefore, project costs with unknown construction dates were inflated to represent construction in the middle of their planning period. For example, the short-term planning period is ten years so costs were multiplied by the average annual inflation rate for five years and long-term projects were multiplied by the average annual inflation rate for ten years. Estimate project costs cited in the text of this document represent “adjusted for inflation” costs.

Roadway and Bridge

State Highways

The Calaveras County region’s 20-year vision improvement projects on state highways are identified in Table 21. Projects are separated by the two primary state highway funding sources (STIP and SHOPP). With the exception of the Tri-County STIP projects located outside of Calaveras County, all STIP programmed and constrained projects are also included in the Road Impact Mitigation (RIM) Fee program discussed below. As shown in the table, the cost of all programmed STIP roadway and bridge projects located in Calaveras County is \$27.6 million. This figure does not include money spent or programmed in previous STIP cycles. The 2006 Tri-County RTIP projects located in Alpine or Amador Counties total 7.4 million. STIP constrained projects total over \$154 million. Included in the constrained STIP projects is a 20 percent set aside of the estimated future STIP allocation for Calaveras County to local road rehabilitation. The 2006 Tri- County RTIP identified \$50 million in unfunded local road rehabilitation needs in the three counties. Costs of unconstrained state highway projects total \$50.3 million. SHOPP improvement projects total over \$143.2 million, SHOPP Minor A total to nearly \$3.3 million, and SHOPP Minor B total to \$425 thousand.

Programmed and constrained STIP projects listed in Table 21 are considered high priority or critical highway projects. The following discussion provides a brief description of each projects purpose and need.

SR 4 Angels Camp Bypass – The Angels Bypass is approximately 2.4 miles long, and is designed to re-route traffic around the City of Angels from north SR 4 at Frogtown Plaza to south SR 4 east of Roller Bypass Road. The discontinuity of SR 4 across the SR 49 corridor combined with local and regional traffic within the Angels Camp area and the constrained nature of the historic district often results in unacceptable levels of congestion. This congestion causes some motorists to divert to Murphys Grade Road, which currently acts as a natural bypass for SR 4. The increased traffic on this City/County roadway results in congestion in the town of Murphys to the east.

The most recent challenge with the Angels Camp Bypass has been construction cost increases of approximately \$12.8 million beyond what was originally estimated. Funding delays and right of way acquisition have attributed to the cost increase. In March 2007, Proposition 1B Corridor Mobility Improvement Account (CMIA) funds were awarded to the project. These funds combined with 2006 STIP Augmentation and Interregional Improvement Program (IIP) funds will pay for the cost increases and the Angels Bypass is scheduled for construction in 2007. The Angels Bypass is the final project of the Tri County MOU I.

Table 21: Caltrans State Highway Projects 20-Year Vision

Route	Specific Location (Post Miles)	Proposed Project Description	Implementation Period ⁽¹⁾		Total Cost (1000s) Dollars	Total Cost Adjusted for Inflation ⁽²⁾	Primary Funding Source
			Short Term	Long Term			
STIP - Programmed (Calaveras)							
SR 4	Angels Camp Bypass (Calaveras County) ⁽²⁾	Road Construction	X		\$ 24,396	\$ 24,396	STIP/CMIA / RIM
SR 4	Wagon Trail Project (PA & ED Phase) ⁽²⁾	Road Reconstruction/ Re-Alignment	X		\$ 3,230	\$ 3,230	STIP/PLH/ RIM
				Subtotal STIP Programmed	\$ 27,626	\$ 27,626	
STIP - Programmed (Tri-County)							
SR 49	Amador Bypass	Relinquishment and Environmental Mitigation	X		\$ 5,687	\$ 5,687	STIP
SR 88	Pine Grove Corridor Improvement Project (PA & ED Phase)	Road Reconstruction/ Re-Alignment	X		\$ 1,775	\$ 1,775	STIP
				Subtotal Tri-County Programmed	\$ 7,462	\$ 7,462	
STIP - Constrained							
SR 4/49	Angels Camp Bridges and Intersection	Bridge and Intersection Improvements	X		\$ 10,000	\$ 11,722	STIP
SR 12/SR 26	Intersection ⁽²⁾	Install Traffic Signal/ Widen Approach/ LTL, RTL	X		\$ 1,219	\$ 1,429	STIP/ RIM/ CMAQ
SR 4	Wagon Trail Project (Final Phases) ⁽²⁾	Road Reconstruction/ Re-Alignment	X		\$ 40,000	\$ 46,886	STIP/ RIM
SR 12	Valley Springs Bypass ⁽²⁾	Road Construction	X		\$ 60,000	\$ 82,436	STIP/ RIM/ Benefit Basin
SR 4	Stanislaus County Line to west of Reeds Turnpike ⁽²⁾	Road Reconstruction - Passing Lanes	X		\$ 2,400	\$ 3,297	RIM Fee/ Other
SR 12	West Jct. SR 26 to SR 49 ⁽²⁾	Road Reconstruction - Passing Lanes, Widen Road	X		\$ 4,305	\$ 5,915	RIM Fee/ Other
--	Local Road Rehabilitation	Road Rehabilitation	X		\$ 2,000	\$ 2,748	STIP
				Subtotal STIP Constrained	\$ 119,924	\$ 154,433	
STIP - Unconstrained							
SR 4	Bridge 30-0036 - PM 14.7	2 lane Expressway	X		N/A	N/A	STIP
SR 4	SE SR 49 Bypass	New roadway - extend the funded bypass past the fairgrounds	X		\$ 36,632	\$ 50,330	STIP
SR 4/ 49	Angels Camp Bypass Intersection at Dogtown Rd.	Roundabout	X		N/A	N/A	
				Subtotal STIP Unconstrained	\$ 36,632	\$ 50,330	
SHOPP							
SR 4	Arnold Curve Correction - On SR 4 near Arnold at PM 42.8 to 43.6	Curve Correction	X		\$ 7,900	\$ 8,418	SHOPP
SR 4	Big Trees CAPM - SR 4 from Moran Road, east of Arnold to Meko Dr at Camp Connel Maintenance Station	Roadway Rehabilitation	X		\$ 2,370	\$ 2,370	SHOPP
SR 4	Big Trees Curve Correction - SR 4 near entrance to Big Trees State Park	Curve Correction	X		\$ 3,000	\$ 3,097	SHOPP
SR 4	Big Trees State Park Wall - On SR 4 between 2 km north of White Pine and Big Trees	Construct Wall for Sediment Control	X		\$ 2,500	\$ 2,750	SHOPP
SR 4	Between Murphys and Hathaway Pines	Construct Two Sand Storage Facilities	X		\$ 1,200	\$ 1,407	SHOPP
SR 4	Foundry Lane/ Angels Oaks Road Connection to SR 4	Caltrans Oversight on City PSR Project	X		N/A	N/A	SHOPP
SR 4	Pool Station Intersection - At SR 4 and Pool Station Intersection	New Intersection	X		\$ 5,000	\$ 5,161	SHOPP
SR 4/49	Angels Creek Bridges on SR 4 & SR 49	Rail Upgrade and Widening	X		\$ 2,000	\$ 2,200	SHOPP
SR 12	Buron Rehabilitation - Near Wallace from 0.8 km east of Southworth Rd to 0.3 km east of SR 26	Structural Section Repair	X		\$ 7,900	\$ 8,418	SHOPP
SR 26	Savage Way Rehabilitation - Near Valley Springs, SJ County line to Savage Way	Road Rehabilitation and Improvements	X		\$ 9,300	\$ 9,600	SHOPP
2005 SHOPP 10 - Year Plan							
Mobility							
SR 4	PM 8.14 - 8.16 - Junction SR 4 / O'Byrnes Ferry Rd	Intersection Improvement	X		\$ 900	\$ 1,237	SHOPP
SR 4	PM 29.1 - 29.6 - Murphys 0.1 km east of Pennsylvania Gulch Intersection	Construct a Continuous Left Turn Lane	X		\$ 1,600	\$ 1,875	SHOPP
SR 4	PM 32.20- 32.5 - Near Murphys	Extend existing E/B turnout	X		\$ 800	\$ 968	SHOPP
SR 12	PM 9.92 - 10.30 - In Valley Springs at the SR12/SR26 Intersection	Intersection Improvement and Install Signal	X		\$ 1,600	\$ 2,198	SHOPP
SR 26	PM 5.04-5.51- East of Garner/Olive Rd to 0.16 km w/o Hagen Dr	Curve improvement and shoulder widening	X		\$ 1,500	\$ 1,874	SHOPP
SR 26	PM 8.99 - 9.5 from San Andreas Rd to .5 km east	Curve Improvement	X		\$ 1,350	\$ 1,533	SHOPP
Bridges							
	Various state highway bridges in Amador, Calaveras, Tuolumne Counties	Repair scour damage	X		\$ 3,000	\$ 4,122	SHOPP
	Various state highway bridges in Amador, Calaveras, Tuolumne Counties	Seismic Retrofit	X		\$ 7,000	\$ 9,618	SHOPP
Roadway Preservation							
SR 4	PM 0.0 - 10.3, 16.4 - 42.7	Roadway Rehabilitation	X		\$ 25,620	\$ 35,200	SHOPP
SR 26	PM 19.7 - 38.3	Roadway Rehabilitation	X		\$ 13,020	\$ 17,889	SHOPP
SR 49	PM R4.0 - 10.0	Roadway Rehabilitation	X		\$ 4,200	\$ 5,771	SHOPP
SR 49	PM 4.00 - 10.00	Pavement Rehabilitation	X		\$ 3,000	\$ 3,406	SHOPP
	Various areas	Repair and Replace Culverts	X		\$ 12,000	\$ 14,066	SHOPP
Roadside Preservation							
SR 4	PM 42.6 - 61.3	Maintenance Vehicle PULLOUTS	X		\$ 50	\$ 59	SHOPP
				Subtotal SHOPP	\$ 116,810	\$ 143,236	
SHOPP Minor A							
SR 4	PM 8.1/8.4 at Intersection of O'Byrnes Ferry Rd.	Extend WB LT on SR 4 in Copperopolis	X		\$ 450	\$ 450	SHOPP Minor A
SR 4	PM 32.2/32.2 - Murphys	Construct Turnout/Chain Control Facility	X		\$ 165	\$ 165	SHOPP Minor A
SR 4	PM 37.3 - Moran Intersection	Construct Left Turn Lane	X		\$ 750	\$ 750	SHOPP Minor A
SR 4	PM 40.1/40.6 From Meadowmont Way to 0.43 km east of Country Club Dr.	Widen and Construct Left Turn Lane	X		\$ 712	\$ 712	SHOPP Minor A
SR 4	PM 46.9/47.1 - In Dorrington	Construct Left Turn Channelization, Acceleration Lvl/ Chain Installation	X		\$ 550	\$ 550	SHOPP Minor A
SR 12	PM 14.1/14.5 - From 0.2 km east of SR 26 to 0.2 km east of Double Springs Rd.	Construct Left Turn Channelization, Acceleration Ln and Shoulder Widening	X		\$ 710	\$ 710	SHOPP Minor A
				Subtotal SHOPP Minor A	\$ 3,337	\$ 3,337	
SHOPP Minor B							
SR 4	Various Locations	Upgrade Drainage System	X		\$ 110	\$ 129	SHOPP Minor B
SR 4	PM 19.9/25 Angels Camp	Flashing amber for advisory radio	X		\$ 30	\$ 35	SHOPP Minor B
SR 26	PM 9.9/13.9 west and east SR 12/26 junctions	Install traffic count stations	X		\$ 70	\$ 82	SHOPP Minor B
SR 26	PM 18 - Near Mokelumne Hill at SR 26/49 junction	Modify existing intersection lighting	X		\$ 15	\$ 15	SHOPP Minor B
SR 26	PM 19.1/32.7 From 0.6 km w/o Jesus Maria Rd. to Sandy Gulch Rd.	Replace culverts	X		\$ 70	\$ 82	SHOPP Minor B
SR 26	PM 25 - East of Mokelumne Hill	Construct EB Chain Installation	X		\$ 70	\$ 82	SHOPP Minor B
				Subtotal SHOPP Minor B	\$ 365	\$ 425	
					Total Cost of Constrained Projects	\$ 275,524	\$ 336,519
					Total Cost of Unconstrained Projects	\$ 36,632	\$ 50,330

Note 1: Short Term 2005-2015; Long Term 2016-2026.
 Note 2: Project is part of the RIM Fee Program.
 Note 3: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.
 Source: 2006 STIP, 2005 SHOPP, 2005 10-Year SHOPP, Caltrans, CCOG

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SR 4 Wagon Trail - This improvement project will provide a faster and safer alignment for a five-mile portion of Highway 4 between Copperopolis and Angels Camp. The existing alignment between O'Byrnes Ferry Road and SR 49 severely limits the capacity of this roadway and is forecast to operate at LOS E by 2025. Projected growth of traffic along this corridor, which is a primary east-west link to the Central Valley, will require improvements that enhance roadway capacity and decrease delay. Traffic volumes are projected to increase by 14,000 ADT from 2002 to 2025 on this segment of SR 4. The project has been scoped in two ways: as a new alignment with 65 mph design speed, or as an improved route with a 55 mph design speed. Federal earmark money has been acquired for this project. The CCOG is currently working with Caltrans to finalize the Request for Qualifications (RFQ), to advertise the RFQ, and then select a consulting firm to prepare preliminary engineering documents. The Wagon Trail Project will be constructed in phases as funding becomes available. This project may also become part of a second Tri-County MOU.

SR 4/49 Angels Camp Bridges and Intersection – This project was developed because of SR 4 Angels Camp cooperative agreements with the City of Angels and Calaveras County. It was agreed that the portion of SR 4 from the SR 49 intersection to the new Angels Camp Bypass intersection would not be relinquished to the City and County until improvements were made to the skewed intersection, as long as the environmental portion of the improvements began within seven years of the adoption of the project study report (PSR). The PSR was completed in 2003. Therefore, PA & ED (project approval and environmental documentation) must begin in 2010.

SR 12/26 Intersection - A four-way stop and numerous commercial driveways at the intersection of SR 12 and SR 26 in Valley Springs currently cause congestion. In fact, the intersection itself operates at LOS F while the roadway segments leading into the intersection operate at LOS C and D. The proposed project will install a traffic signal, widen the approach and construct left and right turn lanes. This project is in the County's Road Impact Mitigation Fee Program and has been assigned the top priority project in the County. As the intersection modifications will relieve congestion, air quality will be improved. Therefore, in addition to RIM funding, CCOG will be seeking CMAQ funds for the SR 12/26 intersection project.

SR 12 Valley Springs Bypass – The purpose of this project is to provide an acceptable LOS on SR 12, SR 26 and at the SR12/26 intersection, and meet demands of the increase in traffic due to planned growth in Valley Springs. At present, both SR 12 and SR 26 are two-lane conventional highways which begin in the Central Valley region and terminate in the western Sierras. In addition to acting as the primary roadway for the rapidly growing community of Valley Springs, both highways serve as the access route to recreational areas such as New Hogan Reservoir and other highly visited attractions in Calaveras County for Central Valley residents. SR 12 is also important for goods movement, as truck traffic constitutes 4.8 percent of ADT, and for Calaveras County commuters who work in San Joaquin County. As stated above, traffic congestion is exacerbated by numerous commercial driveways at the intersection of SR 12 and SR 26.

Proposed alternatives include a two-lane (ultimate four-lane) expressway connector on a new SR 12 alignment to bypass Valley Springs or widen the existing highway from two lanes to four lanes with a painted median or raised curb island. The proposed SR 12 alignment will lie to the south of the existing highway with exact intersection locations with the old highway to be determined.

County Roadway and Bridge Projects

The County's 20-year vision of roadway and bridge improvement projects and their implementation status are presented in Tables 22 to 25. In an effort to respond accurately to regional transportation needs, each improvement project in Tables 22 to 25 is linked to a corresponding RTP goal or goals. The total cost estimate for all County roadway and bridge projects over the 20-year planning period is approximately \$266 million with \$50.2 over the short term and \$215.8 over the long term.

RIM Fee Program

In 2004, the Calaveras County Board of Supervisors determined that future development within unincorporated Calaveras County would result in substantial traffic congestion with unacceptable levels of service by 2025 and that existing funding sources would be inadequate to construct regional transportation projects needed to avoid the adverse impacts from developments. As a result, Calaveras County added Chapter 12.10 to the County Code establishing a Road Impact Mitigation Fee Program. Under this program all new development in the unincorporated parts of the County are assessed a fee based on the proportion of impact the project will have on the Regional Transportation Network as defined by Chapter 12.10. The *Road Impact Mitigation Fee Nexus Study* (April 2004) was prepared to determine what transportation improvement projects would be necessary to maintain safe and acceptable traffic conditions, as well as determine the proportion of costs of these improvement projects which should be borne by the new developments. The RIM Fee Capital projects on local and County roadways (listed in Table 22) are consistent with those listed in the *Road Impact Mitigation Fee Nexus Study* and will be implemented as adequate funding is available from both the RIM fee program and other state funding sources. Total costs for all improvements equal roughly \$91.8 million when adjusted for inflation. Approximately \$84.6 million will be required for improvements on local roads of regional significance and \$7.3 million will be necessary for County road improvements. Developer fees will only pay for approximately 24 percent of total improvement costs for state highway, County and local road projects. Please note that state highway RIM projects were incorporated into Table 21.

Local Road Projects

Table 23 presents County road projects primarily funded by local funding sources. Several of these projects consist of upgrading local roadways to County minimum standards and two projects will use Federal safety funds for safety roadway and intersection improvements. Total estimated cost of these projects is \$52 million.

County Bridge Projects

Two Highway Bridge Program (HBP) replacement projects are included in Calaveras County's transportation improvements. As shown in Table 24, total cost of these projects will be over \$11.4 million. Bridges that are identified by Caltrans as "structurally deficient" (SD) or "functionally obsolete" (FO) and have a sufficiency rating of less than or equal to 80 are considered deficient by FHWA and are eligible for HBP funding. Twenty County bridges (in addition to the bridges listed in Table 24) fit into this category:

- Cosgrove Creek – 30C0013, 30C0021
- Mokelumne River – 30C0016, 30F003
- Youngs Creek – 30C0018

- Cosgrove Creek – 30C0020
- Calaveritas Creek – 30C0024, 30F004
- O’neil Creek – 30C0040
- Esperanza Creek – 30C0044
- French Gulch – 30C0048
- San Domingo Creek – 30C0049, 30C0054
- Indian Creek – 30C0050, 30C0051
- San Antonio Creek – 30C0055, 30C0063, 30F001
- Jesus Maria Creek – 30C0062
- Forest Creek – 30C0084

These bridges should be reviewed for possible rehabilitation or replacement projects for the next RTP update.

Copperopolis Benefit Basin

The formation of a benefit basin provides the means by which the cost of road improvements necessitated by development may be spread fairly on the basis of projected trips generated by each new development. The Copperopolis Benefit Basin was formed as part of the mitigation measures for the Saddle Creek development. According to the Calaveras County Travel Demand Model, total daily one-way vehicle-trips within the Copperopolis region are expected to increase by over 26,000 from 2002 to 2025. In order to reduce congestion caused by the new trip ends, a new roadway will be required to connect the southern end of Little John Road (south of the Copper Cove Subdivision) to SR 4 through Tugg Way and Horseshoe Drive. This “North South Connector” would be roughly 5.5 miles in length and would be designated a Major Collector. With construction of this roadway, secondary access could be provided for the residential communities of Oak Canyon Ranch, Tuscany Hills and Copper Cove Drive. Table 25 lists the North South Connector as well as other roadway and intersection improvements needed to address the traffic impacts of new development in the Copperopolis region. Total costs of the Copperopolis Benefit Basin Capital Improvement Plan are \$89.3 million.

Certain transportation improvements in the Basin have already been completed and were paid for by the County, Community Facilities District bonds and the Saddle Creek developer prior to establishment of the Benefit Basin. In addition to financing Copperopolis Benefit Basin projects, fees collected through the Benefit Basin Program will be used to reimburse the County, the Community Facilities District, the developer for the portion of improvements which were not completely related to the impact of the Saddle Creek project and future improvements. The boundary of the benefit basin includes only those properties reasonably served by Benefit Basin improvement projects. Only undeveloped parcels within the boundary of the benefit basin are subject to the basin fee. The fee is based on the number of vehicle trip-ends generated by the new development. Additional state and federal funding will be required to complete the projects listed in Table 25.

Valley Springs Benefit Basin

The Valley Springs Area is another hot spot for new development. The Valley Springs Benefit Basin was established to offset the cost of public roadway improvements necessary to partially mitigate traffic impacts associated with new development. All new development projects within this area are subject to the basin fee. Table 25 also displays capital projects associated with

Table 22: Calaveras County Transportation System Improvement Projects, 20-Year Vision - RIM Fee Nexus Study Projects

This list is in alphabetical order and is not in order of priority. Projects will be implemented as funding becomes available.

Specific Location	Proposed Project Description	Implementation Period ⁽¹⁾		Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽²⁾	Primary Funding Source	Corresponding Goal(s)
		Short Term	Long Term				
Local Roads of Regional Significance							
Avery Sheep Ranch Road - 4.75 miles between SR 4 and Sheep Ranch Road	Road Reconstruction		X	\$ 2,709	\$ 3,722	RIM Fee/ Other	1,7,8
Burson Road	Upgrade to Minimum County Standard		X	\$ 6,074	\$ 8,346	RIM Fee/ Other	1,7,8
Jenny Lind Road	Upgrade to Minimum County Standard		X	\$ 549	\$ 754	RIM Fee/ Other	1,7,8
Milton Road	Upgrade to Minimum County Standard		X	\$ 3,876	\$ 5,325	RIM Fee/ Other	1,7,8
Moran Road - 24 foot section for 5.402 mi.	Upgrade to Minimum County Standard		X	\$ 1,994	\$ 2,740	RIM Fee/ Other	1,7,8
Mountain Ranch Road - 10.2 miles between SR 49 to Sheep Ranch Road	Road Reconstruction	X		\$ 4,207	\$ 4,931	RIM Fee/ Other	1,7,8
Murphys Grade Road	Upgrade to Minimum County Standard		X	\$ 2,096	\$ 2,880	RIM Fee/ Other	1,7,8
Paloma Road - 7.9 miles between SR 26 to Rose Street	Road Reconstruction		X	\$ 1,012	\$ 1,391	RIM Fee/ Other	1,7,8
Paloma Road	Upgrade to Minimum County Standard		X	\$ 4,531	\$ 6,226	RIM Fee/ Other	1,7,8
Pool Station Road	Upgrade to Minimum County Standard		X	\$ 25,469	\$ 34,993	RIM Fee/ Other	1,7,8
Railroad Flat Road - Jesus Maria Road to Ridge Road	Upgrade to Minimum County Standard		X	\$ 2,836	\$ 3,896	RIM Fee/ Other	1,7,8
Railroad Flat Road - Licking Fork Bridge to Blizzard Mine Road	Upgrade to Minimum County Standard		X	\$ 1,078	\$ 1,481	RIM Fee/ Other	1,7,8
Ridge Road	Upgrade to Minimum County Standard		X	\$ 690	\$ 948	RIM Fee/ Other	1,7,8
Rolleri Bypass Road	Intersection Realignment, Driveway Relocation, Maintenance		X	\$ 122	\$ 168	RIM Fee/ Other	1,7,8
Sheep Ranch Road - 24 ft section for 3.5 mi.	Upgrade to Minimum County Standard		X	\$ 1,293	\$ 1,776	RIM Fee/ Other	1,7,8
Sheep Ranch Road - 24 ft section for 9.9 mi.	Upgrade to Minimum County Standard		X	\$ 3,655	\$ 5,021	RIM Fee/ Other	1,7,8
				Local Roads Subtotal	\$ 62,190	\$ 84,596	
County Roads, Regional							
Murphys Grade Road - 5 mi. between SR 4 and French Gulch Road	Road Reconstruction- Widen and Realign		X	\$ 5,306	\$ 7,290	RIM Fee/ Other	1,7,8
				County Roads Subtotal	\$ 5,306	\$ 7,290	
				Total Improvements	\$ 67,496	\$ 91,886	

Note 1: Short Term: 2006-2015; Long Term: 2016-2026.

Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.

Source: RIM Fee Nexus Study, April 2004.

Table 23: Calaveras County Transportation System Improvement Projects, 20-Year Vision - Local Road Projects

This list is in alphabetical order and is not in order of priority. Projects will be implemented as funding becomes available.

Specific Location	Proposed Project Description	Implementation Period ⁽¹⁾		Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽²⁾	Primary Funding Source	Corresponding Goal(s)
		Short Term	Long Term				
Other Locally Funded County Road Projects							
Bald Mountain Rd	Upgrade to 24 ft section (1.5 miles)		X	\$ 836	\$ 1,148	Local	1,7,8
Bernett St	Extend through to the north as development necessitates		X	\$ 442	\$ 607	Local	1,7,8
Blue Mountain Rd	Upgrade to county minimum road standards - 24 ft section for 1.5 miles		X	\$ 576	\$ 792	Local	1,7,8
Campo Seco Rd	Reconstruct roadway Comanche Pkwy (south) to Paloma Rd (4.1 mi)		X	\$ 293	\$ 402	Local	1,7,8
Copper Cove Dr	Upgrade to county minimum road standards		X	\$ 1,767	\$ 2,427	Local	1,7,8
Dogtown Rd	Upgrade to 24 ft section (1.1 miles)		X	\$ 223	\$ 306	Local	1,7,8
Dogtown Rd	Upgrade to minimum standards Lakeside Dr to San Domingo Cr. Bridge		X	\$ 508	\$ 698	Local	1,7,8
Doster Rd	Upgrade to 24-foot section (1.0 mile)		X	\$ 385	\$ 529	Local	1,7,8
East Murray Creek	Upgrade 24 ft section (2.39 mi)		X	\$ 931	\$ 1,279	Local	1,7,8
French Gulch Rd	Upgrade 24 ft section (0.53 mi)		X	\$ 204	\$ 281	Local	1,7,8
Fullen Rd	Upgrade to 24-foot section (3.1 mile)		X	\$ 1,026	\$ 1,409	Local	1,7,8
Hunt Rd	Upgrade to 24 ft section (14.5 miles)		X	\$ 2,949	\$ 4,052	Local	1,7,8
Jesus Maria Rd	Reconstruct roadway SR 26 to Railroad Flat Rd (12.9 mi)		X	\$ 4,313	\$ 5,925	Local	1,7,8
Mountain Ranch Rd	Safety Project	X		N/A	N/A	Federal Grant	1,7,8
O'Byrnes Ferry Rd	Construct road/shoulder improvements and passing lanes for 8 miles		X	\$ 12,686	\$ 17,430	Local	1,7,8
Ospital Rd	Upgrade full length		X	\$ 1,250	\$ 1,717	Local	1,7,8
Pennsylvania Gulch Rd	Upgrade to county minimum road standards - 24 ft section for 4.3 miles		X	\$ 1,635	\$ 2,247	Local	1,7,8
Rock Creek Rd	Upgrade to 24 ft section (14.4 miles)		X	\$ 2,926	\$ 4,020	Local	1,7,8
Silver Rapids Rd	Upgrade to county minimum road standards		X	\$ 150	\$ 206	Local	1,7,8
Six Mile Rd	Upgrade to county minimum road standards - 24 ft section for 1.0 miles		X	\$ 384	\$ 528	Local	1,7,8
SR 49/ Murphys Grade Rd	Reconstruct intersection		X	\$ 462	\$ 635	HES/Local	1,7,8
Swiss Ranch Rd	Upgrade to 24-foot section (1.0 mile)		X	\$ 517	\$ 710	Local	1,7,8
Various unpaved roadways	Sealing of unpaved roads	X		\$ 1,000	\$ 1,172	Federal Grant	1,7,8
Vista del Lago	Upgrade to county minimum road standards		X	\$ 976	\$ 1,341	Local	1,7,8
Whiskey Slide Rd	Upgrade 24 ft section (4.9 mi)		X	\$ 1,882	\$ 2,586	Local	1,7,8
				\$ 38,320	\$ 52,447		

Note 1: Short Term 2006-2015; Long Term 2016-2026.

Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.

Table 24: Calaveras County Bridge Improvement Projects, 20-Year Vision

Bridge No.	Facility Name	Specific Location	Proposed Project Description	Implementation Period ⁽¹⁾		Total Cost	Total Cost	Funding Source	Corresponding Goal(s)
				Short Term	Long Term	(1,000s) 2006 Dollars	Adjusted for Inflation ⁽²⁾		
#32C-07	O'Byrnes Ferry Rd	Stanislaus River	Bridge replacement, widen shoulders	x		\$ 9,000	\$ 10,549	HBRR	1, 9
#30C-67	Warren Rd	Warren Creek	Bridge replacement		x	\$ 654	\$ 898	HBRR	1, 9
Total Estimated Cost						\$ 9,654	\$ 11,448		

Note 1: Short Term 2006-2015; Long Term 2016-2026.
 Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.

Table 25: Calaveras County Benefit Basin Projects, 20-Year Vision

Specific Location	Proposed Project Description	Implementation Period ⁽¹⁾		Total Cost	Total Cost	Primary Funding Source	Corresponding Goal(s)
		Short Term	Long Term	(1000s) 2006 Dollars	Adjusted for Inflation ⁽²⁾		
Copperopolis Benefit Basin							
<u>New Roadway</u>							
North South Connector/SR 4	New roadway connection the southern end of Little John Road to SR 4 - Minor Collector Classification		X	\$ 37,221	\$ 51,139	Benefit Basin/Local	1,5,8
<u>Roadway Improvements</u>							
O'Byrnes Ferry Road Bridge	Full Reconstruction - Replacement Option D	X		\$ 1,035	\$ 1,213	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road in Calaveras County	Upgrade to Minor Collector	X		\$ 9,879	\$ 11,580	Benefit Basin/Local	1,5,8
Little John Road	Upgrade to Minor Collector	X		\$ 3,888	\$ 4,557	Benefit Basin/Local	1,5,8
Reeds Turnpike	Upgrade to Minor Collector	X		\$ 1,341	\$ 1,572	Benefit Basin/Local	1,5,8
SR 4 through Study Area	Widen to 4 Lanes	X		N/A	N/A	Benefit Basin/Local	1,5,8
Little John Road Immediately South of Copper Cove Drive	Upgrade to Minor Collector	X		\$ 3,083	\$ 3,851	Benefit Basin/Local	1,5,8
Copper Cove Drive Between O'Byrnes Ferry Road and Quail Hill Road	Upgrade to Minor Collector Cross Section	X		\$ 3,044	\$ 3,925	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road Approaching Tulloch Reservoir Bridge	Straighten 25 Mile Per Hour Curves		X	\$ 2,593	\$ 4,311	Benefit Basin/Local	1,5,8
<u>Intersection Improvements</u>							
SR 4/Rock Creek Road/Main Street	Construct Traffic Signal		X	\$ 342	\$ 470	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/Copper Cove Drive	Construct NBL and Improve Sight Distance to the North	X		\$ 346	\$ 613	Benefit Basin/Local	1,5,8
Main Street/Reeds Turnpike	Limit Parking on Main Street to Improve Sight Distance	X		\$ 32	\$ 38	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/SR 108	Construct Traffic Signal	X		\$ 903	\$ 1,058	Benefit Basin/Local	1,5,8
Rock Creek Road/Main Street/SR 4	Construct EBR	X		\$ 321	\$ 376	Benefit Basin/Local	1,5,8
Main Street/Reeds Turnpike	Add NBL	X		\$ 323	\$ 430	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/Copper Cove Drive	Construct Traffic Signal		X	\$ 279	\$ 383	Benefit Basin/Local	1,5,8
Little John Road/SR 4	Construct Traffic Signal	X		\$ 375	\$ 454	Benefit Basin/Local	1,5,8
Little John Road/Reeds Turnpike	Construct Traffic Signal and Add EBL (Total = EBL and EBL/T/R), NBL/L, NBR (Remove NBL/T/R)		X	\$ 605	\$ 831	Benefit Basin/Local	1,5,8
North South Connector/SR 4	Construct Traffic Signal		X	\$ 890	\$ 1,223	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/Copper Meadows Road	Construct SBL, NBR, and SBR		X	\$ 107	\$ 162	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/Connors Estates Drive	Construct NBL and SBR		X	\$ 76	\$ 115	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/Poker Flat Road	Construct NBL and SBR		X	\$ 343	\$ 518	Benefit Basin/Local	1,5,8
O'Byrnes Ferry Road/Duchess Drive	Construct NBL and SBR		X	\$ 333	\$ 503	Benefit Basin/Local	1,5,8
<i>Subtotal Copperopolis</i>				\$ 67,359	\$ 89,322		
Valley Springs Benefit Basin							
SR 26, Olive Orchard Road/Garner Place	Two-way Left Turn Pocket	X		\$ 1,000	\$ 1,172	Benefit Basin/Local	1,5,8
SR 26, Baldwin Lane/Baldwin Street	Two-way Left Turn Pocket	X		\$ 300	\$ 352	Benefit Basin/Local	1,5,8
SR 26, Vista Del Lago	Two-way Left Turn Pocket	X		\$ 200	\$ 234	Benefit Basin/Local	1,5,8
SR 26, Hogan Dam Road	Reconfigure Intersection		X	\$ 1,150	\$ 1,580	Benefit Basin/Local	1,5,8
SR 26, Warren Road	Left-turn Pocket	X		\$ 210	\$ 289	Benefit Basin/Local	1,5,8
SR 26, Burson Road	Reconfigure Intersection and Curve Realignment		X	\$ 300	\$ 412	Benefit Basin/Local	1,5,8
SR 26, Milton Road	Reconfigure Intersection and Curve Realignment		X	\$ 300	\$ 412	Benefit Basin/Local	1,5,8
SR 26, Hagen Drive	One-way Left-turn Pocket (Close Driver Road)	X		\$ 210	\$ 289	Benefit Basin/Local	1,5,8
SR 26, Farris Drive/ Farris Lane	Two-way Left Turn Pocket		X	\$ 300	\$ 412	Benefit Basin/Local	1,5,8
SR 12, Pettinger Road	One-way Left-turn Pocket	X		\$ 690	\$ 809	Benefit Basin/Local	1,5,8
SR 12, Burson Road	Two-way Left Turn Pocket	X		\$ 1,150	\$ 1,348	Benefit Basin/Local	1,5,8
SR 12, Southworth Road	Two-way Left Turn Pocket		X	\$ 300	\$ 412	Benefit Basin/Local	1,5,8
SR 12, Messing Road	One-way Left Turn Pocket		X	\$ 210	\$ 289	Benefit Basin/Local	1,5,8
SR 12, Toreno Way/Saharan Road	Two-way Left Turn Pocket	X		\$ 300	\$ 412	Benefit Basin/Local	1,5,8
Hogan Dam Rd	Upgrade to county minimum road standards		X	\$ 5,523	\$ 7,588	Benefit Basin/Local	1,5,8
Olive Orchard	Upgrade full length		X	\$ 1,179	\$ 1,620	Benefit Basin/Local	1,5,8
Southworth Rd	Upgrade to county minimum road standards		X	\$ 2,463	\$ 3,384	Benefit Basin/Local	1,5,8
<i>Subtotal Valley Springs</i>				\$ 15,785	\$ 21,014		
Total Benefit Basin Project Costs				\$ 83,144	\$ 110,335		

Note 1: Short Term 2006-2015; Long Term 2016-2026.
 Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.
 Source: Copperopolis Benefit Basin Traffic Analysis, November 2006; Calaveras County DPW Valley Springs Benefit Basin Memo, October 2004.

new development in the Valley Springs area. At the time of this writing, the Valley Springs capital improvement projects list has not been finalized. Projects listed in Table 25 represent projects identified in a 2004 Department of Public Works Memorandum.

City of Angels

Table 26 displays roadway and bridge improvement projects for the City of Angels. This list of projects is divided into short-term and long-term priorities. Total estimated cost of the City of Angels transportation improvement projects is \$46 million. Short-term capital improvement program projects total \$19.4 million and long-term capital improvement priority projects total \$26.6 million. City of Angels projects in Table 26 are linked to RTP goals.

Table 26: City of Angels Transportation System Improvement Projects
This list is in alphabetical order and is not in order of priority. Projects will be implemented as funding becomes available.

Specific Location	Proposed Project Description	Total Cost (1,000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽¹⁾	Primary Funding Source	Corresponding Goal(s)
Short Range Capital Improvement Program (0 - 10 years)					
Booster Way	From SR 4 to Booster Way Bridge - widen, realign and reconstruct 300 ft. section	\$ 391	\$ 458	HES/Local	8,9
Citywide	Street rehabilitation (deferred maintenance)	\$ 941	\$ 1,104	Local	8,9
Dogtown Rd.	Realignment	\$ 1,367	\$ 1,602	Local	8,9
Finnegan Lane	Construct 60 ft of retaining wall	\$ 111	\$ 130	HES/Local	8,9
Gardner Lane north of Murphys Grade Rd	Construct 1,500 ft of curb, gutter, sidewalk, storm drain and widen	\$ 480	\$ 563	HES/Local	8,9
Rolleri Bypass Rd., Murphys Grade Rd.	Realign intersection relocate PG &E driveway, install 450 ft. of drain, and resurface	\$ 260	\$ 305	HES/Local	8,9
Sonora Street	From Martina St. to 300 feet north - construct 275 ft. of retaining wall and install 300 feet of guardrail	\$ 466	\$ 546	HES/Local	8,9
SR 4 Bypass/ SR 4	Intersection improvement that provides for grade separation instead of T	\$ 408	\$ 478	RIP/Local	8,9
SR 4/ SR 49 South Intersection	Reconstruct Bridge	\$ 11,240	\$ 13,175	Local	8,9
Various Location	Install traffic signals at major intersections	\$ 923	\$ 1,082	Local	8,9
		<i>Subtotal</i>	<i>\$ 16,588</i>	<i>\$ 19,444</i>	
Long Range Capital Improvement Program (11 - 20 years)					
Angel Oaks Dr. to SR 49	Angel Oaks Dr. extension north	\$ 5,926	\$ 8,142	Local	8,9
Bennett St.	Extend Bennett Street through to the North as development necessitates	\$ 521	\$ 716	Local	8,9
Gold Cliff to Greenhorn Creek Rd.	New roadway	\$ 585	\$ 804	Local	8,9
Greenhorn Creek Rd. to SR 49	Greenhorn Creek Rd. extension south	\$ 9,726	\$ 13,362	Local	8,9
Kurt Drive	Extend Kurt Drive to Murphys Grade Rd.	\$ 2,656	\$ 3,649	Local	8,9
		<i>Subtotal</i>	<i>\$ 19,415</i>	<i>\$ 26,675</i>	
		Total Estimated Cost	\$ 36,003	\$ 46,118	

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1995 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.
Source: City of Angels

Countywide Traffic Circulation Plan

CCOG is in the process of developing a Calaveras Countywide Traffic Circulation Study to guide the improvement of roadway facilities in the County. This study is intended primarily to address deficiencies in the roadway network, to improve fire access throughout the County, and to improve pedestrian and bicycle facilities. While circulation elements of the County's major communities have been completed, to date there has not been a detailed evaluation of circulation issues in the remainder of the County. At the time of this writing, a draft Circulation Plan has not been developed; however Working Paper Three of this study identified several major roadway improvement projects which are not already included in the RTP priority project

lists. As the Circulation Study is not complete, the supplemental projects listed below are suggestions and will be included in the next RTP update if the Circulation Study is adopted.

- ▶ **Central County Connector Route** – A key finding of the circulation study is that the most crucial existing deficiency in Calaveras County with regard to inter-community travel is the lack of a high quality public road connection for San Andreas on the west with Arnold/Avery area on the east. The analysis of out-of-direction travel indicates that a high-standard roadway between the two areas would eliminate a substantial amount of existing out-of-direction travel between the Arnold/Avery area and San Andreas/Points west. Accordingly, an important recommendation of this study is to develop a “Central County Connector Route” using the existing roads of Mountain Ranch Road from State Route 49 east to Sheep Ranch Road, Sheep Ranch Road in Mountain Ranch south to Avery/Sheep Ranch Road, and Avery/Sheep Ranch Road east from Sheep Ranch Road to SR 4 in Avery. While improvements to these roadway segments are already included in the County Regional Impact Fee program, particular emphasis will be placed on developing these improvements as a cohesive corridor.
- ▶ **Valley Springs Area Western Connector** – A combination of upgrades to existing roads, as well as new roadway segments, is recommended to provide a “western connector” roadway in the growing Valley Springs area. The upgrades will include a corridor stretching from SR 26 near Rancho Calaveras to the Wallace/Burson area via Olive Orchard Road and Pettinger Road, as well as a mile-long section of new alignment. This improvement will help address the growth in traffic in the Valley Springs area, which is forecast to increase traffic volumes in the area by over 100 percent in the next 20 years.
- ▶ **Additional Improvements Along the SR 4 Corridor** - Passing improvements between Angels Camp and Murphys totaling 6 miles of passing lanes. Passing/climbing lanes totaling 4.4 miles between Murphys and Arnold.
- ▶ **SR 49 between SR 26 and Amador County Line** – Provision of a two additional passing/climbing lanes in each direction.

Aviation

The Calaveras County Airport (Maury Rasmussen Field) currently has a Basic Utility Stage II runway of approximately 3,600 feet in length. If the County wishes to lengthen the runway to greater than 4,000 feet to accommodate larger aircraft, it would place Maury Rasmussen Field in a different airport class level. In this case, FAA would require additional modifications to the airport such as a wider runway, more space between the runway and the taxiway as well as a wider taxiway. As the Airport is located on a ridge and surrounded by private property, airport staff have found it difficult, if not impossible, to acquire the additional land needed to widen the runway.

The Capital Improvement Plan for the Maury Rasmussen Field (Table 27) includes improvement projects that lengthen the runway to its maximum of 4,000 feet, add hangar space and maintain and improve existing taxiways and ramps. Estimated airport capital improvement costs total \$3.1 million over the next 20 years. Except for re-sealing and paving of ramp and parking areas, all projects are short-term priority.

**Table 27: Calaveras County Aviation Capital Improvement Plan Projects
(Maury Rasmussen Field), 20 Year Vision**

Proposed Project Description	Project Priority Period ⁽¹⁾		Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽²⁾	Primary Funding Source	Corresponding Goal(s)
	Short Term	Long Term				
Install above ground 12,000 gallon aviation fuel tank.	x		\$ 75	\$ 88	County	12
Construct 0.6 mile access road to north ramp	x		\$ 316	\$ 370	FAA	12
Rehabilitate apron and construct ramp	x		\$ 615	\$ 615	FAA	12
Security Fencing - Lower access road to north ramp	x		\$ 20	\$ 21	FAA	12
Construct 22 unit t-hangar	x		\$ 510	\$ 598	County/State loan	12
Airport Land Use Compatibility Plan	x		\$ 50	\$ 50	FAA	11, 12
Remodel administrative building to comply with ADA requirements (built in 1981)	x		\$ 150	\$ 160	FAA	12
Extend runway and taxiway 400 ft. and resurface existing runway and taxiway	x		\$ 612	\$ 717	FAA	12
Slurry seal ramp and parking areas		x	\$ 357	\$ 490	FAA	12
Total Estimated Costs			\$ 2,705	\$ 3,110		

Note 1: Short Term 2006-2015; Long Term 2016-2026.

Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.

Source: Calaveras County Airport

Public Transit

The Calaveras County Department of Public Works identified transit improvement needs, as shown in Table 28. Short-term projects total to \$3.8 million with no long-term projects identified. Planned improvements include transfer facilities in the Angels Camp area and a countywide bus shelter program. Implementing the intermodal transfer facility in Angels Camp would also increase opportunities for non-motorized transportation.

Non-Motorized Facilities (Bikeway and Pedestrian)

The current bikeway and pedestrian system in Calaveras County does not provide a continuous network of facilities which encourage the use of alternative transportation modes. As Calaveras County population is expected to grow at around 2-1/2 percent per year and tourism is not expected to decline, the need for wider bicycle-friendly shoulders and safe pedestrian highway crossings will increase. In 2007, CCOG prepared a *Draft Calaveras County Bicycle Master Plan Update* and a *Draft Calaveras County Pedestrian Master Plan*. Tables 29 to 33 list proposed non-motorized facility improvement projects and conceptual construction costs for Calaveras County. Appendix F displays a map of existing and proposed bicycle facilities in the Draft Master Plan.

Table 28: Calaveras Transit Improvement Projects - 20 Year Vision

Proposed Project	Location	Project Priority Period		Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽²⁾	Corresponding Goal(s)
		Short Term	Long Term			
Transfer Facility - Angels Camp Phase 1	Save Mart Shopping Center, Angels Camp	x		\$3	\$4	1,10
Transfer Facility - Angels Camp Phase 2	Save Mart Shopping Center, Angels Camp	x		\$15	\$18	1,10
Angels Bypass Intermodal Transit Facility	Angels Bypass SR 4 at Old SR 4	x		\$3,060	\$3,587	1,10
Countywide Transit Bench and Shelter Program	San Andreas - Post Office, San Andreas - Treats Market, San Andreas - Government Center, Valley Springs - Valley Oak Center, Mokelumne Hill - Sierra Trading Post, Angels Camp - Frog Jump Plaza, Murphys - Pharmacy, Murphys - Scott Street Murphys - Taylor	x		\$204	\$239	10
Total Estimated Cost				\$3,282	\$3,847	

Note: Projects are listed in order of projected project start date; however projects will be implemented as funding becomes available. Short Term 2006-2015; Long Term 2016-2026.

Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.
Source: Calaveras County DPW

Table 29: Proposed Calaveras County Class I Bikeways

Segment Name	From	To	Community	Length (Feet)	Length (Miles)	Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽¹⁾	Priority
Cosgrove Corridor	Hogan Dam Rd.	South Petersburg Rd.	Valley Springs	18,105	3.4	\$5,377	\$6,302	A
Multi-Use Pathway	Steeplechase Rd.	O'Byrnes Ferry Rd.	Copperopolis	2,907	0.6	\$949	\$1,112	A
Multi-Use Pathway Along SR 26	South Petersburg Rd.	Silver Springs Rapid Rd.	Valley Springs	7,267	1.4	\$2,214	\$2,595	A
Sidepath Along SR 4	Blagen Rd.	Country Club Drive	Arnold	6,434	1.2	\$1,898	\$2,224	A
Multi-Use Pathway	Henry Street	Vallecito Day School	Arnold	2,928	0.6	\$949	\$1,304	B
Multi-Use Pathway	Copper Cove Drive	Spangler Lane	Copperopolis	1,107	0.2	\$316	\$435	B
Multi-Use Pathway	Gold Hunter Rd.	East End Existing Pathway	San Andreas	325	0.1	\$158	\$217	B
Multi-Use Pathway	Lewis Avenue	Pope Street	San Andreas	1,605	0.3	\$474	\$652	B
Multi-Use Pathway	Pope Street	Govt Center Rd	San Andreas	1,130	0.2	\$316	\$435	B
Multi-Use Pathway	Pope Street	California	San Andreas	2,123	0.4	\$633	\$869	B
Multi-Use Pathway	Green Meadow Court	Cedar Lane	Arnold	1,803	0.3	\$474	\$652	C
Multi-Use Pathway	Willow Street	Oak Circle	Arnold	610	0.1	\$158	\$217	C
Multi-Use Pathway	Oak Court	Pine Drive	Arnold	630	0.1	\$158	\$217	C
Ironstone Pathway	Main Street	Ironstone Vineyards	Murphys	7,803	1.5	\$2,372	\$3,259	C
Total Proposed Class I				54,777	10.4	\$16,447	\$20,490	

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Priority A project costs were increased to reflect 5 years of inflation and Priority B and C project costs were increased to reflect 10 years of inflation.

Source: Calaveras County DRAFT Bicycle Master Plan, 2007.

Table 30: Proposed Calaveras County Class II Bikeways

Segment Name	From	To	Community	Length (Feet)	Length (Miles)	Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽¹⁾	Priority
SR 4	Pennsylvania Gulch Rd.	Tom Bell Rd.	Murphys	1,901	0.4	\$19	\$22.32	A
SR 49	Pool Station Rd.	Mountain Ranch Rd.	San Andreas	7145	1.4	\$67	\$78.11	A
Main St. SR 49	SR 4	SR 4	Angels Camp	12618	2.4	\$114	\$133.91	A
SR 12	Lime Creek Rd.	Pine Street	Valley Springs	3,257	0.6	\$29	\$39.24	B
SR 26	SR 12	Hogan Dam Rd.	Valley Springs	2,517	0.5	\$24	\$32.70	B
SR 26/104	Snead Rd.	RailRd. Flat Rd.	West Point	10,040	1.9	\$90	\$124.26	B
Main Street	SR 26/104	Pine Street	West Point	1,803	0.3	\$14	\$19.62	B
Stanislaus Ave	San Joaquin	Gold Cliff	Angels Camp	1145	0.2	\$10	\$13.08	C
Total Proposed Class II				40,426	7.7	\$367	\$463	

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Priority A project costs were increased to reflect 5 years of inflation and Priority B and C project costs were increased to reflect 10 years of inflation.
Source: Calaveras County DRAFT Bicycle Master Plan, 2007.

Table 31: Proposed Calaveras County Class III Bikeways - Rural Road Improvements

Segment Name	From	To	Community	Length (Miles)	Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽¹⁾	Priority	Improvement Required
Glory Hole Rd.	SR 49	Campground	A.C./ By Frogtown	2.12	\$391	\$458	A	MODERATE
SR 26	Baldwin Rd.	SR 12	Valley Springs	4.6	\$849	\$996	A	MODERATE
SR 26	Garner Pl.	Baldwin Rd.	Jenny Lind	3.38	\$624	\$731	A	MODERATE
SR 26	Jenny Lind Rd.	Garner Pl.	Jenny Lind	0.56	\$104	\$122	A	MODERATE
SR 4	Rolleri Bypass Rd.	Murphy's Grade Rd.	A.C./ Murphys	7.22	\$1,334	\$1,563	A	MODERATE
SR 49	Pool Station Rd.	San Andreas	San Andreas	3.7	\$684	\$939	B	MODERATE
SR 49	Pool Station Rd.	SR 26	San Andreas	7.26	\$1,341	\$1,842	B	MODERATE
SR 4	Murphy's Grade Rd.	Blagen Rd.	Pines	12.07	\$3,775	\$5,187	B	MAJOR
SR 49	Glory Hole Rd.	City Limits	Angels Camp	0.98	\$306	\$421	B	MAJOR
Murphy's Grade Rd	City Limits	Main St. (Murphys)	A.C./Murphys	6.27	\$1,961	\$2,695	B	MAJOR
Murphy's Grade Rd.	SR 49	City Limits	Angels Camp	0.32	\$101	\$138	B	MAJOR
O'Byrnes Ferry Rd.	Copper Cove Dr.	SR 4	Copperopolis	3.87	\$1,212	\$1,666	B	MAJOR
Calaveritas Rd.	San Andreas	Dogtown	San Andreas/Dogtown	0.88	\$274	\$376	C	MAJOR
Dogtown Rd.	City Limits	San Domingo Rd.	Dogtown	5.3	\$1,657	\$2,276	C	MAJOR
Dogtown Rd.	San Domingo Rd.	Calaveritas Rd.	Murphys/Dogtown	5.25	\$1,644	\$2,259	C	MAJOR
SR 12	Valley Springs	SR 49	Valley Springs	7.9	\$2,471	\$3,394	C	MAJOR
SR 4	Pool Station Rd.	City Limits	Angels Camp	5.69	\$1,780	\$2,445	C	MAJOR
SR 4	O'Byrnes Ferry Rd.	Salt Spring Valley Rd.	Copperopolis	3.99	\$1,249	\$1,715	C	MAJOR
SR 4	Salt Spring Valley Rd	Pool Station Rd.	Copperopolis	0.86	\$269	\$370	C	MAJOR
SR 49	San Andreas	Angels Camp	San Andreas	9.29	\$2,908	\$3,995	C	MAJOR
Jesus Maria Rd.	SR 26	Rail Road Flat Rd.	M Hill/ Mountain Ranch	5.96	\$1,864	\$2,561	C	MAJOR
Total Rural Road Improvement Projects				97.47	\$26,797	\$36,151		

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Priority A project costs were increased to reflect 5 years of inflation and Priority B and C project costs were increased to reflect 10 years of inflation.
Source: Calaveras County DRAFT Bicycle Master Plan, 2007.

Table 32: Proposed Calaveras County Class III Bikeways - Signage Only Projects

Segment Name	From	To	Community	Length (Miles)	Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽¹⁾	Priority
Six Mile Rd.	Algiers St	Vallecito Bluffs Rd.	Murphys	2	\$54	\$64	A
Sequoia St./Stagg Dr.	Willow St.	Manual Rd.	Arnold	0.17	\$5	\$5	A
Scott St.	Six Mile Rd.	Main St. (Murphys)	Murphys	0.5	\$14	\$14	A
Pine Dr.	Henry St. Connector	Lakewood Dr.	Arnold	1.27	\$35	\$35	A
Main St. (Murphy's)	Murphy's Grade Rd.	SR 4	Murphys	0.5	\$14	\$14	A
Lakemont Dr.	Lakewood Dr.	End	Arnold	1.05	\$29	\$29	A
Henry St.	Henry St. Connector	SR 4	Arnold	0.06	\$2	\$2	A
Fir St.	Willow St.	Dunbar Rd.	Arnold	0.15	\$4	\$4	A
Dunbar Rd.	Henry St. Connector	Linebaugh Rd.	Arnold	0.07	\$2	\$2	A
Cedar Lane	Pine Dr.	SR 4	Arnold	0.25	\$7	\$7	A
Black Creek Dr.	Copper Cove Dr.	High School	Copperopolis	0.23	\$6	\$6	A
Avery Hotel Rd.	SR 4	Moran Rd.	Avery	0.13	\$4	\$4	A
Algiers St.	Main St. (Murphys)	Six Mile Rd.	Murphys	0.5	\$14	\$14	A
Skunk Ranch Rd.	Pennsylvania Gulch	Vineyard Terrace	Murphys	0.4	\$11	\$11	B
Rolleri Bypass Rd.	SR 4	City Limits	Angels Camp	0.66	\$18	\$18	B
Pool Station Rd.	SR 4	SR 49	Copper / S.A.	12.38	\$335	\$335	B
Little John Rd.	SR 4	Copper Cove Dr.	Copperopolis	5.77	\$156	\$156	B
Jenny Lind Rd.	Milton Rd.	SR 26	Jenny Lind	1.67	\$45	\$45	B
SR 4	Blagen Rd.	Dorrington	Arnold	5.57	\$151	\$151	B
SR 26	SR 12	SR 49	Mokelumne Hill	7.73	\$210	\$210	B
SR 12	Burson Rd.	SR 26	Burson	3.66	\$99	\$99	B
SR 12	Camanche Pkwy.	Burson Rd.	Burson/Wallace	5.69	\$154	\$154	B
Copper Cove Dr.	Little John Rd.	Copper Crest Dr.	Copperopolis	2.39	\$65	\$65	B
Camanche Pkwy.	Burson Rd.	Camanche Res.	Burson	2.67	\$72	\$72	B
Burson Rd.	SR 12	Camanche Pkwy.	Burson	1.12	\$30	\$30	B
Burson Rd.	SR 26	SR 12	Burson / Jenny Lind	5.69	\$154	\$154	B
Whittle Rd.	SR 49	County Line	Angels Camp	0.46	\$13	\$13	C
Salt Springs Valley Rd.	Rock Creek Rd.	SR 4	Copperopolis	5.76	\$156	\$156	C
Rock Creek Rd.	Salt Spring Valley Rd.	Milton Rd.	Copper / Milton	8.42	\$228	\$228	C
Rock Creek Rd.	SR 4	Salt Spring Valley Rd.	Copperopolis	5.96	\$161	\$161	C
Pennsylvania Gulch Rd.	SR 4	Skunk Ranch Rd.	Murphys	1.21	\$33	\$33	C
OByrnes Ferry Rd.	Tulloch Res.	Copper Cove Dr.	Copperopolis	4.06	\$110	\$110	C
Milton Rd.	Rock Creek Rd.	Stanislaus County	Jenny Lind	1.39	\$38	\$38	C
Milton Rd.	Rock Creek Rd.	Baldwin St.	Jenny Lind	5.59	\$151	\$151	C
Milton Rd.	Jenny Lind Rd.	SR 26	Jenny Lind	2.26	\$61	\$61	C
Milton Rd.	Baldwin St.	Jenny Lind Rd.	Jenny Lind	0.29	\$8	\$8	C
SR 49	New Melones Res.	Glory Hole Rd.	Angels Camp	4.1	\$111	\$111	C
SR 49	SR 26	Amador County Line	Moke Hill/Amador	3.06	\$83	\$83	C
SR 4	O'Byrnes Ferry Rd.	Stanislaus County	Copperopolis	8.1	\$219	\$219	C
SR 4	Dorrington	County Line East	Dorrington/Camp Connell	23.36	\$633	\$633	C
SR 26	West Point	North County Line	West Point	2.7	\$73	\$73	C
SR 26	Jenny Lind Rd.	County Line	Jenny Lind	4.71	\$128	\$128	C
Total Signage Only Projects				143.71	\$3,894	\$3,904	

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Priority A project costs were increased to reflect 5 years of inflation and Priority B and C project costs were increased to reflect 10 years of inflation.

Source: Calaveras County DRAFT Bicycle Master Plan, 2007.

Table 33: Proposed Sidewalk Segments in Calaveras County

Segment Name	From	To	Community	Length (Feet)	Length (Miles)	Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽¹⁾	Priority
Sanders Lane	Moran Rd.	Avery Middle School	Avery	490	0.1	\$7	\$9	A
Avery Hotel Rd.	SR 4	Moran Rd.	Avery	643	0.1	\$10	\$11	A
Main St. -Angels	Dogtown Rd.	SR 4	City Of Angels	11,492	2.2	\$172	\$202	A
Stanislaus Avenue	Main St.	San Joaquin Ave	City Of Angels	490	0.1	\$7	\$10	B
O'Byrnes Ferry Rd.	Spangler Lane	Cosmic Court	Copperopolis	378	0.1	\$6	\$7	A
Main St.	Jones St.	Big Trees Market	Murphys	705	0.1	\$11	\$12	A
Big Trees Rd.	Jones St.	Hwy 4	Murphys	1,370	0.3	\$21	\$28	B
SR 4	Tom Bell	Michelson Elementary	Murphys	1,890	0.4	\$28	\$33	A
High School St.	High School St.	Hwy 49	San Andreas	450	0.1	\$7	\$9	B
Lewis Avenue	Gold Strike Rd.	Pope St.	San Andreas	2,378	0.5	\$36	\$49	B
SR 49	San Andreas	San Joaquin Ave	San Andreas	3,217	0.6	\$48	\$57	A
Lewis Avenue	California	Gold Strike Rd.	San Andreas	220	0.04	\$3	\$5	B
Total Proposed Sidewalks				23,723	4.64	\$356	\$432	

Note 1: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Priority A project costs were increased to reflect 5 years of inflation and Priority B and C project costs were increased to reflect 10 years of inflation. Source: Calaveras County DRAFT Pedestrian Master Plan, 2007.

Because of the expense involved with construction of bicycle pathways and bike lanes, prioritization, phasing and alternate funding strategies are critical to eventual implementation of bicycle projects. Bicycle projects are assigned A, B and C priorities which are based on a number of factors including Bicycle Master Plan Steering Committee input, public input and an analysis of the number of users served, feasibility, availability of funding through various sources and connectivity needs based on existing conditions. Generally, bicycle projects which can be folded into an upcoming roadway improvement project or planned development project will be implemented first. All other bicycle projects will be constructed as funding becomes available. As BTA funding is extremely competitive, priority B and C projects listed in Tables 29 to 33 are considered financially unconstrained. Table 29 presents Class I bikeways proposed in Calaveras County. Total estimated cost of these projects (adjusted for inflation) is \$20.49 million. Total estimated cost of Class II bikeway projects is \$367,000 (Table 30). Class III bike routes are divided in to two categories: rural road improvement projects (Table 31) and signage only projects (Table 32). Rural road improvement bicycle projects may consist of signage, shoulder widening, re-striping and turnouts and are located on rural roads which have right-of-way opportunities for widening, connectivity between communities and popularity as recreational routes. Signage only projects will not require capital improvements. Total cost of Class III rural road improvements bicycle projects is \$ 36 million. And Class III signage only costs are on the order of \$3.9 million. These project lists may be amended as the update process is finalized.

The Draft Calaveras County Pedestrian Master Plan proposes 4.6 miles of new sidewalk segments to assist with safe, non-motorized circulation in the region (Table 33). These improvements will cost on the order of \$432,000. Appendix F identifies \$459,000 in crosswalk and intersection improvements. Pedestrian projects were prioritized in the same manner as bicycle projects.

Table 34 presents Calaveras County Transportation Enhancement (TE) Projects over the next twenty years. Just over \$1 million in TE funds have been acquired for four of the projects and an

additional \$196,000 has been acquired from project applicants. It should be noted that these are “recommended” funding amounts and subject to change by CCOG. Table 34 also presents inflation adjusted costs for the short-term TE projects. An additional \$211,000 in funding may be needed as construction costs rise over time.

Table 34: Calaveras County Transportation Enhancement Projects 20-Year Vision
This list is not in order of priority. Projects will be implemented as funding becomes available.

Location	Proposed Project Description	Implementation Period ⁽¹⁾			Matching Funds from Applicant	Total Cost (1000s) 2006 Dollars	Total Cost Adjusted for Inflation ⁽²⁾	Primary Funding Source
		Short-Term	Unconstrained	TE Funds				
City of Angels	New sidewalks on SR 49 at various locations	X		\$ 465	\$ 110	\$ 565	\$ 662	TE
Mokelumne Hill Veterans District	Main St. sidewalk enhancement	X		\$ 176	\$ 24	\$ 200	\$ 234	TE
Foothill Community Parks and Recreation (Valley Springs)	Cosgrove Creek Bicycle Path	X		\$ 300	\$ 50	\$ 350	\$ 410	TE
Friends of Sierra Nevada Logging Museum	Shay Locomotive restoration	X		\$ 100	\$ 12	\$ 112	\$ 131	TE
Cowell Creek	Pathways and on-street routes between Arnold and White Pines		X					TE
Ebbetts Pass Rivers and Trails Alliance	Arnold Bicycle Trails		X	No TE funding at this time				TE
Save the Romaggi Adobe Association	Restoration of historic stage stop and home		X	No TE funding at this time				TE
Calaveras County Historical Society	New building to house transportation items		X	No TE funding at this time				TE
Total Cost Estimates				\$ 1,041	\$ 196	\$ 1,227	\$ 1,438	

Note 1: Short Term 2005-2015; Long Term 2016-2025.
Note 2: An annual growth rate of 3.2% was applied to construction costs to account for inflation. The rate is based on the growth of the Engineering News Record's Construction Cost Index for San Francisco from December 1996 to December 2006. Short-term project costs were increased to reflect 5 years of inflation and long-term project costs were increased to reflect 10 years of inflation.
Source: CCOG and City of Angels

Intelligent Transportation Systems

ITS is the integration of computerized, electronic, and communication technologies designed to reduce traffic congestion, improve traveler mobility, collect and disseminate real-time traveler information, reduce costs, and improve the operation and efficiency of the transportation network by integrating both technological components and management strategies to improve circulation. Implementation of ITS, with its emphasis on improving traveler mobility, has become a priority for the Federal government and the U.S. Department of Transportation.

In California, Caltrans' New Technology and Research Program have led an effort to develop Strategic Deployment Plans for a number of regions (combined counties) throughout the State. The Sierra Nevada Region includes the counties of Alpine, Amador, Calaveras, Tuolumne, Mariposa, Inyo, and Mono. In 2002, the seven counties developed the Sierra Nevada ITS Strategic Deployment Plan. Table 35 lists Calaveras County ITS projects found in this plan. They include implementation of speed detection and dynamic warning systems, enhanced wireless communication, traffic signal coordination, and road weather information systems.

Transportation Demand Management

Transportation Demand Management (TDM) is a general term for strategies that result in more efficient use of transportation resources. TDM projects can vary from bikeway improvements to ridesharing. Encouraging alternative transportation modes and reducing vehicle use is an

Table 35: Caltrans ITS Improvement Projects - Calaveras County

Location	Project Description
San Andreas and Angels Camp Areas ⁽¹⁾	Enhanced Wireless Communications Network/Infrastructure
San Andreas and Angels Camp Areas ⁽¹⁾	Traffic Signal Coordination/Pedestrian or Bicyclist Street Crossing Enhancements
SR 4, SR 12 ⁽¹⁾	Road Weather Information Systems (RWIS) Applications

Note 1: Exact locations will be determined by stakeholders at a later date.
Source: Booz Allen Hamilton, Sierra Nevada ITS Strategic Deployment Plan, June 2002.

important goal for CCOG. As discussed in Chapter 2, U.S. Census Journey to Work data show that 15 percent of Calaveras County employed residents commute to San Joaquin County. This data confirms the need to maintain the existing rideshare program in Calaveras County. Foothill Commuter Services staff indicated that the program is gaining momentum and is funded for another year. In addition to maintaining the foothill rideshare website, Foothill Commuter Services intends to increase marketing efforts and work closely with staff from each of the three counties to increase awareness of the program.

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Chapter 5

Financial Element

The Financial Element is fundamental to the development and implementation of the Regional Transportation Plan. The Financial Element identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation improvements and maintenance expenses identified in the Action Element. The intent of this chapter is to provide a realistic assessment of financing constraints and opportunities that will be used in planning for future transportation system improvements. This information is used by decision-makers to fund existing and future transportation infrastructure needs.

It is important to note that there are different funding sources for different types of projects. The County is bound by strict rules in obtaining and using transportation funds. Some funding sources are “discretionary,” meaning they can be used for general operations and maintenance, not tied to a specific project or type of project. However, even these discretionary funds must be used to directly benefit the transportation system they are collected for. For example, funds derived from gasoline taxes can only be spent on roads, and aviation fuels taxes must be spent on airports. State and federal grant funding is even more specific. There are several sources of grant funds, each designated to a specific type of facility (e.g. bridges or state highways), and/or for a specific type of project (e.g. reconstruction or storm damage). This funding system makes it critical for the County to pursue various funding sources for various projects simultaneously, and to have the flexibility to implement projects as funding becomes available.

The following provides a summary of the federal, state, and local funding sources and programs available to Calaveras County for transportation system improvements.

FEDERAL FUNDING SOURCES

Federal Aviation Administration (FAA)

Airport Improvement Program (AIP) – The AIP provides funding of specific airport improvements and projects, and requires a 5 percent local match that is provided by the State AIP Match Program and results in a 0.25 percent total project local match.

Federal Highway Administration (FHWA) Programs

The Transportation Equity Act for the 21st Century (TEA-21), administered by the federal Highway Administration, was enacted in June, 1998. TEA-21 authorized the federal surface transportation programs for highways, highway safety, and transit for the six-year period between 1998 and 2003. This Act provided greater flexibility for the state and local jurisdictions in deciding how federal dollars could be spent. TEA-21 expired September 30, 2003. On May 14, 2003, President Bush unveiled his reauthorization proposal entitled, “Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003.” The President authorized 6 extensions of the SAFETEA reauthorization, with the latest expiring May 31, 2005. On August 10, 2005, President Bush signed the Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU), providing \$286.4 billion in guaranteed funding for federal surface transportation programs over six years through FY 2009, including \$52.6 billion for federal transit programs. A summary of key federal programs are provided below.

Surface Transportation Program (STP) – The STP is the most flexible of all federal-aid programs, allowing use for the widest array of transportation projects, including construction, reconstruction, resurfacing, restoration, rehabilitation, and operational improvements for highways and bridges (not classified as local or rural minor collectors), transit, safety improvements and hazard elimination, bicycle and pedestrian facilities, and parking. Projects that mitigate the environmental effects of transportation projects can also be funded. The authorization of SAFETEA-LU expanded STP eligibility to include advanced truck stop electrification systems, high accident/congestion intersections, environmental restoration and pollution abatement, control of noxious weeds and establishment of native species. Funds are distributed among the states based on lane-miles of Federal-aid highways, total vehicle-miles traveled on those Federal-aid highways, and estimated contributions to the Highway Account.

Regional Surface Transportation Program (RSTP) – The RSTP program guarantees counties 110 percent of their allocation under the old Federal Aid Urban/Federal Aid Secondary (FAU/FAS) program. These federal dollars can be exchanged for State Highway Account (SHA) funds (a process known as “RSTP Exchange”), and is advantageous to RTPAs as Federal funds have more stringent requirements including a 20 percent local match, while State funds do not require any local match. The State also provides additional State funds to the County, as a match to the exchanged Federal dollars.

Transportation Enhancement (TE) – TE funds represent 10 percent of the statewide STP funds. Projects eligible for TE funding include acquisition of scenic easements, scenic or historic highway programs, landscaping, rehabilitation of historic transportation buildings, preservation of existing and abandoned railway corridors, pedestrian/bikeway improvements, the acquisition of abandoned right-of-way for conversion to pedestrian/ bicycle trails, and safety education activities for pedestrians and bicyclists. As of August 2003, TE funds are programmed through the State Transportation Improvement Program (STIP) and administered through the Caltrans Local Assistance Office.

Highway Bridge Program– The HBP program provides funding for bridge replacement and rehabilitation of highway bridges, and for seismic retrofit of bridges located on any public road. The federal government allocates 88.5 percent of the funds and the remaining 11.5 percent must come from state and local sources. Under the enactment of SAFETEA-LU, the Bridge Program was broadened in scope to include systematic preventative maintenance, and freed from the requirement that bridges must be considered “significantly important.”

Federal Lands Highway Program (FLH) – The FLH program provides funding for roadway improvements and transit facilities to and within public lands, national parks, and Native American reservations. Additionally, this program funds improvements to Federally-owned public roads providing access to or within a National Forest System. Under SAFETEA-LU new eligible uses include maintenance of Forest Highways.

Hazard Elimination Safety Program (HES) – This program provides funding for highway safety improvement projects on the Federal-aid system, including rural minor collectors and local roads. Projects must be approved in the FTIP. This program was discontinued in 2006 and replaced by the new Highway Safety Improvement Program (HSIP).

Highway Safety Improvement Program (HSIP) – The program authorizes a new core federal-aid funding program beginning in FY 2006 to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. Starting in FY 2006, once railway-highway crossing and

infrastructure safety needs are satisfied, states with a Strategic Highway Safety Plans (SHSP) can use HSIP funds for additional safety programs such as education, enforcement and emergency medical services. States with no SHSP will only be eligible to use HSIP money for railway-highway crossing and hazard elimination projects as in effect prior to enactment of SAFETEA-LU. HSIP also includes state apportionments for construction and operational improvements on high-risk rural roads which are defined as rural major or minor collectors or rural local roads with a fatal and incapacitating injury crash rate above the statewide average or likely to experience an increase in traffic volume that leads to a crash rate in excess of the average statewide rate. Eligible HSIP projects that are relevant to safety issues in Calaveras County include: widen or improve shoulder width, in-pavement lighted crosswalks, sight distance improvement and new traffic signals. Projects with accident history or high potential for accidents will receive priority.

Emergency Relief Program (ER) – Emergency Relief funds are provided to assist local agencies with repairs to Federal-aid highways that have been heavily damaged in Federal- or State-declared natural disasters.

Emergency Relief for Federally-Owned Roads (ERFO) – Emergency Relief funds are provided to assist local agencies with repairs to Forest Highways (FH) that have been heavily damaged in Federal- or State-declared natural disasters.

Congestion Mitigation and Air Quality Program (CMAQ) – CMAQ funds are available to those areas that are in non-attainment of the federal ozone and carbon monoxide standards. Funds are allocated for transportation-related projects that help to improve a region's air quality. Calaveras County became eligible for CMAQ funds in Fiscal Year 2005-2006. In Fiscal Year 2007-2008 Calaveras County will receive approximately \$415,000 in CMAQ funds.

Transportation Community and System Preservation Program - \$270 million nationally over five years (2006-2011) is reserved for transit oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment and provide efficient access to jobs, services and trade centers.

In addition, federal SAFETEA-LU funds are available for the National Scenic Byways Program, the Recreational Trails Program, for Bicycle Transportation and Pedestrian Walkways, the State and Community Highway Safety Grants program, and for transit operations and capital assistance.

Secure Rural Schools and Community Self-Determination Act (Federal Forest Reserve Program) (S1608/HR2389) – This Federal Forest Reserve Program was enacted in 2001 to restore the stability and predictability of annual funds to counties with National Forest system lands that were impacted by reductions in timber receipts due to changes in legislation. The funds were distributed in the following apportionments: 40-42.5 percent toward roads, 40-42.5 percent toward schools and 15-20 percent for community, forests and the US Treasury.

This program expired at the end of 2006, amid controversy regarding the sale of public lands to continue funding for the program. As of this writing, the re-authorization or replacement of the program is uncertain.

Federal Transit Administration (FTA) Programs

The FTA provides the following funding sources for transit capital and operational expenses in rural counties.

FTA Section 5309 Capital Program Grants – These grants are split into three categories: New Starts, Fixed Guideway Modernization, and Bus and Bus Facilities. Typically, an intensive lobbying effort is necessary to receive a Section 5309 earmark. The “Small Starts” component of the New Starts program, which provides funding and oversight for projects seeking less than \$75 million in New Starts funds, is authorized for separate funding beginning in FY 2007 under SAFETEA-LU.

FTA Section 5310 Capital for Elderly and Disabled Transportation – Under this program, funds are available to assist nonprofit organizations and local government jurisdictions in the purchase of vehicles and related equipment to provide transportation services that meet the special needs of persons that are elderly or disabled. This funding source is apportioned by a formula based on the number of elderly and disabled persons in each state as identified by U.S. Census data. Under SAFETEA-LU, projects funded through Section 5310 must be included in a “Coordinated Human Services Transportation Plan.”

FTA Section 5311 Public Transportation for Rural Areas – Federal transit funding for rural areas is currently provided through the Public Transportation for Rural Areas program for non-urbanized areas. A 20 percent local match is required for capital programs and a 50 percent match for operating expenditures. These funds are segmented into “apportioned” and “discretionary” programs. The bulk of the funds are apportioned directly to rural counties based upon population levels.

FTA Section 5316 Job Access and Reverse Commute Program – The list of eligible applicants for this program, funded through SAFETEA-LU, includes states, metropolitan planning organizations, and public transit agencies among others. Although the program has an emphasis on using funds to provide transportation in rural areas currently having little or no transit service, it is not limited to such areas. A 50 percent non-DOT match is required; however, other (non-DOT) Federal funds may be used as part of the match. FTA gives high priority to applications that address the transportation needs of areas that are unserved or under served by public transportation. As of FY 2006, the Job Access and Reverse Commute (JARC) program has been administered as a formula program. Under SAFETEA-LU, projects funded through JARC must be included in a “Coordinated Human Services Transportation Plan.”

FTA Section 5317 – New Freedom Program – This new program under SAFETEA-LU provides formula funding for expanded public transportation services beyond those required by ADA for persons with disabilities. The idea behind the program is to help communities provide transportation services beyond those required by ADA and to help people with disabilities participate more fully in the workforce and in community life. It is apportioned to the individual states based upon the disabled population, and only 20 percent is available to non-urbanized areas. At this time regulations and guidelines have not been set for this program. The “Coordinated Human Services Transportation Plan” requirement is also attached to this funding source.

Rural Transit Assistance Program (RTAP) – As part of the FTA Section 5311 grant program, RTAP provides funding for technical and training materials, management workshops, peer networking and scholarship assistance. The California Association for Coordinated Transportation, Inc. (CalACT) administers the RTAP program.

STATE FUNDING SOURCES

Aviation

State of California Aid to Airports Program (CAAP) – The State of California Aid to Airports Program (CAAP) makes grant funds available for airport development and operations. Three types of state financial aid to publicly-owned airports are available through the CAAP.

Annual grants for up to \$10,000 per airport per year. These funds can be used to match federal programs, but not state programs.

Acquisition Development Grants provide funds for up to 90 percent of the cost of qualified airport developments on a matching basis, to the extent that state funds are available.

Airport Improvement Program (AIP) Matching Grants provides 5 percent of the federal grant made to a local agency for funding of specific airport improvements and projects. The resultant local match is one-quarter of 1 percent.

In addition, loans of 100 percent are available for projects with self-amortizing improvements. This will be a continuing source of funds for hangar construction at airports.

State law requires that the local government provide necessary local matching funds from non-federal sources for any CAAP funds. These matching funds will be provided by the Airport Enterprise Fund. Grants are allocated based on a complex project rating methodology used by the state, with a similar methodology used for the Federal AIP. The highest rated projects are those that relate to safety and standards.

Capital Improvement Program (CIP) – The Capital Improvement Program is a ten-year list of public-use airport projects divided into two five-year phases. Funds are allocated by the California Transportation Commission on a discretionary basis.

Roadway

State Transportation Improvement Program (STIP) – Funding for this program is provided through state and federal fuel tax revenues administered through the State Highway Account. The STIP program constitutes the planned commitments of state and federal transportation dollars. Each RTPA receives a designated amount of funding in each two-year STIP cycle to program on eligible City and County roads in their jurisdiction. Projects are nominated by local RTPAs and submitted to their Caltrans District office, where they are combined and sent to the California Transportation Commission for program approval. The federal portion of the STIP funding can only be used on major collectors, major and minor arterials, and state highways. However, “state-only” STIP funding can be used on local roads and minor collectors, or as a match for other federal funding programs, such as HBP. The STIP consists of the following two discretionary fund programs.

- The Regional Improvement Program (RIP), funded by 75 percent of the STIP, is available to Regional Transportation Planning Agencies (RTPAs). RIP funds are used for local capital improvement projects including roads, public transit, pedestrian and bicycle facilities, intercity rail, grade separations, transportation system management, transportation demand management, sound walls, intermodal facilities and safety.
- Caltrans oversees the Interregional Improvement Program (IIP), which is funded by 25 percent of the STIP. IIP projects focus on interregional highways that serve people and goods movement between regions.

State Highway Operations and Protection Program (SHOPP) – The purpose of the SHOPP program is to maintain the integrity of the state highway system. Funding for this program is provided through fuel tax revenues. Projects are nominated within each Caltrans District office and are sent to Caltrans Headquarters for programming on a competitive basis statewide. Final project determinations are subject to review by the California Transportation Commission. Individual districts are not guaranteed any minimum level of funding. SHOPP projects are based on statewide priorities within each program category (i.e., safety, rehabilitation, operations, etc.), within each Caltrans District. SHOPP funds cannot be used for capacity-enhancing projects, nor can they be used off the state highway system.

Minor Program – The Minor A Program is a Caltrans District-discretionary funding program based on annual statewide/district allocations. This program provides some level of discretion to Caltrans District Offices in funding projects up to \$1 million. Minor B funds are used for projects up to \$117,000. The advantage of the program is the streamlined nature of the funding process and the local nature of the decision-making. Funding is competitive within the funds allocated to a given Caltrans District.

Environment Enhancement and Mitigation (EEM) Program – Similar to TE, the EEM provides funding to remedy environmental impacts of new or improved transportation facilities. Mitigation can include highway landscapes and urban forestry, or development of roadside recreational facilities such as roadside rest stops, trails, scenic overlooks, trail heads, parks, and snow parks. While this grant program is managed by the State Resources Agency, the RTPA makes final funding decisions. The application process is competitive and is open to governmental or non-profit entities.

Traffic Congestion Relief Program/ Proposition 42/AB 687 Tribal Casino Bonds – The Traffic Congestion Relief Act of 2000 (AB 2928) was to provide \$6.8 billion derived from the state's sales tax on gasoline to fund transportation projects chosen by the legislature over a six year period. Since the Act's inception, funds have been borrowed back for the General Fund, and subsequent sales tax transfers have been postponed or suspended. In 2002, the electorate (with a 69 percent affirmative vote) passed Proposition 42; a legislative constitutional amendment that permanently dedicated the revenues (an estimated \$1.1 billion annually) from sales tax on gasoline to transportation infrastructure needs. However, the protections of Proposition 42 were quickly set aside the first year (FY 2003-04) they came into effect, and revenues were allocated to the General Fund. The passage of AB 687 (tribal casino bonds to repay loans) in 2004 dedicated \$1.5 billion in FY 2004-05 to the repayment of transportation program loans to the General Fund. Essentially, AB 687 was a replacement to the suspended Proposition 42 transfer. However, due to a lawsuit filed in September 2004, no funds have been allocated as the bonds cannot be sold. Therefore, in recent years TCRP has been funded through the Governor's budget. In Fiscal Year 2007-2008, it is anticipated that the TCRP

program will be allotted \$683 million with lesser amounts for following years until TCRP projects are complete.

Proposition 1A - Proposition 1A was passed in the November 7, 2006 election. This legislation solidifies the stipulations of Proposition 42 by prohibiting the state sales tax on motor vehicle fuels from being used for any purpose other than transportation improvements, authorizes loans of these funds only in the case of severe state fiscal hardship, requires loans of revenues from state sales tax on motor vehicle fuels to be fully repaid within the three years, and restricts loans to no more than twice in any 10-year period.

Proposition 1B - The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006, authorized nearly \$20 billion in general obligation bond proceeds to be available for a series of transportation programs. Calaveras County will receive funds through the Corridor Mobility Improvement Account, STIP Augmentation and the Local Streets and Roads programs. Refer to Chapter 3 for a more in depth discussion of Proposition 1B programs.

Air Quality Improvement Grants (AB 2766) – Assembly Bill 2766 established grants for projects that will assist in the attainment of the State PM10 Standard. Air Quality Improvement Grants are administered by the local Air Quality Improvement District. Pursuant to California Health and Safety Code 44220, et seq, the District has established a program to reduce PM10 air pollution from motor vehicles and for related planning, monitoring, enforcement and technical studies necessary for the implementation of the California Clean Air Act of 1998. AB 2766 projects implement one or more of the transportation control measures or land use measures described in the District's PM10 Attainment Plan. These measures include surfacing unpaved roads.

State Highway User Taxes – The State of California returns a portion of the statewide gas tax revenues to each jurisdiction for the purpose of maintaining roadways. These funds are distributed to the City or County Road Fund exclusively for use on roads, as required by the State Constitution. Funds are accrued on an annual basis. The formula for determining the amount of allocation to each local jurisdiction is complex, and is based upon the number of registered vehicles, miles of roadways maintained by the jurisdiction, assessed property valuation, and population. The Calaveras County Road and Bridge Program receives a large portion of its revenues from this State source.

Motor Vehicle In-Lieu Fees (VLF) – The Motor Vehicle In-Lieu Fees or Vehicle License Fees are motor vehicle registration funds returned to the County from the state based on a jurisdiction's population. These funds are General Fund revenues and are not restricted for roadway use. The Calaveras County Road and Bridge Program receives a significant portion of its revenue from this funding source.

Environmental Justice: Context Sensitive Planning Grants – This Caltrans administered program funds planning activities that assist low-income, minority and Native American communities in becoming active participants in transportation planning and project development. Grants are available to transit districts, cities, counties and tribal governments. This program is funded by the State Highway Account at \$1.5 million annually statewide. Grants are capped at \$250,000.

Public Transit

Transportation Development Act Funds (TDA) – A mainstay of funding for transit programs in California is provided by the Transportation Development Act. The TDA provides two major sources of funding for public transportation: the Local Transportation Fund (LTF), which has been in existence since 1972, and the State Transit Assistance (STA) fund, which was established in 1980.

Local Transportation Fund – The major portion of TDA funds are provided through the LTF. These funds are generated by a one-quarter cent statewide sales tax and returned to the County of origin. The returned funds must be spent for the following purposes.

- 2 percent may be provided for bicycle facilities.
- The remaining funds must be spent for transit and paratransit purposes, unless a finding is made by CCOG that no unmet transit needs exist that can be reasonably met.

If a finding of no unmet needs that are reasonable to meet is made, remaining funds can be spent on roadway construction and maintenance purposes.

State Transit Assistance - In addition to LTF funding, the TDA includes the STA funding mechanism. The funds are for transportation planning and mass transportation purposes, as specified by the legislature. Funds for the program are derived from statewide sales tax on gasoline and diesel fuel.

Non-Motorized Facility

Bicycle Transportation Account (BTA) Program – This program provides funding for projects that improve safety and convenience. Local jurisdictions must have an adopted “Bicycle Transportation Plan” approved by Caltrans to be eligible for funding. Projects must conform to requirements of Caltrans’ *Highway Design Manual*, Chapter 1000. Commuter bikeways are eligible.

Safe Routes To School (SRTS) – This funding program was originally a capital improvement program (SR2S) funded by State legislation. With the passage of SAFETEA-LU in 2005, Federal Safe Routes to School funds were made available to States nationwide. For this reason, current statutes will be revised to reflect SAFETEA-LU provisions as the State program is phased out. Eligible projects must fall under the category of infrastructure (capital) or non-infrastructure (education and encouragement). Infrastructure projects are capital improvements that involve the planning, design, and construction of facilities that will substantially improve the ability of students to walk and bicycle to school. Projects must serve children in grades K-8, and be located within a radius of two miles from a school. Non-infrastructure projects, on the other hand, are education and encouragement activities intended to change community behavior, attitudes and social norms to make it safer for children in grades K-8 to walk and bicycle to school.

Mello-Roos Community Facilities Act – The Mello-Roos Community Facilities Act allows any county, city, special district, school district or joint powers authority to establish a Community Facility District (CFD) for the purpose of selling tax-exempt bonds to fund public improvements within the district. CFDs must be approved by two-thirds of voters in the district. A property tax is assessed to pay for the bonds.

LOCAL FUNDING SOURCES

At present, there are several local sources available for ongoing transportation costs, other than those passed through from State or Federal programs. The following funding programs have been implemented in Calaveras County.

Road Impact Mitigation Fee Program (RIM) – In February of 2004, the Calaveras County Board of Supervisors adopted a RIM Fee Program ordinance. The intent of the program is to provide funding for transportation and transit improvements that mitigate impacts from new developments. All new developments within the unincorporated areas of the County are subject to the RIM fee based on the proportion of impact caused on the Regional Transportation Network. The RIM Fee Nexus Study identified a list of “RIM Fee Capital Projects” and estimated the proportion of the total project cost which could be attributed to new developments. Of the total 100 percent cost share in each project that can be attributed to new development, 88 percent of costs for projects not marked as state highway projects are allocated to the RIM program. For projects marked as state highway projects, 25 percent of costs that can be attributed to development are allocated to the RIM program. It is important to note that funding accumulated through the RIM Fee Program will only pay for a portion of RIM Fee capital project costs. Therefore, additional funding will be required to complete RIM projects. Table 22 in the Action Element lists RIM projects which are not located on state highways and Table 21 includes RIM projects located on state highways.

Copperopolis Benefit Basin – Much like the RIM Fee Program, Benefit Basins impose fees on new development to help pay for transportation costs associated with that development, except a benefit basin is specific to the area served by the new transportation improvements. All undeveloped parcels within the basin boundary are subject to the basin fee upon development. This fee is calculated by determining the number of trip ends generated by each type of development proposed within the boundary. The Institute of Transportation Engineers (ITE) trip generation rates of 7.5 trips per dwelling unit and 121 trips per acre of commercial uses were used. The number of trips generated for both residential and commercial uses is summed to provide a total number of trips for the Basin. The total cost of improvements is then divided by total trips in the Basin to provide a cost in the form of dollars per trip. The fair share cost of each project is determined by multiplying the ITE generation rate trip by dollars per trip.

Valley Springs Benefit Basin – The Basin program established a funding mechanism for roadway improvements needed as a result of new development in Valley Springs. All new development within the Basin boundary will be assessed a per trip fee of \$170 or \$1,275 per equivalent dwelling unit. The Basin program must be used in conjunction with other funding sources to complete the needed transportation improvements. The Valley Springs Benefit Basin project list is currently being updated.

Other funding sources which could be incorporated in the Calaveras County region are discussed below.

Optional Local Sales Tax – A County-created taxing authority may levy up to a one-cent additional sales tax with the funds allocated for improvements to the regional transportation system, as authorized under the Local Transportation Authority Act, Division 19, Public Utilities Code Section 18000. Any new tax or tax increase requires a two-thirds majority vote of the affected electorate.

Benefit Assessment Act of 1982 – The Benefit Assessment Act of 1982 allowed for the development of County-wide assessments for drainage, flood control, and street lighting. A 1989 amendment to the Act added street maintenance assessments. To date, very few cities or counties have instituted this assessment for street maintenance. Approval of an assessment would require a two-thirds majority vote by the affected electorate.

COUNTY ROAD AND BRIDGE MAINTENANCE FUNDING SOURCES

In addition to the major capital projects recommended in this transportation plan, Calaveras County has ongoing operations and maintenance needs. Historically, the County has spent approximately \$5 million per year in maintenance funding, and currently has a backlog of deferred maintenance. Road Fund revenues are typically generated from the following funding sources:

- State sources such as highway gas taxes and VLF (52 percent)
- Local sources such as Transit Occupancy Tax and property taxes (31 percent)
- Federal sources such as HBP and RSTP (15 percent)

A small amount of revenue is derived from interest and permits. Approximately 31 percent of Road Fund revenues are spent on routine road and bridge maintenance. Even though Road Fund revenues are often unstable, maintenance is the top funding priority for the County Road and Bridges Program.

REVENUE PROJECTIONS

Projecting revenues over a 20-year horizon is difficult in that funding levels can quickly change or even be eliminated by alterations in legislation and policy, as has been the case in the past with the state's financial crisis. This is true both for recurring discretionary funds for maintenance as well as grant funding from various sources. Despite these uncertainties, revenues for roadway, aviation and transit purposes were forecasted over the next 20 years by using a variety of methods¹, as shown in Table 36. All revenue projections represent 2006 dollars, unadjusted for an estimate of future rate of inflation. As shown in Table 36, regional roadway and bridge revenues (STIP, SHOPP, RSTP and Federal funding sources) total an estimated \$317 million over the 20-year planning period. The following assumptions were made in projecting regional roadway and bridge revenues:

- ▶ STIP and TE Revenues were based on the CTC's STIP fund estimate and CCOG projections. Due to the fluctuations of this funding source in the past, a flat growth rate was assumed.
- ▶ SHOPP and Minor Program revenues through Fiscal Year 2015-16 were based on project lists. Estimates for Fiscal Year 2016-17 and beyond were based on the average of FY 2006-07 through 2010-11.

¹ Non-motorized facility revenues were not projected at this time as these funding programs are very competitive and involve a rigorous application process that requires extensive documentation of project need, cost, and benefit.

Table 36: Revenue Projections, 20-Year Vision

Program	Fiscal Years (All Figures In 1000s 2006 Dollars)																				Total
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	
Regional Roadway and Bridge Revenues																					
STIP - RIP ⁽¹⁾	\$26,883	\$0	\$2,335	\$0	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$0	\$5,000	\$69,218
STIP - IIP ⁽¹⁾	\$3,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,200
STIP PPM (Calaveras)	\$85	\$85	\$85	\$85	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$1,780
Transportation Enhancement (TE)	\$995	\$192	\$369	\$484	\$367	\$0	\$0	\$0	\$0	\$2,500	\$0	\$0	\$0	\$0	\$2,500	\$0	\$0	\$0	\$0	\$2,500	\$9,907
SHOPP ⁽²⁾	\$3,570	\$17,300	\$15,800	\$4,500	\$0	\$4,350	\$13,650	\$2,300	\$7,200	\$53,740	\$8,234	\$8,234	\$8,234	\$8,234	\$8,234	\$8,234	\$8,234	\$8,234	\$8,234	\$8,234	\$204,750
Minor Program ⁽²⁾	\$3,352	\$0	\$0	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$740	\$740	\$740	\$740	\$740	\$740	\$740	\$740	\$740	\$740	\$11,106
Highway Bridge Program (HBP)	\$250	\$250	\$250	\$250	\$9,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000
Other Federal SAFETEA-LU Programs (PLH, HPP, CMAQ)	\$1,570	\$1,000	\$250	\$250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,070
Regional Surface Transportation Program (RSTP) (RTPA share)	\$171	\$174	\$178	\$181	\$185	\$189	\$193	\$196	\$200	\$204	\$208	\$213	\$217	\$221	\$226	\$230	\$235	\$239	\$244	\$249	\$4,155
<i>Subtotal</i>	\$40,076	\$19,001	\$19,267	\$6,100	\$9,642	\$9,629	\$13,933	\$7,586	\$7,490	\$61,534	\$9,273	\$14,277	\$9,281	\$14,286	\$11,790	\$14,295	\$9,299	\$14,304	\$9,309	\$16,814	\$317,186
Transit Revenues⁽³⁾																					
FTA Section 5311	\$110	\$110	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$130	\$2,560
Local Transportation Fund	\$764	\$895	\$1,000	\$1,000	\$1,000	\$1,024	\$1,049	\$1,088	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$1,155	\$21,684
State Transit Assistance	\$90	\$97	\$104	\$107	\$111	\$114	\$118	\$121	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$2,360
Passenger Revenues	\$47	\$51	\$56	\$62	\$68	\$69	\$70	\$70	\$71	\$71	\$71	\$71	\$71	\$71	\$71	\$71	\$71	\$71	\$71	\$71	\$1,344
Other	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$400
<i>Subtotal</i>	\$1,030	\$1,173	\$1,310	\$1,319	\$1,329	\$1,358	\$1,386	\$1,429	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$1,501	\$28,348
Aviation Revenues⁽⁴⁾																					
FAA AIP	\$584	\$161	\$0	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$3,295
State CAAP	\$60	\$4	\$0	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$234
County/ State Loan	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500
Local Airport Revenues	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$271	\$5,420
<i>Subtotal</i>	\$1,415	\$436	\$271	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$431	\$9,449
Local Transportation Funding Sources⁽⁵⁾																					
Road Impact Mitigation Fee (RIM)	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$50,000
Valley Springs Benefit Basin	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$4,200
Copperopolis Benefit Basin	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$285	\$5,700
State Highway User Tax	\$2,020	\$2,060	\$2,102	\$2,144	\$2,187	\$2,230	\$2,275	\$2,320	\$2,367	\$2,414	\$2,462	\$2,512	\$2,562	\$2,613	\$2,665	\$2,719	\$2,773	\$2,828	\$2,885	\$2,943	\$49,081
Regional Surface Transportation Program (RSTP) (County Share)	\$342	\$349	\$356	\$363	\$370	\$378	\$385	\$393	\$401	\$409	\$417	\$425	\$434	\$442	\$451	\$460	\$469	\$479	\$488	\$498	\$8,310
State Gas Sales Tax (AB2928/ Prop 42)	\$550	\$561	\$572	\$584	\$595	\$607	\$619	\$632	\$644	\$657	\$670	\$684	\$698	\$711	\$726	\$740	\$755	\$770	\$786	\$801	\$13,364
Vehicle License Fees	\$65	\$66	\$68	\$69	\$70	\$72	\$73	\$75	\$76	\$78	\$79	\$81	\$82	\$84	\$86	\$87	\$89	\$91	\$93	\$95	\$1,579
Proposition 1B	\$0	\$1,300	\$500	\$500	\$500	\$500	\$500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,800
<i>Subtotal</i>	\$5,972	\$7,332	\$6,592	\$6,654	\$6,717	\$6,782	\$6,848	\$6,415	\$6,483	\$6,553	\$6,624	\$6,697	\$6,771	\$6,846	\$6,923	\$7,002	\$7,082	\$7,164	\$7,247	\$7,332	\$136,033
Total Estimated Transportation Revenue	\$48,493	\$27,942	\$27,440	\$14,505	\$18,119	\$18,199	\$22,597	\$15,861	\$15,905	\$70,019	\$17,829	\$22,906	\$17,984	\$23,064	\$20,645	\$23,228	\$18,313	\$23,399	\$18,488	\$26,078	\$491,016

Note 1: Short-term STIP fund estimates based on 2006 STIP Augmentation Tri-County RTIP (includes CMA funds). Long-term STIP revenues based on CCOG estimates of Calaveras future RIP shares. Short-term TE estimates based on 2006 STIP Staff Recommendation. Long-term TE estimates based on 2006 STIP Fund Estimate.

Note 2: SHOPP and Minor Program through FY 2015-16 based on project lists. FY 2016-17 and forward based on average of FY 2006-07 through 2010-11. Minor projects with no construction year were assumed to be FY 09-10.

Note 3: Transit revenues based on County estimates for the entire 20-year planning horizon.

Note 4: FAA AIP, State CAAP and Local CAAP based on project lists until 2012-2013, then flat growth thereafter. Local airport revenues based on flat growth rate.

Note 5: Local revenues based on DPW estimates. RSTP, VLF, state highway user tax and Prop 42 revenues were increased by 2 % per year to account for population growth. Prop 1B estimates provided by California Association of Counties.

Source: CCOG, Calaveras County, Caltrans, RIM Fee Nexus Study

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- ▶ Highway Bridge Program revenues were based on proposed projects. SAFETEA-LU revenues represent anticipated grant funding over the next three years. As these funding sources are discretionary grants attached to specific projects, no long-term projections were made.
- ▶ RSTP funds (RTPA share) are primarily used for planning purposes. Estimations were provided by CCOG. As allocation of this funding source is based on population, revenue projections were increased by two percent per year (consistent with the forecast rate of population growth).

Table 36 also identifies revenues for the local transit program. Transit revenue projections were provided by Calaveras County Department of Public Works. As shown, the greatest revenue source is from Local Transportation Funds providing, 76.5 percent (or roughly \$21.6 million) of the total projected \$28 million in revenues over the 20-year planning horizon. The remaining federal and state programs are anticipated to provide nearly \$4.9 million in revenues, with local revenues (including farebox revenues) making up the balance.

Local airports are also an important element of the regional transportation system. Federal Aviation Administration revenue projections total \$3.3 million over the plan period. State CAAP revenues are projected at \$234 thousand and local airport revenues which are derived from tie-down receipts, and airport rents and leases are projected to total \$5.4 million over the planning period. FAA AIP, State CAAP and Local CAAP revenues were based on project lists through 2012-2013. As airport revenues are not a factor of population, beyond that date flat revenue growth is assumed.

Local transportation funding sources, which include RIM Fees, Benefit Basin fees, Proposition 1B allocations at the local level, highway user taxes, RSTP, state gas sales tax (Proposition 42) revenues and vehicle license fees are anticipated to total \$136 million. The following assumptions were made about local transportation revenue projections:

- ▶ RIM, benefit basin, highway users tax, RSTP, VLF and state gas sales tax revenue projections are based on Calaveras County Department of Public Works estimates. RSTP, VLF, highway user tax and state gas sales tax projections were adjusted to reflect population growth.
- ▶ Proposition 1B estimates were provided by the California State Association of Counties. It should be noted that these estimates have not been finalized by the State Legislature.

Revenue projections for funding sources specific to the City of Angels were not available.

TRANSPORTATION REVENUE TO COST COMPARISON

Table 37 presents a comparison of projected revenues and future transportation expenditures, as identified in the Action Element for the short-term and long-term planning periods. As shown, state highway and bridge projects are funded through the short term, but a deficit of \$43.9 million is expected by the end of the 20-year planning period. If financially unconstrained projects are included in the comparison, a deficit of \$94.2 million over the entire planning period is forecast to result. Similarly, local County road projects which include RIM, Benefit Basin and other projects located on County roadways are funded in the short term, but a deficit of

\$119 million is forecast to occur over the long-term planning period. City transportation revenues are unknown at this time. Transit and aviation projects appear to be fully funded over the RTP planning period.

Table 37: Calaveras County Transportation Improvement Projects Cost and Revenue Comparison

Improvement Projects	Short-Term			Long-Term			Financially Unconstrained Projects	Total Surplus/ Deficit with Financially Unconstrained
	Total Costs 1,000's (2006 Dollars)	Estimated Funding from 2006-07 to 2015-16	Surplus/ Deficit	Total Costs 1,000's (2006 Dollars)	Estimated Funding from 2016-17 to 2025-26	Total 20-Year Surplus/ Deficit		
State Highway and Bridge Projects ⁽¹⁾	\$ 166,567	\$ 175,600	\$ 9,033	\$ 167,682	\$ 114,744	\$ (43,905)	\$ 50,330	\$ (94,235)
Local County Roadways ⁽²⁾	\$ 50,234	\$ 77,347	\$ 27,114	\$ 215,883	\$ 69,686	\$ (119,083)	\$ -	\$ (119,083)
Transit Projects	\$ 3,847	\$ 13,337	\$ 9,490	\$ -	\$ 15,011	\$ 24,501	\$ -	\$ 24,501
Aviation Projects	\$ 2,619	\$ 5,139	\$ 2,520	\$ 490	\$ 4,310	\$ 6,339	\$ -	\$ 6,339
Net Revenue			\$ 48,156			\$ (132,148)		\$ (182,478)

Note 1: Includes STIP, SHOPP, RIM and City of Angels projects on State highways.
Note 2: Includes RIM, Benefit Basin and other local road projects (not including City of Angels non-STIP projects).

These comparisons can be deceiving, for several reasons. As very few long-term transit and aviation projects are proposed in this RTP, there is a surplus of funding for these transportation facility elements. As the RTP must be updated every five years, it is probable that additional projects will be included in future RTP updates. On the other hand, as some funding sources require reauthorization, certain funding sources could be terminated or new sources could be authorized. What Table 37 does clearly show, however, is that with the current funding situation there are insufficient funds available for state highway and local roadway projects over the long-term.

Funding Outlook and Strategy

The only Calaveras County STIP projects slated over the next four-year period (Fiscal Year 2006-07 to 2009-10) are the Angels Camp Bypass and Phase I of the Wagon Trail project. Through a combination of STIP RIP, IIP, CMIA funds and federal grants, sufficient funding has been acquired for both projects. Therefore, the first four years of the Financial Element are consistent with the 2006 STIP Fund Estimate adopted by CTC. In fact, with the STIP 2006 augmentation funds, the Tri-County STIP balance will begin at zero for the 2008 cycle. CCOG intends to fund future STIP projects in accordance with RTP goals and policies and the balanced alternative. The region should pursue the following funding strategies in order to complete the transportation improvement projects contained in this RTP:

- ▶ There exists a significant backlog of local maintenance projects in the region with limited “maintenance specific” funding sources available. The Tri-County 2006 RTIP proposes a 20 percent funding set-aside of each county’s regional STIP share for local road rehabilitation. CCOG should follow this guideline when programming projects for the 2008 RTIP.
- ▶ The region should identify and seek Federal HSIP funds for safety related improvement projects such as shoulder improvements, in-pavement lighted crosswalks, sight distance improvements and new traffic signals.
- ▶ Calaveras County should continue to support the Benefit Basin and RIM Fee programs in order to offset some of the infrastructure costs associated with rapid new development in the region. Once Proposition 1B funds are obtained, they should be directed toward the “existing deficiencies” component in the County traffic impact fee programs.

- ▶ The region could consider pursuing a sales tax initiative or street maintenance assessment to provide the necessary maintenance funding.
- ▶ The region should aggressively seek BTA and Safe Routes to Schools funding for bicycle facility projects and continue to update the Calaveras County Bicycle and Pedestrian Master Plan as necessary. In addition to providing a balanced transportation system, this funding strategy may reduce vehicle miles traveled and traffic congestion.

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Appendix A
Commonly Used Acronyms

CALAVERAS COUNTY RTP COMMONLY USED ACRONYMS

AADT	Annual Average Daily Traffic
AB	Assembly bill
ADT	Average Daily Traffic
ADTT	Average Daily Truck Traffic
AIP	Airport Improvement Program
BTA	Bicycle Transportation Account
CAAP	California Aid to Airports Program
CALTRANS	California Department of Transportation
CARB	California Air Resources Board
CCOG	Calaveras Council of Governments
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
COATS	California/Oregon Advanced Transportation Systems
CONST	Construction
CR	County Road
CTC	California Transportation Commission
DOT	Department of Transportation
DRU	Demographic Research Unit
EDD	Employment Development Department
EEM	Environment Enhancement and Mitigation Program
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
E&P	Environmental Documents and Permits
ER	Emergency Relief Program
FAA	Federal Aviation Administration

FEMA	Federal Emergency Management Agency
FH	Federal Highway
FHWA	Federal Highway Administration
FLH	Federal Lands Highway
FTA	Federal Transit Administration
HBP	Highway Bridge Program
HES	Hazard Elimination Safety
ICASP	Interregional California Aviation System Plan
IIP	Interregional Improvement Program
ISTEA	Intermodal Surface Transportation Efficiency Act
ITSP	Interregional Transportation Strategic Plan
ITIP	Interregional Transportation Implementation Plan
LOS	Level of Service
LTF	Local Transportation Fund
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
O&M	Operations and Maintenance
PM	Post Mile
PS&E	Plans, Specifications and Estimates
PSP	Pedestrian Safety Program
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy For Users
SHOPP	State Highway Operations and Protection Program
SIP	State Implementation Plan

SOV	Single Occupant Vehicle
SR	State Route
SR2S	Safe Routes to Schools
STA	State Transit Assistance
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
TCRP	Traffic Congestion Relief Program
TDA	Transportation Development Act
TEA-21	Transportation Equity Act for the 21st Century
TE	Transportation Enhancement
TDM	Transportation Demand Management
TSM	Transportation System Management

Appendix B
Persons/Agencies Contacted

Persons/Agencies Contacted

Alpine County Local Transportation
Commission
Leonard Turnbeaugh
Don Jardine

City of Angels
Gary Ghio
Kaye Simonson
Tim Shearer

Amador County Transportation Commission
Charles Field

Caltrans District 10
Annette Clark
Barney Bender
Jane Perez
Maria Rodriguez

Calaveras County Airport
Kathy Zancanella

Calaveras County Building Department
Daphney Lakatsas

Delaney Trucking
Patty

Calaveras County Council of Governments
George Dondero, II
Mary Kelly
Scott Maas
Tim McSorley

Ford Construction Company
Sandy

Foothill Commuter Services

Calaveras County Department of Public
Works
Nathan Atherstone
Rob Houghton
Debbie Mullen
Lesli Daniel

Ione Band of Miwok Indians
Matthew Franklin

Native American Heritage Commission
Debbie Treadway

Pacific Gas & Electric
Buck

Calaveras Lumber Company
Eileen Hoover

San Joaquin Council of Governments
Julia Greene
Scott Butler

California Highway Patrol
Brenda Guiver
Officer Hardy

Sierra Pacific Industries
Debbie Steven

California Valley Miwok Tribe
Silvia Burley

Stanislaus Council of Governments
Lark Downs

Calaveras County Air Pollution Control
District
Lakmir Grewal

Tuolumne County Public Works Department
Peter Rei
Darin Grossi

United Parcel Service

Appendix C
Correspondence

Correspondence to

LSC TRANSPORTATION CONSULTANTS, INC.



2690 Lake Forest Road, Suite C
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Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 3, 2005

Sent Via Facsimile: (916) 657-5390
Ms. Debbie Treadway
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Re: Calaveras County 2005 Regional Transportation Plan

Dear Ms. Treadway:

LSC Transportation Consultants, Inc. (LSC) has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). The CCOG is the Regional Transportation Planning Agency (RTPA) for the Calaveras County region. The RTP is a federally required long-range transportation-planning document for the region within Calaveras County, and is updated every four years. The Calaveras County RTP provides a coordinated 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people within Calaveras County. The purpose of the RTP is to provide Calaveras County a vision of transportation services and facilities, supported by appropriate goals, for ten and twenty year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the transportation system within Calaveras County.

The RTPA is committed to developing Government-to-Government relationships with the Tribal Governments within the Calaveras County region. In an effort to include the Tribal Governments in the RTP planning process, we request you provide us with contact information for tribes in Calaveras County that are on the "SB 18 Consultation List." We would appreciate receiving this information at your earliest convenience (in an effort to include the Tribal Governments in each step of the RTP process) but not later than May 13, 2005. Please send this information to the address or fax above, or via email to kelly@lsctahoe.com.

Please contact me with any questions. Thank you for your time and consideration.

Sincerely,

A handwritten signature in black ink that reads 'Kelly Morin'. The signature is written in a cursive, flowing style.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.

LSC TRANSPORTATION CONSULTANTS, INC.



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May 18, 2005

Ms. Silvia Burley
Chairperson
California Valley Miwok Tribe
10601 Escondido Place
Stockton, CA 95212

Re: Calaveras County 2005 Regional Transportation Plan

Dear Ms. Burley:

LSC Transportation Consultants, Inc. (LSC) has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). The CCOG is the Regional Transportation Planning Agency (RTPA) for the Calaveras County region. The RTP is a federally required long-range transportation-planning document for the region within Calaveras County (see enclosed map), and is updated every four years. The Calaveras County RTP provides a coordinated 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people within Calaveras County. The purpose of the RTP is to provide Calaveras County a vision of transportation services and facilities, supported by appropriate goals, for ten and twenty year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the transportation system within Calaveras County.

The RTPA is committed to developing Government-to-Government relationships with the Tribal Governments within the Calaveras County region. To accomplish this, we are seeking the California Valley Miwok Tribe's input with regard to the Calaveras County 2005 RTP. The CCOG will hold public meetings throughout the RTP process and we invite the California Valley Miwok Tribe to provide input at these meetings. A meeting will be held at the San Andreas Library at 8:30 A.M. on June 15, 2005. We would also be glad to meet with you one-on-one to discuss any transportation-related issues you may have that pertain to the development of the Calaveras County RTP. Please contact me no later than May 31, 2005, if you would like to meet one-on-one the afternoon of June 15, 2005. If you have any questions or comments, please do not hesitate to contact me.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

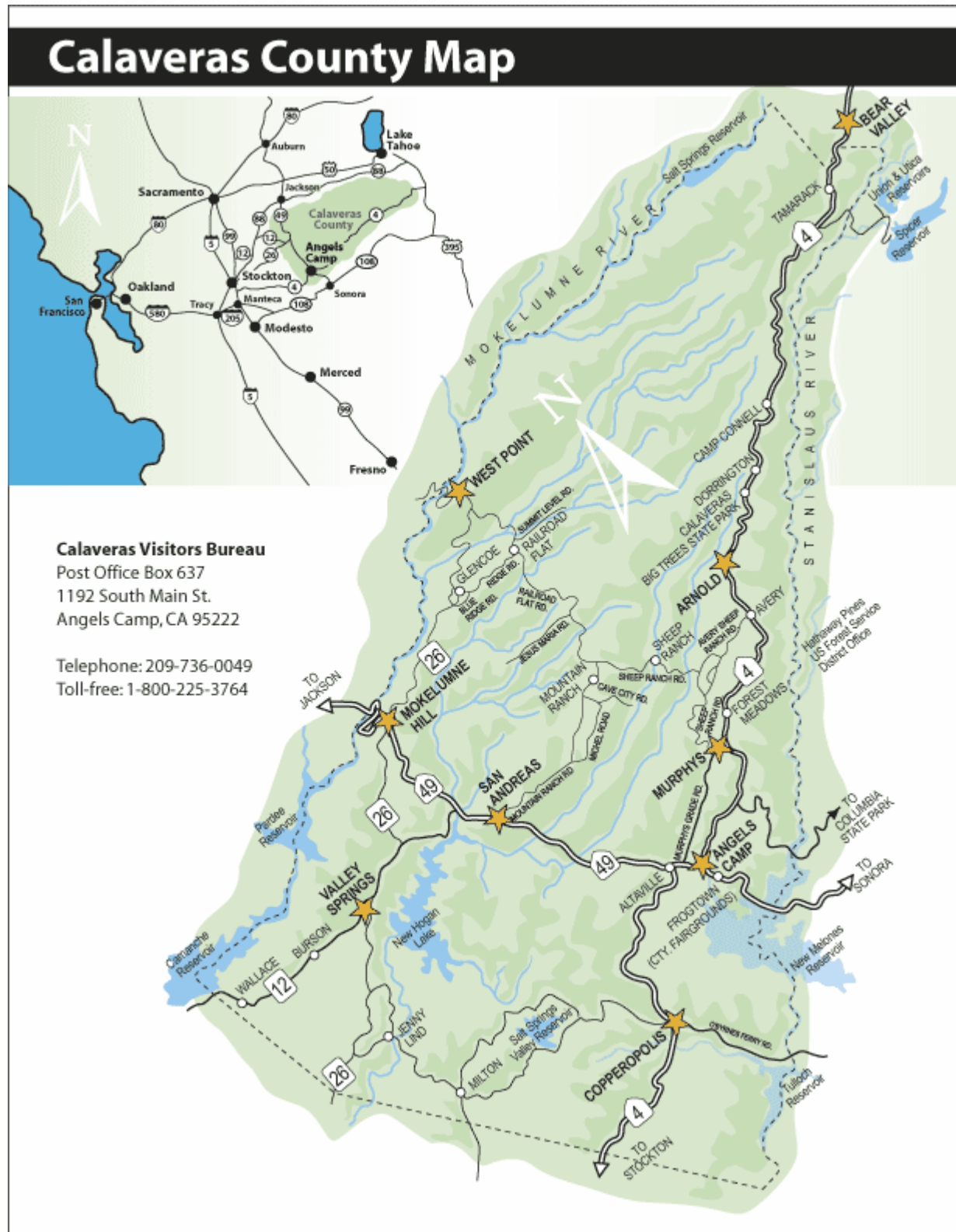
Sincerely,

A handwritten signature in cursive script that reads 'Kelly Morin'.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.

Enclosure: Map

CALAVERAS COUNTY 2005 RTP SITE MAP





2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 18, 2005

Ms. Silvia Burley
Chairperson
Sheep Ranch Rancheria
1055 Winter Court
Tracy, CA 95736

Re: Calaveras County 2005 Regional Transportation Plan

Dear Ms. Burley:

LSC Transportation Consultants, Inc. (LSC) has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). The CCOG is the Regional Transportation Planning Agency (RTPA) for the Calaveras County region. The RTP is a federally required long-range transportation-planning document for the region within Calaveras County (see enclosed map), and is updated every four years. The Calaveras County RTP provides a coordinated 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people within Calaveras County. The purpose of the RTP is to provide Calaveras County a vision of transportation services and facilities, supported by appropriate goals, for ten and twenty year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the transportation system within Calaveras County.

The RTPA is committed to developing Government-to-Government relationships with the Tribal Governments within the Calaveras County region. To accomplish this, we are seeking the Sheep Ranch Rancheria's input with regard to the Calaveras County 2005 RTP. The CCOG will hold public meetings throughout the RTP process and we invite the Sheep Ranch Rancheria to provide input at these meetings. A meeting will be held at the San Andreas Library at 8:30 A.M. on June 15, 2005. We would also be glad to meet with you one-on-one to discuss any transportation-related issues you may have that pertain to the development of the Calaveras County RTP. Please contact me no later than May 31, 2005, if you would like to meet one-on-one the afternoon of June 15, 2005. If you have any questions or comments, please do not hesitate to contact me.

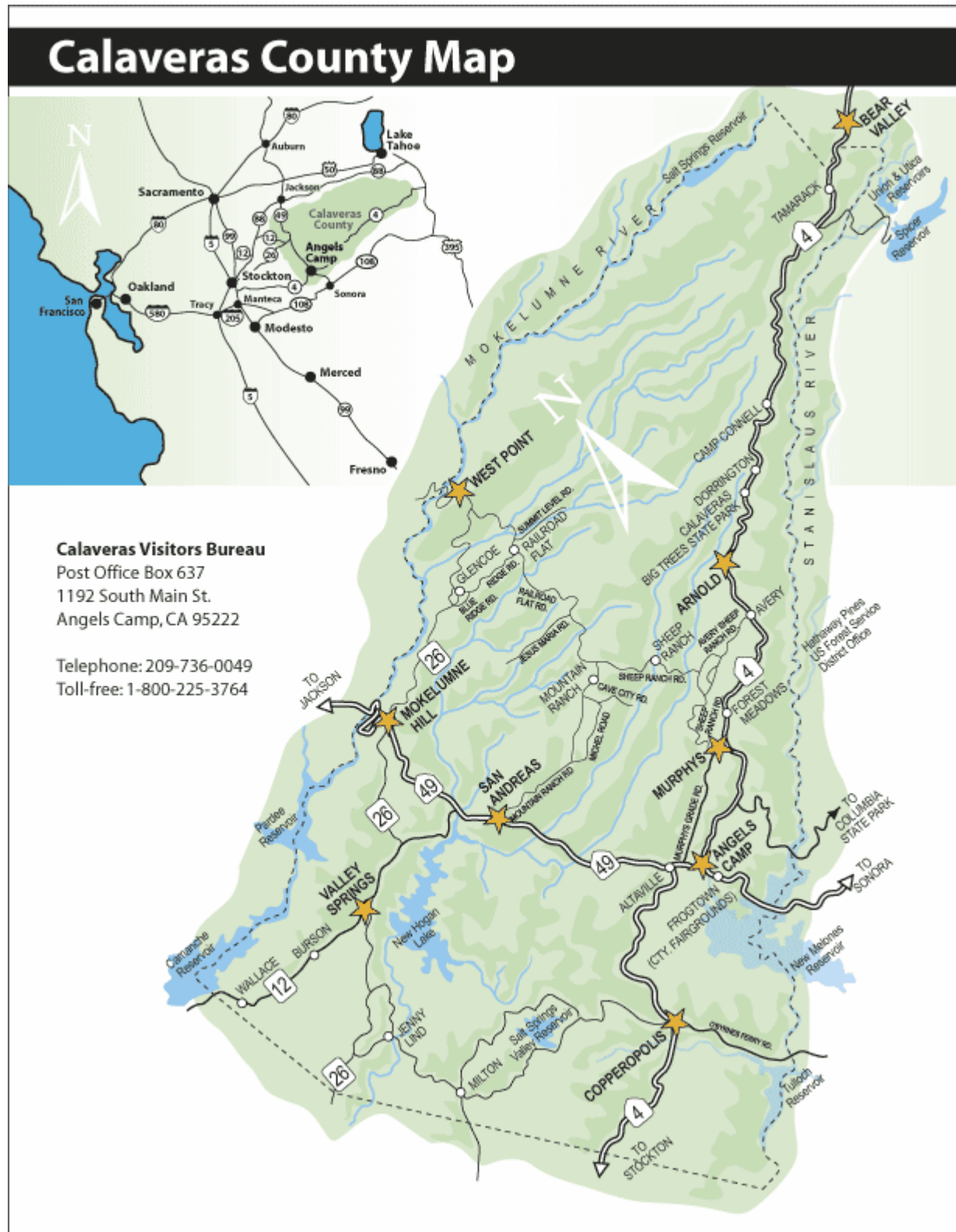
Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Sincerely,


Kelly Moyn, Transportation Planner
LSC Transportation Consultants, Inc.

Enclosure: Map

CALAVERAS COUNTY 2005 RTP SITE MAP





2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 18, 2005

Mr. Matthew Franklin
Chairperson
Ione Band of Miwok Indians
P.O. Box 1190
Ione, CA 95640

Re: Calaveras County 2005 Regional Transportation Plan

Dear Mr. Franklin:

LSC Transportation Consultants, Inc. (LSC) has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). The CCOG is the Regional Transportation Planning Agency (RTPA) for the Calaveras County region. The RTP is a federally required long-range transportation-planning document for the region within Calaveras County (see enclosed map), and is updated every four years. The Calaveras County RTP provides a coordinated 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people within Calaveras County. The purpose of the RTP is to provide Calaveras County a vision of transportation services and facilities, supported by appropriate goals, for ten and twenty year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the transportation system within Calaveras County.

The RTPA is committed to developing Government-to-Government relationships with the Tribal Governments within the Calaveras County region. To accomplish this, we are seeking the Ione Band of Miwok Indians' input with regard to the Calaveras County 2005 RTP. The CCOG will hold public meetings throughout the RTP process and we invite the Ione Band of Miwok Indians to provide input at these meetings. A meeting will be held at the San Andreas Library at 8:30 A.M. on June 15, 2005. We would also be glad to meet with you one-on-one to discuss any transportation-related issues you may have that pertain to the development of the Calaveras County RTP. Please contact me no later than May 31, 2005, if you would like to meet one-on-one the afternoon of June 15, 2005. If you have any questions or comments, please do not hesitate to contact me.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

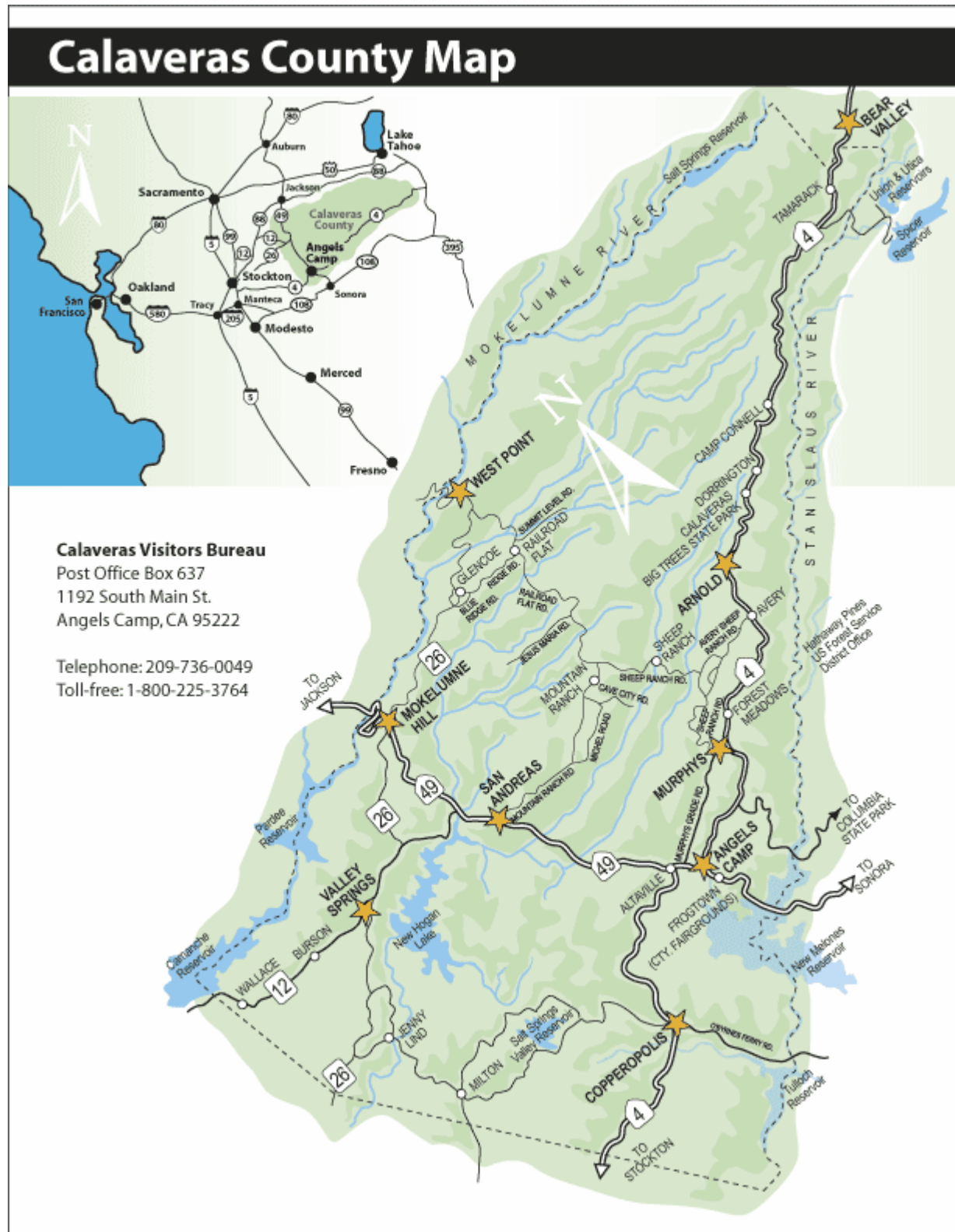
Sincerely,

A handwritten signature in cursive script that reads 'Kelly Morin'.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.

Enclosure: Map

CALAVERAS COUNTY 2005 RTP SITE MAP





2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 10, 2005

Lark Downs, Senior Planner
Stanislaus County of Governments
900 H Street, Suite D
Modesto, CA 95354

Re: Calaveras County 2005 Regional Transportation Plan

Dear Mr. Downs:

LSC Transportation Consultants, Inc. has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). An important element of the RTP process (and as required by State guidelines) is coordination with adjacent counties. To accomplish this, we are seeking your input with regard to the Calaveras County 2005 RTP. We would appreciate receiving your written response to the following questions no later than May 20, 2005.

1. How would you characterize transportation conditions in Calaveras County as they impact Stanislaus County?
2. What do you see as the major economic and demographic factors in Stanislaus County that can be expected to impact transportation demands in Calaveras County over the next 20 years?
3. How can the Calaveras County RTP enhance mobility in Stanislaus County?
4. What transportation-related projects and proposals does Stanislaus County have that the CCOG should be aware of in developing their RTP?
5. Are there potential transportation-related improvement projects that you believe can be jointly pursued between Stanislaus County and Calaveras County? If so, please describe.
6. When was your traffic model last updated?
7. Please include any other input you might have for the Calaveras County RTP.

We would appreciate receiving any other documentation you feel would be helpful in the development of the Calaveras County RTP. We would be happy to cover any copy and mailing costs, however, electronic files are preferred and can be sent to kelly@lsctahoe.com.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads 'Kelly Morin'.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.

LSC TRANSPORTATION CONSULTANTS, INC.



2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 10, 2005

Julia Greene, Executive Director
San Joaquin County of Governments
555 E. Weber Avenue
Stockton, CA 95202-2804

Re: Calaveras County 2005 Regional Transportation Plan

Dear Ms. Greene:

LSC Transportation Consultants, Inc. has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). An important element of the RTP process (and as required by State guidelines) is coordination with adjacent counties. To accomplish this, we are seeking your input with regard to the Calaveras County 2005 RTP. We would appreciate receiving your written response to the following questions no later than May 20, 2005.

1. How would you characterize transportation conditions in Calaveras County as they impact San Joaquin County?
2. What do you see as the major economic and demographic factors in San Joaquin County that can be expected to impact transportation demands in Calaveras County over the next 20 years?
3. How can the Calaveras County RTP enhance mobility in San Joaquin County?
4. What transportation-related projects and proposals does San Joaquin County have that the CCOG should be aware of in developing their RTP?
5. Are there potential transportation-related improvement projects that you believe can be jointly pursued between San Joaquin County and Calaveras County? If so, please describe.
6. When was your traffic model last updated?
7. Please include any other input you might have for the Calaveras County RTP.

We would appreciate receiving any other documentation you feel would be helpful in the development of the Calaveras County RTP. We would be happy to cover any copy and mailing costs, however, electronic files are preferred and can be sent to kelly@lsctahoe.com.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads 'Kelly Morin'.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.



2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 10, 2005

Peter Rei, Director of Public Works
Tuolumne County Public Works Department
2 South Green Street
Sonora, CA 95370

Re: Calaveras County 2005 Regional Transportation Plan

Dear Mr. Rei:

LSC Transportation Consultants, Inc. has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). An important element of the RTP process (and as required by State guidelines) is coordination with adjacent counties. To accomplish this, we are seeking your input with regard to the Calaveras County 2005 RTP. We would appreciate receiving your written response to the following questions no later than May 20, 2005.

1. How would you characterize transportation conditions in Calaveras County as they impact Tuolumne County?
2. What do you see as the major economic and demographic factors in Tuolumne County that can be expected to impact transportation demands in Calaveras County over the next 20 years?
3. How can the Calaveras County RTP enhance mobility in Tuolumne County?
4. What transportation-related projects and proposals does Tuolumne County have that the CCOG should be aware of in developing their RTP?
5. Are there potential transportation-related improvement projects that you believe can be jointly pursued between Tuolumne County and Calaveras County? If so, please describe.
6. When was your traffic model last updated?
7. Please include any other input you might have for the Calaveras County RTP.

We would appreciate receiving any other documentation you feel would be helpful in the development of the Calaveras County RTP. We would be happy to cover any copy and mailing costs, however, electronic files are preferred and can be sent to kelly@lsctahoe.com.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Sincerely,

A handwritten signature in black ink that reads 'Kelly Morin'. The signature is written in a cursive, flowing style.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.



2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 10, 2005

Don Jardine, Chair
Alpine County Local Transportation Commission
Post Office Box 158
Markleville, CA 96120

Re: Calaveras County 2005 Regional Transportation Plan

Dear Mr. Jardine:

LSC Transportation Consultants, Inc. has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). An important element of the RTP process (and as required by State guidelines) is coordination with adjacent counties. To accomplish this, we are seeking your input with regard to the Calaveras County 2005 RTP. We would appreciate receiving your written response to the following questions no later than May 20, 2005.

1. How would you characterize transportation conditions in Calaveras County as they impact Alpine County ?
2. What do you see as the major economic and demographic factors in Alpine County that can be expected to impact transportation demands in Calaveras County over the next 20 years?
3. How can the Calaveras County RTP enhance mobility in Alpine County?
4. What transportation-related projects and proposals does Alpine County have that the CCOG should be aware of in developing their RTP?
5. Are there potential transportation-related improvement projects that you believe can be jointly pursued between Alpine County and Calaveras County? If so, please describe.
6. When was your traffic model last updated?
7. Please include any other input you might have for the Calaveras County RTP.

We would appreciate receiving any other documentation you feel would be helpful in the development of the Calaveras County RTP. We would be happy to cover any copy and mailing costs, however, electronic files are preferred and can be sent to kelly@lsctahoe.com.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Sincerely,


Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.



2690 Lake Forest Road, Suite C
P. O. Box 5875
Tahoe City, CA 96145
(530) 583-4053
FAX (530) 583-5966
E-mail: lsc@lsctahoe.com
Website: www.lsctahoe.com

May 10, 2005

Charles Field, Executive Director
Amador County Transportation Commission
11400 American Legion Drive
Jackson, CA 95642

Re: Calaveras County 2005 Regional Transportation Plan

Dear Mr. Field:

LSC Transportation Consultants, Inc. has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County 2005 Regional Transportation Plan (RTP). An important element of the RTP process (and as required by State guidelines) is coordination with adjacent counties. To accomplish this, we are seeking your input with regard to the Calaveras County 2005 RTP. We would appreciate receiving your written response to the following questions no later than May 20, 2005.

1. How would you characterize transportation conditions in Calaveras County as they impact Amador County?
2. What do you see as the major economic and demographic factors in Amador County that can be expected to impact transportation demands in Calaveras County over the next 20 years?
3. How can the Calaveras County RTP enhance mobility in Amador County?
4. What transportation-related projects and proposals does Amador County have that the CCOG should be aware of in developing their RTP?
5. Are there potential transportation-related improvement projects that you believe can be jointly pursued between Amador County and Calaveras County? If so, please describe.
6. When was your traffic model last updated?
7. Please include any other input you might have for the Calaveras County RTP.

We would appreciate receiving a copy of your current RTP (or interim documents if updating) and any other documentation you feel would be helpful in the development of the Calaveras County RTP. We would be happy to cover any copy and mailing costs, however, electronic files are preferred and can be sent to kelly@lsctahoe.com.

Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads 'Kelly Morin'.

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.



**TRANSPORTATION PLANNING
& TRAFFIC ENGINEERING CONSULTANTS**

2690 Lake Forest Road, Suite C
Post Office Box 5875
Tahoe City, California 96145
(530) 583-4053 FAX: (530) 583-5966
EMAIL: genevieve@isctahoe.com

FAX

DATE: May 18, 2005
TO: Name, Title
Business
FAX:
PHONE:
FROM: Kelly Morin, Planner
SUBJECT: Participation in Development of the Calaveras County 2005 Regional Transportation Plan
NUMBER OF PAGES (including cover sheet): 1

Mr./Ms _____,

Our firm has been retained by the Calaveras Council of Governments (CCOG) to prepare the Calaveras County Regional Transportation Plan (RTP), a Federally-mandated planning document. The RTP provides a coordinated 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people within Calaveras County. As part of the RTP process, we are seeking opinions of truck traffic generating businesses on issues relating to the Calaveras County regional transportation system. To accomplish this, we would appreciate receiving your responses to the following questions by Friday, May 20, 2005:

1. What is your overall opinion of the Calaveras County regional transportation system?
2. What level of goods movement (number of trucks per day) does your business generate on the Calaveras County roadway system? What roadways within the County do these vehicles typically travel?
3. Do you expect your level of trucking activity to change in the next five years, and if so, how?
4. What are the deficiencies of the Calaveras County regional transportation system?
5. How do these deficiencies affect your business?
6. What would you suggest as solutions to deficiencies that significantly impact your business?
7. What other suggestions or comments does your business have for the RTP for Calaveras County?

Your individual responses will remain confidential, however, they will be reflected in an overall summary of opinions. Please do not hesitate to contact me with any questions or comments. Thank you for your time and consideration. Your participation in the Calaveras County RTP development process is greatly appreciated.

Correspondence from

STATE OF CALIFORNIAArnold Schwarzenegger, Governor**NATIVE AMERICAN HERITAGE COMMISSION**

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390



May 13, 2005

Kelly Morin
LSC Transportation Consultants, Inc.
2690 Lake Forest Road, Suite C
Tahoe City, CA 96145

Sent Via Fax: 530-583-5966
of Pages: 2

RE: Calaveras County 2005 Regional Transportation Plan, Calaveras County

Dear Ms. Morin:

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places. Attached is a consultation list of tribes with traditional lands or cultural places located within the requested General Plan boundaries.

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action. NAHC Sacred Lands File requests must be made in writing. All requests must include: county, USGS quad map name, township, range and section. Local governments should be aware, however, that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place.

If you receive notification of change of addresses and phone numbers from Tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at (916) 653-4038.

Sincerely,


Debbie Pilas-Treadway
Environmental Specialist III

**California Tribal Consultation List
Calaveras County
May 13, 2005**

California Valley Miwok Tribe
Silvia Burley, Chairperson
10601 Escondido Place Miwok
Stockton , CA 95212
council@calvalleymiwoktribe.
(209) 931-4197
(209) 931-4333 FAX

lone Band of Miwok Indians
Matthew Franklin, Chairperson
PO Box 1190 Miwok
lone , CA 95640
pam@lonemiwok.org
(209) 274-6753
(209) 274-6636 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for consulting with California Native American tribes per Government Code Section 65352.3

Kelly Morin

From: charles [charles@actc-amador.org]
Sent: Thursday, May 19, 2005 1:16 PM
To: kelly@lsctahoe.com
Subject: Calaveras RTP Questionnaire

TO: Kelly Morin, Transportation Planner, LSC
FROM: Charles F. Field, ACTC Executive Director
SUBJECT: Calaveras County 2005 RTP Questionnaire

The following is my response to your inquiry date May 10, 2005, regarding the Calaveras County RTP Update dated May 10, 2005. The following list is in direct response to the seven questions that you asked.

1. Our traffic model shows significant travel between Calaveras and Amador County necessitating improvements to State Route 49 are needed from Jackson to the Calaveras County line but they are unfundable (Tier 2) at this time.
2. I would expect that demand for housing development projects will impact Calaveras County the same way they are beginning to impact Amador County. This is due to baby boomers retiring to the foothills, lower relative cost of housing, and our higher relative quality of life. We are seriously in jeopardy of becoming bedroom communities to the Central Valley, which will rob revenues (jobs, sales, etc.) if we don't plan for more balanced and stable local communities.
3. Maintain and improve inter-county transit service.
4. See the Tri-County MOU Phase I and proposed Phase II projects. Also, the Amador Regional Transit Center (call ARTS Manager Patrick Ireland) and Tri-County Phase II project proposals.
5. Same as number 4 above
6. Just finished our traffic model update, 2005 (for 2000 traffic counts and 2000 census).
7. Good luck.

I hope the above meets your needs. If you have further questions, please call.

May 24, 2005

Kelly Morin
Transportation Planner
LSC Transportation Consultants, INC.
2690 Lake Forest Rd, Suite C
P.O. Box 5875
Tahoe City, CA. 96145

Dear Kelly:

SJCOG is pleased to assist in your efforts to prepare the Calaveras County 2005 Regional Transportation Plan. Transportation coordination with neighboring counties is especially important for mobility in the region. SJCOG is pleased to offer the following responses to your questions:

1. The transportation conditions as they impact San Joaquin County primarily stem from the rapid growth of cities (both population and employment) in Calaveras County. The main thoroughfares are becoming more congested with more people commuting to jobs in the Central Valley and East Bay. Collaborative planning with Caltrans and local jurisdictions is needed to ensure the mobility and safety goals of the region remain intact.
2. The major San Joaquin County economic and demographic factors expected to impact Calaveras County include the increases in population as well as the anticipated growth in the jobs market. This could result in more pressure on the existing transportation facilities that connect San Joaquin County and Calaveras County. The existing facilities were not designed to carry large amounts of traffic and will require improvements to keep up with growth.
3. Currently Calaveras Transit provides 3 daily trips to Lodi. This connection provides access to the rest of the region and State via SJRTD and Amtrak. Alternative access points to cities such as Stockton, Escalon or others may provide increased access. Coordination between existing transit services would provide increased mobility to those traveling to San Joaquin County or points beyond.
4. Currently there are no Tier I projects identified in the SJCOG RTP that impact existing travel corridors from San Joaquin County to Calaveras County.

5. SJCOG is eager to work jointly to improve transportation for the benefit of residents and businesses of both counties.
6. SJCOG's traffic model was recently updated for the 2004 RTP. We are in the midst of re-calibrating the model and expect to have that completed by August 2005.

Once again SJCOG is pleased to assist in your efforts in the Calaveras County Regional Transportation Plan.

If you have any questions regarding these comments or have any questions Scott Butler at 209-468-3913.

Sincerely,

Scott Butler
Regional Planner



Tuolumne County Transportation Council

Cooper J. Kessel
Chairman

Peter M. Rei, R.C.E., P.L.S.
Executive Director

Darin C. Grossi
Deputy Director

June 14, 2005

Kelly Morin, Transportation Planner
LSC Transportation Consultants, Inc.
2690 Lake Forest Road, Suite C
Post Office Box 5875
Tahoe City, CA 96145

Re: Calaveras County 2005 Regional Transportation Plan

Dear Ms. Morin:

I am in receipt of your recent letter addressed to Mr. Peter Rei, the Executive Director of Public Works for the County of Tuolumne concerning various traffic impact issues facing our county. The following are the questions you posed to Mr. Rei along with our response to them.

1. *How would you characterize transportation conditions in Calaveras County as they impact Tuolumne County?* Undefined.
2. *What do you expect to see as the major economic and demographic factors in Tuolumne County that can be expected to impact transportation demands in Calaveras County over the next 20 years?* Unknown.
3. *How can the Calaveras County RTP enhance mobility in Tuolumne County?* Models need to be coordinated, impacts identified and mutually agreeable solutions developed.
4. *What transportation related projects and proposals do Tuolumne County have that the CCOG should be aware of in developing their RTP?* None at this time.
5. *Are there potential transportation-related improvement projects that you believe can be jointly pursued between Tuolumne County and Calaveras County? If so, please describe.* Such a list needs to be developed by many stakeholders.
6. *When was your traffic model last updated?* 2005.
7. *Please include any other input you might have for the Calaveras County RTP.* Tuolumne County would like a copy of the land use data the Calaveras RTP is based upon.

If I can be of any further assistance, please do not hesitate to call me at call me at 209/533-5601.

Sincerely,

Darin Grossi
Deputy Director of Public Works - Transportation

Genevieve Evans

From: Lark Downs [LARKDOWNS@Stancog.org]
Sent: Thursday, July 21, 2005 8:21 AM
To: genevieve@lsctahoe.com
Subject: Re: FW: Calaveras RTP - Adjacent County Input

Sorry for the late response.

Comments -

1. Current transportation conditions in Calaveras County impact Stanislaus County in two ways: 1- Recreation; 2 -Daily Commuters. At present conditions are adequate. This will change when the Oakdale Bypass is completed.
2. As housing prices continue to soar in Stanislaus County, residents will seek lower cost housing in Calaveras County, bring a younger demographic with increased economic development. Potential for air quality impacts.
3. By accurately reflecting the future traffic between the two counties, a better understanding can be formed for potential future transportation projects.
4. The Route 120 Oakdale Bypass, and the Route 108 Realignment.
5. Not at this time. Future traffic projections may alter that line of thinking though.
6. 2004
7. We would be happy to share our land use or traffic projections. Base year 2000. Future years, 2005, 2010, 2015, 2020, 2025, 2030.

Lark Downs
StanCOG

Lark Downs,
StanCOG

Phone Interview with Leonard Turnbeaugh at Alpine County Department of Public Works

August 04, 2005

Question 1: How would you characterize transportation conditions in Calaveras County as they impact Alpine County ?

Answer: Growth in Calaveras County reduces travel to Alpine County via SR 4 as that route is the only access to the county. Alpine County has put money into SR 4 and will continue to do so through the Tri-County MOU.

Question 2: What do you see as the major economic and demographic factors in Alpine County that can be expected to impact transportation demands in Calaveras County over the next 20 years?

Answer: Bear Valley Master Plan (1978) and the Bear Valley Ski Area Plan with the Forest Service. The county performed traffic counts between Angels Camp and Alpine County and discovered that vehicles were not traveling all the way through to Alpine County from Angels Camp on SR 4 but were turning off to second homes in Calaveras County.

Question 3: How can the Calaveras County RTP enhance mobility in Alpine County?

Answer: Reduce/minimize commercial strip development along state highways. New intersections should not be allowed if it will reduce existing passing opportunities along the highway. It costs \$6 million to build a passing lane later on.

Question 4: What transportation-related projects and proposals does Alpine County have that the CCOG should be aware of in developing their RTP?

Answer: Tri-County MOU I and Tri-County MOU II. Alpine County believes that this is an important process.

Question 5: Are there potential transportation-related improvement projects that you believe can be jointly pursued between Alpine County and Calaveras County? If so, please describe.

Answer: Tri-County MOU I and Tri-County MOU II. Improvement is needed through the Big Trees Area from Blue Lake Springs Rd to east of the entrance to the Big Trees State Park. There are many shaded curves which can collect ice in the winter.

Question 6: When was your traffic model last updated?

Answer: Currently being updated.

Question 7: Please include any other input you might have for the Calaveras County RTP

Answer: Stressed again the idea of not allowing commercial strip/shopping center developments along the state highways, in particular around the community of Arnold. It is important to focus on creating and maintaining passing opportunities. As platoons get larger, frustration increases and traffic accidents follow.

Public Notice

PUBLIC NOTICE
CALAVERAS COUNCIL OF GOVERNMENTS
2007 REGIONAL TRANSPORTATION PLAN PUBLIC DRAFT
AND INITIAL STUDY/ PROPOSED NEGATIVE DECLARATION
PUBLIC MEETING

The Calaveras Council of Governments (CCOG) will discuss the Draft 2007 Regional Transportation Plan (RTP) and proposed California Environmental Quality Act Negative Declaration (Neg. Dec.) at its regular public meeting on Wednesday, July 18, 2007 beginning at 6:30 PM in the Board of Supervisors Chambers in San Andreas, CA. The Draft 2007 RTP considers potential transportation system improvements, existing documents and future transportation needs, levels of service, goals, objectives, policies, performance measures and proposed project lists. The public may use this opportunity to submit written or verbal comments on the RTP and Proposed Neg. Dec.

The 30-day public review period begins June 29, 2007 and ends July 28, 2007. Copies of the Draft RTP, Technical Appendices, proposed Neg. Dec. and supporting documents are available at CCOG offices, 629 Marshall St., Suite A, San Andreas, CA and at <http://www.calacog.org/> during the review period.

Persons interested in the Draft 2007 RTP are encouraged to review the documents and attend this public meeting. For additional information, call Tim McSorley, Executive Director, Calaveras Council of Governments, at (209) 754-2094.

Appendix D
Roadway Functional Classification

APPENDIX D: Roadways in Calaveras County and Their Functional Classification

DISTRICT	COUNTY	JURISDICTION	STREET	FROM	TO	SECTION ID	FC ⁽¹⁾	LENGTH	MAP NO
10	CAL	SHWY	000.000/ 010.302	SJ CO LN	JCT SHWY 12 W	1.00026E+11	6	10.232	8K
10	CAL	SHWY	000.000/ 013.872	SJCO LN CO LN	E JCT SHWY 26	1.00012E+11	6	13.872	8K
10	CAL	SHWY	007.210/ 008.413	JCT SHWY 4 E	JCT SHWY 4 W	1.00049E+11	6	1.203	8K45
10	CAL	SHWY	008.413/ 012.510	JCT SHWY 4 W	SAN DOMINGO CRK	1.00049E+11	6	4.097	8K
10	CAL	SHWY	010.435/ 018.069	E JCT SHWY 12	SHWY 49	1.00026E+11	6	7.634	8K
10	CAL	SHWY	012.510/ 018.794	SAN DOMINGO CRK	MOUNTAIN RCH RD	1.00049E+11	6	6.284	8K
10	CAL	SHWY	013.872/ 018.201	E JCT SHWY 26 N	SHWY 49	1.00012E+11	6	4.329	8K
10	CAL	SHWY	018.069/ 034.770	SHWY 49 49	WINTON RD	1.00026E+11	6	16.675	8J54
10	CAL	SHWY	018.794/R020.496	MOUNTAIN RCH RD	SHWY 12 W	1.00049E+11	6	1.702	8K24
10	CAL	SHWY	021.380/ 029.375	SHWY 49 S	.27M W/ANGELS C 301	1.00004E+11	6	7.995	8K35
10	CAL	SHWY	027.614/ 030.865	JCT SHWY RTE 26	AMADOR CO LINE	1.00049E+11	6	3.251	8K13
10	CAL	SHWY	029.375/ 037.500	.27M W/ANGELS C 3011	SHEEPRANCH RD	1.00004E+11	6	8.125	9K
10	CAL	SHWY	034.770/ 038.325	WINTON RD	AMA CO LN	1.00026E+11	6	3.555	8J45
10	CAL	SHWY	037.500/ 041.050	SHEEP RANCH RD	PINE DR	1.00004E+11	6	3.55	9K12
10	CAL	SHWY	041.050/R042.620	PINE DR @ ARNOLD	1.1M N ARNOLD	1.00004E+11	6	1.57	9K12
10	CAL	SHWY	R000.000/ 002.550	TUO CO LN	1.4M N TUO CO LN	1.00049E+11	6	1.364	8K45
10	CAL	SHWY	R000.000/R008.143	STA CO LN	O BYRNES FERRY RD	1.00004E+11	6	8.143	8K
10	CAL	SHWY	R001.364/ 007.210	1.4M N TUO CO LN	S JCT SHWY 4 E	1.00049E+11	6	4.544	8K45
10	CAL	SHWY	R008.143/R009.901	O BYRNES FERRY RD	1.85M E/O BYRNES FE	1.00004E+11	6	1.758	8K
10	CAL	SHWY	R009.901/ 021.380	1.85M E/O BYRNES FER	SHWY 49 N	1.00004E+11	6	9.247	8K
10	CAL	SHWY	R020.496/ 027.614	SHWY 12 W	SHWY 26	1.00049E+11	6	7.14	8K
10	CAL	SHWY	R042.620/R047.140	1.0M E ARNOLD	DORRINGTON	1.00004E+11	6	4.436	9K12
10	CAL	SHWY	R047.140/R056.550	DORRINGTON	POISON SPRGS RD	1.00004E+11	6	9.434	9J
10	CAL	SHWY	R056.550/R065.865	POISON SPRGS RD	ALP CO LN	1.00004E+11	6	9.315	9J
10	CAL	CO	ANGELS RD	END OF RD	SHWY 4 D	10VB15100000	8	0.22	9K31
10	CAL	CO	ANGELS RD	SHWY 4	MAIN ST	10VBA9100000	8	0.29	3Q
10	CAL	CO	ARROWHEAD ST	KIVA FONG DR	COPPER COVE DR	10VB30100000	8	2.55	M3U
10	CAL	CO	ASSOC OFFICE RD	SHWY 26	RAIL RD FLAT RD	10VB25100000	8	0.62	8J55
10	CAL	CO	AVERY HOTEL RD	SHWY 4	MORAN RD	10WX28100000	7	0.1	9K22
10	CAL	CO	AVERY SHEEP RNCH RD	SHEEP RANCH RD	SHWY 4	10VBA3100000	8	4.8	9K
10	CAL	CO	BALDWIN ST	MILTON RD	SHWY 26	10VB31100000	7	2.8	8K
10	CAL	CO	BIG TREES RD	MAIN ST	SHWY 4	10W705120000	7	0.17	M2
10	CAL	CO	BLAGEN RD	SHWY 4	DUNBAR RD	10VB12100000	8	0.5	9K12
10	CAL	CO	BOARDS CROSSING RD	SHWY 4	STA CO LN	10VBA2100000	8	5	9K13

APPENDIX D: Roadways in Calaveras County and Their Functional Classification

DISTRICT	COUNTY	JURISDICTION	STREET	FROM	TO	SECTION ID	FC ⁽¹⁾	LENGTH	MAP NO
10	CAL	CO	BOOSTER WAY	SHWY 4	BRET HART RD	10VB38100000	8	0.2	8K45
10	CAL	CO	BRET HART RD	BOOSTER WAY	SHWY 49	10VB38105000	8	0.2	8K45
10	CAL	CO	BURSON RD	SHWY 26	CAMANCHE PARKWAY	10W903225000	7	6.75	8K
10	CAL	CO	CALAVERITAS RD	FRICOT CITY ROAD	MOUNTAIN RCH RD	10WX23100000	8	5.01	8K35
10	CAL	CO	CALIFORNIA ST	SHWY 12	ROSE ST	10WX19100000	9	0.17	M4
10	CAL	CO	CAMANCHE PARKWAY S	SHWY 12	BURSON RD	10WX15100000	7	6	8K
10	CAL	CO	CAMANCHE PARKWAY S	BURSON RD	AMADOR CO LN	10WX15105000	7	2.44	8K
10	CAL	CO	CAMPO SECO RD	CAMANCHE PKWY S	PALOMA RD	10WX18100000	8	4.27	8K
10	CAL	CO	CEDAR LN	SHWY 4	PINE DR	10VB13100000	8	0.15	9K22
10	CAL	CO	CENTER ST	SHWY 49	EAZY BIRD RD	10WX26100000	8	1.2	8K13
10	CAL	CO	COPPER COVE RD	LITTLE JOHN RD	OBYRNES FERRY RD	10VB28100000	8	2.46	8K
10	CAL	CO	COURT ST	SHWY 49	MAIN ST	10VB23100000	8	0.12	M1B
10	CAL	CO	DAPHNE ST	LAUREL ST	ROSE ST	10WX30110000	8	0.22	M4J
10	CAL	CO	DOGTOWN RD	SHWY 49	FRICOT CITY RD	10VBA6100000	8	10.05	8K35
10	CAL	CO	EL DORADO DR	SHWY 4	GEORGEANNE DR	10VB14100000	8	0.7	9K22
10	CAL	CO	FINNEGAN RD	SHWY 49	GOLD CLIFF RD	10VB20100000	8	0.27	8K45
10	CAL	CO	FRICOT CITY RD	SH 49	PONDEROSA WAY S	10WX22100000	8	5.2	8K
10	CAL	CO	FRICOT CITY RD	PONDEROSA WAY S	SHEEP RANCH RD	10WX22110000	8	8.33	8K35
10	CAL	CO	GARDNER LN	MURRPHYS GRADE RD	DOGTOWN RD	10VB17100000	8	0.44	8K35
10	CAL	CO	GARNER PL	SHWY 26	BALDWIN ST	10VBA7110000	7	1.4	8K
10	CAL	CO	GEORGEANN DR	EL DORADO DR	PATRICIA LN	10VB14110000	8	0.1	9K22
10	CAL	CO	GOLD CLIFF RD	FINNEGAN LN	TUOLUME AVE	10VB20110000	8	0.82	8K45
10	CAL	CO	GOLD STRIKE RD	CEMETERY AVE	SHWY 49	10WX21120000	8	2.54	M1 B
10	CAL	CO	HARTVICKSON LN	BALDWIN ST	VISTA DEL LAGO DR	10VB32100000	8	3.2	8K
10	CAL	CO	HOGAN DAM RD	HUNT RD	SILVER RAPIDS RD	10WX16115000	8	10.49	8K
10	CAL	CO	HOGAN DAM RD	SILVER RAPIDS RD	SH 26	10WX16120000	7	3.86	8K
10	CAL	CO	HUNT RD	MILTON RD	SHWY 4	10VBA8100000	8	15.9	8K
10	CAL	CO	JENNY LIND RD	MILTON RD	SHWY 26	10WX17100000	7	1.61	8K
10	CAL	CO	JESUS MARIA RD	WHISKEY SLIDE RD	RAIL ROAD FLAT RD	10WX24110000	7	5.5	8K
10	CAL	CO	KURT LN	SHWY 4	SUZANNE DR	10VB18100000	8	0.17	8K45
10	CAL	CO	LAUREL ST	SHWY 12	DAPHNE ST	10WX30100000	8	0.12	M4J
10	CAL	CO	LITTLE JOHN RD	KIVA FONG DR	COPPER COVE RD	10VB29100000	8	2.43	M3U
10	CAL	CO	LOCAL RURAL GROUP			1E+11	9	412.715	
10	CAL	CO	MAIN ST	DUNBAR RD	END OF RD	10VB12110000	8	0.05	4

APPENDIX D: Roadways in Calaveras County and Their Functional Classification

DISTRICT	COUNTY	JURISDICTION	STREET	FROM	TO	SECTION ID	FC ⁽¹⁾	LENGTH	MAP NO
10	CAL	CO	MAIN ST	BIG TREES RD	SHWY 4	10VB26100000	7	0.2	M2M
10	CAL	CO	MAIN ST	FRENCH GULCH RD	BIG TREES RD	10W705110000	7	0.46	9K31
10	CAL	CO	MAIN ST	SHWY 49	CEMETERY AVE	10WX21110000	8	0.34	8K24
10	CAL	CO	MAIN ST	SHWY 26	CENTER ST	10WX27100000	8	0.36	8K13
10	CAL	CO	MAIN ST	SHYW 26	SHWY 104	10WX32100000	8	0.82	8J55
10	CAL	CO	MAIN ST COPPERPLIS	REEDS TURNPIKE	SHWY 4	10W903205000	7	0.59	8K
10	CAL	CO	MAIN ST VALLECITO	PARROTS FERRY RD	SHWY 4	10W907210000	8	1.07	9K31
10	CAL	CO	MAIN ST VALLECITO	MAIN ST	SHWY 4	10W907300000	8	0.295	9K31
10	CAL	CO	MARK TWAIN RD	CRYSTAL ST	SHWY 49	10VB19110000	8	0.27	8K45
10	CAL	CO	MEKO DR	BLACKFOOT CIR	SHWY 4	10VB36100000	8	1.15	M4T
10	CAL	CO	MILTON RD	ROCK CRK RD	SHWY 26	10W903220000	7	8.19	8K
10	CAL	CO	MILTON RD	STA CO	ROCK CRK RD	10WX17080000	7	1.36	8K
10	CAL	CO	MORGAN RD	SHWY 4	SHWY 4	10VBA4100000	7	6.6	9K12
10	CAL	CO	MOUNTAIN RANCH RD	SHWY 49	SHEEP RANCH RD	10W702100000	7	10.74	8K
10	CAL	CO	MURPHYS GRADE RD	CL .06M E/GARDNER LN	FRENCH GULCH RD	10W705105000	7	6.15	8K35
10	CAL	CO	OBYRNES FERRY RD	TUOLUMNE CO LN	REEDS TURNPIKE	10W903200000	7	7.52	8K
10	CAL	CO	OLD RTE 4	ANGEL LKS RD	SHWY 49	10VB16100000	8	0.55	8K45
10	CAL	CO	ORCHARD RD	BURSON RD	SHWY 26	10VBA7100000	7	1.9	8K
10	CAL	CO	PALOMA RD	ROSE ST	SHWY 26	10WX19120000	8	7.9	8K
10	CAL	CO	PARROTS FERRY RD	TUO CO LN	SHWY 4	10W907200000	7	5.23	9K31
10	CAL	CO	PATRICIA LN	GEORGEANN DR	MORGAN RD	10VB14120000	8	0.53	9K22
10	CAL	CO	PENNSYLVANIA GULCH	SHWY 4	WINGDAM RD	10VB27100000	8	1.1	M2M
10	CAL	CO	PINE DR	CEDAR LN	SHWY 4	10VB13110000	8	0.75	9K22
10	CAL	CO	PINE ST	MAIN ST	SHWY 26	10WX25100000	8	0.1	M1
10	CAL	CO	POOL STATION RD	SHWY 04	CALAVERITAS CR	10W703095000	7	9.52	8K
10	CAL	CO	POOL STATION RD	CALAVERITAS CRK	SHWY 49	10W703100000	7	3.07	8K
10	CAL	CO	POPE ST	MTN RNCH RD	MAIN ST	10VB22100000	8	0.81	M1B
10	CAL	CO	RAILROAD FLAT RD	MOUNTAIN RCH RD	RIDGE RD	10W706110000	7	9.3	8K
10	CAL	CO	RAILROAD FLAT RD	RIDGE RD	SHWY 26	10W706120000	7	5.48	8J55
10	CAL	CO	REEDS TURNPIKE	SHWY 4	MAIN ST	10VB11100000	8	0.93	3S
10	CAL	CO	RIDGE RD	SHWY 26	RAILROAD FLAT RD	10W704100000	7	3.96	8J55
10	CAL	CO	ROCK CREEK RD	SHWY 4	SALT SPR VLY RD	10W903210000	7	6.2	8K
10	CAL	CO	ROCK CREEK RD	SALT SPR VLY RD	MILTON RD	10W903215000	7	7.74	8K
10	CAL	CO	ROSE ST	CALIFORNIA ST	PALOMA RD	10WX19110000	9	0.06	M4

APPENDIX D: Roadways in Calaveras County and Their Functional Classification

DISTRICT	COUNTY	JURISDICTION	STREET	FROM	TO	SECTION ID	FC ⁽¹⁾	LENGTH	MAP NO
10	CAL	CO	RUSSEL RD	POOL STATION RD	SHWY 49	10VB21100000	8	0.5	M1B
10	CAL	CO	SALT SPRG VAL RD A	ROCK CRK RD	S SPRG VLY RD 512B	10WX16100000	7	0.3	8K
10	CAL	CO	SALT SPRG VLY RD B	S SPRG VAL RD 512A	HUNT RD	10WX16105000	8	2.24	8K
10	CAL	CO	SANDY GULCH RD	ASSOC OFFICE RD	RAIL RD FLAT RD	10VB24100000	8	0.26	M1A
10	CAL	CO	SCHOOL ST	SA JOAQUIN AVE	SHWY 49	10VB20120000	8	0.12	8K45
10	CAL	CO	SHEEP RANCH RD	MAIN ST	FRICOT CITY RD	10W706100000	7	8.5	9K
10	CAL	CO	SHEEP RANCH RD	FRICOT CITY RD	MOUNTAIN RCH RD	10W706105000	7	4.99	9K
10	CAL	CO	SIERRA PKWY	SHWY 4	TOPANGA LN	10VB37100000	8	2.1	9K13
10	CAL	CO	SILVER RAPIDS RD	HOGAN DAM RD	HENEY LN	10VB33100000	7	2.1	8K
10	CAL	CO	STANISLAUS AVE	TUOLUME AVE	SAN JOAQUIN AVE	10VB20115000	8	0.2	8K45
10	CAL	CO	SUMMIT LEVEL RD	RAIL ROAD FLAT RD	SHWY 4	10VBA1100000	8	19	8J55
10	CAL	CO	VISTA DEL LAGO	SHWY 26	HOGAN DAM RD	10VB34100000	7	1.51	8K
10	CAL	CO	WATERTOWN CUTOFF	WATERTOWN RD	PALOMA RD	10WX31100000	8	0.05	8K
10	CAL	CO	WATERTOWN RD	PALOMA RD	CAMPO SECO RD	10WX20100000	8	1.8	8K
10	CAL	CO	WEST ST	RATZ ALLEY	CRYSTAL ST	10VB19100000	8	0.18	8K45
10	CAL	CO	WINTON RD	SHWY 26	LILY GAP RD	10VBA5100000	8	1.8	8J55
10	CAL	COE	LOCAL RURAL GROUP	ARMY CORPS OF ENGINEERS	Paved Roads	1E+11	9	3.3	8K
10	CAL	COE	LOCAL RURAL GROUP	ARMY CORPS OF ENGINEERS	Unpaved Roads	1E+11	9	7.9	8K
10	CAL	ANG	LOCAL RURAL GROUP			1E+11	9	28.78	
10	CAL	ANG	MURPHYS GRADE RD	SH 49	CL .06M E/GARDNER LN	10W705100000	7	0.3	8K45

Note 1: FC = Functional Classification - 01 Principal Arterial Interstate; 02 Other Principal Arterial; 06 Minor Arterial; 07 Major Collector; 08 Minor Collector; 09 Local.

Source: California Department of Transportation, Division of Transportation System Information.

Appendix E
Turning Movement Volumes

2005 Typical Summer Weekday AM Peak-Hour Turning Movement Volumes

Intx #	Intersection		Northbound			Southbound			Eastbound			Westbound			Total
	North/South	East/West	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
1	SR 26	Railroad Flat Road	0	0	27	0	0	0	0	41	1	10	23	0	102
2	SR 26	Ridge Road	0	13	6	2	56	0	0	0	0	51	0	2	130
3	SR 4 (NB) / Blagen	SR 4 (SB)/Dunbar Road	63	74	208	2	76	2	18	0	50	182	14	2	691
4	SR 4	Main Street	129	226	1	0	274	14	20	0	77	2	1	1	745
5	SR 4	Parrotts Ferry Road	0	188	21	95	233	0	0	0	0	21	0	81	639
9	SR 49	SR 26	10	157	17	7	158	15	25	8	7	61	36	67	568
11	Pettinger Road	SR 12	58	0	14	0	0	0	0	165	10	3	171	0	421
12	SR 49	Gold Strike Road	2	127	4	37	194	0	0	0	2	2	0	38	406
13	SR 49	Pool Station Road	31	295	0	0	488	26	40	0	36	0	0	0	916
14	SR 49	Mountain Ranch Road	0	259	107	235	224	0	0	0	0	75	0	172	1,072
17	SR 4 North	SR 49	74	418	0	0	374	61	80	0	117	0	0	0	1,124
18	Murphys Grade Road / Demarest Street	SR 4	34	409	28	105	374	13	23	17	42	57	8	174	1,284
19	SR 4 South	SR 49	2	157	26	141	186	8	14	2	6	31	4	157	734
20	SR 4	Bret Harte Drive	39	284	0	0	404	27	29	0	37	0	0	0	820
21	SR 4	Avery Sheep Ranch Road	12	275	0	0	275	16	32	0	27	0	0	0	637

2005 Typical Summer Weekday PM Peak-Hour Turning Movement Volumes

Intx #	Intersection		Northbound			Southbound			Eastbound			Westbound			Total
	North/South	East/West	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
1	SR 26	Railroad Flat Road	2	0	39	0	0	0	0	44	0	0	41	59	185
2	SR 26	Ridge Road	0	47	53	7	30	0	0	0	0	17	0	7	161
3	SR 4 (NB) / Blagen	SR 4 (SB)/Dunbar Road	90	123	269	1	131	5	17	0	75	311	18	5	1,045
4	SR 4	Main Street	125	382	4	0	368	23	21	2	135	1	1	2	1,064
5	SR 4	Parrotts Ferry Road	0	268	37	97	230	0	0	0	0	33	0	144	809
9	SR 49	SR 26	9	249	52	63	229	30	23	27	20	15	16	30	763
11	Pettinger Road	SR 12	15	0	16	0	0	0	0	258	60	15	184	0	548
12	SR 49	Gold Strike Road	0	263	7	29	209	0	0	0	1	6	1	26	542
13	SR 49	Pool Station Road	34	504	0	0	484	30	35	0	36	0	0	0	1,123
14	SR 49	Mountain Ranch Road	0	338	70	203	359	0	0	0	0	125	0	194	1,289
17	SR 4 North	SR 49	120	509	0	0	589	92	86	0	165	0	0	0	1,561
18	Murphys Grade Road / Demarest Street	SR 4	205	586	21	79	461	52	60	25	175	39	46	69	1,818
19	SR 4 South	SR 49	2	223	58	250	308	9	11	3	6	46	5	217	1,138
20	SR 4	Bret Harte Drive	48	648	0	0	465	27	52	0	60	0	0	0	1,300
21	SR 4	Avery Sheep Ranch Road	29	378	0	0	316	50	21	0	18	0	0	0	812

Estimated 2025 AM Volumes for a Typical Summer Weekday

Intx #	Intersection		Northbound			Southbound			Eastbound			Westbound			Total
	North/South	East/West	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
1	SR 26	Railroad Flat Road	0	0	101	0	0	0	0	181	1	66	147	0	496
2	SR 26	Ridge Road	0	146	9	4	186	0	0	0	0	66	0	3	414
3	SR 4 (NB) / Blagen	SR 4 (SB)/Dunbar Road	95	112	313	2	87	2	21	0	57	471	21	3	1,184
4	SR 4	Main Street	166	318	1	0	474	17	36	0	91	2	1	1	1,107
5	SR 4	Parrotts Ferry Road	0	255	109	155	370	0	0	0	0	21	0	128	1,038
9	SR 49	SR 26	9	362	173	7	368	15	25	89	5	134	118	52	1,357
11	Pettinger Road	SR 12	144	0	13	0	0	0	0	362	190	7	554	0	1,270
12	SR 49	Gold Strike Road	49	122	4	37	276	40	52	0	3	2	0	38	623
13	SR 49	Pool Station Road	30	401	0	0	599	254	383	0	46	0	0	0	1,713
14	SR 49	Mountain Ranch Road	0	317	167	156	414	0	0	0	0	194	0	126	1,374
16	Little John Road	SR 4	264	25	413	26	25	18	12	134	165	566	172	60	1,880
17	SR 4 North	SR 49	86	500	52	71	477	66	71	138	164	32	203	139	1,999
18	Murphys Grade Road / Demarest Street	SR 4	61	488	38	165	457	13	23	45	129	79	91	294	1,883
19	SR 4 South	SR 49	2	280	144	148	379	8	12	3	7	151	5	180	1,319
20	SR 4	Bret Harte Drive	56	453	0	0	847	32	35	0	43	0	0	0	1,466
21	SR 4	Avery Sheep Ranch Road	66	423	0	0	508	123	46	0	31	0	0	0	1,197

Estimated 2025 PM Volumes for a Typical Summer Weekday

Intx #	Intersection		Northbound			Southbound			Eastbound			Westbound			Total
	North/South	East/West	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT	
1	SR 26	Railroad Flat Road	2	0	222	0	0	0	0	159	0	77	184	59	703
2	SR 26	Ridge Road	0	164	66	9	166	0	0	0	0	22	0	9	436
3	SR 4 (NB) / Blagen	SR 4 (SB)/Dunbar Road	106	145	545	1	177	7	23	0	102	456	21	6	1,589
4	SR 4	Main Street	163	519	4	0	458	40	24	2	158	1	1	2	1,372
5	SR 4	Parrotts Ferry Road	0	506	37	147	333	0	0	0	0	34	0	233	1,290
9	SR 49	SR 26	7	459	116	42	471	30	23	103	19	130	100	16	1,516
11	Pettinger Road	SR 12	191	0	20	0	0	0	0	616	230	13	387	0	1,457
12	SR 49	Gold Strike Road	34	334	28	29	323	58	74	0	37	6	1	26	950
13	SR 49	Pool Station Road	44	621	0	0	641	336	277	0	34	0	0	0	1,953
14	SR 49	Mountain Ranch Road	0	535	166	191	529	0	0	0	0	204	0	128	1,753
16	Little John Road	SR 4	135	32	505	37	34	5	8	460	238	461	184	16	2,115
17	SR 4 North	SR 49	142	564	56	138	588	95	89	191	241	29	172	150	2,455
18	Murphys Grade Road / Demarest Street	SR 4	223	723	21	104	535	52	60	59	178	65	72	139	2,231
19	SR 4 South	SR 49	3	373	237	278	424	10	9	4	7	170	7	232	1,754
20	SR 4	Bret Harte Drive	51	1088	0	0	680	38	60	0	83	0	0	0	2,000
21	SR 4	Avery Sheep Ranch Road	39	576	0	0	496	73	130	0	125	0	0	0	1,439